D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JUL 31 2007

BRIAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071-0854

Re: Bid # IBF-30519-8/8/06-EMW; PO # 646282
Notice to Proceed

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct Aggressive Fluid Vapor Recovery (AFVR) event at several facilities. The packets contain the necessary approval for work to begin. You may commence with a site reconnaissance before the AFVR. If monitoring wells do not contain measurable free phase product, contact the UST project manager for further instructions. The facilities have been assigned Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order # 646282 on the appropriate invoices submitted for payment against the facilities. As specified in the referenced bid, **the completed invoice forms and associated reports (include contract certification number) are expected on or before the designated due date (see below).**

UST Permit#	Facility	County	Release #	Work Scope	Due Date*	CA #	Approved Amt
06742	Country Side 2	Oconee	1	8 AFVR	60 days	30052	8,950.00

*From receipt of letter

Midland's Environmental Consultants, Inc. will perform services at the sites on behalf of the site's UST owners; however, payments will be made from the SUPERB Account. The site's UST owners have no obligation for payment for this scope of work. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the Department is obtained.

If for any reason there are changes in these cost agreements, any associated changes to this cost agreement must be pre-approved by this Department in order for Midlands Environmental Consultants to seek future cost compensation. Please contact the site's project manager for technical and/or financial approval.

UST PROGRAM
TRACKING # 3

Any item(s) not clearly or completely addressed in the report (disposal manifest for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account.

The Department grants pre-approval for transportation of free phase product and petroleum contaminated groundwater from the referenced site to a permitted treatment facility. The free product and contaminated groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included as an appendix to the report.

If you have any questions concerning this correspondence or need further assistance, please contact me by phone at (803) 896-6664, by fax at (803) 896-6245 or by email at milenkmp@dhec.sc.gov.

Sincerely,

Maia Milenkova, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Approved Cost Agreements (ACA)
Information Packet

cc: Technical File (w/copy of ACA)

SCDHEC/UST/07/30/07/MPM

Approved Cost Agreement 30052

Facility: 06742 COUNTRY SIDE 2
PADGETJP
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		A	EQUIPMENT	8.0000	350.00	2,800.00
17 DISPOSAL						
		A2	WASTEWATER - PUMPING TEST	4,000.0000	0.10	400.00
23 EFR						
		A	8 HOUR EVENT	8.0000	600.00	4,800.00
		C	OFF GAS TREATMENT	8.0000	100.00	800.00
		D	SITE RECONNAISSANCE	2.0000	75.00	150.00
					Total Amount	8,950.00

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health
and Environmental Control

BUREAU OF LAND AND WASTE MANAGEMENT
UNDERGROUND STORAGE TANK PROGRAM
2600 Bull Street
Columbia, SC 29201
Telephone (803) 896-6240

MEMORANDUM

DATE: August 2, 2007

TO: Cindy Brady, Manager
Financial Section

FROM: Joel P. Padgett, P.G.
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division

SUBJECT: Country Side 2
UST Permit #06742
Oconee County

In accordance with small purchase procurement procedures, three price quotes have been obtained for installation of a water supply line at the Charles Dockins residence, 355 Charis Drive, Westminster. One solicitor, Burrell's Plumbing, submitted a no-bid statement. The two remaining solicitors, Dean's Plumbing and Crook's Plumbing and Electrical, Inc., submitted nearly identical bids. Accordingly, the solicitors were contacted for more details. Per a telephone conversation with Dean Riseley of Dean's Plumbing on August 1, 2007, the bid amount of $4940.00 does not include the required tap fee. Per a telephone conversation with David Crooks of Crook's Plumbing and Electrical, Inc., the bid amount of $4986.66 does include the required tap fee. Accordingly, it is recommended that the price quotation from Crook's Plumbing and Electrical, Inc. be accepted and that a purchase order be generated in the amount of $4986.66.

UST PROGRAM 4
DOCKETING # _____

DHEC/UST/JPP/080207

Proposal

Page No. of Pages

rcvd 6/22/07

CROOKS' PLUMBING & ELECTRICAL, INC.

120 N. Retreat Rd.
Westminster, Sc 29693
(864) 647-9538

PROPOSAL SUBMITTED TO	PHONE	DATE
Charles Dockins	903-7118	6-19-07
STREET	JOB NAME	
355 Charis Dr.	same	
CITY, STATE and ZIP CODE	JOB LOCATION	
Westminster, SC 29693	same	
ARCHITECT / DATE OF PLANS		JOB PHONE
David L. Crooks		same

We hereby submit specifications and estimates for:

Trunch in 685' to 700' of 1" PVC sch 40 water piping at a depth of 2'+ w/ tracer wire. 3/4" P.R. Valve w/ union, 3/4" ball valve at meter, + one hose bibb w/ vacuum breaker at house, + one tap fee

Total cost of job $4,986.66

per 8/2/07 telephone conversation with David Crooks, ECP
fee included in bid 8/2/07

We Propose hereby to furnish material and labor — complete in accordance with above specifications, for the sum of:
four thousand nine hundred eighty-six + 66/100 - dollars ($ 4,986.66).
Payment to be made as follows:

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Authorized Signature B. Gilmore

Note: This proposal may be withdrawn by us if not accepted within 30 days.

Acceptance of Proposal — The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature _____

Date of Acceptance: _____

Signature _____

For Office Use Only _____

PIONEER RURAL WATER DISTRICT

P. O. Box 203, 5500 West-Oak Highway, Westminster, SC 29693
phone 864/972-3082 fax 864/972-3351

3/4" - 1950.00 1" - 2150.00

This agreement, between Pioneer Rural Water District, a special purpose district, organized and existing under and by virtue of the laws of the State of South Carolina, hereinafter called the District, and the below named individual, hereinafter called the Member.

NAME: _____

DRIVER'S LICENSE #_____

BILLING ADDRESS: _____

_____

PHONE NO.: (HOME) _____ (OTHER) _____

The following information is collected for statistical purposes only.

RACE: (Check all that apply)
- ☐ AMERICAN INDIAN OR ALASKA NATIVE
- ☐ ASIAN
- ☐ BLACK OR AFRICAN AMERICAN
- ☐ NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER
- ☑ WHITE

ETHNICITY: (Check one)
- ☐ Hispanic or Latino
- ☐ Not Hispanic or Latino

☐ I DO NOT WISH TO FURNISH THIS INFORMATION

WHEREAS, the Member desires to purchase water for domestic, business or other uses from the District, and to enter into a Water User's Agreement as required by the By Laws of the District.

NOW, THEREFORE, in consideration of the mutual covenants, promises and agreements herein contained, it is hereby understood and agreed.

The District shall furnish, subject to the limitation hereinafter provided for, such quantity of water at the member's property as described below:

SERVICES APPLIED FOR:

911 SERVICE ADDRESS: _____ CITY _____

- ☐ NEW METER ___3/4" ____1" ____2" ____SPECIFY
- ☐ EXISTING METER TRANSFERRED FROM : _____

(CHECK ALL THAT APPLY)
- ☑ RESIDENTIAL
- ☐ COMMERCIAL / INDUSTRIAL
- ☐ AGRICULTURAL FOR : ☐ CROPS ☐ POULTRY ☐ DAIRY ☐ CATTLE/SWINE/EQUINE ☐ OTHER
- ☐ LAWN IRRIGATION/ SPRINKLER SYSTEM
- ☐ OTHER _____(EXPLAIN)

For Office Use Only _____

The member shall install and maintain at his own expense a service line, equipped with a **pressure regulating valve with an inlet pressure rating of at least 300 psi.** beginning at his property line and extending to his dwelling or facility to be served. Owners of all sprinkler systems are required to submit to Pioneer Water annual certification of backflow prevention devices by a SC DHEC approved technician.

The Member's service line shall connect with the distribution system of the District at the nearest place of desired use by the Member, provided that the District has determined in advance that the water system is of sufficient capacity to permit delivery of water at that point.

The member shall pay for water at such rates, times and place as shall be determined by the Board of Directors of the District. **Only one dwelling or facility shall be served through one meter.** Meters connected at time of installation will be charged for actual usage according to the prevailing rates as established by the Board of Directors. If meter will not be connected at time of tap installation, it is the customer's responsibility to notify Pioneer Water.

The Member agrees that he will make no physical connection between any private water system and the water system to the District. The District may make inspections to enforce these provisions. Violation shall be grounds for disconnection of the service.

The District shall purchase and install a cut-off valve and may also include a water meter in each service. Such a cut-off valve and meter shall be installed within three (3) feet of the distribution system. The District shall have exclusive right to use such cut-off valve and water meter and to turn it on and off. **The District may refuse service to any Member who tampers with a meter or other measuring device. Failure to provide unobstructed access to meter will result in estimated bills until access is provided.**

The District shall have final jurisdiction in any question of location of any service line connection to its distribution system, shall determine the allocation of water to members in the event of a water shortage, may shut off the water to a Member who allows a connection or extension to be made to his service line for the purpose of supplying water to another user.

The failure of a Member to pay water charges duly imposed shall result in the following penalties.

A. Non-payment within fifteen days from the due date will result in the water being shut off from the member's property.

B. Non-payment for sixty days after original due date will allow the District, in addition to all other rights and remedies, to cancel the member's Membership Certificate and terminate his membership, and in such event the member shall not be entitled to receive, nor the District obligated to supply, any way under this agreement.

Membership may be canceled and/or service discontinued by the District for any violation of any rule, regulation, or condition of service and especially for any of the following reasons:

1. Misrepresentation in application as to the property or facilities to be supplied or use to be made of this service.

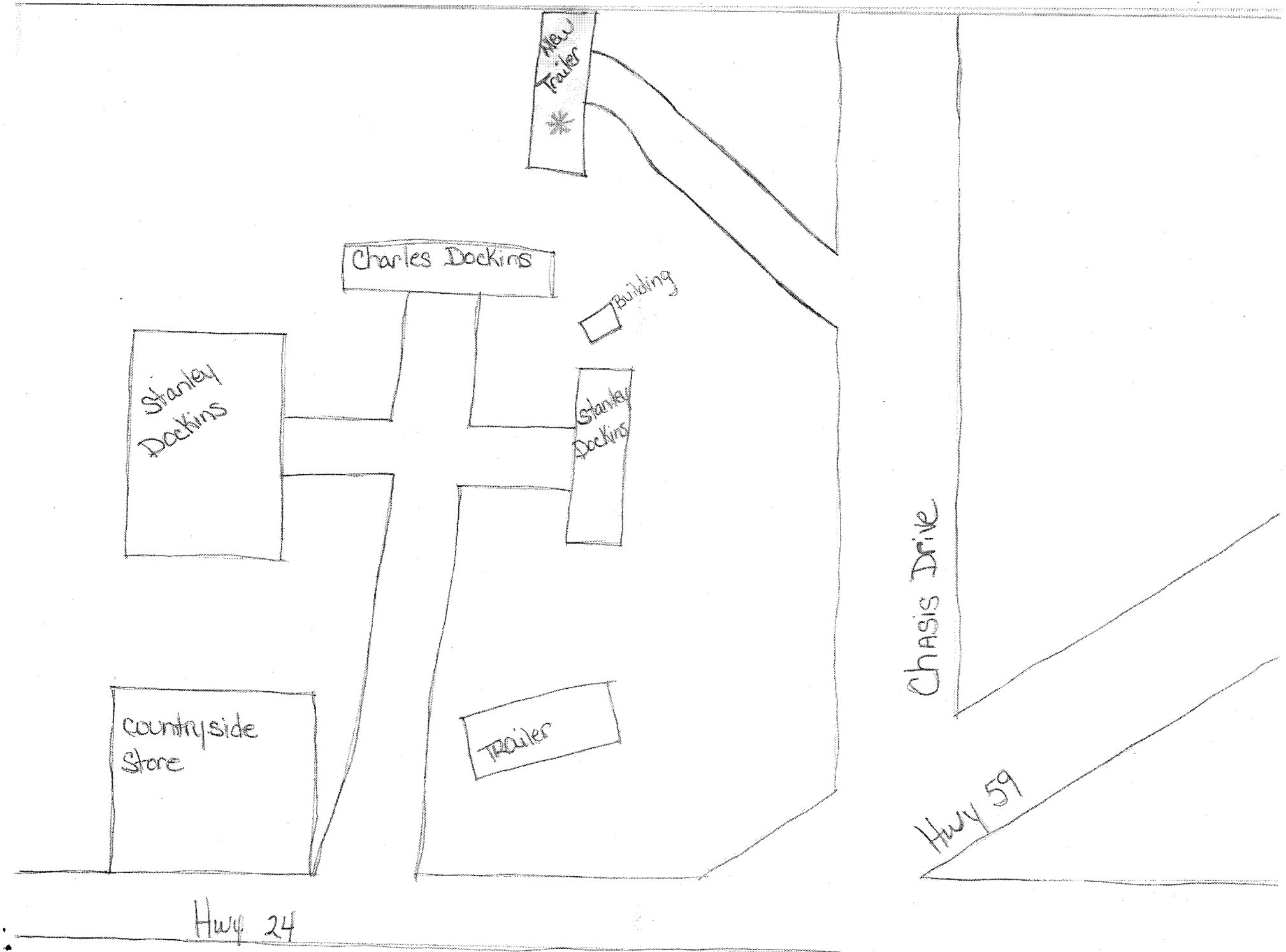
2. Tampering with main lines or valves or permitting such tampering by others.

3. Connections, or cross-connections, from the Member's service line to facilities not covered by this agreement.

IN WITNESS WHEREOF, we have hereunto executed this agreement this _____day of _____, 200__.

_____ _____, MEMBER

for Pioneer Rural Water District


New Trailer
Charles Dockins
Building
Stanley Dockins
Stanley Dockins
Chasis Drive
countryside Store
Trailer
Hwy 59
Hwy 24

373768

Dean's Plumbing
P.O. BOX 851
WESTUNION S.C. 29696 pag # 827-2381
864-638-8916

Customer's Order No. _____ DATE 7-19-2007

SOLD TO Site #06742 Charles Dockins

ADDRESS 355 Charis Dr.

SALESMAN Westminster SC 29693 TERMS Est.

CASH	CHARGE	C. O. D.	PAID OUT	RETD. MDSE.	RECD. ON ACCT.

QUAN.	DESCRIPTION	PRICE	AMOUNT
	Trench in 690-720'		
	PVC Sch-40 Water Line		
	@ 2' Deep 3/4 PRV Valve		
	W/ Union, Ball Valve @ Meter		
	1-hose Bibs V. Breaker		
	@ House + Tap Fee		
	Total Material & Labor		
		$	4940.—

Dean Riseley
Owner Operator

Per 8/1/07 telephone conversation with Dean Riseley, tap fee not included in bid.

DC
8/1/07

RECEIVED
AUG 0 1 2007
UNDERGROUND STORAGE TANK PROGRAM

373769

Customer's Order No. _____ DATE 7/20/07

SOLD TO Site #06742 Charles Dockins

ADDRESS 355 Charis Dr

SALESMAN Westminster, SC 29693 TERMS _____

CASH	CHARGE	C. O. D.	PAID OUT	RETD. MDSE.	RECD. ON ACCT.

QUAN.	DESCRIPTION	PRICE	AMOUNT
	Look @ Job Site		
	I don't want the Job- Mark Doug Burrell		

Burrell's Plumbing
1114 West South Broad St
Walhalla, S.C. 29691
638-8455

ALL Claims and Returned Goods MUST Be Accompanied By This Bill

SIGNATURE _____

RECEIVED
AUG 0 1 2007
UNDERGROUND STORAGE TANK PROGRAM

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

AUG 0 8 2007

MR DAVID CROOK
CROOKS PLUMBING AND ELECTRICAL INC
12 N RETREAT RD
WESTMINSTER SC 29693

Re: Notice to proceed- Water supply line installation
Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; Cost Agreement #30268
Price quote for public water supply installation received June 22, 2007
Oconee County

Dear Mr. Anderson:

The Underground Storage Tank (UST) Program has reviewed the referenced solicitation submitted by Crook's Plumbing and Electrical, Inc. The Program accepts your price quotation for water supply line installation at the Charles Dockins residence, 355 Charis Road, Westminster.

Cost Agreement (CA) #30268 has been approved in the amount of $4,986.66 and will be kept on file for payment from the SUPERB Account. Accordingly, Crook's Plumbing may proceed with the water supply line installation upon receipt of this correspondence.

SCDHEC reserves the authority to pay only for work properly performed and/or technically justified. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable, and the right to audit project records at any time during the project or after completion of the work.

Please reference CA #30268 on the invoice and supporting documentation submitted for the work. A completed W-9 form will be necessary to process your invoice for payment. The form has been enclosed for your convenience. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed unless prior approval from the Department is obtained. If for any reason there is a change in the proposed scope of work, the change must be pre-approved by the Department in order for Crook's Plumbing to seek additional payment from SUPERB.

On all correspondence concerning this site, please reference UST Permit #06742. If there are any questions concerning this correspondence, please feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6145, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
06742.9

UST PROGRAM
DOCKETING # 5

enc: W-9 form

cc: Charles Dockins, 355 Charis Drive, Westminster, SC 29449 (w/o enc)
Technical file (w/o enc)

Midlands
Environmental
Consultants, Inc.

August 20, 2007

RECEIVED
AUG
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #30052
MECI Project Number 07-1320B

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on August 10, 2007. The event was conducted on monitoring well MW-4R to remove free phase petroleum product and on wells MW-1, MW-R4R and MW-51 to reduce CoC concentrations. The event was conducted continuously for eight hours. Free phase petroleum product was detected in monitoring well MW-4R at a thickness of 0.01 feet prior to the AFVR event. Free phase petroleum product was not detected in monitoring wells MW-1, MW-R4R and MW-51 prior to the AFVR event The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 5.45 pounds or approximately 0.94 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.68 pounds per hour. Concentrations of off gas produced during the event were recorded from 206 parts per million by volume (PPM) to 796 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 13.0 to 14.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1B.

UST PROGRAM
DOCKETING # 6

Post Office Box 854, Lexington SC 29071 • 1144 Old Two Notch Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2B. Monitoring well locations are depicted on attached Figure 1.

A total of 45 gallons of liquid was removed from MW-1, MW-4R, MW-R4R and MW-51 during this event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Robert P. Johnson
Staff Scientist

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1B
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320B
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-1 MWR-4 MWR-4R MW-51	08/10/07	17:30	0.50	14.0	796	1490	134.10	1.28	0.64
	08/10/07	18:00	0.50	14.0	523	1530	137.70	0.86	0.43
	08/10/07	18:30	0.50	14.0	497	1550	139.50	0.83	0.42
	08/10/07	19:00	0.50	14.0	480	1550	139.50	0.80	0.40
	08/10/07	19:30	0.50	14.0	481	1540	138.60	0.80	0.40
	08/10/07	20:00	0.50	14.0	465	1550	139.50	0.78	0.39
	08/10/07	20:30	0.50	14.0	421	1520	136.80	0.69	0.35
	08/10/07	21:00	0.50	14.0	383	1490	134.10	0.62	0.31
	08/10/07	21:30	0.50	14.0	346	1510	135.90	0.56	0.28
	08/10/07	22:00	0.50	14.0	339	1520	136.80	0.56	0.28
	08/10/07	22:30	0.50	14.0	332	1550	139.50	0.56	0.28
	08/10/07	23:00	0.50	14.0	316	1470	132.30	0.50	0.25
	08/10/07	23:30	0.50	14.0	278	1550	139.50	0.47	0.23
	08/11/07	0:00	0.50	13.0	263	1590	143.10	0.45	0.23
	08/11/07	0:30	0.50	13.0	240	1570	141.30	0.41	0.20
	08/11/07	1:00	0.50	13.0	218	1590	143.10	0.37	0.19
	08/11/07	1:30	0.50	13.0	206	1590	143.10	0.35	0.18
									TOTAL 5.45

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-1	2"	25	***	29.15	***	***	31.20	***	2.05
MWR-4	2"	38	29.96	29.97	0.01	***	31.25	***	1.29
MWR-4R	2"	40	***	30.14	***	***	31.47	***	1.33
MW-51	2"	45	***	32.58	***	***	33.79	***	1.21

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-1	2.00
Truck Operator:	R. Johnson	MWR-4	30.00
Stack I.D. (feet)	0.33 feet	MW-R4R	2.00
		MW-51	2.00

Corrected depth to water before AFVR Event in MWR-4 = 29.96

Recovery / Disposal Information

Hydro carbons Removed (vapor):	5.45	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.94	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	45	Gallons

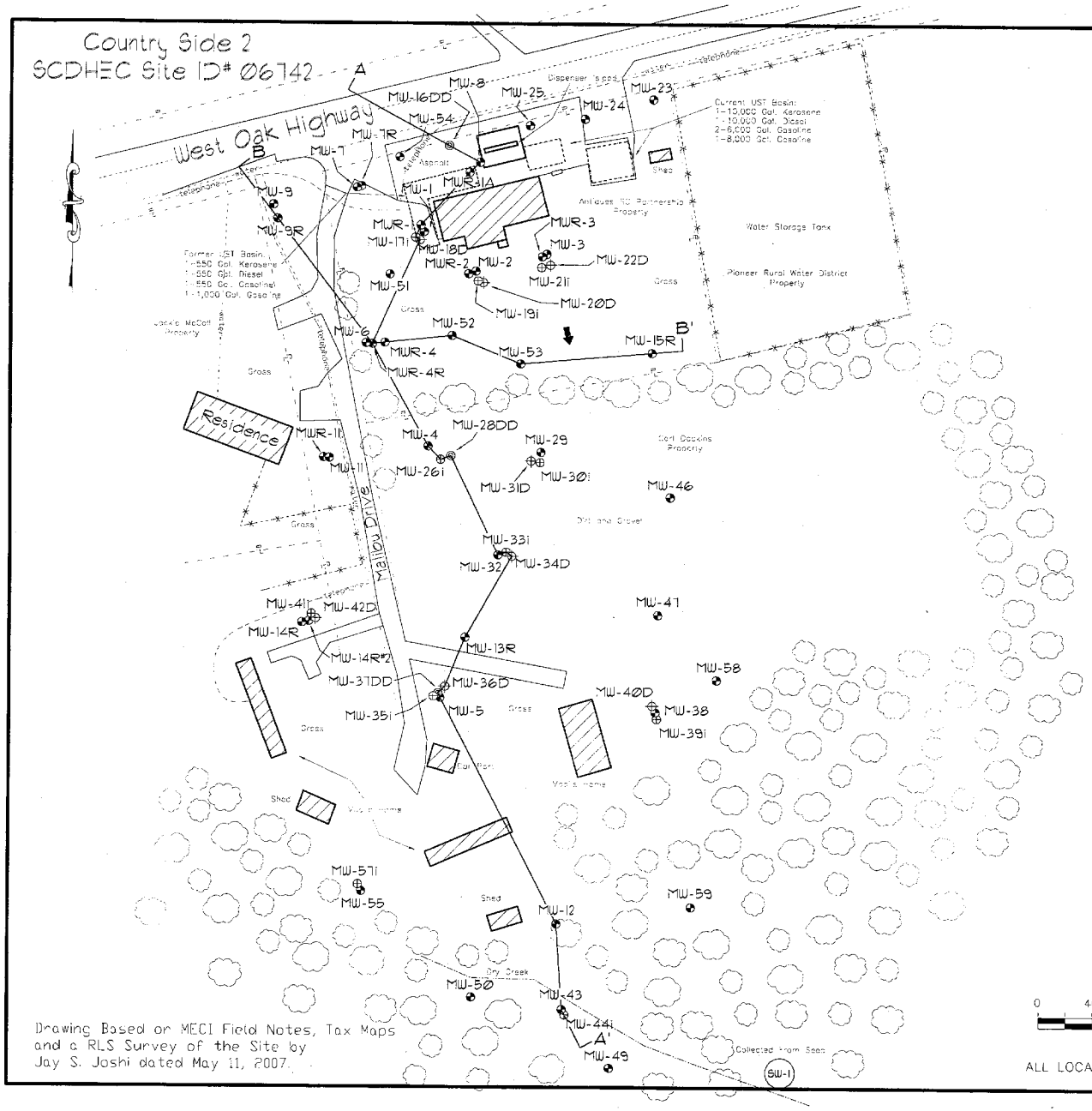
TABLE 2B
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320B
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MWR-2	**MW-19I**	**MW-54**
Nearest Extraction Well:		MW-1	MW-1	MW-1
Approximate Distance:		45 ft	50 ft	58 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
17:30	0.0	0	0	0
18:00	0.5	0	0	0
18:30	1.0	0	0	0
19:00	1.5	0	0	0
19:30	2.0	0	0	0
20:00	2.5	0	0	0
20:30	3.0	0	0	0
21:00	3.5	0	0	0
21:30	4.0	0	0	0
22:00	4.5	0	0	0
22:30	5.0	0	0	0
23:00	5.5	0	0	0
23:30	6.0	0	0	0
0:00	6.5	0	0	0
0:30	7.0	0	0	0
1:00	7.5	0	0	0
1:30	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MWR-2	**MW-19I**	**MW-54**
Nearest Extraction Well:		MW-1	MW-1	MW-1
Approximate Distance:		45 ft	50 ft	58 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		28.79	33.51	34.79
21:30	4 hours	28.82	33.59	34.75
1:30	8 hours	28.80	33.58	34.73
Maximum Change:		-0.03	-0.08	0.06



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Property Line
- Buried Water Line
- Under Ground Telephone
- Fence
- Stream
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- (SW-1) Location of Surface Water Sample Collection
- A — A' Geologic Cross Section (Refer to Figures 4 & 5)

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 3

Crandall

C 121964

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 10513 | 2. Page 1 of 1

3. Generator's Name and Mailing Address Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
4. Generator's Phone (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072 | 10. US EPA ID Number: SCD981864499 | C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	1170	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

Richland County of Public Works - 195 gal

15. Special Handling Instructions and Additional Information Fmr. Bobs Auto - 80 gal ; Glovers Service Station - 30 gal;
Service Call ID: GLB0110513 Fmr. Richland Detention/1400 Huger St. - 80 gal ; Johnnies Market - 26 [illegible]
Constan RI - 75 gal ; Burnettes - 80 gal ; Randy's - 85 gal
Emergency Response: Infotrac - 800-535-5053 Bi Rite Petro - 60 gal ; Country Side A - 55 gal
Caller must ID Crandall as registrant Country Side B - 45 gal ; Food Chief #47 - 15 gal
Avant's Auto - 180 gal ; Bill's Exxon - 96 gal ; Burrows Service - 75 gal

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
L Pat Coleman		8	17	07

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
TRAY BACKMAN		08	17	07

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

INVOICE COPY

Midlands
Environmental
Consultants, Inc.

August 20, 2007

RECEIVED
AUG 22 2007
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #30052
MECI Project Number 07-1320A

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

A site visit was conducted on January 30, 2007 to gauge and locate monitoring wells. MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on August 10, 2007. The event was conducted on monitoring well MW-54 to remove free phase petroleum product and on MW-7R, MW-8 to reduce dissolved CoC concentrations. The event was conducted continuously for eight hours. Free phase petroleum product was detected in monitoring well MW-54 at a thickness of 0.02. feet prior to the AFVR event. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 6.54 pounds or approximately 1.13 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.82 pounds per hour. Concentrations of off gas produced during the event were recorded from 371 parts per million by volume (PPM) to 583 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 11.0 to 14.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1A.

UST PROGRAM
DOCKETING # 7

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2A. Monitoring well locations are depicted on attached Figure 1.

A total of 55 gallons of liquid was removed from MW-7R, MW-8, and MW-54 during this event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Staff Scientist

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1A
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320A
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-7R MW-8 MW-54	08/10/07	9:00	0.50	14.0	583	1450	130.50	0.91	0.46
	08/10/07	9:30	0.50	14.0	569	1470	132.30	0.90	0.45
	08/10/07	10:00	0.50	14.0	524	1470	132.30	0.83	0.42
	08/10/07	10:30	0.50	14.0	511	1490	134.10	0.82	0.41
	08/10/07	11:00	0.50	13.0	490	1530	137.70	0.81	0.40
	08/10/07	11:30	0.50	13.0	474	1510	135.90	0.77	0.39
	08/10/07	12:00	0.50	13.0	479	1530	137.70	0.79	0.40
	08/10/07	12:30	0.50	12.0	460	1590	143.10	0.79	0.39
	08/10/07	13:00	0.50	12.0	427	1590	143.10	0.73	0.37
	08/10/07	13:30	0.50	12.0	435	1580	142.20	0.74	0.37
	08/10/07	14:00	0.50	12.0	432	1590	143.10	0.74	0.37
	08/10/07	14:30	0.50	12.0	428	1610	144.90	0.74	0.37
	08/10/07	15:00	0.50	11.0	418	1630	146.70	0.74	0.37
	08/10/07	15:30	0.50	11.0	401	1650	148.50	0.71	0.36
	08/10/07	16:00	0.50	11.0	388	1690	152.10	0.71	0.35
	08/10/07	16:30	0.50	11.0	374	1630	146.70	0.66	0.33
	08/10/07	17:00	0.50	11.0	371	1650	148.50	0.66	0.33
									TOTAL 6.54

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-7R	2"	45	***	33.74	***	***	33.89	***	0.15
MW-8	2"	45	***	34.05	***	***	38.26	***	4.21
MW-54	2"	45	34.25	34.27	0.02	***	35.63	***	1.38

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-7R	2.00
Truck Operator:	R. Johnson	MW-8	2.00
Stack I.D. (feet)	0.33 feet	MW-54	35.00

Corrected depth to water before AFVR Event in MW-54 = 34.25

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	6.54	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.13	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	55	Gallons

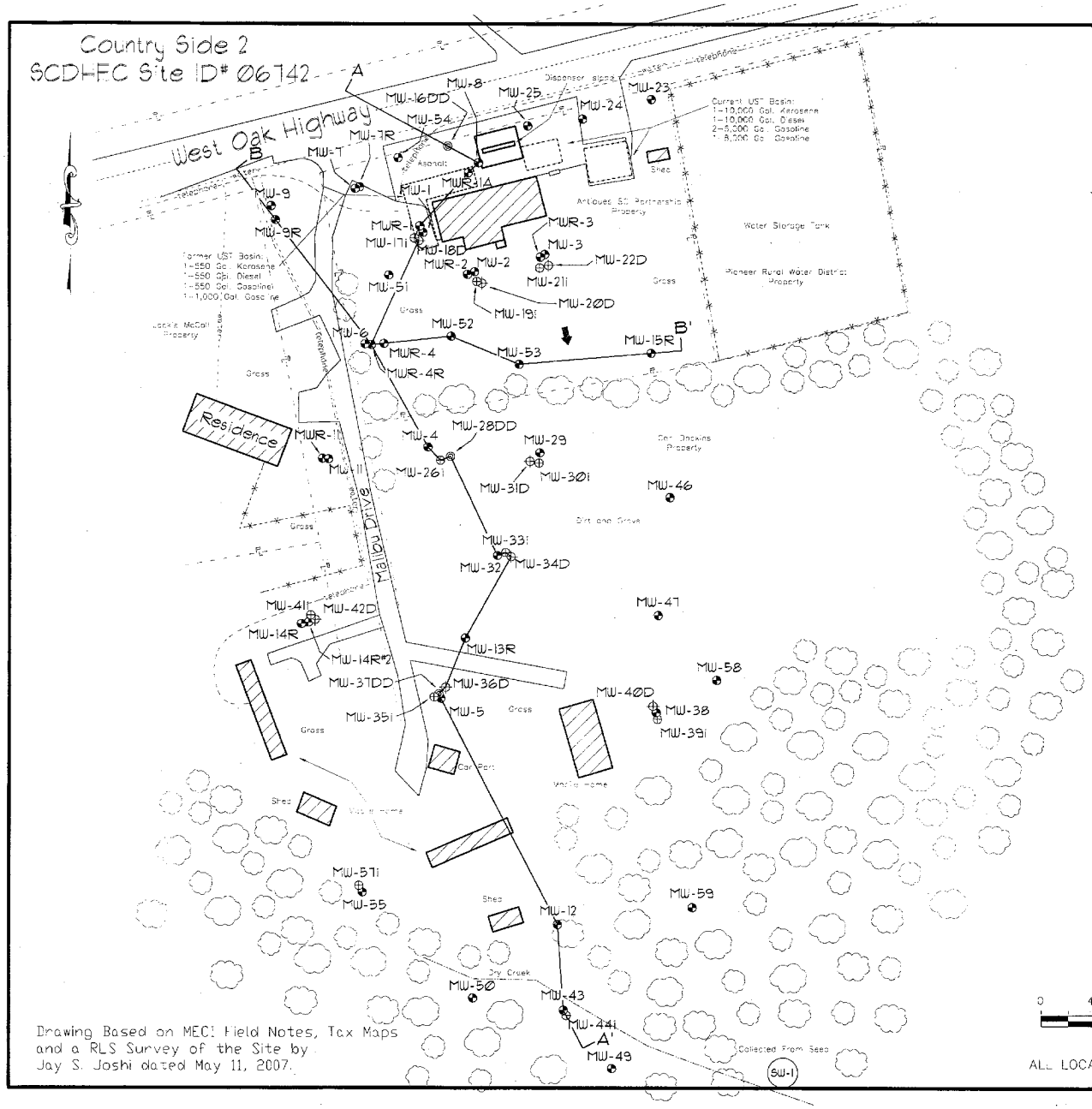
TABLE 2A
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320A
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MWR-2	**MW-16DD**	**MW-17I**
Nearest Extraction Well:		MW-54	MW-8	MW-7R
Approximate Distance:		101 ft	26 ft	56 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
9:00	0.0	0	0	0
9:30	0.5	0	0	0
10:00	1.0	0	0	0
10:30	1.5	0	0	0
11:00	2.0	0	0	0
11:30	2.5	0	0	0
12:00	3.0	0	0	0
12:30	3.5	0	0	0
13:00	4.0	0	0	0
13:30	4.5	0	0	0
14:00	5.0	0	0	0
14:30	5.5	0	0	0
15:00	6.0	0	0	0
15:30	6.5	0	0	0
16:00	7.0	0	0	0
16:30	7.5	0	0	0
17:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MWR-2	**MW-16DD**	**MW-17I**
Nearest Extraction Well:		MW-54	MW-8	MW-7R
Approximate Distance:		101 ft	26 ft	56 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		33.26	34.16	34.11
13:00	4 hours	33.54	34.23	34.13
17:00	8 hours	33.59	34.21	34.14
Maximum Change:		-0.33	-0.07	-0.03



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Property Line
- Buried Water Line
- Under Ground Telephone
- Fence
- Stream
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- SW-1 Location of Surface Water Sample Collection
- A — A' Geologic Cross Section (Refer to Figures 4 & 5)

GRAPHIC SCALE
0 40 80 120 160
1"N = 80FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MEC Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 3

C 121964

Crandall

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No. 10513	2. Page 1 of 1

3. Generator's Name and Mailing Address Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803) 808-2043)

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Crandall Corporation	SCD981864499	(803) 791-4800
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Crandall Corporation 100 Rich-Lex Drive Lexington, SC 29072	SCD981864499	(803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	1170	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

Richland County of Public Works - 195 gal

15. Special Handling Instructions and Additional Information Fmr. Bob's Auto - 80 gal ; Glover's Service Station - 30 gal ;
Service Call ID: GLB0110513 Fmr. Richland Detention/1400 Huger St. - 80 gal ; Johnnies Market - 26 gal
Constan R1 - 75 gal ; Burnettes - 80 gal ; Randy's - 85 gal
Emergency Response: Infotrac - 800-535-5053 Bi Rite Petro - 60 gal ; Country Side A - 55 gal
Caller must ID Crandall as registrant Country Side B - 45 gal ; Food Cheif #47 - 15 gal
Avant's Auto - 180 gal ; Bill's Exxon - 90 gal ; Burrows Service - 75 gal

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Jeff Coleman	[signature]	8	17	07

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman	[signature]	08	17	07

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

FACILITY

INVOICE COPY

Midlands
Environmental
Consultants, Inc.

September 21, 2007

RECEIVED
SEP 24 2007
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #30052
MECI Project Number 07-1320D

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on September 13, 2007. The event was conducted on monitoring well MWR-4 to remove free phase petroleum product and on wells MWR-4R and MW-51 to reduce dissolved CoC concentrations. The event was conducted continuously for eight hours. Free phase petroleum product was detected in monitoring well MWR-4 at a thickness of 0.01 feet prior to the AFVR event. Free phase petroleum product was not detected in monitoring wells MWR-4R and MW-51 prior to the AFVR event The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 2.10 pounds or approximately 0.36 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.26 pounds per hour. Concentrations of off gas produced during the event were recorded from 135 parts per million by volume (PPM) to 194 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 13.0 to 14.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1D.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

UST PROGRAM
DOCKETING # 8

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2D. Monitoring well locations are depicted on attached Figure 1.

A total of 30 gallons of liquid was removed from MWR-4, MWR-4R, and MW-51 during this event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Staff Scientist

William C. McClary (mr)

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1D
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320D
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MWR-4	09/13/07	19:00	0.50	14.0	194	1460	131.40	0.31	0.15
MWR-4R	09/13/07	19:30	0.50	14.0	167	1490	134.10	0.27	0.13
MW-51	09/13/07	20:00	0.50	14.0	163	1450	130.50	0.26	0.13
	09/13/07	20:30	0.50	14.0	175	1470	132.30	0.28	0.14
	09/13/07	21:00	0.50	14.0	170	1490	134.10	0.27	0.14
	09/13/07	21:30	0.50	13.0	161	1550	139.50	0.27	0.13
	09/13/07	22:00	0.50	13.0	152	1570	141.30	0.26	0.13
	09/13/07	22:30	0.50	13.0	158	1590	143.10	0.27	0.14
	09/13/07	23:00	0.50	13.0	154	1590	143.10	0.26	0.13
	09/13/07	23:30	0.50	13.0	142	1570	141.30	0.24	0.12
	09/14/07	0:00	0.50	13.0	137	1610	144.90	0.24	0.12
	09/14/07	0:30	0.50	13.0	135	1580	142.20	0.23	0.12
	09/14/07	1:00	0.50	13.0	148	1600	144.00	0.26	0.13
	09/14/07	1:30	0.50	13.0	157	1610	144.90	0.27	0.14
	09/14/07	2:00	0.50	13.0	146	1590	143.10	0.25	0.13
	09/14/07	2:30	0.50	13.0	152	1590	143.10	0.26	0.13
	09/14/07	3:00	0.50	13.0	149	1570	141.30	0.25	
									TOTAL 2.10

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MWR-4	2"	38	36.78	36.79	0.01	***	37.31	***	0.53
MWR-4R	2"	40	***	36.73	***	***	37.59	***	0.86
MW-51	2"	45	***	34.04	***	***	36.70	***	2.66

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MWR-4	37.00
Truck Operator:	R. Johnson	MW-R4R	5.00
Stack I.D. (feet)	0.33 feet	MW-51	5.00

Corrected depth to water before AFVR Event in MWR-4 = 36.78

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	2.10	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.36	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	30	Gallons

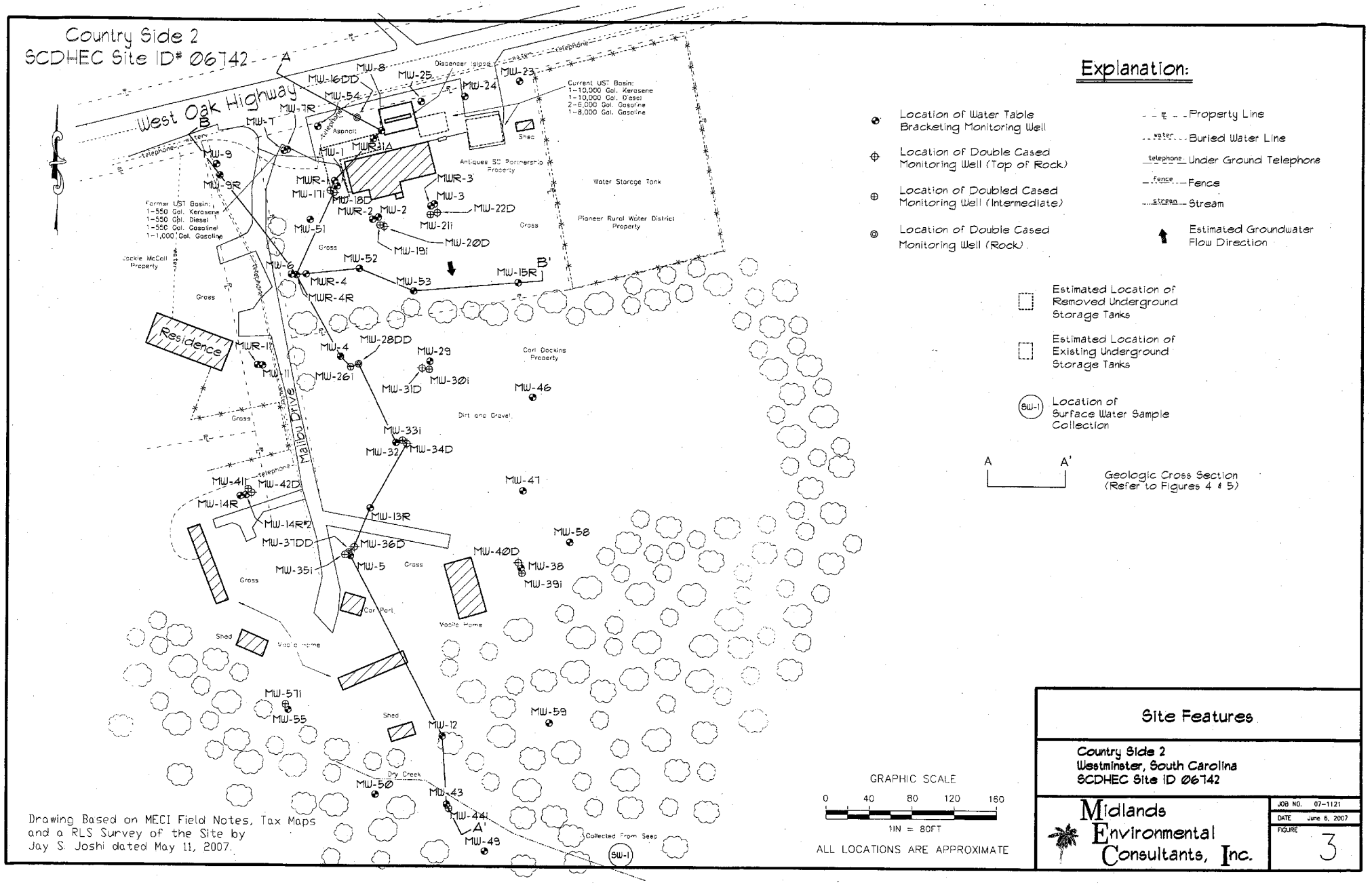
TABLE 2D
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320D
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-6	**MW-17I**	**MW-52**
Nearest Extraction Well:		MWR-4R	MW-51	MWR-4
Approximate Distance:		5 ft	32 ft	50 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
19:00	0.0	0	0	0
19:30	0.5	0	0	0
20:00	1.0	0	0	0
20:30	1.5	0	0	0
21:00	2.0	0	0	0
21:30	2.5	0	0	0
22:00	3.0	0	0	0
22:30	3.5	0	0	0
23:00	4.0	0	0	0
23:30	4.5	0	0	0
0:00	5.0	0	0	0
0:30	5.5	0	0	0
1:00	6.0	0	0	0
1:30	6.5	0	0	0
2:00	7.0	0	0	0
2:30	7.5	0	0	0
3:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-6	**MW-17I**	**MW-52**
Nearest Extraction Well:		MWR-4R	MW-51	MWR-4
Approximate Distance:		5 ft	32 ft	50 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		36.41	34.86	35.95
23:00	4 hours	36.58	34.87	36.01
3:00	8 hours	36.60	34.86	35.98
Maximum Change:		-0.19	-0.01	-0.06



Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 3

Crandall

C 127340

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 12145 | 2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
4. Generator's Phone (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	980	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0112145

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

Nix's Service Station - 60 gal; Blumes Grocery - 20 gal
Richland County Landfill - 75 gal; Stonewall Jackson - 110 gal
Bi-Rite Petroleum - 65 gal; Avants Automotive - 185 gal;
McConnells Corner Mart - 25 gal;
Burnetts Cleaners - 80 gal; McKinney Dodge - 195 gal
Country Side 2 - 30 gal; Country Side 2 - 60 gal

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
John C. Bryant		09	21	07

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Curtis Smith		09	21	07

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

RECEIVED
SEP 24 2007
UNDERGROUND STORAGE
TANK PROGRAM

September 21, 2007

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #30052
MECI Project Number 07-1320C

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on September 13, 2007. The event was conducted on monitoring wells MW-1R, MW-8, and MW-54 to remove free phase petroleum product and on well MW-7 to reduce dissolved CoC concentrations. The event was conducted continuously for eight hours. Free phase petroleum product was detected in monitoring well MW-1R at a thickness of 1.83 feet, in MW-8 at a thickness of 0.02 feet, and in MW-54 at a thickness of 0.08 feet prior to the AFVR event. Free phase petroleum product was not detected in monitoring well MW-7 prior to the AFVR event The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 3.68 pounds or approximately 0.64 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.46 pounds per hour. Concentrations of off gas produced during the event were recorded from 162 parts per million by volume (PPM) to 267 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 10.0 to 11.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1C.

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Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2C. Monitoring well locations are depicted on attached Figure 1.

A total of 60 gallons of liquid was removed from MW-1R, MW-8, MW-7 and MW-54 during this event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Staff Scientist

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1C
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320C
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-1R	09/13/07	11:00	0.50	10.0	267	2070	186.30	0.60	0.30
MW-7	09/13/07	11:30	0.50	10.0	261	2050	184.50	0.58	0.29
MW-8	09/13/07	12:00	0.50	10.0	249	2010	180.90	0.54	0.27
MW-54	09/13/07	12:30	0.50	11.0	215	1990	179.10	0.46	0.23
	09/13/07	13:00	0.50	11.0	223	2010	180.90	0.48	0.24
	09/13/07	13:30	0.50	11.0	229	1970	177.30	0.49	0.24
	09/13/07	14:00	0.50	11.0	242	1990	179.10	0.52	0.26
	09/13/07	14:30	0.50	10.0	245	2040	183.60	0.54	0.27
	09/13/07	15:00	0.50	10.0	219	2030	182.70	0.48	0.24
	09/13/07	15:30	0.50	10.0	173	2010	180.90	0.38	0.19
	09/13/07	16:00	0.50	10.0	180	2050	184.50	0.40	0.20
	09/13/07	16:30	0.50	10.0	176	2020	181.80	0.38	0.19
	09/13/07	17:00	0.50	10.0	185	2040	183.60	0.41	0.20
	09/13/07	17:30	0.50	10.0	182	1990	179.10	0.39	0.20
	09/13/07	18:00	0.50	10.0	167	2010	180.90	0.36	0.18
	09/13/07	18:30	0.50	10.0	162	2030	182.70	0.36	0.18
	09/13/07	19:00	0.50	10.0	178	2050	184.50	0.39	
									TOTAL 3.68

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-1R	2"	38	35.32	37.15	1.83	***	37.83	***	2.24
MW-7	2"	40	***	34.68	***	***	35.60	***	0.92
MW-8	2"	40	36.04	36.06	0.02	***	35.91	***	-0.15
MW-54	2"	45	35.45	35.53	0.08	***	35.70	***	0.17

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-1R	36.00
Truck Operator:	R. Johnson	MW-7	5.00
Stack I.D. (feet)	0.33 feet	MW-8	37.00
		MW-54	36.00

Corrected depth to water before AFVR Event in MW-1R = 35.59
Corrected depth to water before AFVR Event in MW-8= 36.04
Corrected depth to water before AFVR Event in MW-54 = 35.46

Recovery / Disposal Information

Hydro carbons Removed (vapor):	3.68	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.64	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	60	Gallons

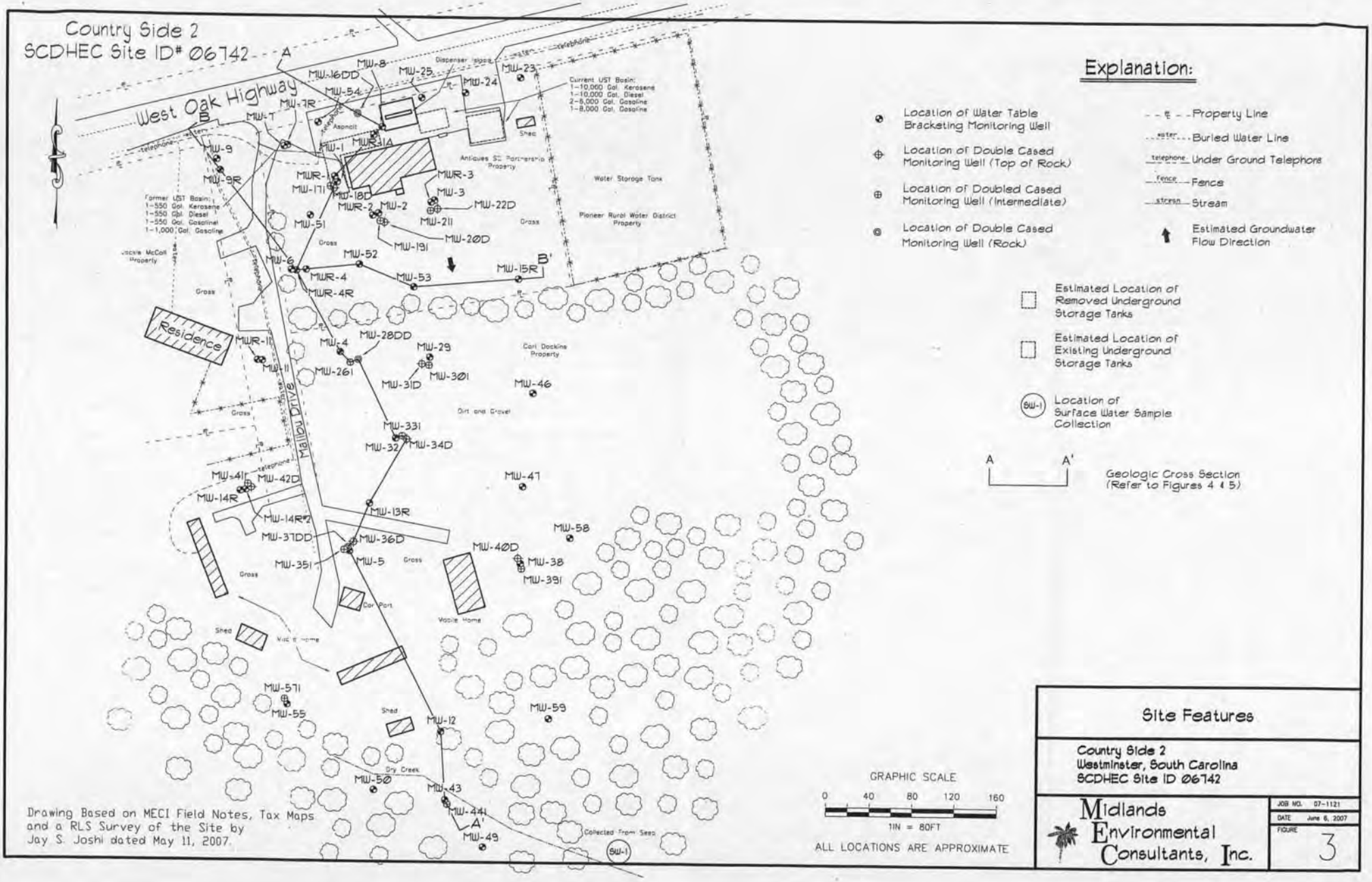
TABLE 2C
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320C
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-7R	**MW-16DD**	**MW-51**
Nearest Extraction Well:		MW-7R	MW-54	MWR-7
Approximate Distance:		5 ft	40 ft	70 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
11:00	0.0	0	0	0
11:30	0.5	0	0	0
12:00	1.0	0	0	0
12:30	1.5	0	0	0
13:00	2.0	0	0	0
13:30	2.5	0	0	0
14:00	3.0	0	0	0
14:30	3.5	0	0	0
15:00	4.0	0	0	0
15:30	4.5	0	0	0
16:00	5.0	0	0	0
16:30	5.5	0	0	0
17:00	6.0	0	0	0
17:30	6.5	0	0	0
18:00	7.0	0	0	0
18:30	7.5	0	0	0
19:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-7R	**MW-16DD**	**MW-51**
Nearest Extraction Well:		MW-7R	MW-54	MWR-7
Approximate Distance:		5 ft	40 ft	70 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		34.63	35.14	34.04
15:00	4 hours	34.83	35.16	34.08
19:00	8 hours	34.84	35.17	34.06
Maximum Change:		-0.21	-0.03	-0.04



Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 3

Crandall

C 127340

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 12145 | 2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
4. Generator's Phone ( ) (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072 | 10. US EPA ID Number: SCD981864499 | C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	980	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0112145

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

Nix's Service Station - 60 gal; Blumes Grocery - 20 gal
Richland County Landfill - 75 gal; Stonewall Jackson - 110 gal
Bi-Rite Petroleum - 65 gal; Avants Automotive - 185 gal;
McConnells Corner Mart - 25 gal;
Burnetts Cleaners - 80 gal; McKinney Dodge - 195 gal
Country Side 2 - 30 gal; Country Side 2 - 60 gal

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
John C. Bryant		09	21	07

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Curtis Smith		09	21	07

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

June 5, 2007

RECEIVED
JUN 11 2007
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Arthur Shrader, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Assessment Activities
Country Side 2
8050 West Oak Highway
Westminster, South Carolina
SCDHEC Site ID#06742 CA # 28426
MECI Project Number 07-1121

Dear Mr. Shrader,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Assessment Activities for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Staff Scientist

William C. McClary, P.G.
Senior Geologist

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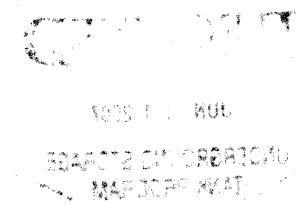

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APPENDIX B ANALYTICAL RESULTS
WASTE DISPOSAL MANIFESTS

1.0 PROJECT INFORMATION

The subject site (Country Side 2) is located at 8050 West Oak Highway in Westminster, Oconee County, South Carolina (see Figure 1). The site is currently a gasoline service station. On-site surface covering is predominately asphalt. The site is bordered by rural residential properties, wooded areas, and a property which occupies an elevated water tower.

The subject site previously maintained five underground storage tanks (UST's) including: 1-550 gallon kerosene UST, 1-550 gallon diesel UST, 1-550 gallon gasoline UST, and 2-1,000 gallon gasoline UST's. A release of petroleum product was reported January 11, 1993 and confirmed January 20, 1993. These UST's were abandoned by removal from the ground in June of 1990. Currently, the subject site maintains five UST's including: 1-10,000 gallon kerosene UST, 1-10,000 gallon diesel UST, 2-6,000 gallon gasoline UST's, and 1-8,000 gallon gasoline UST.

The above information is based on reports and correspondence obtained from SCDHEC files.

2.0 FIELD EXPLORATION

Field exploration conducted at the site included:

- field screening and laboratory analysis of groundwater samples collected from the site utilizing direct push techniques;
- construction and sampling of permanent monitoring wells; and
- sampling of one nearby surface water body.

The monitoring well locations were selected based on the results of our field screening of groundwater samples, existing site conditions, estimated groundwater flow direction, and drilling accessibility. The screening points are illustrated on Figure 7.

Following installation, the wells were surveyed by Construction Support Services of Columbia, SC (PLS # 14811).

2.1 DIRECT PUSH FIELD SCREENING

From February 8 through April 13, 2007 one hundred and twenty seven direct push borings (GPW-1 through GPW-127) were advanced at the site to collect groundwater samples. Each direct push

sample was collected through disposable Teflon tubing and placed in a laboratory-supplied container for analysis. The borings were advanced by Geologic Exploration, Inc. of Statesville, North Carolina (S.C. Driller Certification: Johnny Burr # 1740 and Brian Thomas # 1465). The sampling depth for each of the locations were based on the water table depth, the yield of the water bearing zone as evidenced by flow of water into the direct push apparatus, and the ability to reach the desired depth below ground surface (BGS). These samples were taken to determine horizontal and vertical extent of the contaminant plume. The total footage for the direct push groundwater borings was 3,877 feet. The sample locations are presented on Figure 7 and analytical results are presented in Table 4. To prevent cross-contamination between borings, the reusable down-hole portion of the direct push sampling device was cleaned between borings. New Teflon tubing was utilized at each location. Following the collection of the groundwater sample, the hole left open by the direct push apparatus was filled with a bentonite/portland grout slurry.

The groundwater samples obtained by MECI personnel were sent to Pace Analytical of Charlotte, NC for laboratory analysis. Selected samples were tested for the presence of BTEX, Naphthalene and MTBE by EPA Method 8260B.

2.2 MONITORING WELL INSTALLATION

From March 17, 2007 to May 4, 2007 twenty watertable bracketing single cased monitoring wells, two single cased monitoring wells with submerged screens, seventeen double cased monitoring wells, and three cased rock monitoring wells were installed at the subject site. These wells were installed by Geologic Exploration, of Statesville, North Carolina (S.C. Driller Certification: Jason Mantak # 1494, Brian Thomas # 1465, and Mark Gettys # 1086). The single cased monitoring wells were installed using both a truck-mounted employing 8-inch outer diameter hollow-stem augers and an ATV-mounted drilling rig employing 5.5 solid flight augers to construct the borehole. Monitoring wells MW-14R2, MW-15R, MW-23 through 25, MW-29, MW-32, MW-38, MW-43, MW-46, MW-47, MW-49 through MW-55, MW-58, and MW-59 were installed as single cased, water-table bracketing monitoring wells and utilizing screens ranging from ten feet to twenty feet. Monitoring wells MW-44i and MW-57i were installed as single cased monitoring wells with submerged screens. These monitoring wells were installed to auger refusal to monitor the contaminant plume at the rock interface. Monitoring wells MW-17i, MW-19i, MW-21i, MW-26i, MW-30i, MW-33i, MW-35i, MW-39i, and MW-41i were installed as double cased intermediate monitoring wells. These wells utilize five foot screens. During construction, a 6-inch outer casing was advanced to the desired

depth and grouted in-place. The grout was allowed to cure overnight and the remainder of the depth of the borehole was advanced using mud-rotary techniques. Double cased monitoring wells MW-18D, MW-20D, MW-22D, MW-31D, MW-34D, MW-36D, MW-40D and MW-42D were installed to top of rock. Monitoring wells MW-16DD, MW-28DD, and MW-37DD were installed as double cased monitoring wells advanced into rock. During construction, a 6.25-inch outer casing was advanced to the desired depth and grouted in place. The grout was allowed to cure overnight and the remainder of the depth of the borehole was advanced using air rotary techniques. For each of these wells, air-rotary drilling techniques were utilized to advance the borehole until the first water bearing fracture was encountered.

During installation of the rock monitoring wells, fluids produced during the drilling were required to be contained. Drilling fluids produced by the air drilling were not able to be contained by standard techniques. To protect a nearby surface water, a vacuum truck was required to aid in containment of these fluids prior to reaching the surface water.

Drill cuttings were containerized and later transported to Waste Management/Richland Landfill, Elgin, SC and Waste Management/Palmetto Landfill, Wellford, SC by MECI personnel. A total of 33.85 tons was disposed of in this manner. A disposal manifest for these soils is attached at the end of this report.

Following completion of the monitoring wells, the wells were developed by bailing at least three well volumes or until they were determined to be functioning properly and turbidity was reduced. The development water was drummed and treated onsite utilizing a Portable Granular Activated Carbon Unit. Test Boring Records showing soil descriptions are included in Appendix A. Monitoring well installation details are also provided in Appendix A. A total of nine (9) drums of purge/development water were created during the development of monitoring wells. These drums were treated on-site using a Portable Granular Activated Carbon Unit. Disposal manifests for the drummed purge water is attached at the end of this report.

2.3 MONITORING WELL SAMPLING AND CHEMICAL ANALYSES

On May 7 and May 8, 2007, monitoring wells MWR-1A, MWR-2, MWR-3, MW-4, MW-5 through MW-7, MW-7R, MW-9R, MW-11, MW-12, MW-13R, MW-14R, MW-14R2, MW-15R, MW-17i, MW-16DD, MW-18D, MW-19i, MW-20D, MW-21i, MW-22D, MW-23 through MW-25, MW-26i,

MW-28DD, MW-29, MW-30i, MW-31D, MW-32, MW-33i, MW-34D, MW-35i, MW-36D, MW-37DD, MW-38, MW-39i, MW-40D, MW-41i, MW-42D, MW-43, MW-44i, MW-46, MW-47, MW-49, MW-50 through MW-55, MW-57i, MW-58, and MW-59 were purged and sampled. These wells were purged by bailing at least three well volumes of water from each well or until all available water had been evacuated, whichever occurred first. Monitoring wells MWR-1, MWR-4R, MWR-4, and MW-8 were not sampled due to the presence of measurable free phase petroleum product. Free phase petroleum product was detected at a thickness of 1.25 feet in MWR-1, 0.58 feet in MWR-4R, 0.29 feet in MWR-4, and 0.44 feet in MW-8. Field measurements of pH, conductivity, temperature and dissolved oxygen were obtained before, during and after the well purging process. Field measurements of dissolved carbon dioxide were obtained before well purging. Table 1 presents the results of the field measurements obtained. The groundwater samples obtained were sent to Pace Analytical Services, Inc. of Charlotte, NC (SCDHEC Laboratory Certification #99006) for analysis. Stabilized depth to water measurements were obtained on May 8, 2007.

On March 30, 2007, samples were collected form monitoring wells MW-16DD, MW-28DD and MW-37DD. These samples were collected to determine petroleum impact into the rock aquifer. This data was used in determining if additional monitoring wells were required to define contamination in the rock aquifer. These samples were sent to Pace Analytical Services, Inc. of Charlotte, NC (SCDHEC Laboratory Certification #99006) for analysis by EPA Method 8260B.

Groundwater samples (May 7 and 8, 2007) from monitoring wells MWR-1A, MWR-2, MWR-3, MW-4, MW-5 through MW-7, MW-7R, MW-9R, MW-11, MW-12, MW-13R, MW-14R, MW-14R2, MW-15R, MW-16DD, MW-17i, MW-18D, MW-19i, MW-20D, MW-21i, MW-22D, MW-23 through MW-25, MW-26i, MW-28DD, MW-29, MW-30i, MW-31D, MW-32, MW-33i, MW-34D, MW-35i, MW-36D, MW-37DD, MW-38, MW-39i, MW-40D, MW-41i, MW-42D, MW-43, MW-44i, MW-46, MW-47, MW-49, MW-50 through MW-55, MW-57i, MW-58, and MW-59 were analyzed for volatile organic compounds including BTEX, naphthalene, methyl-tertiary butyl ether, 1,2 DCA, and oxygenates (EPA Method 8260B), ethylene dibromide (EPA Method 8011), and Total lead (Method 6010). Additionally, the monitoring wells installed in conjunction with this assessment were sampled for nitrate (Method 353.2), sulfate (Method 375.4) and field tested for ferrous iron. The results of the laboratory analyses are discussed in Section 3.1, summarized in Table 2, Table 2A, Table 3, and presented in Appendix B.

Groundwater elevation data from the May 8, 2007 gauging event were plotted. A groundwater contour map of the surficial aquifer was prepared (see Figure 6). The data used to prepare the groundwater contour map (groundwater elevations from watertable bracketing monitoring wells) are summarized on Table 1 and presented on Figure 6.

2.4 SURFACE WATER SAMPLING AND CHEMICAL ANALYSES

One nearby surface water (SW-1) was sampled during our assessment activities. On May 8, 2007, one surface water sample was collected. SW-1 was collected approximately 750 feet down gradient of the subject site (See Figure 3). This sample was collected from a probable groundwater seep along surface drainage feature located on Mr. Charles Dockins' property.

The sample collected from SW-1 was transported to Pace Analytical Services Inc. and tested for: benzene, toluene, ethylbenzene, xylenes (BTEX), 8-oxygenates, 1,2 DCA, methyl-tertiary butyl ether (MTBE), and naphthalene (EPA Method 8260B). The results of the laboratory analyses are discussed in section 3.2, summarized in Table 2, and presented in the Appendix.

3.0 TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

3.1 GROUNDWATER ANALYTICAL RESULTS

As discussed in Section 2.3, groundwater samples obtained from the monitoring wells were analyzed for dissolved phase petroleum constituents. The analytical results indicate petroleum impact to the local groundwater with the highest concentrations detected surrounding the former UST basin. Free phase petroleum product was detected at a thickness of 1.25 feet in MWR-1, 0.58 feet in MWR-4R, 0.29 feet in MWR-4, and 0.44 feet in MW-8. The analytical results for the shallow, watertable bracketing, zone indicate total BTEX and MTBE and concentrations ranging from levels below detection limits (BDL) to free product detected in MWR-1, MWR-4, MWR-4R, and in MW-8. The analytical results for the intermediate zone indicate total BTEX concentrations ranging from levels below detection limits (BDL) to 46,200 ug/l in monitoring well MW-17i. The analytical results indicate MTBE concentrations ranging from levels below detection limits (BDL) to 6,800 micrograms per liter in monitoring well MW-21i. The analytical results for the deep (wells advanced mud-rotary refusal) zone indicate total BTEX concentrations ranging from levels 223.9 ug/l in MW-

22D to 9,920 ug/l in monitoring well MW-18D. The analytical results indicate MTBE concentrations ranging from below detection limits to 1,700 micrograms per liter in monitoring well MW-18D. The analytical results for the rock (wells advanced to first fracture) zone indicate total BTEX concentrations ranging from levels below detection limits (BDL) to 9.2 ug/l in monitoring well MW-28DD. The analytical results indicate MTBE concentrations ranging from levels below detection limits (BDL) to 28 micrograms per liter in monitoring well MW-28DD.

The results of the analyses for each monitoring well and specific parameters are listed on Table 2, Table 2A, and 3, and the detection limit for each parameter is provided in the laboratory reports (Appendix B). Figure 8 through Figure 8B depict graphically the concentrations of Total BTEX (indicator for plume migration) in the shallow, intermediate, and deep zones at the site. Figure 9 through Figure 9B depict graphically the concentrations of dissolved MTBE in the shallow, intermediate, and deep zones at the site.

3.2 SURFACE WATER ANALYTICAL RESULTS

As discussed in Section 2.4, one nearby creek was (SW-1) was obtained and analyzed by Pace Analytical, Inc. for petroleum constituents. Sample SW-1 indicates petroleum impact (MTBE 300 ug/l) to the nearby creek. This sample (SW-1) was collected approximately 725 feet southeast of the former tank basin. This sample was collected from a possible groundwater seep. The results of the analyses are presented on Table 2 and sample location is presented on Figure 3. The detection limit for each parameter is provided in the laboratory reports (Appendix).

4.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report is intended for the sole use by the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

TABLE 1
FIELD PARAMETERS
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1121
SCDHEC SITE ID NUMBER 06742

Well Number	Sample Date	CO2 (mg/l)	Dissolved Oxygen (mg/l)	Temperature (°Celsius)	pH (Initial)	pH (Final)	Conductivity (Initial)	Conductivity (Final)	Ferrous Iron (mg/l)	Screened Interval (feet)	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (feet)	Well-head Elevation	Groundwater Elevation
MWR-1	5/8/2007	NT	NT	NT	NT	NT	NT	NT	NT	30-45	33.65	32.40	1.25	99.34	66.75
MWR-1A	5/8/2007	30	1.30	18.9	6.47	6.41	63.6	63.1	3.0	65-70	33.23	—	—	99.97	66.74
MWR-2	5/8/2007	140	0.68	19.8	7.78	6.76	156.0	135.3	3.2	25-40	30.63	—	—	96.97	66.34
MWR-3	5/8/2007	175	0.97	18.5	4.95	4.06	276.5	276.2	BDL	30-40	30.81	—	—	97.04	66.23
MW-4	5/8/2007	140	1.03	17.3	7.40	NT	77.3	NT	BDL	15-25	25.74	—	—	90.68	64.94
MWR-4R	5/8/2007	NT	NT	NT	NT	NT	NT	NT	NT	25-40	28.42	27.84	0.58	93.59	65.66
MWR-4	5/8/2007	NT	NT	NT	NT	NT	NT	NT	NT	28-38	28.05	27.76	0.29	93.68	65.88
MW-5	5/8/2007	50	4.39	17.0	8.29	NT	66.9	NT	BDL	10-20	14.51	—	—	75.28	60.77
MW-6	5/8/2007	110	1.31	18.3	5.47	6.03	132.2	147.7	BDL	20-35	27.49	—	—	93.29	65.80
MW-7	5/8/2007	85	0.66	20.1	5.06	4.95	57.2	52.8	2.8	24-39	31.14	—	—	98.31	67.17
MW-7R	5/8/2007	75	1.25	20.2	5.34	5.17	22.2	28.1	BDL	35-45	31.57	—	—	98.68	67.11
MW-8	5/8/2007	NT	NT	NT	NT	NT	NT	NT	NT	25-45	33.26	32.82	0.44	99.75	66.86
MW-9	5/8/2007	NT	NT	NT	NT	NT	NT	NT	NT	17-32	29.12	—	—	97.06	67.94
MW-9R	5/8/2007	55	1.08	19.6	5.83	5.76	87.7	94.2	BDL	35-45	29.47	—	—	96.86	67.39
MW-11	5/8/2007	80	0.78	18.6	5.90	NT	93.5	NT	0.0	22-35	22.35	—	—	87.22	64.87
MWR-11	5/8/2007	NT	NT	NT	NT	NT	NT	NT	NT	30-40	22.42	—	—	87.25	64.83
MW-12	5/8/2007	25	6.15	13.6	4.35	NT	15.4	NT	BDL	7-12	9.62	—	—	62.74	53.12
MW-13R	5/8/2007	130	0.84	18.2	7.56	6.94	150.4	141.4	3.0	25-35	14.87	—	—	75.93	61.06
MW-14R	5/8/2007	45	1.18	18.2	6.65	6.12	62.5	48.7	BDL	25-35	16.80	—	—	79.43	62.63
MW-14R2	5/8/2007	65	0.88	17.6	7.12	5.89	128.7	123.2	BDL	10-25	16.73	—	—	79.40	62.67
MW-15R	5/8/2007	40	6.85	16.5	4.65	4.47	41.2	39.0	BDL	30-45	27.74	—	—	93.12	65.38
MW-16DD	5/8/2007	20	1.43	18.3	6.50	7.30	231.0	172.6	BDL	90-95	37.86	—	—	99.67	61.81
MW-17i	5/8/2007	20	3.95	17.6	7.14	7.06	99.4	121.9	BDL	47-52	31.93	—	—	98.61	66.68
MW-18D	5/8/2007	15	4.98	17.5	7.27	6.69	59.3	44.2	BDL	56-61	31.99	—	—	98.56	66.57
MW-19i	5/8/2007	35	1.59	18.6	7.96	7.71	70.2	68.9	BDL	50-55	30.37	—	—	96.42	66.05
MW-20D	5/8/2007	BDL	1.78	18.2	6.88	8.47	164.8	154.0	BDL	71-76	30.32	—	—	96.28	65.96
MW-21i	5/8/2007	20	2.36	18.5	6.62	6.99	137.9	127.1	BDL	50-55	30.36	—	—	96.44	66.08
MW-22D	5/8/2007	20	3.29	18.6	6.88	7.55	82.0	67.7	BDL	70-75	32.13	—	—	96.69	64.56
MW-23	5/8/2007	55	3.34	18.2	6.21	5.58	52.6	33.8	BDL	25-40	32.02	—	—	98.38	66.36
MW-24	5/8/2007	90	1.02	19.7	5.12	4.87	35.2	39.2	BDL	25-40	32.64	—	—	99.12	66.48
MW-25	5/8/2007	50	0.91	19.7	4.93	4.86	38.1	26.9	1.2	30-45	33.05	—	—	99.69	66.64
MW-26i	5/8/2007	15	6.71	18.3	6.42	7.07	64.5	102.2	BDL	40-45	21.85	—	—	86.70	64.85
MW-28DD	5/8/2007	20	0.71	18.1	7.41	7.33	395.4	364.1	BDL	91-96	21.98	—	—	86.68	64.70
MW-29	5/8/2007	80	6.14	18.8	5.15	7.86	28.5	26.4	BDL	20-33	21.90	—	—	91.49	69.59
MW-30i	5/8/2007	35	7.01	18.7	7.36	7.27	82.9	65.0	BDL	40-45	21.59	—	—	91.01	69.42
MW-31D	5/8/2007	BDL	7.78	17.8	10.42	10.63	352.9	617.0	BDL	61-66	21.71	—	—	91.18	69.47
MW-32	5/8/2007	135	2.31	17.5	4.53	4.58	72.4	67.3	2.0	15-30	17.55	—	—	80.47	62.92
MW-33i	5/8/2007	120	2.12	18.1	4.90	4.02	47.0	52.9	BDL	35-40	17.90	—	—	80.63	62.73
MW-34D	5/8/2007	40	7.89	17.8	5.33	5.33	61.5	56.5	BDL	46-51	18.12	—	—	80.67	62.55
MW-35i	5/8/2007	BDL	5.14	18.4	9.71	7.42	277.0	196.3	BDL	30-35	14.62	—	—	75.48	60.86
MW-36D	5/8/2007	25	3.34	18.2	9.10	9.32	131.4	161.4	BDL	31-36	13.98	—	—	74.81	60.83
MW-37DD	5/8/2007	25	2.02	17.4	9.60	10.65	397.4	322.0	BDL	52-57	14.39	—	—	75.33	60.94
MW-38	5/8/2007	80	4.58	17.9	7.26	7.09	39.9	32.2	BDL	15-25	21.53	—	—	85.23	63.70
MW-39i	5/8/2007	20	7.93	17.4	7.46	6.67	71.8	41.4	BDL	40-45	21.51	—	—	80.20	58.69
MW-40D	5/8/2007	BDL	4.08	17.3	8.36	7.97	154.7	134.5	BDL	61-66	21.49	—	—	85.36	63.87
MW-41i	5/8/2007	5	1.49	18.2	9.38	7.62	77.0	57.9	BDL	40-45	16.50	—	—	79.22	62.72
MW-42D	5/8/2007	10	1.07	17.7	8.94	7.87	118.5	62.1	BDL	55-60	16.35	—	—	79.22	62.87
MW-43	5/8/2007	35	4.76	14.4	4.45	3.97	123.6	50.0	BDL	5-15	11.60	—	—	60.67	49.07
MW-44I	5/8/2007	35	5.96	15.0	3.81	3.01	37.8	30.3	BDL	20-25	9.11	—	—	60.44	51.33
MW-46	5/8/2007	35	7.18	17.8	7.12	6.35	37.0	23.4	BDL	20-35	23.02	—	—	91.17	68.15
MW-47	5/8/2007	35	7.23	17.9	6.24	5.45	29.9	24.8	BDL	15-30	22.12	—	—	87.79	65.67
MW-49	5/8/2007	100	0.77	14.4	4.08	4.24	52.9	63.2	BDL	5-20	14.92	—	—	60.60	45.68
MW-50	5/8/2007	45	6.20	14.2	4.67	5.08	38.6	29.7	BDL	5-20	10.95	—	—	64.14	53.19
MW-51	5/8/2007	125	0.92	17.3	6.16	4.93	35.8	31.1	0.3	30-45	30.85	—	—	97.35	66.50
MW-52	5/8/2007	150	1.05	17.5	4.87	4.57	108.5	142.4	BDL	30-45	27.22	—	—	93.05	65.83
MW-53	5/8/2007	105	2.30	16.5	4.77	4.62	52.3	34.6	BDL	25-45	26.22	—	—	91.83	65.61
MW-54	5/8/2007	75	0.85	20.1	5.03	4.98	34.6	45.0	0.6	30-45	32.31	—	—	99.37	67.06
MW-55	5/8/2007	50	5.37	14.8	5.83	5.25	60.9	31.6	0.4	5-20	11.23	—	—	69.88	58.65
MW-57i	5/8/2007	30	3.78	15.9	5.69	5.45	44.4	25.4	BDL	25-30	12.05	—	—	70.68	58.63
MW-58	5/8/2007	65	6.00	17.7	6.90	5.26	32.2	25.0	BDL	20-30	22.16	—	—	81.83	59.67
MW-59	5/8/2007	80	2.12	16.8	7.29	6.68	39.4	26.5	BDL	7-22	16.08	—	—	72.14	56.06

Notes:

1. mg/l = milligrams per liter.
2. Groundwater depths were measured from the top of the PVC riser pipe.
3. Groundwater levels measured 05/08/2007.
4. Dissolved oxygen, dissolved carbon dioxide, initial pH, initial conductivity, and temperature measurements obtained 5/7/07 & 5/8/07.
5. NT = Not Tested
6. Groundwater Elevations for MWR-1, MWR-4R, MW-4 and MW-8 Corrected for the presence of Free Phase Product based on a specific Gravity of Fuel of 0.85.

TABLE 2
PAGE 1 OF 2
GROUNDWATER ANALYTICAL RESULTS
COUNTRY SIDE 2
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1121
SCDHEC ID # 06742

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	EDB (µg/l)	Naphthalene (µg/l)	1,2 DCA (µg/l)	Nitrate (mg/l)	Sulfate (mg/l)	Total Lead (µg/l)
MW-1	1/25/1999	28,200	37,200	2,750	19,500	87,650	24,600	NT	4,750	NT	NT	NT	NT
	12/9/1999	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	NT	NT	NT	NT
	5/8/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MWR-1	6/11/2003	19,200	24,900	2,750	19,500	66,350	28,600	NT	805	NT	NT	NT	NT
	8/27/2003	37,200	45,800	3,740	19,500	106,240	32,200	NT	1,560	NT	NT	NT	NT
	6/14/2004	226,000	301,000	280,000	278,000	1,085,000	5,110,000	NT	2,000	NT	NT	NT	NT
	5/8/2007	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
MWR-1A	6/11/2003	185	22,164	1,700	13,500	37,549	187	NT	554	NT	NT	NT	NT
	8/27/2003	111	22,164	1,700	13,500	37,475	187	NT	554	NT	NT	NT	NT
	6/14/2004	111	22,164	1,700	13,500	37,475	187	NT	554	NT	NT	NT	NT
	5/8/2007	BDL	BDL	BDL	5.2	5.2	BDL	BDL	10	BDL	0.68	BDL	BDL
MW-2	1/25/1999	19	12	2	21.0	54.0	67	NT	5	NT	NT	NT	NT
	12/9/1999	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	4/4/2000	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/8/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MWR-2	6/11/2003	184	705	181	1,040	2,110	123	NT	59	NT	NT	NT	NT
	8/27/2003	137	583	154	905	1,779	100	NT	99	NT	NT	NT	NT
	6/14/2004	50	112	25	164	351	129	NT	69	NT	NT	NT	NT
	5/8/2007	58	170	56	580	864	BDL	BDL	16	BDL	BDL	BDL	BDL
MW-3	1/25/1999	<1	<1	<1	<1	<1	<1	NT	<5	NT	NT	NT	NT
	12/9/1999	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	4/4/2000	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/8/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MWR-3	6/11/2003	1	1	1	3	6	<1	NT	<5	NT	NT	NT	NT
	8/26/2003	1	1	1	3	6	1	NT	5	NT	NT	NT	NT
	6/14/2004	1	1	1	3	6	1	NT	5	NT	NT	NT	NT
	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	27	3.7	27
MW-4	1/25/1999	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	12/9/1999	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	12/9/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/8/2007	12,000	31,000	5,000	27,200	75,200	3,900	BDL	1,600	BDL	BDL	BDL	58
MWR-4	4/23/2001	226,000	301,000	280,000	278,000	1,085,000	5,110,000	NT	2,000	NT	NT	NT	NT
	7/19/2001	226,000	301,000	280,000	278,000	1,085,000	5,110,000	NT	2,000	NT	NT	NT	NT
	10/9/2001	226,000	301,000	280,000	278,000	1,085,000	5,110,000	NT	2,000	NT	NT	NT	NT
	5/8/2007	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
MW-4R	6/11/2003	5,300	14,775	10,344	147,734	178,153	889	NT	496	NT	NT	NT	NT
	8/27/2003	13,100	21,800	10,344	147,734	192,978	922	NT	831	NT	NT	NT	NT
	6/14/2004	7,630	20,000	10,344	147,734	185,708	600	NT	950	NT	NT	NT	NT
	5/8/2007	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MWR-4R	6/11/2003	13,700	16,700	2,080	11,200	43,680	11,600	NT	1,010	NT	NT	NT	NT
	8/27/2003	24,800	31,900	2,590	12,300	71,500	16,000	NT	985	NT	NT	NT	NT
	6/14/2004	226,000	301,000	280,000	278,000	1,085,000	5,110,000	NT	2,000	NT	NT	NT	NT
	5/8/2007	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
MW-5	4/23/2001	1	1	1	1	4	1	NT	5	NT	NT	NT	NT
	7/19/2001	1	1	1	1	4	1	NT	5	NT	NT	NT	NT
	10/9/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.46	5.3	6.3
MWR-5	6/11/203	3,280	96	256	786	4,418	4,640	NT	201	NT	NT	NT	NT
	8/26/2003	2,990	68	160	526	3,744	2,320	NT	106	NT	NT	NT	NT
	6/14/2004	1	1	1	3	6	1	NT	5	NT	NT	NT	NT
	5/8/2007	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-6	4/23/2001	2,000	9,600	1,080	7,460	20,140	2,510	NT	500	NT	NT	NT	NT
	7/19/2001	4,820	9,600	1,080	7,460	22,960	5,200	NT	500	NT	NT	NT	NT
	10/9/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/8/2007	18,000	14,000	3,800	25,000	60,800	850	0.26	1,800	BDL	BDL	1.2	26
MW-7	2/27/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	4/23/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	10/9/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/8/2007	12,000	38,000	24,000	141,000	215,000	1,300	BDL	8,700	BDL	BDL	1.1	72
MW-7R	6/11/2003	2,200	9,360	1,280	7,440	20,280	110	NT	430	NT	NT	NT	NT
	8/27/2003	8,440	9,360	19,700	12,400	49,900	1,540	NT	522	NT	NT	NT	NT
	6/14/2004	2,040	9,360	2,080	11,900	25,380	120	NT	710	NT	NT	NT	NT
	5/8/2007	6,100	19,000	4,300	23,000	52,400	BDL	BDL	1,600	BDL	BDL	BDL	BDL
MW-8	6/11/2003	6,100	22,164	15,515	221,843	265,422	11,300	NT	554	NT	NT	NT	NT
	8/26/2003	226,000	301,000	280,000	278,000	1,085,000	5,110,000	NT	2,000	NT	NT	NT	NT
	6/14/2004	226,000	301,000	280,000	278,000	1,085,000	5,110,000	NT	2,000	NT	NT	NT	NT
	5/8/2007	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP	FP
MW-9	2/27/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	4/23/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	10/9/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/8/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-9R	6/11/2003	108	36	30	130	304	52	NT	50	NT	NT	NT	NT
	8/26/2003	68	31	21	91	211	38	NT	59	NT	NT	NT	NT
	6/14/2004	46	20	22	107	195	81	NT	134	NT	NT	NT	NT
	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-10	6/11/2003	1	1	1	1	4	1	NT	5	NT	NT	NT	NT
	8/26/2003	1	1	1	1	4	1	NT	5	NT	NT	NT	NT
	6/14/2004	3	71	26	154	254	1	NT	48	NT	NT	NT	NT
	5/8/2004	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-11	1/25/1999	24	106	189	825	1,144	10	NT	731	NT	NT	NT	NT
	12/9/1999	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	4/4/2000	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/8/2007	88	430	340	2,000	2,858	BDL	BDL	200	BDL	BDL	BDL	77
MWR-11	6/11/2003	173	889	496	2,600	4,158	54	NT	408	NT	NT	NT	NT
	8/26/2003	150	637	401	2,250	3,438	58	NT	369	NT	NT	NT	NT
	6/14/2004	138	412	324	2,130	3,004	70	NT	448	NT	NT	NT	NT
	5/8/2007	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-12	6/11/2003	1	1	1	3	6	1	NT	5	NT	NT	NT	NT
	8/26/2003	1	1	1	3	6	1	NT	5	NT	NT	NT	NT
	6/14/2004	1	1	1	3	6	1	NT	5	NT	NT	NT	NT
	5/8/2007	14	BDL	BDL	BDL	14	BDL	BDL	BDL	BDL	0.84	BDL	37

Notes:

1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. mg/l = milligrams per liter
4. MTBE = Methyl-Tertiary-Butyl Ether
5. See Appendix B for Laboratory Detection Limits
6. NL = Not Located
7. NT = Not Tested.
8. EDB = Ethylene Dibromide
9. FP= Not Sampled Due to Free Phase Petroleum Product
10. 1,2 DCA= 1,2-Dichloroethane
11. Analytical Data prior to 5/18/07 Sampling event obtained from SCDHEC files

TABLE 2A
PAGE 2 OF 2
GROUNDWATER ANALYTICAL RESULTS
COUNTRY SIDE 2
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1121
SCDHEC ID # 06742

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	EDB (µg/l)	Naphthalene (µg/l)	1,2 DCA (µg/l)	Nitrate (mg/l)	Sulfate (mg/l)	Total Lead (µg/l)
MW-13	2/27/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	4/23/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	10/9/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/8/2007	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-13R	6/11/2003	4,090	1,350	556	2,380	8,379	2,160	NT	321	NT	NT	NT	NT
	9/27/2003	4,500	1,010	433	1,840	7,783	1,950	NT	271	NT	NT	NT	NT
	6/14/2004	3,630	50	58	60	3,798	2,360	NT	222	NT	NT	NT	NT
	5/8/2007	6,800	87	100	250	7,037	4,400	BDL	89	BDL	BDL	BDL	BDL
MW-14	4/23/2001	86	334	116	1,090	1,626	88	NT	144	NT	NT	NT	NT
	7/19/2001	169	392	249	1,380	2,190	76	NT	209	NT	NT	NT	NT
	10/9/2001	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/8/2007	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-14R	6/11/2003	32	33	50	334	449	7	NT	83	NT	NT	NT	NT
	8/26/2003	10	21	50	334	415	7	NT	83	NT	NT	NT	NT
	6/14/2004	10	21	50	334	415	7	NT	83	NT	NT	NT	NT
	5/8/2007	BDL	BDL	BDL	16	16	BDL	BDL	BDL	BDL	0.87	2.9	BDL
MW-14R2	5/8/2007	1,100	1,800	1,000	7,300	11,200	92	BDL	650	BDL	BDL	2.8	24
MW-15	2/27/2001	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	4/23/2001	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	10/9/2001	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	5/8/2007	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-15R	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.40	BDL	11
MW-16DD	3/30/2007	36	260	94	610	1,000	7.4	NT	30	NT	NT	NT	NT
	5/8/2007	BDL	8.6	BDL	BDL	8.6	BDL	BDL	BDL	BDL	0.12	40	BDL
MW-17I	5/8/2007	7,900	14,000	3,700	20,600	46,200	2,800	BDL	1,300	BDL	BDL	33	12
MW18D	5/8/2007	2,000	3,600	620	3,700	9,920	1,700	BDL	160	BDL	0.2	4	BDL
MW-19I	5/8/2007	3,600	4,800	400	2,130	10,930	1,700	0.14	130	BDL	BDL	7.7	5
MW-20D	5/8/2007	430	570	41	240	1,281	570	0.24	21	BDL	0.2	25	5.9
MW-21I	5/8/2007	3,400	3,800	300	1,630	9,130	6,800	0.30	38	BDL	BDL	10	9.5
MW-22D	5/8/2007	82	81	7.9	53	223.9	530	BDL	6	BDL	0.65	10	5.9
MW-23	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.2	1.1	11
MW-24	5/8/2007	160	BDL	BDL	28.6	188.6	BDL	BDL	BDL	BDL	BDL	BDL	7
MW-25	5/8/2007	3,100	490	36	850	4,476	1,300	BDL	21	BDL	BDL	BDL	6
MW-26I	5/8/2007	9,800	890	730	4,300	15,720	2,900	BDL	130	BDL	0.58	12	BDL
MW-28DD	3/30/2007	110	28	6.6	35	180	84	NT	5.7	NT	NT	NT	NT
	5/8/2007	9.2	BDL	BDL	BDL	9.2	28	BDL	BDL	BDL	BDL	51	BDL
MW-29	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	33
MW-30I	5/8/2007	41	20	7.8	40	108.8	21	BDL	BDL	BDL	BDL	13	5.8
MW-31D	5/8/2007	570	260	31	182	1,043	350	BDL	9.1	BDL	BDL	7.4	BDL
MW-32	5/8/2007	3,000	7.4	18	6.4	3,031.8	540	BDL	8.2	BDL	BDL	2.6	14
MW-33I	5/8/2007	860	BDL	BDL	28.2	888.2	50	BDL	12	BDL	BDL	3.3	BDL
MW-34D	5/8/2007	380	BDL	13	58	451	260	BDL	8.3	BDL	0.17	15	10
MW-35I	5/8/2007	1,900	83	189	1,087	3,259	83	BDL	440	BDL	BDL	5.4	12
MW-36D	5/8/2007	1,400	56	130	544	2,130	230	BDL	210	BDL	BDL	1.5	11
MW-37DD	3/30/2007	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL	NT	NT	NT	NT
	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	11	9.6
MW-38	5/8/2007	BDL	BDL	BDL	BDL	BDL	25	BDL	BDL	BDL	0.15	BDL	88
MW-39I	5/8/2007	61	BDL	BDL	BDL	61	890	BDL	8	BDL	BDL	BDL	9.7
MW-40D	5/8/2007	330	BDL	BDL	15	345	340	0.16	5.6	BDL	0.11	4.8	9.8
MW-41I	5/8/2007	BDL	14	29	180	223	BDL	BDL	7.5	BDL	0.4	4.6	11
MW-42D	5/8/2007	7.6	46	40	241	334.6	BDL	BDL	33	BDL	0.13	2.3	9.9
MW-43	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.71	8.9	13
MW-44I	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.72	BDL	12
MW-46	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.45	BDL	10
MW-47	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.53	BDL	9.7
MW-49	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.18	5.3	120
MW-50	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.54	BDL	19
MW-51	5/8/2007	27,000	37,000	3,800	19,100	86,900	31,000	0.23	820	BDL	BDL	BDL	24
MW-52	5/8/2007	11,000	23,000	3,000	16,000	53,000	BDL	BDL	930	BDL	2.2	BDL	20
MW-53	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.53	BDL	10
MW-54	5/8/2007	36,000	62,000	4,300	22,600	124,900	BDL	0.32	890	BDL	BDL	1.8	11
MW-55	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.56	BDL	10
MW-57I	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.75	BDL	13
MW-58	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	11
MW-59	5/8/2007	9	BDL	BDL	BDL	9	280	0.065	BDL	BDL	BDL	BDL	32
SW-1	5/8/2007	BDL	BDL	BDL	BDL	BDL	300	BDL	BDL	NT	NT	NT	NT

Notes:

1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. mg/l = milligrams per liter
4. MTBE = Methyl-Tertiary-Butyl Ether
5. See Appendix B for Laboratory Detection Limits
6. NL = Not Located
7. NT = Not Tested.
8. EDB = Ethylene Dibromide
9. FP= Not Sampled Due to Free Phase Petroleum Product
10. 1,2 DCA= 1,2-Dichloroethane
11. Analytical Data prior to 5/8/07 Sampling event obtained from SCDHEC files

TABLE 3
GROUNDWATER ANALYTICAL RESULTS (OXYGENATES)
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1121
SCDHEC ID NUMBER 06742

Well Number	Sample Date	Ethyl tert-butyl ether (µg/l)	tertiary-Amyl methyl ether (µg/l)	Diisopropyl ether (µg/l)	2-Methyl-2-propanol (µg/l)	3,3-Dimethil-1-butanol (µg/l)	tert-Butyl Formate (µg/l)	Ethanol (µg/l)	tert-Amyl alcohol (µg/l)
MW-1	5/8/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MWR-1	5/8/2007	FP	FP	FP	FP	FP	FP	FP	FP
MWR-1A	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-2	5/8/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MWR-2	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	540
MW-3	5/8/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MWR-3	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-4	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	16,000
MWR-4	5/8/2007	FP	FP	FP	FP	FP	FP	FP	FP
MWR-4R	5/8/2007	FP	FP	FP	FP	FP	FP	FP	FP
MW-5	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-6	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-7	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-7R	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	11,000
MW-8	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-9	5/8/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-9R	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	390
MW-11	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MWR-11	5/8/2007	NT	NT	NT	NT	NT	NT	NT	NT
MW-12	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13R	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4,600
MW-14R	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-14R2	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	6,300
MW-15R	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-16DD	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-17I	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2,600
MW18D	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2,000
MW-19I	5/8/2007	BDL	26	40	BDL	BDL	BDL	BDL	BDL
MW-20D	5/8/2007	BDL	BDL	15	BDL	BDL	BDL	BDL	2,200
MW-21I	5/8/2007	BDL	32	84	BDL	BDL	BDL	BDL	1,300
MW-22D	5/8/2007	BDL	BDL	5.5	BDL	BDL	BDL	BDL	970
MW-23	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	140
MW-24	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-25	5/8/2007	BDL	BDL	40	BDL	BDL	BDL	BDL	930
MW-26I	5/8/2007	BDL	BDL	BDL	8,900	BDL	BDL	BDL	BDL
MW-28DD	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-29	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-30I	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-31D	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	830
MW-32	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2,300
MW-33I	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1,500
MW-34D	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	630
MW-35I	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1,400
MW-36D	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1,700
MW-37DD	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-38	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-39I	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1,600
MW-40D	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1,400
MW-41I	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	250
MW-42D	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-43	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-44I	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-46	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-47	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-49	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-50	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-51	5/8/2007	BDL	BDL	BDL	7,000	BDL	BDL	BDL	28,000
MW-52	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-53	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-54	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-55	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-57I	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-58	5/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-59	5/8/2007	BDL	BDL	BDL	69	BDL	BDL	BDL	320
SW-1	5/8/2007	BDL	BDL	BDL	86	BDL	BDL	BDL	220

Notes:
1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. FP= Free Phase Product
4. DRY = Well was dry at time of sampling
5.NT = Not tested

TABLE 4
PAGE 1 OF 2
FIELD SCREENING ANALYTICAL RESULTS
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1121
SCDHEC ID NUMBER 06742

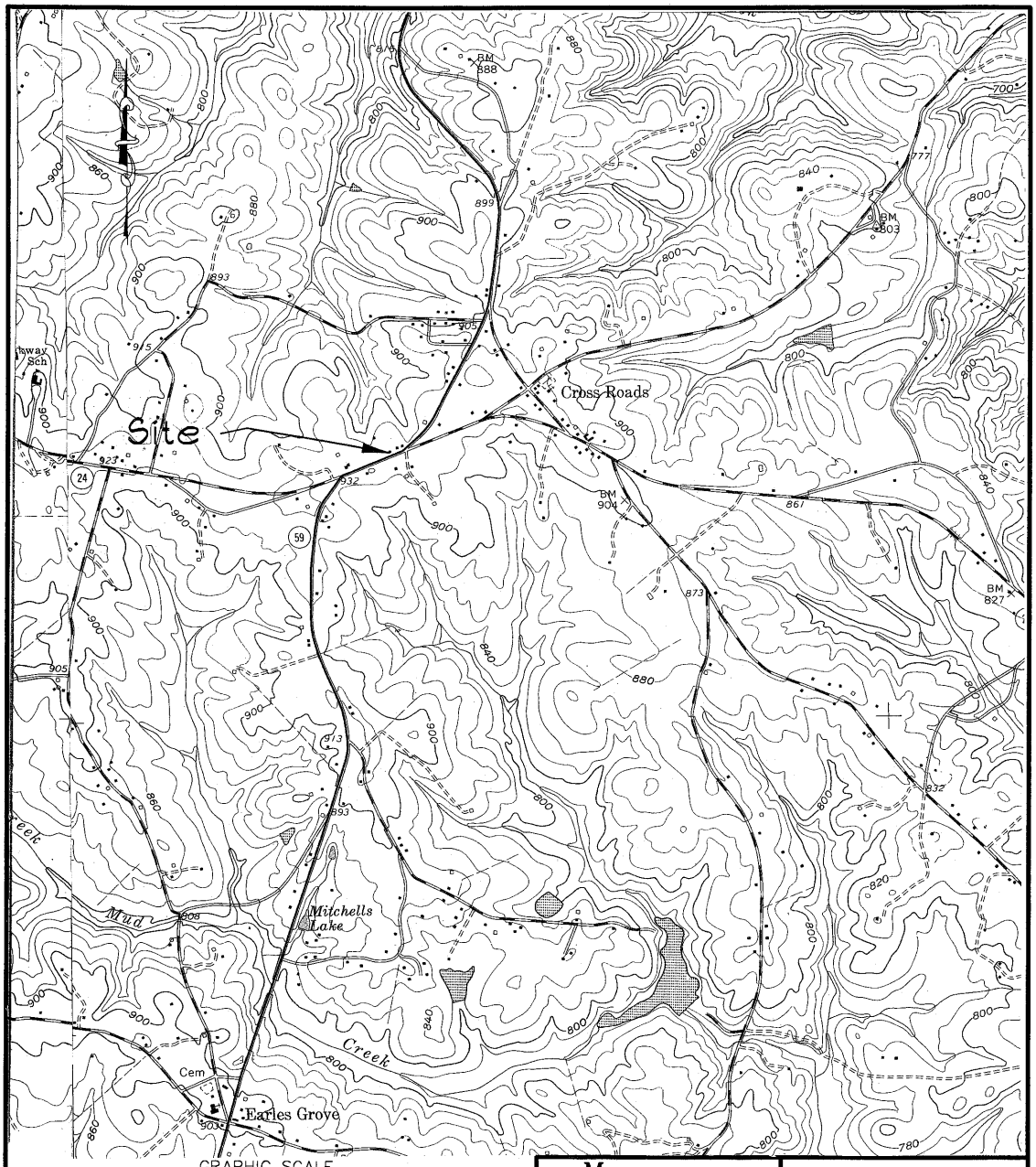
Boring Number	Sample Depth (feet BGS)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)
GPW-1	31-35	420	44	BDL	140	604	BDL	BDL
GPW-2	31-35	8,000	16,000	3,300	16,400	43,700	BDL	1,100
GPW-3	31-35	FP	FP	FP	FP	FP	FP	FP
GPW-4	31-35	8.7	16.0	BDL	35.0	59.7	BDL	9.4
GPW-5	31-35	560	4,800	560	2,890	8,810	BDL	220
GPW-6	31-35	22,000	27,000	1,900	9,400	60,300	BDL	640
GPW-7	30-34	31.0	29.0	6.4	42.0	108.4	BDL	BDL
GPW-8	30-34	3,300	8,100	780	3,800	15,980	BDL	270
GPW-9	33-37	FP	FP	FP	FP	FP	FP	FP
GPW-10	33-37	FP	FP	FP	FP	FP	FP	FP
GPW-11	27-31	1,100	850	370	1,360	3,680	BDL	61
GPW-12	27-31	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-13	27-31	BDL	6.4	BDL	BDL	6.4	BDL	BDL
GPW-14	27-31	210	23	20	239	492	BDL	7.0
GPW-15	27-31	2,800	2,500	670	3,180	9,150	45	160
GPW-16	27-31	7,700	26,000	1,900	9,600	45,200	760	740
GPW-17	27-31	15,000	21,000	1,700	8,800	46,500	6,900	520
GPW-18	24-28	FP	FP	FP	FP	FP	FP	FP
GPW-19	24-28	8,400	5,600	950	5,600	20,550	2,700	320
GPW-20	24-28	11,000	280	1,100	2,130	14,510	2,300	530
GPW-21	20-24PR	110	20	7.6	40	177.6	30	BDL
GPW-22	21-25	4,500	480	510	2,500	7,990	1,100	390
GPW-23	24-28	14,000	9,300	1,500	6,900	31,700	9,900	350
GPW-24	21-25	430	BDL	BDL	BDL	430	340	BDL
GPW-25	21-25	BDL	BDL	BDL	BDL	BDL	530	BDL
GPW-26	16-20PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-27	21-25	8,500	170	290	440	9,400	6,500	210
GPW-28	20-24	8,300	160	100	66	8,626	6,400	490
GPW-29	21-25	2,800	8.3	BDL	BDL	2,808.3	860	5.2
GPW-30	21-25	BDL	BDL	BDL	BDL	BDL	84	BDL
GPW-31	26-30	11,000	2,000	1,000	3,500	17,500	7,000	770
GPW-32	31-35	11,000	890	1,200	3,700	16,790	3,800	640
GPW-33	36-40 PR	11,000	1,100	460	1,620	14,180	7,200	170
GPW-34	14-18 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-35	21-25	720	BDL	BDL	BDL	720	1,900	220
GPW-36	21-25	380	BDL	BDL	BDL	380	1,400	BDL
GPW-37	21-25	1,600	BDL	BDL	BDL	1,600	1,900	120
GPW-38	24-28	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-39	21-25	22	BDL	BDL	BDL	22	330	BDL
GPW-40	21-25	770	31	46	44	891	49	390
GPW-41	21-25	1,100	5.9	15	BDL	1,120.9	620	36
GPW-42	14-18PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-43	20-24	1,500	BDL	BDL	BDL	1,500	370	250
GPW-44	20-24	9.9	BDL	BDL	BDL	9.9	190	13
GPW-45	21-25	26	BDL	BDL	BDL	26	490	BDL
GPW-46	12-16 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-47	12-16 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-48	36-40 PR	44,000	61,000	4,000	20,100	129,100	18,000	1,300
GPW-49	27-31 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-50	36-40 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-51	33-37 PR	24	100	24	87	235	BDL	11
GPW-52	44-48 PR	170	57	6.8	97	330.8	11	26
GPW-53	39-43	430	96	11	243	780	45	43
GPW-54	34-38	9,800	7,600	570	2,900	20,870	8,100	170
GPW-55	29-33	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-56	28-32 PR	24,000	34,000	3,800	18,800	80,600	16,000	940
GPW-57	26-30 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-58	42-46 PR	BDL	BDL	BDL	BDL	BDL	BDL	19
GPW-59	25-29	BDL	8.8	BDL	BDL	8.8	BDL	BDL
GPW-60	30-34	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-61	35-39	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-62	36-40 PR	640	250	130	540	1,560	190	83
GPW-63	31-35	15,000	16,000	1,100	6,800	38,900	12,000	380

Notes:
1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
4. PR = Probe Refusal
5. Dry = Dry Hole

TABLE 4
PAGE 2 OF 2
FIELD SCREENING ANALYTICAL RESULTS
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1121
SCDHEC ID NUMBER 06742

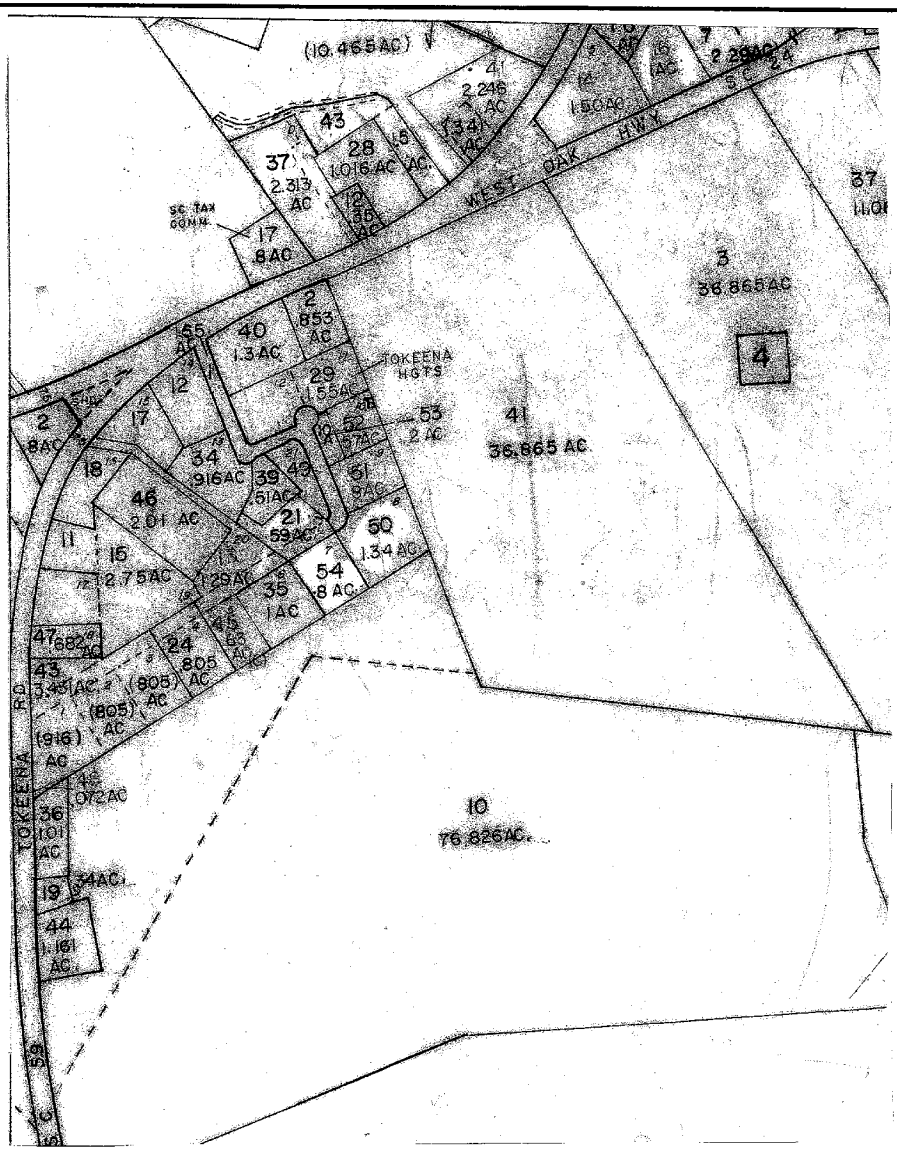
Boring Number	Sample Depth (feet BGS)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)
GPW-64	26-30	17,000	17,000	1,200	6,500	41,700	14,000	BDL
GPW-65	22-26 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-66	31-35 PR	1,800	29	32	41	1,902	1,900	180.0
GPW-67	26-30	990	BDL	BDL	BDL	990	1,400	BDL
GPW-68	61-65 PR	BDL	BDL	BDL	BDL	BDL	42	BDL
GPW-69	56-60	490	BDL	BDL	BDL	490	670	BDL
GPW-70	51-55	91	BDL	BDL	BDL	91	840	BDL
GPW-71	46-50	140	BDL	BDL	BDL	140	320	BDL
GPW-72	41-45	130	BDL	BDL	BDL	130	570	BDL
GPW-73	36-40	22	BDL	BDL	BDL	22	490	BDL
GPW-74	31-35	10	BDL	BDL	BDL	10	210	BDL
GPW-75	26-30	9.5	BDL	BDL	BDL	9.5	190	BDL
GPW-76	21-25	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-76A	26-30	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-77	26-30	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-78	26-30	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-79	11-16 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-80	21-25 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-81	26-30	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-82	26-30	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-83	26-30	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-84	22-26 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-85	13-17 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-86	3-7 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-87	26-30	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-88	12-16 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-89	26-30	BDL	5.8	BDL	BDL	5.8	BDL	BDL
GPW-90	12-16 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-91	12-16 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-92	14-18 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-93	3-7 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-94	19-23 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-95	18-22 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-96	18-22 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-97	17-21 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-98	14-18 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-99	17-21 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-100	16-20 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-101	16-20 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-102	16-20 PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-103	32-36 PR	6.3	BDL	BDL	BDL	BDL	BDL	BDL
GPW-104	21-31	320	36	64	290	710	30	84.0
GPW-105	22-26	660	81	160	1,000	1,901	55	230.0
GPW-106	17-21	18	BDL	BDL	7.9	25.9	BDL	BDL
GPW-107	14-18 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-108	51-55 PR	BDL	12	13	59	84	BDL	12.0
GPW-109	46-50	BDL	67	81	510	658	BDL	84.0
GPW-110	41-45	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-111	36-40	15	58	74	520	667	BDL	130.0
GPW-112	18-22 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-113	30-34 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-114	21-25	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-115	34-38 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-116	44-48 PR	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-117	48-52	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-118	43-47	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-119	38-42	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-120	33-37	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-121	28-32	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-122	23-27	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-123	24-28	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-124	12-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-125	17-21	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-126	24-28	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-127	19-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
4. PR = Probe Refusal
5. Dry = Dry Hole



Reference: Fair Play, South Carolina
Oakway, South Carolina
USGS 7.5 Min. Quad
Contour Interval = 10 Feet

Midlands Environmental Consultants, Inc.	Site Location
Country Side 2 Westminster, South Carolina SCDHEC Site ID# 06742	
Figure 1	MECI 07-1121



Scale: 1" = 400'

Map Based on Oconee County Assessor's Office Files

Tax Map#

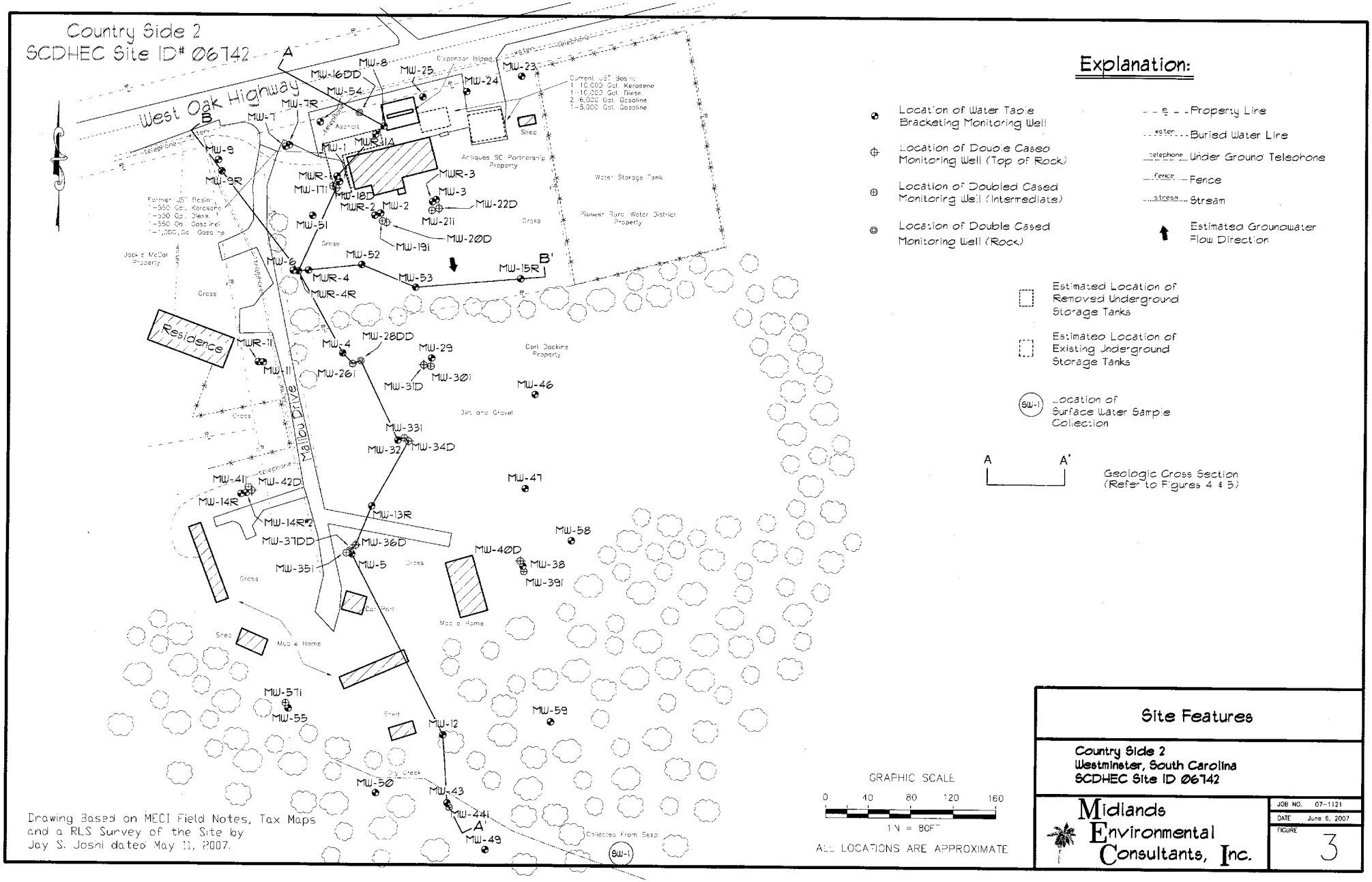
301-00-04-040 Site	William R. Land II & Alley Antiques SC Partnership 8050 West Oak Highway Westminster, SC 29693
301-00-04-002	Pioneer Rural District of Oconee and Anderson Counties P.O. Box 203 Westminster, SC 29693
301-00-04-012	Jackie McCall 121 Malibu Drive Westminster, SC 29693
301-00-04-029	Carl Dockins 138 Malibu Drive Westminster, SC 29693
301-00-04-034	John B. & Carl Lee Dockins 135 Malibu Drive Westminster, SC 29693
301-00-04-041	Mason Lucille Grant 155 Press Mason Drive Westminster, SC 29693
301-00-04-052	Carl Dockins 138 Malibu Drive Westminster, SC 29693
301-00-04-053	Stanley Dockins 132 Malibu Drive Westminster, SC 29693
301-00-04-049	Stanley Lee Dockins 135 Malibu Drive Westminster, SC 29693
301-00-04-039	Charles B & Edna M. Dockins 138 Malibu Drive Westminster, SC 29693
301-00-04-051	Carl Dockins 138 Malibu Drive Westminster, SC 29693
301-00-04-050	Carl Dockins 138 Malibu Drive Westminster, SC 29693
301-00-04-021	Charles B & Edna M. Dockins 138 Malibu Drive Westminster, SC 29693
301-00-04-010	Jerry M. Powell & Janie P. Powell 2166 Highway 59 Westminster, SC 29693
301-00-04-017	William Robertson 2298 Highway 59 Westminster, SC 29693

Tax Map Data

Country Side 2
Westminster, South Carolina
SCDHEC ID # 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 5, 2007
Figure 2



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Property Line
- Buried Water Line
- Under Ground Telephone
- Fence
- Stream
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- SW-1 Location of Surface Water Sample Collection
- A — A' Geologic Cross Section (Refer to Figures 4 & 5)

GRAPHIC SCALE
0 40 80 120 160
1 IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

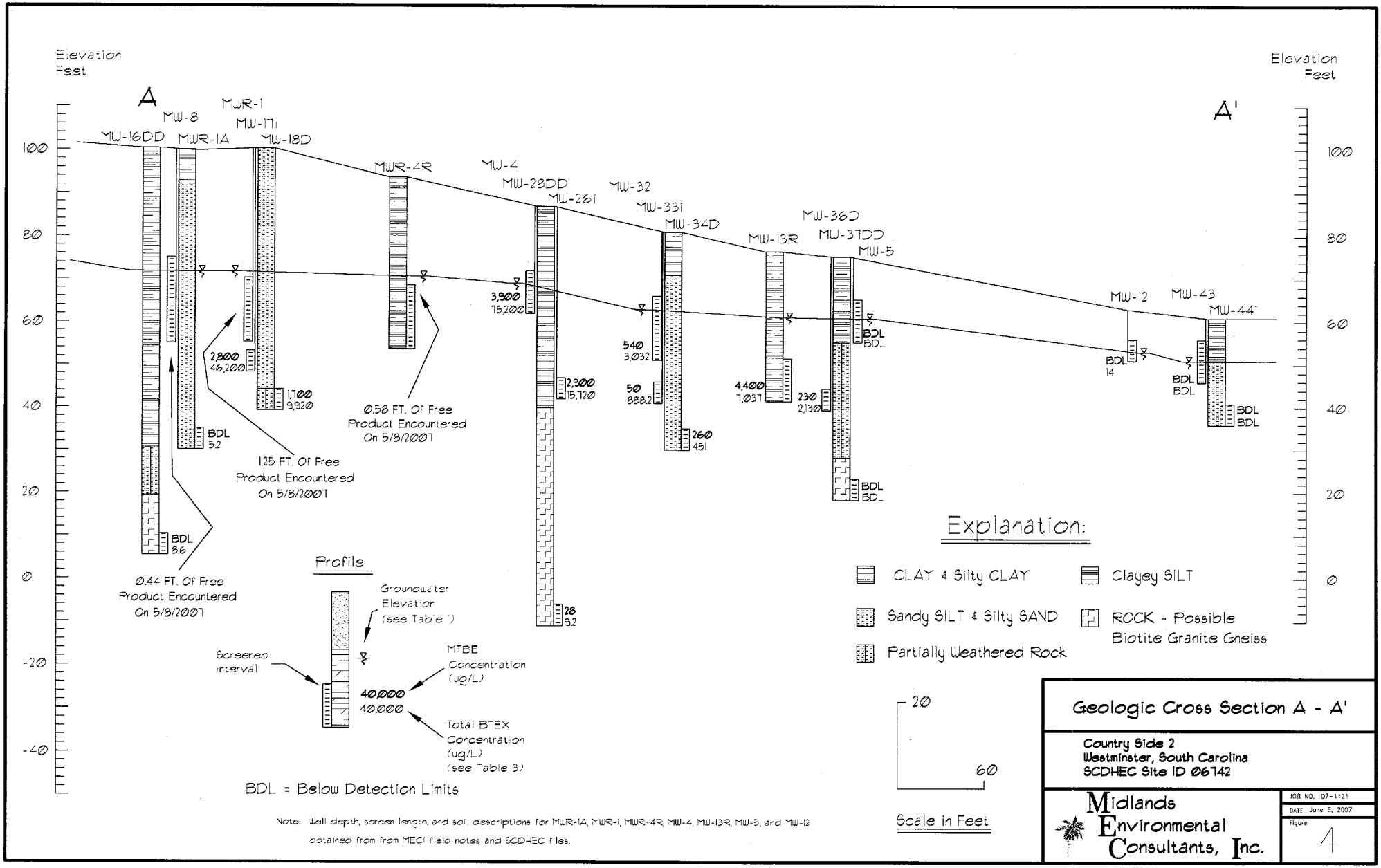
Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Josni dated May 11, 2007.

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 3



BDL = Below Detection Limits

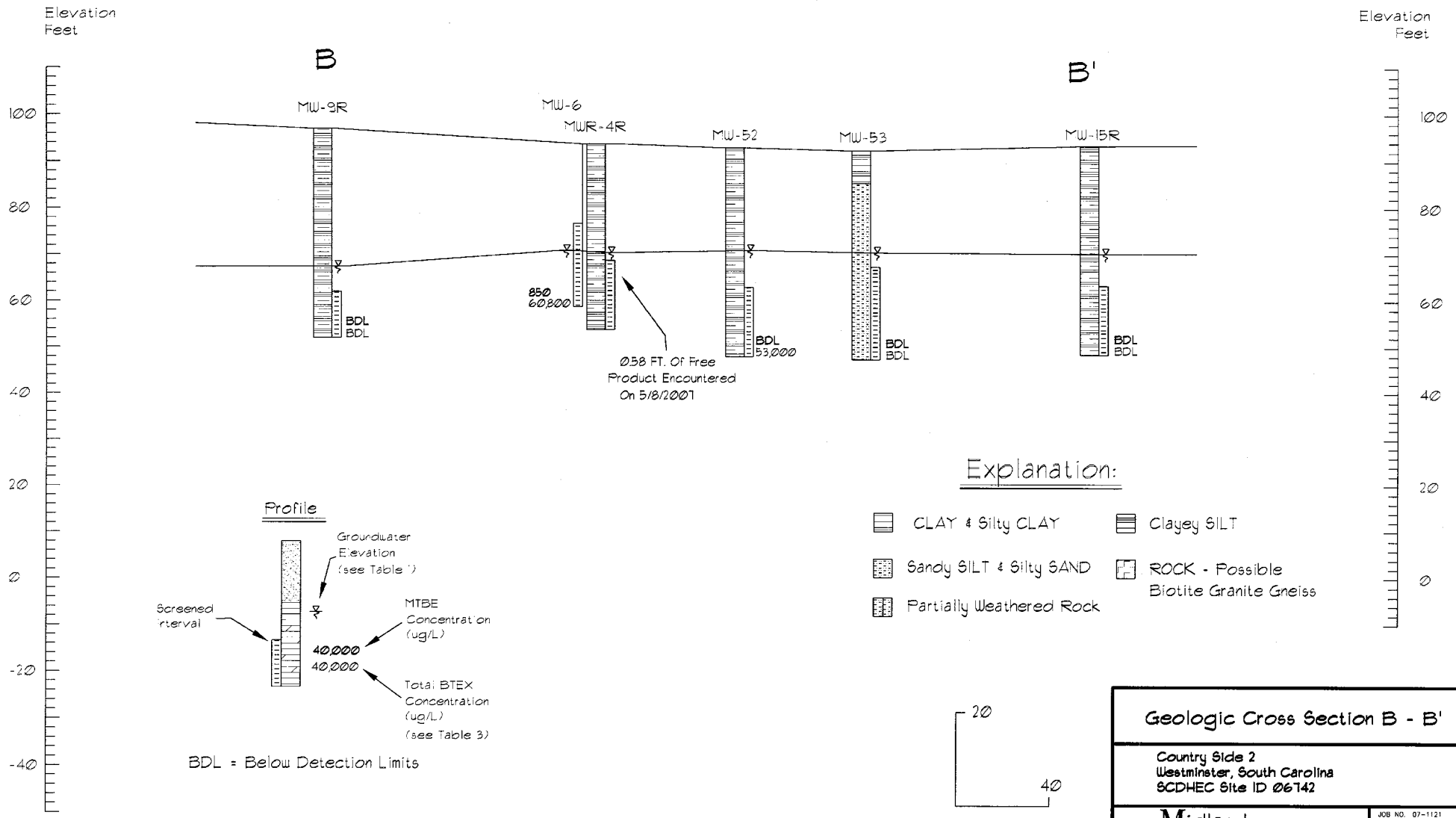
Note: Well depth, screen length, and soil descriptions for MWR-1A, MWR-1, MWR-4R, MW-4, MW-13R, MW-5, and MW-12 obtained from from MECI field notes and SCDHEC files.

Geologic Cross Section A - A'

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
Figure 4



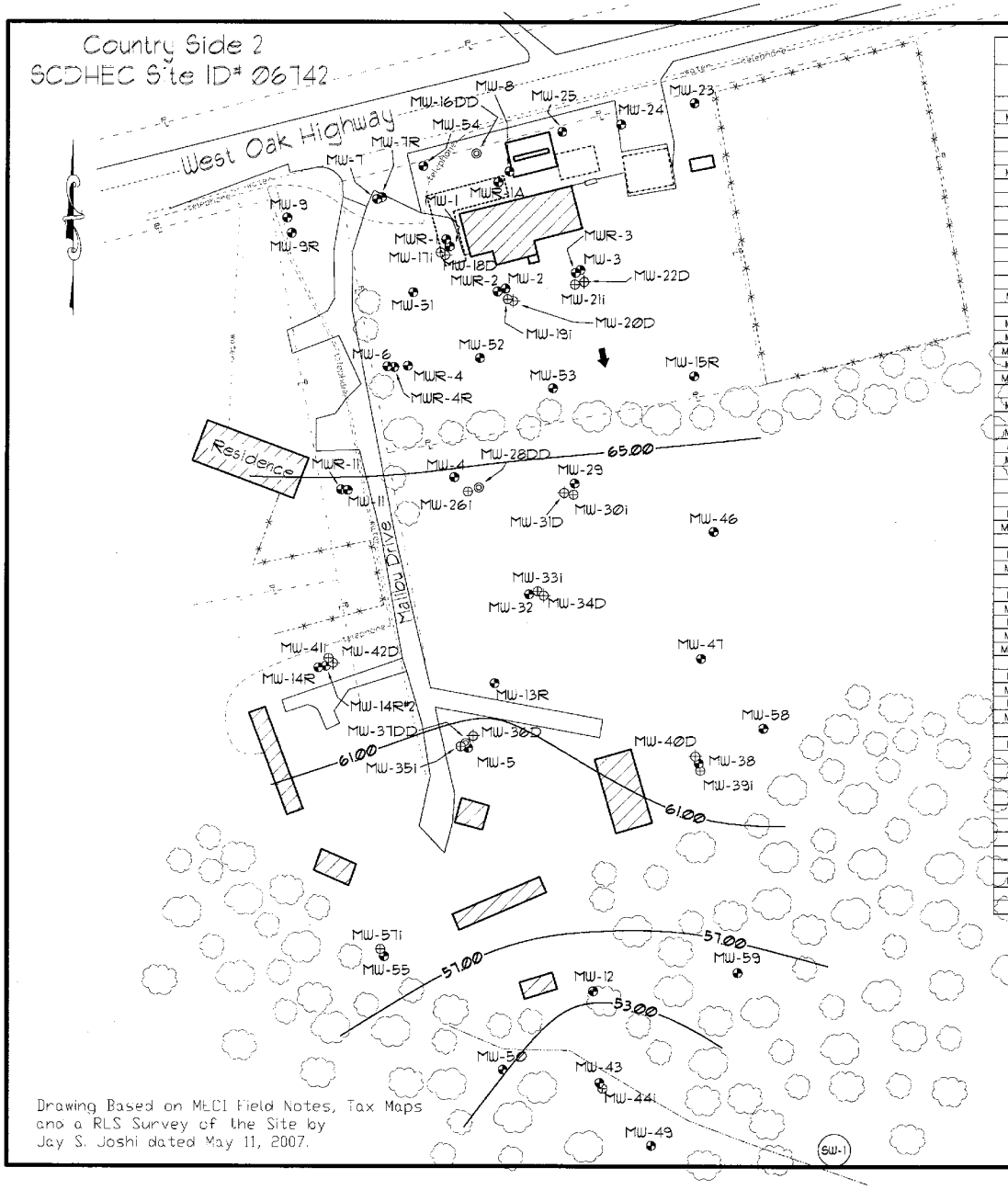
Note: Well depth, screen length, and soil descriptions for MW-9R, MW-6, and MWR-4R obtained from MECI field notes and SCDHEC files.

Geologic Cross Section B - B'

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
SHEET 5



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (Ft)	Well Head Elevation	Groundwater Elevation
MWR-1	32.40	33.65	1.25	99.34	66.75
MWR-1A	---	33.23	---	99.97	66.74
MWR-2	---	30.63	---	96.97	66.34
MWR-3	---	30.81	---	97.04	66.23
MW-4	---	25.74	---	90.68	64.94
MWR-4R	27.84	28.42	0.58	93.59	65.66
MWR-4	27.76	28.05	0.29	93.68	65.88
MW-5	---	14.51	---	75.28	60.77
MW-6	---	27.49	---	93.29	65.80
MW-7	---	31.14	---	98.31	67.17
MW-7R	---	31.57	---	98.68	67.11
MW-8	32.82	33.26	0.44	99.75	66.86
MW-9R	---	29.47	---	96.86	67.39
MW-11	---	22.35	---	87.22	64.87
MWR-11	---	NT	---	87.25	64.83
MW-12	---	9.62	---	62.74	53.12
MW-13R	---	14.87	---	75.93	61.06
MW-14R	---	16.80	---	79.43	62.63
MW-14R2	---	16.73	---	79.40	62.67
MW-15R	---	27.74	---	93.12	65.38
MW-16DD	---	37.86	---	99.67	61.81
MW-17I	---	31.93	---	98.61	66.68
MW-18D	---	31.99	---	98.56	66.57
MW-19I	---	30.37	---	96.42	66.05
MW-20D	---	30.32	---	96.28	65.96
MW-21I	---	30.36	---	96.44	66.08
MW-22D	---	32.13	---	96.69	64.56
MW-23	---	32.02	---	98.38	66.36
MW-24	---	32.64	---	99.12	66.48
MW-25	---	33.05	---	99.69	66.64
MW-26I	---	21.85	---	86.70	64.85
MW-28DD	---	21.98	---	86.68	64.70
MW-29	---	21.90	---	91.49	69.59
MW-30I	---	21.59	---	91.01	69.42
MW-31D	---	21.71	---	91.18	69.47
MW-32	---	17.55	---	80.47	62.92
MW-33I	---	17.90	---	80.63	62.73
MW-34D	---	18.12	---	80.67	62.55
MW-35I	---	14.62	---	75.48	60.86
MW-36D	---	13.98	---	74.81	60.83
MW-37DD	---	14.39	---	75.33	60.94
MW-38	---	21.53	---	85.23	63.70
MW-39I	---	21.51	---	80.20	58.69
MW-40D	---	21.49	---	85.36	63.87
MW-41I	---	16.50	---	79.22	62.72
MW-42D	---	16.35	---	79.22	62.87
MW-43	---	11.60	---	60.67	49.07
MW-44I	---	9.11	---	60.44	51.33
MW-46	---	23.02	---	91.17	68.15
MW-47	---	22.12	---	87.79	65.67
MW-49	---	14.92	---	60.60	45.68
MW-50	---	10.95	---	64.14	53.19
MW-51	---	30.85	---	97.35	66.50
MW-52	---	27.22	---	93.05	65.83
MW-53	---	26.22	---	91.83	65.61
MW-54	---	32.31	---	99.37	67.06
MW-55	---	11.23	---	69.88	58.65
MW-57I	---	12.05	---	70.88	58.83
MW-58	---	22.16	---	81.83	59.67
MW-59	---	16.08	---	72.14	56.06

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Double Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Ground-Water Elevation Isopleth (feet)

Notes:

Depth to groundwater measured on May 8, 2007.

Contour Interval = 4.00 Feet

Shallow Monitoring Wells Used in Contouring.

Site Datum Based on Assumed Spot Elevation.

Groundwater elevation corrected for the presence of free phase petroleum product in wells MWR-1, MWR-4R, MWR-4 and MW-8 based on a specific gravity of fuel of 0.85.

Ground Water Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

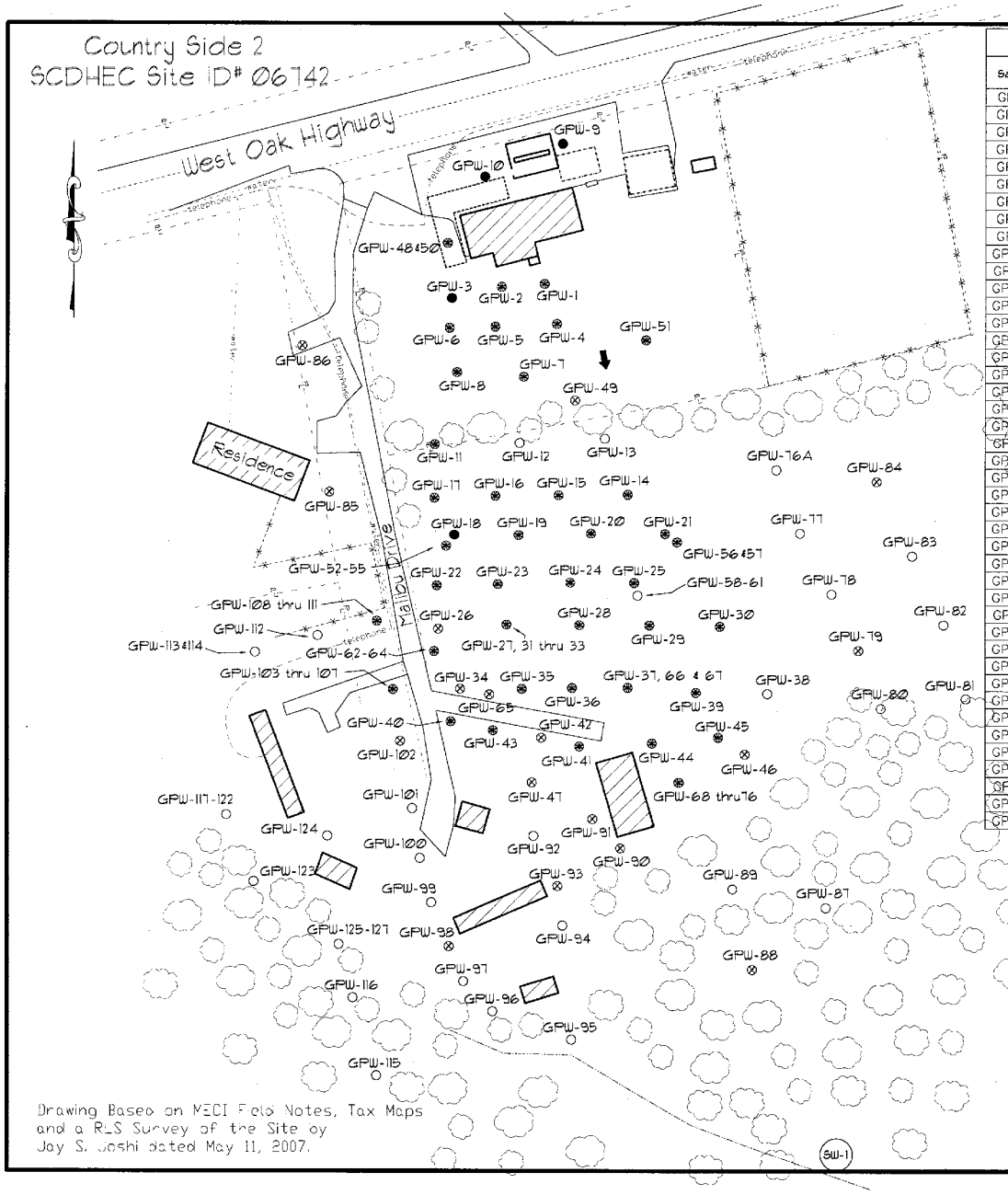
ALL LOCATIONS ARE APPROXIMATE

Groundwater Contour Map

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 6



Drawing Based on MEC! Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Field Screening Results

Sample #	Sample Depth (ft)	Total BTEX (ug/l)	MTBE (ug/l)	Sample #	Sample Depth (ft)	Total BTEX (ug/l)	MTBE (ug/l)	Sample #	Sample Depth (ft)	Total BTEX (ug/l)	MTBE (ug/l)
GPW-1	31-35	604	BDL	GPW-44	20-24	9.9	190	GPW-86	3-7PR	DRY	DRY
GPW-2	31-35	43,700	BDL	GPW-45	21-25	26	490	GPW-87	26-30	BDL	BDL
GPW-3	31-35	PROD	PROD	GPW-46	12-16PR	DRY	DRY	GPW-88	12-16PR	DRY	DRY
GPW-4	31-35	59.7	BDL	GPW-47	12-16PR	DRY	DRY	GPW-89	26-30	5.8	BDL
GPW-5	31-35	8,810	BDL	GPW-48	36-40PR	129,100	18,000	GPW-90	12-16PR	DRY	DRY
GPW-6	31-35	60,300	BDL	GPW-49	27-31PR	DRY	DRY	GPW-91	12-16PR	DRY	DRY
GPW-7	30-34	108.4	BDL	GPW-50	36-40PR	DRY	DRY	GPW-92	14-18PR	BDL	BDL
GPW-8	30-34	15,980	BDL	GPW-51	33-37PR	235	BDL	GPW-93	3-7PR	DRY	DRY
GPW-9	33-37	PROD	BDL	GPW-52	44-48PR	330.8	11	GPW-94	19-23PR	BDL	BDL
GPW-10	33-37	PROD	BDL	GPW-53	39-43	780	45	GPW-95	18-22PR	BDL	BDL
GPW-11	27-31	3,680	BDL	GPW-54	34-38	20,870	8,100	GPW-96	18-22PR	BDL	BDL
GPW-12	27-31	BDL	BDL	GPW-55	29-33	DRY	DRY	GPW-97	17-21PR	BDL	BDL
GPW-13	27-31	6.4	BDL	GPW-56	28-32PR	80,600	16,000	GPW-98	14-18PR	DRY	DRY
GPW-14	27-31	492	BDL	GPW-57	26-30PR	DRY	DRY	GPW-99	17-21PR	BDL	BDL
GPW-15	27-31	9,150	45	GPW-58	42-46PR	BDL	BDL	GPW-100	16-20PR	BDL	BDL
GPW-16	27-31	45,200	760	GPW-59	25-29	8.8	BDL	GPW-101	16-20PR	BDL	BDL
GPW-17	27-31	46,500	6,900	GPW-60	30-34	BDL	BDL	GPW-102	16-20PR	DRY	DRY
GPW-18	24-28	PROD	PROD	GPW-61	35-39	BDL	BDL	GPW-103	32-36PR	BDL	BDL
GPW-19	24-28	20,550	2,700	GPW-62	36-40PR	1,560	190	GPW-104	21-31	710	30
GPW-20	24-28	14,510	2,300	GPW-63	31-35	38,900	12,000	GPW-105	22-26	1,901	55
GPW-21	20-24PR	117.6	30	GPW-64	26-30	41,700	14,000	GPW-106	17-21	25.9	BDL
GPW-22	21-25	7,990	1,100	GPW-65	22-26PR	DRY	DRY	GPW-107	14-18PR	BDL	BDL
GPW-23	24-28	31,700	9,900	GPW-66	31-35PR	1,902	1,900	GPW-108	51-55PR	84	BDL
GPW-24	21-25	430	340	GPW-67	26-30	990	1,400	GPW-109	46-50	658	BDL
GPW-25	21-25	BDL	530	GPW-68	61-65PR	BDL	42	GPW-110	41-45	BDL	BDL
GPW-26	16-20PR	DRY	DRY	GPW-69	56-60	490	670	GPW-111	36-40	667	BDL
GPW-27	21-25	9,400	6,500	GPW-70	51-55	91	840	GPW-112	18-22PR	BDL	BDL
GPW-28	20-24	8,626	6,400	GPW-71	46-50	140	320	GPW-113	30-34PR	BDL	BDL
GPW-29	21-25	2,808.3	860	GPW-72	41-45	130	570	GPW-114	21-25	BDL	BDL
GPW-30	21-25	BDL	84	GPW-73	36-40	22	490	GPW-115	34-38PR	BDL	BDL
GPW-31	26-30	17,500	7,000	GPW-74	31-35	10	210	GPW-116	44-48PR	BDL	BDL
GPW-32	31-35	16,790	3,800	GPW-75	26-30	9.5	190	GPW-117	48-52	BDL	BDL
GPW-33	36-40PR	14,180	7,200	GPW-76	21-25	BDL	BDL	GPW-118	43-47	BDL	BDL
GPW-34	14-18PR	DRY	DRY	GPW-76A	26-30	BDL	BDL	GPW-119	38-42	BDL	BDL
GPW-35	21-25	720	1,900	GPW-77	26-30	BDL	BDL	GPW-120	33-37	BDL	BDL
GPW-36	21-25	380	1,400	GPW-78	26-30	BDL	BDL	GPW-121	28-32	BDL	BDL
GPW-37	21-25	1,600	1,900	GPW-79	11-16PR	DRY	DRY	GPW-122	23-27	BDL	BDL
GPW-38	24-28	BDL	BDL	GPW-80	21-25PR	BDL	BDL	GPW-123	24-28	BDL	BDL
GPW-39	21-25	22	330	GPW-81	26-30	BDL	BDL	GPW-124	12-16	DRY	DRY
GPW-40	21-25	891	49	GPW-82	26-30	BDL	BDL	GPW-125	17-21	BDL	BDL
GPW-41	21-25	1,120.9	620	GPW-83	26-30	BDL	BDL	GPW-126	24-28	BDL	BDL
GPW-42	14-18PR	DRY	DRY	GPW-84	22-26PR	DRY	DRY	GPW-127	19-23	BDL	BDL
GPW-43	20-24	1,500	370	GPW-85	13-17PR	DRY	DRY				

Explanation:

Direct Push Field Screening Location CoC Detected Above RBSL

Direct Push Field Screening Location CoC Below RBSL

GRAPHIC SCALE

0 40 80 120 160

1" = 80FT

ALL LOCATIONS ARE APPROXIMATE

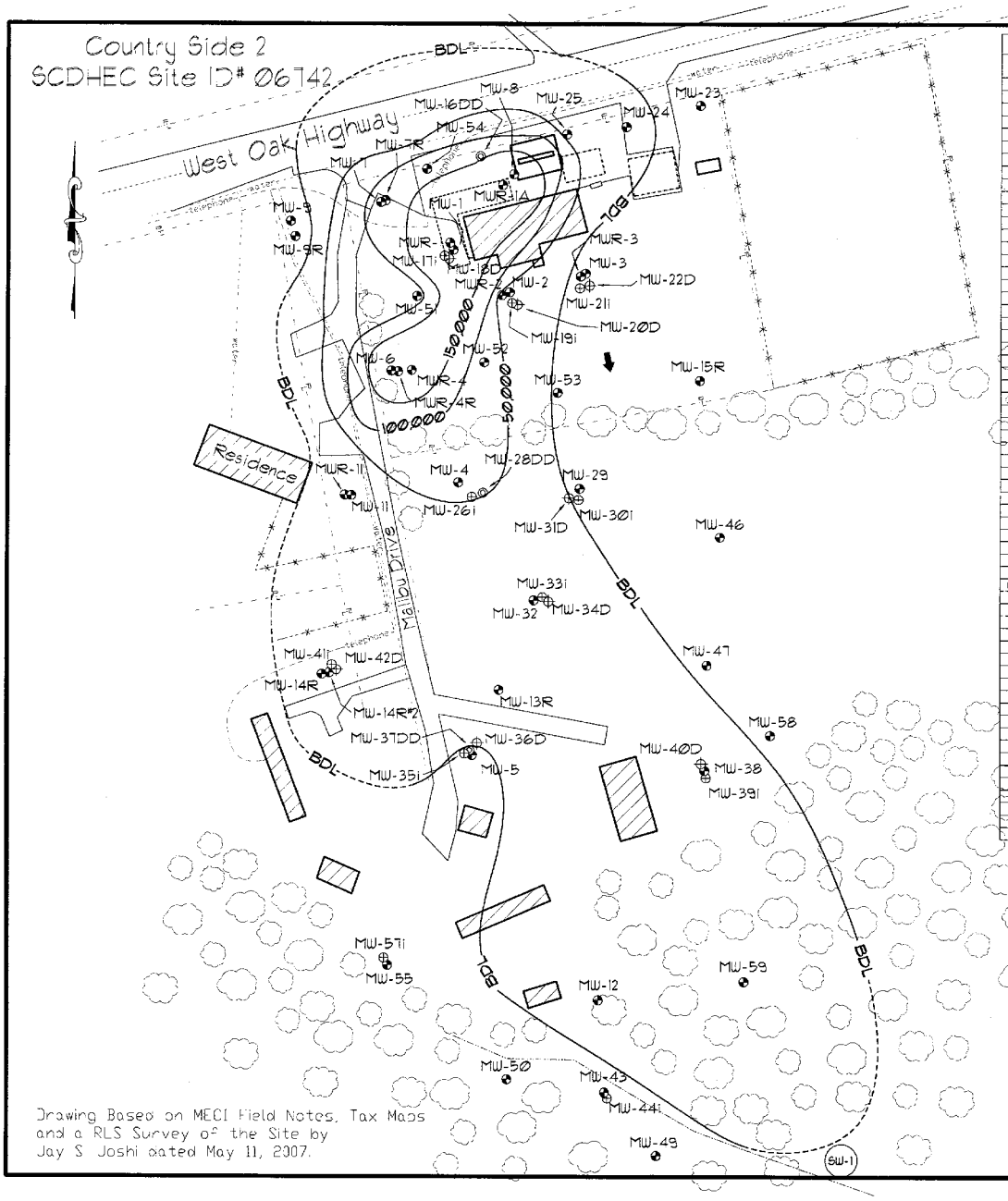
Notes: Samples collected from 2/8/07 through 4/13/2007.
Prod = Free Phase Petroleum Product in Sample.
Product = Free Phase Petroleum Product in Sample.
DRY = Dry Hole
BDL = Below Detection Limits

Field Screening Test Results

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 5, 2007
FIGURE 7



COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	EDB (ug/l)	Naphthalene (ug/l)
MWR-1	FP	FP	FP	FP	FP	FP	FP	FP
MWR-1A	BDL	BDL	BDL	5.2	5.2	BDL	BDL	10
MWR-2	58	170	56	580	864	BDL	BDL	16
MWR-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-4	12,000	31,000	5,000	27,200	75,200	3,900	BDL	1,600
MWR-4R	FP	FP	FP	FP	FP	FP	FP	FP
MWR-4	FP	FP	FP	FP	FP	FP	FP	FP
MW-5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-6	18,000	14,000	3,800	25,000	60,800	850	0.26	1,800
MW-7	12,000	38,000	24,000	141,000	215,000	1,300	BDL	8,700
MW-7R	6,100	19,000	4,300	23,000	52,400	BDL	BDL	1,600
MW-8	FP	FP	FP	FP	FP	FP	FP	FP
MW-9R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-11	88	430	340	2,000	2,858	BDL	BDL	200
MWR-11	NT	NT	NT	NT	NT	NT	NT	NT
MW-12	14	BDL	BDL	BDL	14	BDL	BDL	BDL
MW-13R	6,600	87	100	250	7,037	4,400	BDL	89
MW-14R	BDL	BDL	BDL	16	16	BDL	BDL	BDL
MW-14R2	1,100	1,800	1,000	7,300	11,200	92	BDL	550
MW-15R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-16DD	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-17I	7,900	14,000	3,700	20,600	46,200	2,800	BDL	1,300
MW-18D	2,000	3,600	820	3,700	9,920	1,700	BDL	160
MW-19I	3,600	4,800	400	2,130	10,930	1,700	0.14	130
MW-20D	1430	570	41	240	1,281	570	0.24	21
MW-21I	3,400	3,800	300	1,630	9,130	6,800	0.30	38
MW-22D	82	81	7.9	53	223.9	530	BDL	6
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-24	160	BDL	BDL	28.6	188.6	BDL	BDL	BDL
MW-25	3,100	490	36	850	4,476	1,300	BDL	21
MW-26I	9,800	890	730	4,300	15,720	2,900	BDL	130
MW-28DD	9.2	BDL	BDL	BDL	9.2	28	BDL	BDL
MW-29	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-30I	41	20	7.8	40	108.8	21	BDL	BDL
MW-31D	570	260	31	182	1,043	350	BDL	9.1
MW-32	3,000	77.4	18	6.4	3,031.8	540	BDL	8.2
MW-33I	860	BDL	BDL	28.2	888.2	30	BDL	12
MW-34D	380	BDL	13	58	451	260	BDL	8.3
MW-35I	1,900	83	180	1,087	3,250	83	BDL	440
MW-36D	1,400	56	130	544	2,130	230	BDL	210
MW-37DD	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-38	BDL	BDL	BDL	BDL	BDL	25	BDL	BDL
MW-39I	61	BDL	BDL	BDL	61	890	BDL	8
MW-40D	330	BDL	BDL	15	345	340	0.16	5.6
MW-41I	BDL	14	29	180	223	BDL	BDL	7.5
MW-42D	76	46	40	241	334.6	BDL	BDL	33
MW-43	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-44I	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-46	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-47	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-49	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-51I	27,000	37,000	3,800	19,100	86,900	31,000	0.23	820
MW-52	11,000	23,000	3,000	16,000	53,000	BDL	BDL	930
MW-53	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-54	36,000	62,000	4,300	22,600	124,900	BDL	0.32	890
MW-55	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-57I	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-58	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-59	9	BDL	BDL	BDL	9	280	.065	BDL
SW-1	BDL	BDL	BDL	BDL	BDL	300	BDL	BDL

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Double Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected on May 8, 2007.

Contour Interval = 50,000 ug/l

Shallow Monitoring Wells used in Contouring.

BDL = Below Detection Limits

FP= Not Sampled due to the Presence of Free Phase Petrolum Product

Contours Computer Generated using Surfer by Golden Graphics and Modified by MEC Personnel.

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S Joshi dated May 11, 2007.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

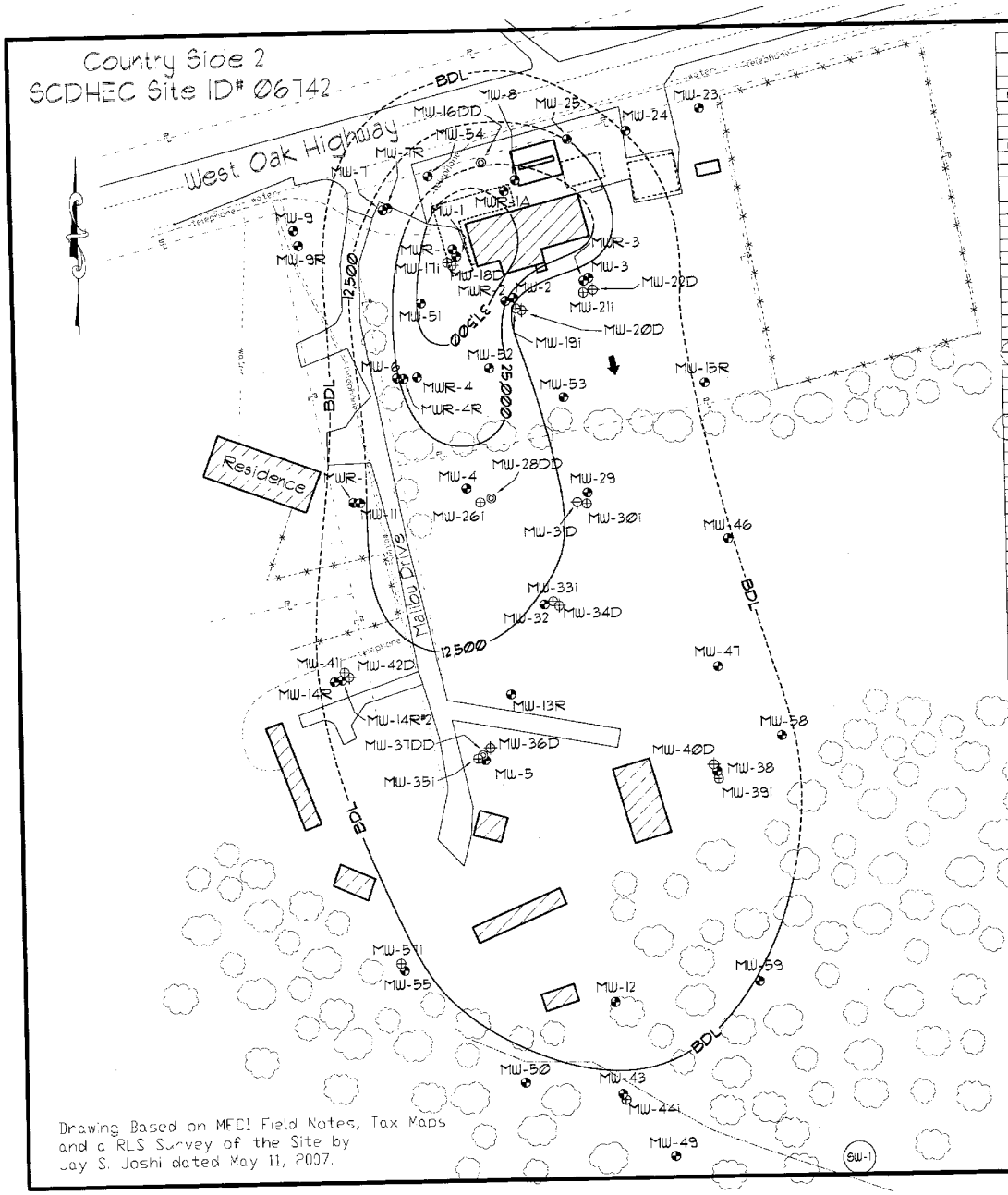
ALL LOCATIONS ARE APPROXIMATE

Total BTEX Isopleth Map (Shallow Zone)

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 5, 2007
FIGURE 8



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	EDB (ug/l)	Naphthalene (ug/l)
MWR-1	FP	FP	FP	FP	FP	FP	FP	FP
MWR-1A	BDL	BDL	BDL	5.2	5.2	BDL	BDL	10
MWR-2	58	170	56	580	864	BDL	BDL	16
MWR-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-4	12,000	31,000	5,000	27,200	75,200	3,900	BDL	1,600
MWR-4R	FP	FP	FP	FP	FP	FP	FP	FP
MWR-4	FP	FP	FP	FP	FP	FP	FP	FP
MW-5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-6	18,000	14,000	3,800	25,000	60,800	850	0.25	1,800
MW-7	12,000	38,000	24,000	141,000	215,000	1,300	BDL	8,700
MW-7R	6,100	19,000	4,300	23,000	52,400	BDL	BDL	1,600
MW-8	FP	FP	FP	FP	FP	FP	FP	FP
MW-9R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-11	88	430	340	2,000	2,858	BDL	BDL	200
MWR-11	NT	NT	NT	NT	NT	NT	NT	NT
MW-12	14	BDL	BDL	BDL	14	BDL	BDL	BDL
MW-13R	6,600	87	100	250	7,037	4,400	BDL	89
MW-14R	BDL	BDL	BDL	16	16	BDL	BDL	BDL
MW-14R2	1,100	1,800	1,000	7,300	11,200	92	BDL	650
MW-15R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-16DD	BDL	8.6	BDL	BDL	8.6	BDL	BDL	BDL
MW-17I	7,900	14,000	3,700	20,600	46,200	2,800	BDL	1,300
MW-18D	2,000	3,600	620	3,700	9,920	1,700	BDL	180
MW-19I	3,600	4,800	400	2,130	10,930	1,700	0.14	130
MW-20D	1430	570	41	240	1,281	570	0.24	21
MW-21I	3,400	3,800	300	1,630	9,130	6,800	0.39	38
MW-22D	82	81	7.9	53	223.9	530	BDL	6
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-24	160	BDL	BDL	28.6	188.6	BDL	BDL	BDL
MW-25	3,100	490	36	850	4,476	1,300	BDL	21
MW-26I	9,800	890	730	4,300	15,720	2,900	BDL	130
MW-28DD	9.2	BDL	BDL	BDL	9.2	28	BDL	BDL
MW-29	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-30I	41	20	7.8	40	108.8	21	BDL	BDL
MW-31D	570	260	31	182	1,043	350	BDL	9.1
MW-32	3,000	77.4	18	6.4	3,031.8	540	BDL	8.2
MW-33I	860	BDL	BDL	28.2	888.2	50	BDL	12
MW-34D	380	BDL	13	58	451	260	BDL	8.3
MW-35I	1,900	83	180	1,087	3,250	83	BDL	440
MW-36D	1,400	56	130	544	2,130	230	BDL	210
MW-37DD	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-38	BDL	BDL	BDL	BDL	BDL	25	BDL	BDL
MW-39I	61	BDL	BDL	BDL	61	890	BDL	8
MW-40D	330	BDL	BDL	15	345	340	0.16	5.6
MW-41I	BDL	14	29	180	223	BDL	BDL	7.5
MW-42D	7.6	46	40	241	334.6	BDL	BDL	33
MW-43	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-44I	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-46	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-47	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-49	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-51	27,000	37,000	3,800	19,100	86,900	31,000	0.23	820
MW-52	17,000	23,000	3,000	16,000	53,000	BDL	BDL	930
MW-53	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-54	36,000	62,000	4,300	22,600	124,900	BDL	0.32	890
MW-55	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-57I	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-58	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-59	9	BDL	BDL	BDL	9	280	.065	BDL
SW-1	BDL	BDL	BDL	BDL	BDL	300	BDL	BDL

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Double Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected on May 8, 2007.

Contour interval = 12,500 ug/l

Intermediate Monitoring Wells used in Contouring.

BDL = Below Detection Limits

FP= Not Sampled due to the Presence of Free Phase Petroleum Product

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

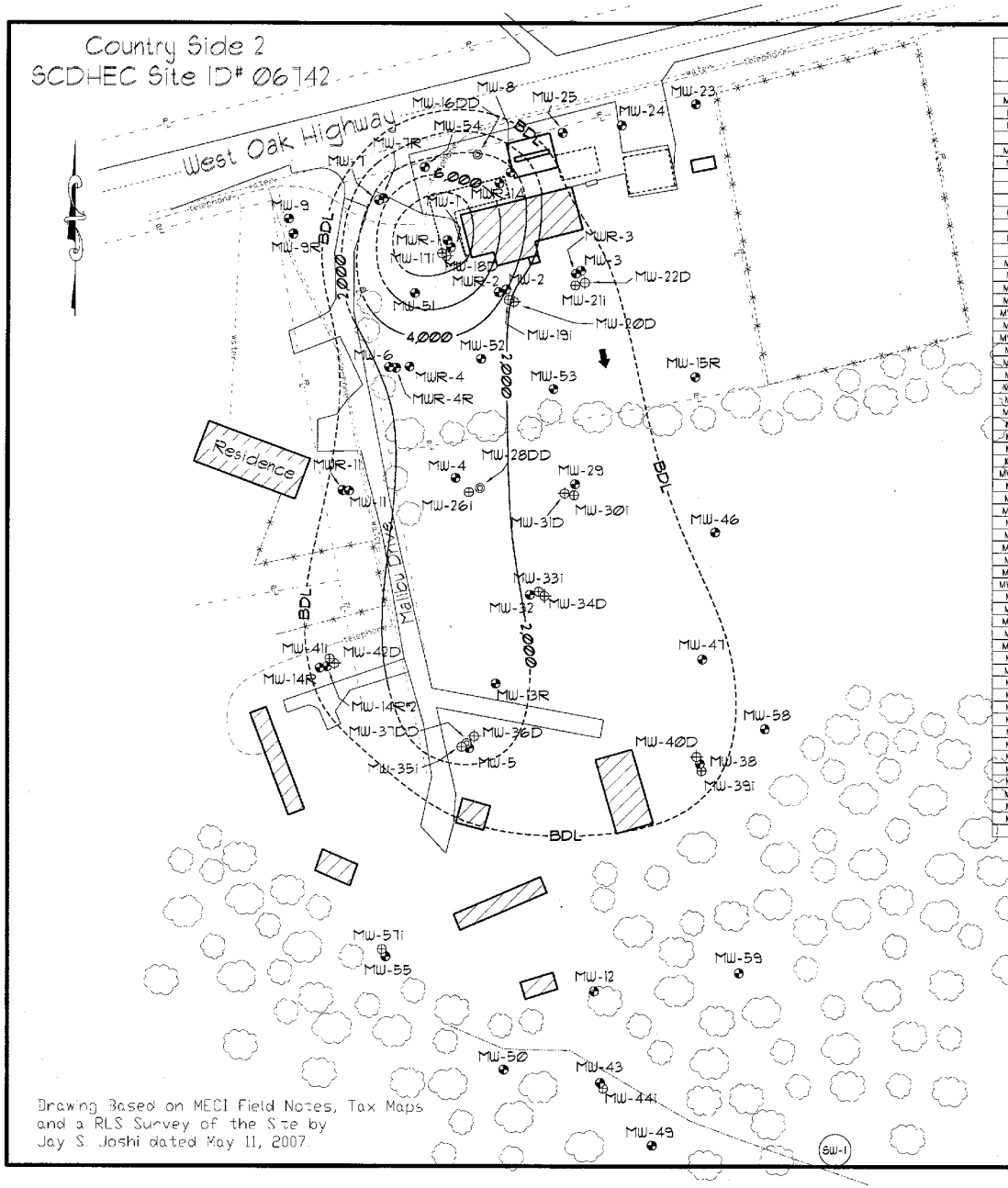
ALL LOCATIONS ARE APPROXIMATE

Total BTEX Isopleth Map (Intermediate Zone)

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 8A



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	EDB (ug/l)	Naphthalene (ug/l)
MWR-1	FP	FP	FP	FP	FP	FP	FP	FP
MWR-1A	BDL	BDL	BDL	5.2	5.2	BDL	BDL	10
MWR-2	58	170	56	580	864	BDL	BDL	16
MWR-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-4	12,000	31,000	5,000	27,200	75,200	3,900	BDL	1,600
MWR-4R	FP	FP	FP	FP	FP	FP	FP	FP
MWR-4	FP	FP	FP	FP	FP	FP	FP	FP
MW-5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-6	18,000	14,000	3,800	25,000	60,800	850	0.26	1,800
MW-7	12,000	38,000	24,000	141,000	215,000	1,300	BDL	8,700
MW-7R	6,100	19,000	4,300	23,000	52,400	BDL	BDL	1,600
MW-8	FP	FP	FP	FP	FP	FP	FP	FP
MW-9R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-11	88	430	340	2,000	2,858	BDL	BDL	200
MWR-11	NT	NT	NT	NT	NT	NT	NT	NT
MW-12	14	BDL	BDL	BDL	14	BDL	BDL	BDL
MW-13R	6,600	87	100	250	7,037	4,400	BDL	89
MW-14R	BDL	BDL	BDL	16	16	BDL	BDL	BDL
MW-14R2	1,100	1,800	1,000	7,300	11,200	92	BDL	650
MW-15R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-16DD	BDL	8.6	BDL	BDL	8.6	BDL	BDL	BDL
MW-17I	7,900	14,000	3,700	20,600	46,200	2,800	BDL	1,300
MW-18D	2,000	3,600	620	3,700	9,920	1,700	BDL	160
MW-19I	3,600	4,800	400	2,130	10,930	1,700	0.14	130
MW-20D	430	570	41	240	1,281	570	0.24	21
MW-21I	3,400	3,800	300	1,630	9,130	6,800	0.30	38
MW-22D	82	81	7.9	53	223.9	530	BDL	6
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-24	160	BDL	BDL	28.6	188.6	BDL	BDL	BDL
MW-25	3,100	490	36	850	4,476	1,300	BDL	21
MW-26I	9,800	890	730	4,300	15,720	2,900	BDL	130
MW-28DD	9.2	BDL	BDL	BDL	9.2	28	BDL	BDL
MW-29	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-30I	41	20	7.8	40	108.8	21	BDL	BDL
MW-31D	570	260	31	182	1,043	350	BDL	9.1
MW-32	3,000	7.4	18	6.4	3,031.8	540	BDL	8.2
MW-33I	860	BDL	BDL	28.2	888.2	50	BDL	12
MW-34D	380	BDL	13	58	451	260	BDL	8.3
MW-35I	1,900	83	180	1,087	3,250	83	BDL	440
MW-36D	1,400	56	130	544	2,130	230	BDL	210
MW-37DD	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-38	BDL	BDL	BDL	BDL	BDL	25	BDL	BDL
MW-39I	61	BDL	BDL	BDL	61	890	BDL	8
MW-40D	330	BDL	BDL	15	345	340	0.16	5.6
MW-41I	BDL	14	29	180	223	BDL	BDL	7.5
MW-42D	7.6	46	40	241	334.6	BDL	BDL	33
MW-43	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-44I	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-46	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-47	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-49	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-51	27,000	37,000	3,800	19,100	86,900	31,000	0.23	820
MW-52	11,000	23,000	3,000	16,000	53,000	BDL	BDL	930
MW-53	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-54	36,000	62,000	4,300	22,600	124,900	BDL	0.32	890
MW-55	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-57I	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-58	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-59	9	BDL	BDL	BDL	9	280	.065	BDL
SW-1	BDL	BDL	BDL	BDL	BDL	300	BDL	BDL

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Double Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected on May 8, 2007.

Contour Interval = 2,000 ug/l

Top of Rock Monitoring Wells used in Contouring.

BDL = Below Detection Limits

FP= Not Sampled due to the Presence of Free Phase Petrolium Product

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

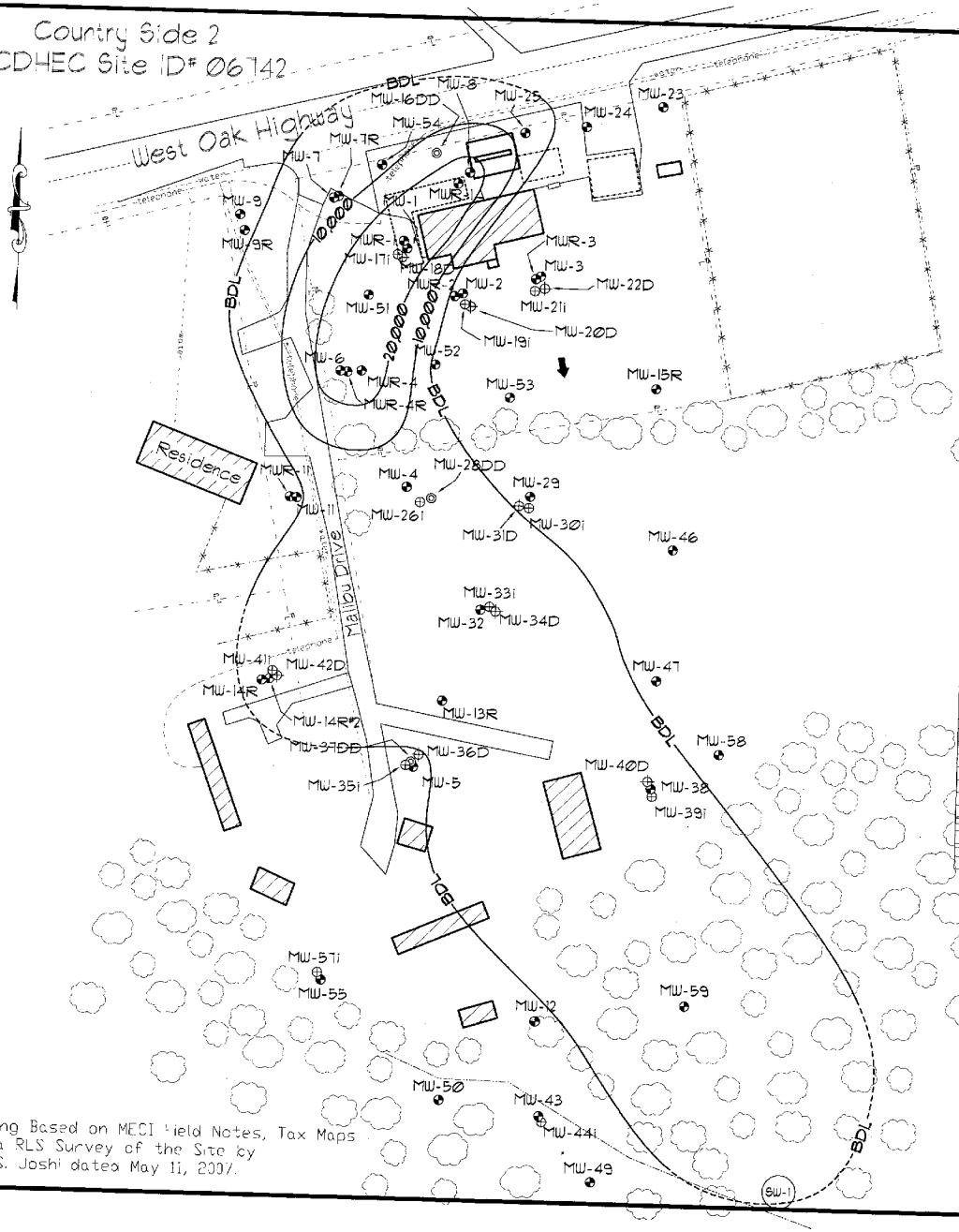
Total BTEX Isopleth Map (Top of Rock)

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 8B

Country Side 2
SCDHEC Site ID# 06742



COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	EDB (ug/l)	Naphthalene (ug/l)
MWR-1	FP	FP	FP	FP	FP	FP	FP	FP
MWR-1A	BDL	BDL	BDL	5.2	5.2	BDL	BDL	10
MWR-2	58	170	56	580	864	BDL	BDL	16
MWR-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-4	12,000	31,000	5,000	27,200	75,200	3,900	BDL	1,600
MWR-4R	FP	FP	FP	FP	FP	FP	FP	FP
MWR-4	FP	FP	FP	FP	FP	FP	FP	FP
MW-5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-6	18,000	14,000	3,800	25,000	60,800	850	0.26	1,800
MW-7	12,000	38,000	24,000	141,000	215,000	1,300	BDL	8,700
MW-7R	6,100	19,000	4,300	23,000	52,400	BDL	BDL	1,600
MW-8	FP	FP	FP	FP	FP	FP	FP	FP
MW-9R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-11	88	430	340	2,000	2,858	BDL	BDL	200
MWR-11	NT	NT	NT	NT	NT	NT	NT	NT
MW-12	14	BDL	BDL	BDL	14	BDL	BDL	BDL
MW-13R	6,800	87	100	250	7,037	4,400	BDL	89
MW-14R	BDL	BDL	BDL	16	16	BDL	BDL	BDL
MW-14R2	1,100	1,800	1,000	7,300	11,200	92	BDL	650
MW-15R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-16DD	BDL	8.6	BDL	BDL	8.6	BDL	BDL	BDL
MW-17i	7,900	14,000	3,700	20,600	46,200	2,800	BDL	1,300
MW-18D	2,000	3,600	620	3,700	9,920	1,700	BDL	160
MW-19i	3,600	4,800	400	2,130	10,930	1,700	0.14	130
MW-20D	430	570	41	240	1,281	570	0.24	21
MW-21i	3,400	3,800	300	1,630	9,130	6,800	0.30	38
MW-22D	82	81	7.9	53	223.9	530	BDL	6
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-24	160	BDL	BDL	28.6	188.6	BDL	BDL	BDL
MW-25	3,100	490	36	850	4,476	1,300	BDL	21
MW-26i	9,800	890	730	4,300	15,720	2,900	BDL	130
MW-28DD	9.2	BDL	BDL	BDL	9.2	28	BDL	BDL
MW-29	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-30i	41	20	7.8	40	108.8	21	BDL	BDL
MW-31D	570	260	31	182	1,043	350	BDL	9.1
MW-32	3,000	7.4	18	6.4	3,031.8	540	BDL	8.2
MW-33i	860	BDL	BDL	28.2	888.2	50	BDL	12
MW-34D	380	BDL	13	58	451	260	BDL	8.3
MW-35i	1,900	83	180	1,087	3,250	83	BDL	440
MW-36D	1,400	56	130	544	2,130	230	BDL	210
MW-37DD	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-38	BDL	BDL	BDL	BDL	BDL	25	BDL	BDL
MW-39i	67	BDL	BDL	BDL	61	890	BDL	8
MW-40D	330	BDL	BDL	15	345	340	0.16	5.6
MW-41i	BDL	14	29	180	223	BDL	BDL	7.5
MW-42D	7.6	46	40	241	334.6	BDL	BDL	33
MW-43	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-44i	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-46	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-47	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-49	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-51	27,000	37,000	3,800	19,100	86,900	31,000	0.23	820
MW-52	11,000	23,000	3,000	16,000	53,000	BDL	BDL	930
MW-53	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-54	36,000	62,000	4,300	22,600	124,900	BDL	0.32	890
MW-55	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-57i	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-58	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-59	9	BDL	BDL	9	280	065	BDL	BDL
SW-1	BDL	BDL	BDL	BDL	BDL	300	BDL	BDL

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Double Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- MTBE Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected on May 8, 2007.

Contour Interval = 10,000 ug/l

Shallow Monitoring Wells used in Contouring.

BDL = Below Detection Limits

FP = Not Sampled due to the Presence of Free Phase Petrolum Product

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

GRAPHIC SCALE
0 40 80 120 160
1 IN = 80 FT

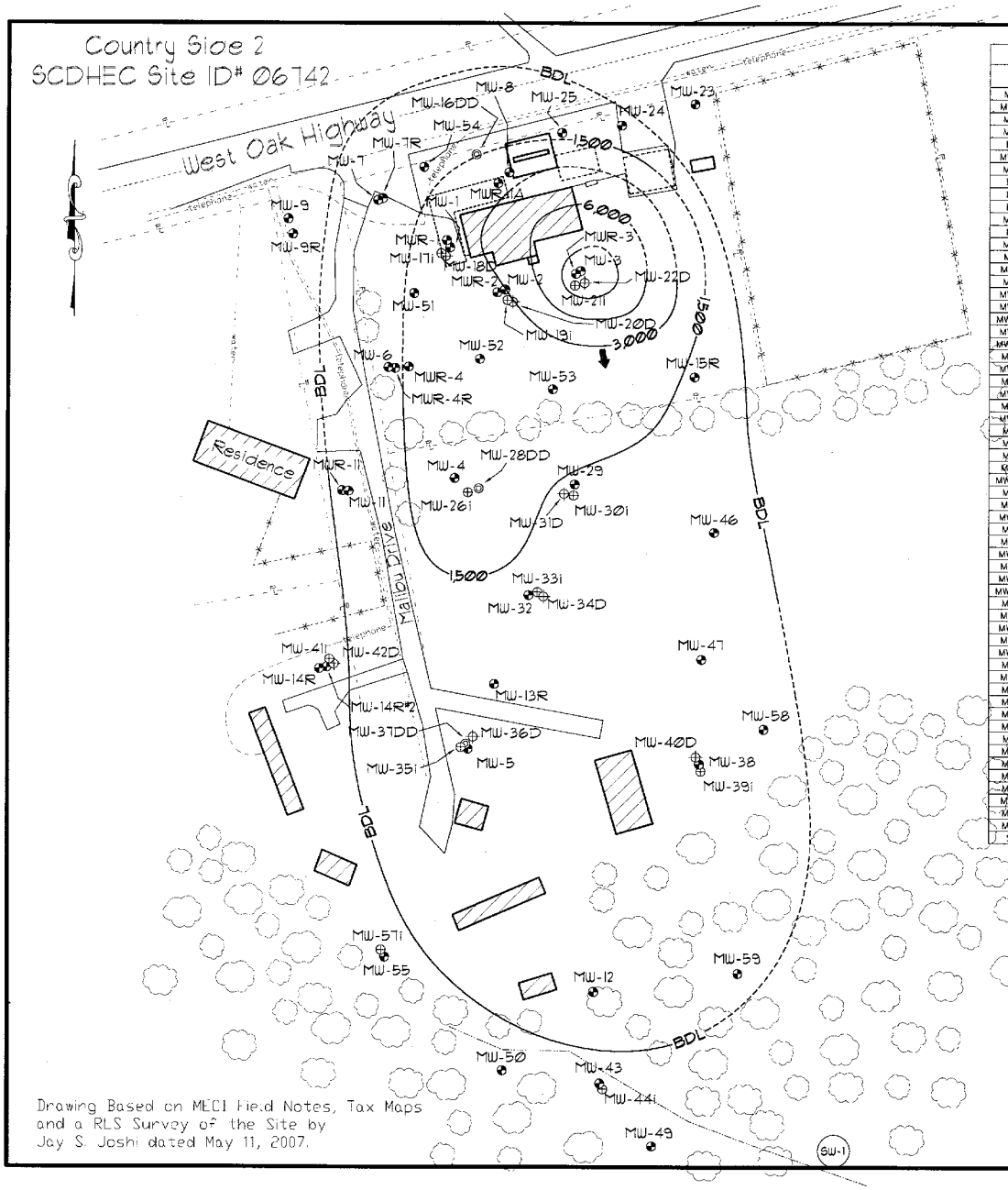
ALL LOCATIONS ARE APPROXIMATE

MTBE Isopleth Map (Shallow)

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 5, 2007
FIGURE 9



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	EDB (ug/l)	Naphthalene (ug/l)
MWR-1	FP	FP	FP	FP	FP	FP	FP	FP
MWR-1A	BDL	BDL	BDL	5.2	5.2	BDL	BDL	10
MWR-2	58	170	56	580	864	BDL	BDL	16
MWR-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-4	12,000	31,000	5,000	27,200	75,200	3,900	BDL	1,600
MWR-4R	FP	FP	FP	FP	FP	FP	FP	FP
MWR-4	FP	FP	FP	FP	FP	FP	FP	FP
MW-5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-6	18,000	14,000	3,800	25,000	60,800	850	0.26	1,800
MW-7	12,000	38,000	24,000	141,000	215,000	1,300	BDL	8,700
MW-7R	6,100	19,000	4,300	23,000	52,400	BDL	BDL	1,600
MW-8	FP	FP	FP	FP	FP	FP	FP	FP
MW-9R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-11	88	430	340	2,000	2,858	BDL	BDL	200
MWR-11	NT	NT	NT	NT	NT	NT	NT	NT
MW-12	14	BDL	BDL	14	BDL	BDL	BDL	BDL
MW-13R	6,600	87	100	250	7,037	4,400	BDL	89
MW-14R	BDL	BDL	BDL	16	16	BDL	BDL	BDL
MW-14R2	1,100	1,800	1,000	7,300	11,200	92	BDL	650
MW-15R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-16DD	BDL	8.6	BDL	BDL	8.6	BDL	BDL	BDL
MW-17i	7,900	14,000	3,700	20,600	46,200	2,800	BDL	1,300
MW-18D	2,000	3,600	620	3,700	9,920	1,700	BDL	160
MW-19i	3,600	4,800	400	2,130	10,930	1,700	0.14	130
MW-20D	430	570	41	240	1,281	570	0.24	21
MW-21i	3,400	3,800	300	1,630	9,130	6,800	0.30	38
MW-22D	82	81	7.9	53	223.9	530	BDL	6
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-24	160	BDL	BDL	28.6	188.6	BDL	BDL	BDL
MW-25	3,100	490	36	850	4,476	1,300	BDL	21
MW-26i	9,800	890	730	4,300	15,720	2,900	BDL	130
MW-28DD	9.2	BDL	BDL	BDL	9.2	28	BDL	BDL
MW-29	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-30i	41	20	7.8	40	108.8	21	BDL	BDL
MW-31D	670	260	31	182	1,043	350	BDL	9.1
MW-32	3,000	7.4	18	6.4	3,031.8	540	BDL	8.2
MW-33i	860	BDL	BDL	28.2	888.2	50	BDL	12
MW-34D	380	BDL	13	58	451	260	BDI	8.3
MW-35i	1,900	83	180	1,087	3,250	83	BDL	440
MW-36D	1,300	56	130	544	2,130	230	BDL	210
MW-37DD	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-38	BDL	BDL	BDL	BDL	BDL	25	BDL	BDL
MW-39i	61	BDL	BDL	BDL	61	890	BDL	8
MW-40D	330	BDL	BDL	15	345	340	0.16	5.6
MW-41i	BDL	14	29	180	223	BDL	BDL	7.5
MW-42D	7.6	46	40	241	334.6	BDL	BDL	33
MW-43	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-44i	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-45	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-47	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-49	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-51	27,000	37,000	3,800	19,100	86,900	31,000	0.23	820
MW-52	11,000	23,000	3,000	16,000	53,000	BDL	BDL	930
MW-53	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-54	36,000	62,000	4,300	22,600	124,900	BDL	0.32	890
MW-55	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-57i	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-58	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-59	9	BDL	BDL	9	280	065	BDL	BDL
SW-1	BDL	BDL	BDL	BDL	BDL	300	BDL	BDL

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Double Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- MTBE Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected on May 8, 2007.

Contour Interval = 10,000 ug/l

Intermediate Monitoring Wells used in Contouring.

BDL = Below Detection Limits

FP= Not Sampled due to the Presence of Free Phase Petroleum Product

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

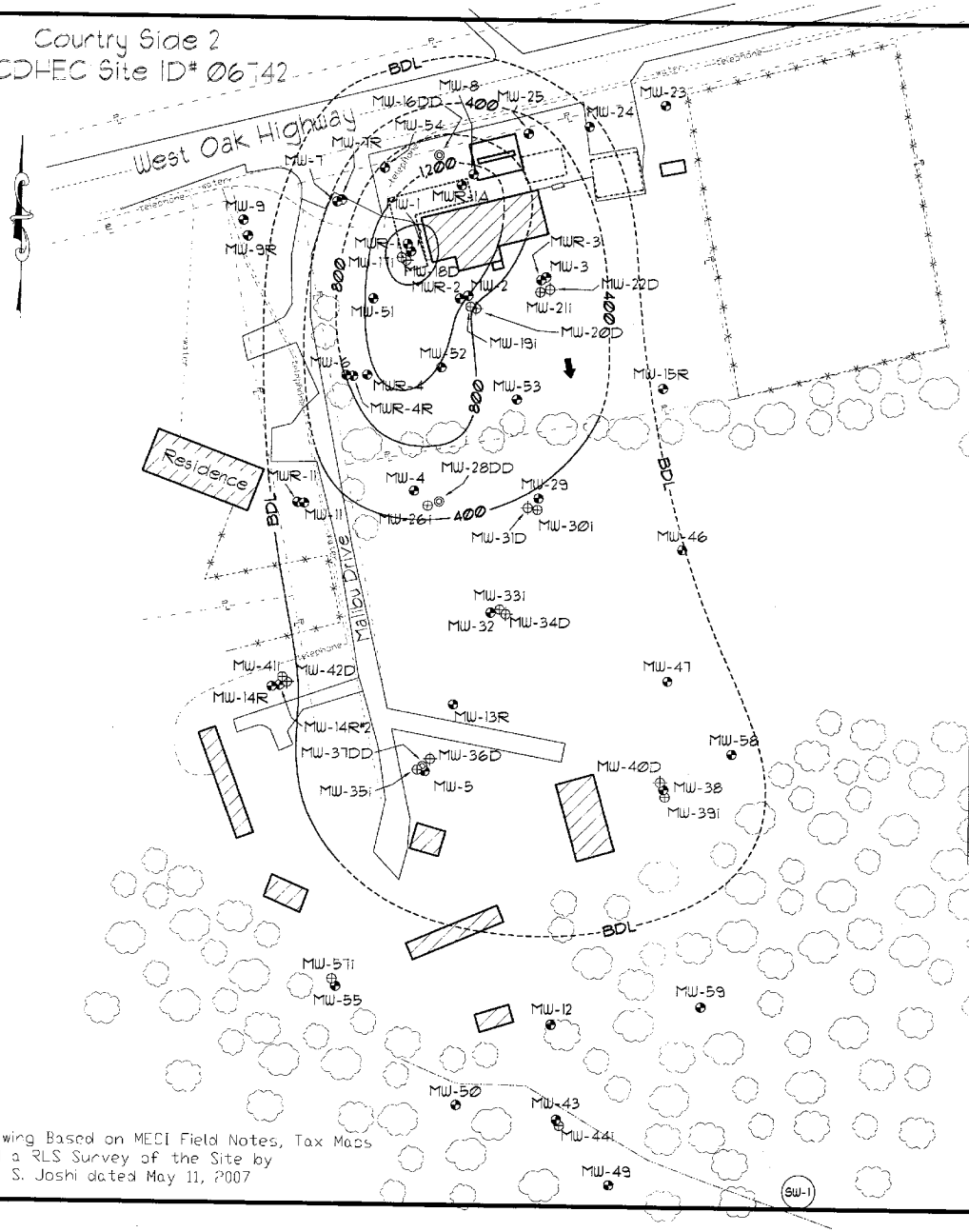
ALL LOCATIONS ARE APPROXIMATE

MTBE Isopleth Map (Intermediate Zone)

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 9A



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	EDB (ug/l)	Naphthalene (ug/l)
MWR-1	FP	FP	FP	FP	FP	FP	FP	FP
MWR-1A	BDL	BDL	BDL	5.2	5.2	BDL	BDL	10
MWR-2	58	170	58	580	864	BDL	BDL	16
MWR-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-4	12,000	31,000	5,000	27,200	75,200	3,900	BDL	1,600
MWR-4R	FP	FP	FP	FP	FP	FP	FP	FP
MWR-4	FP	FP	FP	FP	FP	FP	FP	FP
MW-5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-6	18,000	14,000	3,800	25,000	60,800	850	0.26	1,800
MW-7	12,000	38,000	24,000	141,000	215,000	1,300	BDL	8,700
MW-7R	6,100	19,000	4,300	23,000	52,400	BDL	BDL	1,600
MW-8	FP	FP	FP	FP	FP	FP	FP	FP
MW-9R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-11	88	430	340	2,000	2,858	BDL	BDL	200
MWR-11	NT	NT	NT	NT	NT	NT	NT	NT
MW-12	14	BDL	BDL	BDL	14	BDL	BDL	BDL
MW-13R	6,600	87	100	250	7,037	4,400	BDL	89
MW-14R	BDL	BDL	BDL	16	16	BDL	BDL	BDL
MW-14R2	1,100	1,800	1,000	7,300	11,200	92	BDL	650
MW-15R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-16DD	BDL	8.6	BDL	BDL	8.6	BDL	BDL	BDL
MW-17i	7,900	14,000	3,700	20,600	46,200	2,800	BDL	1,300
MW-18D	2,000	3,600	620	3,700	9,920	1,700	BDL	160
MW-19i	3,600	4,800	400	2,130	10,930	1,700	0.14	130
MW-20D	430	570	41	240	1,281	570	0.24	21
MW-21i	3,400	3,800	300	1,630	9,130	6,800	0.30	38
MW-22D	82	81	7.9	53	223.9	530	BDL	6
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-24	160	BDL	BDL	28.6	188.6	BDL	BDL	BDL
MW-25	3,100	490	38	850	4,476	1,300	BDL	21
MW-26i	9,800	890	730	4,300	15,720	2,900	BDL	130
MW-28DD	9.2	BDL	BDL	BDL	9.2	28	BDL	BDL
MW-29	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-30i	41	20	7.8	40	108.8	21	BDL	BDL
MW-31D	570	260	31	182	1,043	350	BDL	9.1
MW-32	3,000	7.4	18	6.4	3,031.8	540	BDL	8.2
MW-33i	860	BDL	BDL	28.2	888.2	50	BDL	12
MW-34D	380	BDL	13	58	451	260	BDL	8.3
MW-35i	1,900	83	180	1,087	3,250	83	BDL	440
MW-36D	1,400	56	130	544	2,130	230	BDL	210
MW-37DD	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-38	BDL	BDL	BDL	BDL	BDL	25	BDL	BDL
MW-39i	61	BDL	BDL	BDL	61	890	BDL	8
MW-40D	330	BDL	BDL	15	345	340	0.16	5.6
MW-41i	BDL	14	29	180	223	BDL	BDL	7.5
MW-42D	7.6	46	40	241	334.6	BDL	BDL	33
MW-43	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-44i	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-46	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-47	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-49	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-51	27,000	37,000	3,800	19,100	86,900	31,000	0.23	820
MW-52	14,000	23,000	3,000	16,000	53,000	BDL	BDL	930
MW-53	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-54	36,000	62,900	4,300	22,600	124,900	BDL	0.32	890
MW-55	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-57i	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-58	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-59	9	BDL	BDL	9	9	280	.065	BDL
SW-1	BDL	BDL	BDL	BDL	BDL	300	BDL	BDL

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Double Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- MTBE Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected on May 8, 2007.

Contour Interval = 400 ug/l

Top of Rock Monitoring Wells used in Contouring.

BDL = Below Detection Limits

FP= Not Sampled due to the Presence of Free Phase Petrolum Product

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

MTBE Isopleth Map (Top of Rock)

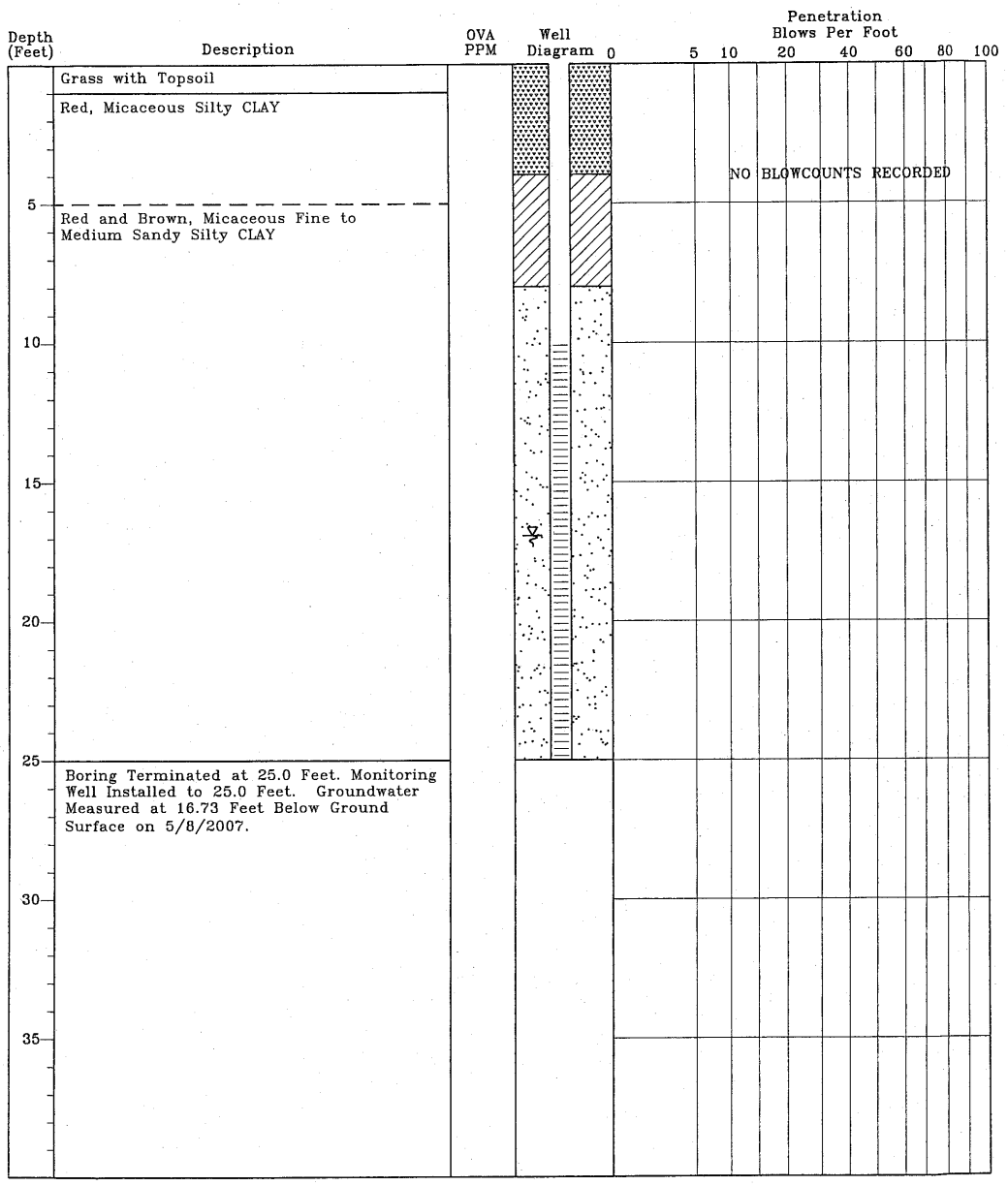
Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 9B

APPENDIX A

TEST BORING AND MONITORING WELL INSTALLATION RECORDS



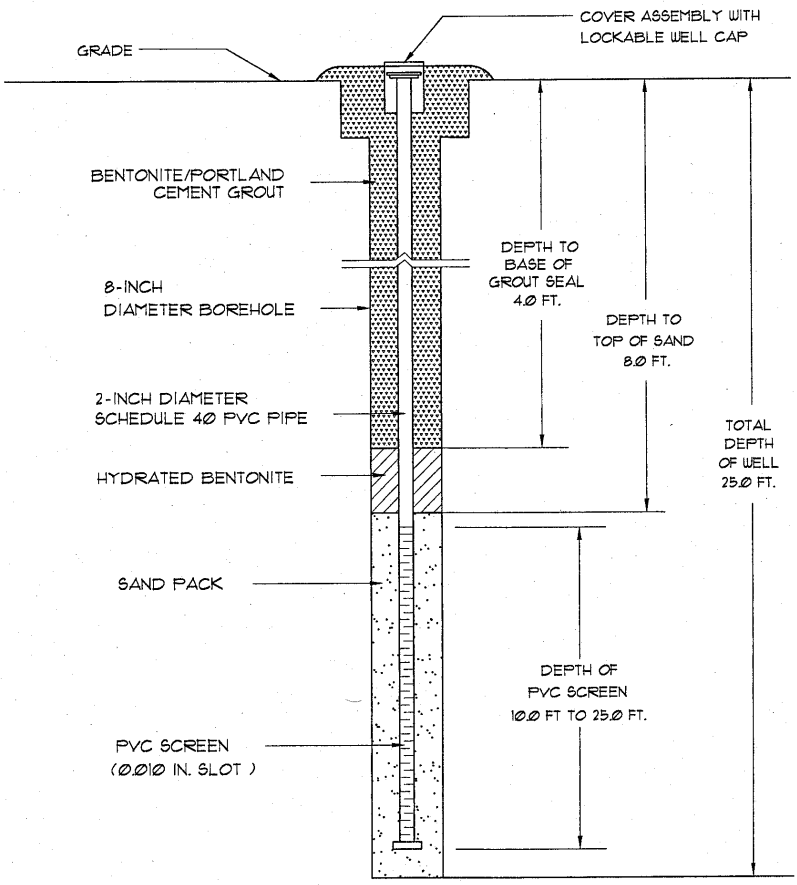
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-14R2
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

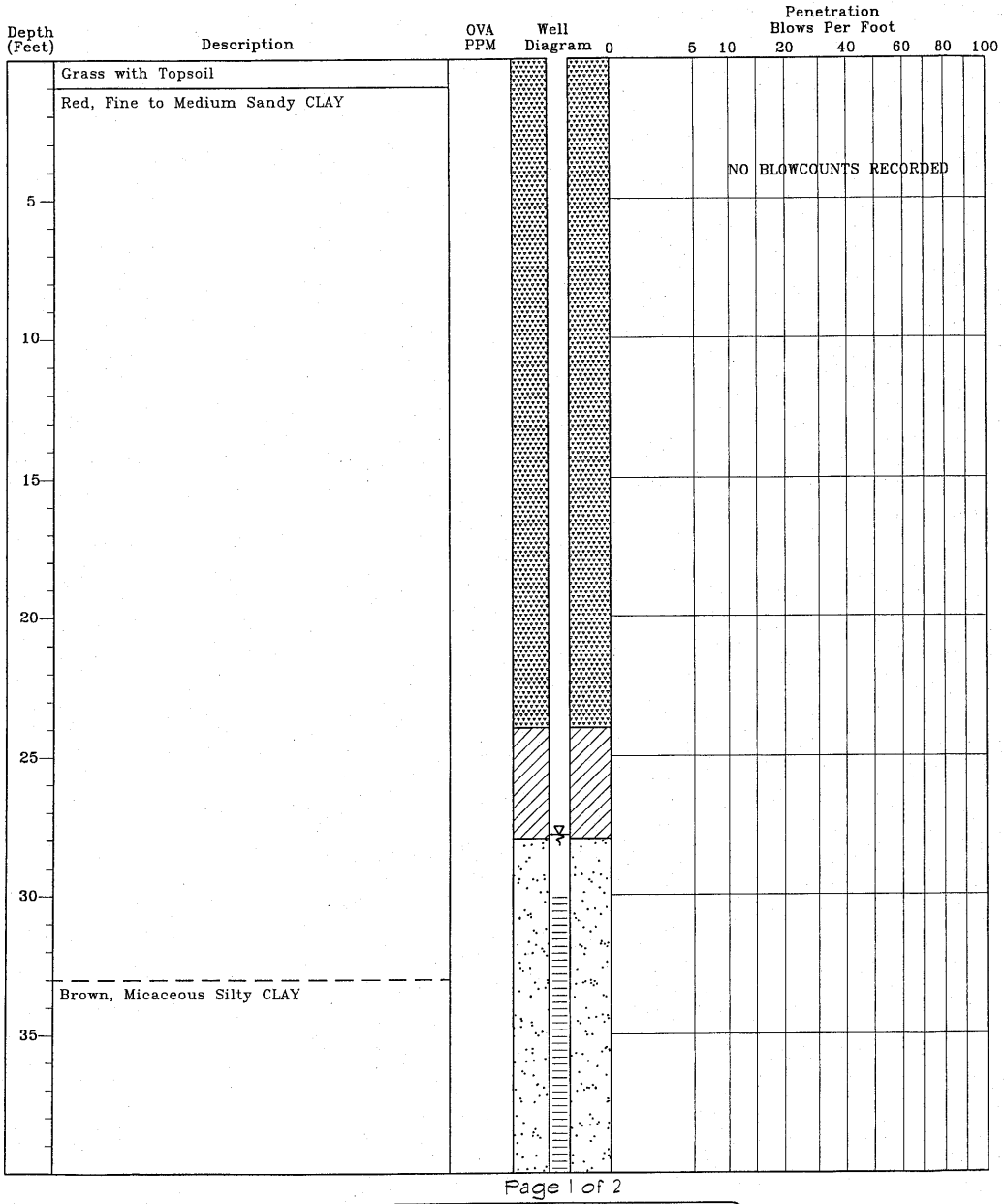
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-14R2
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Kelly

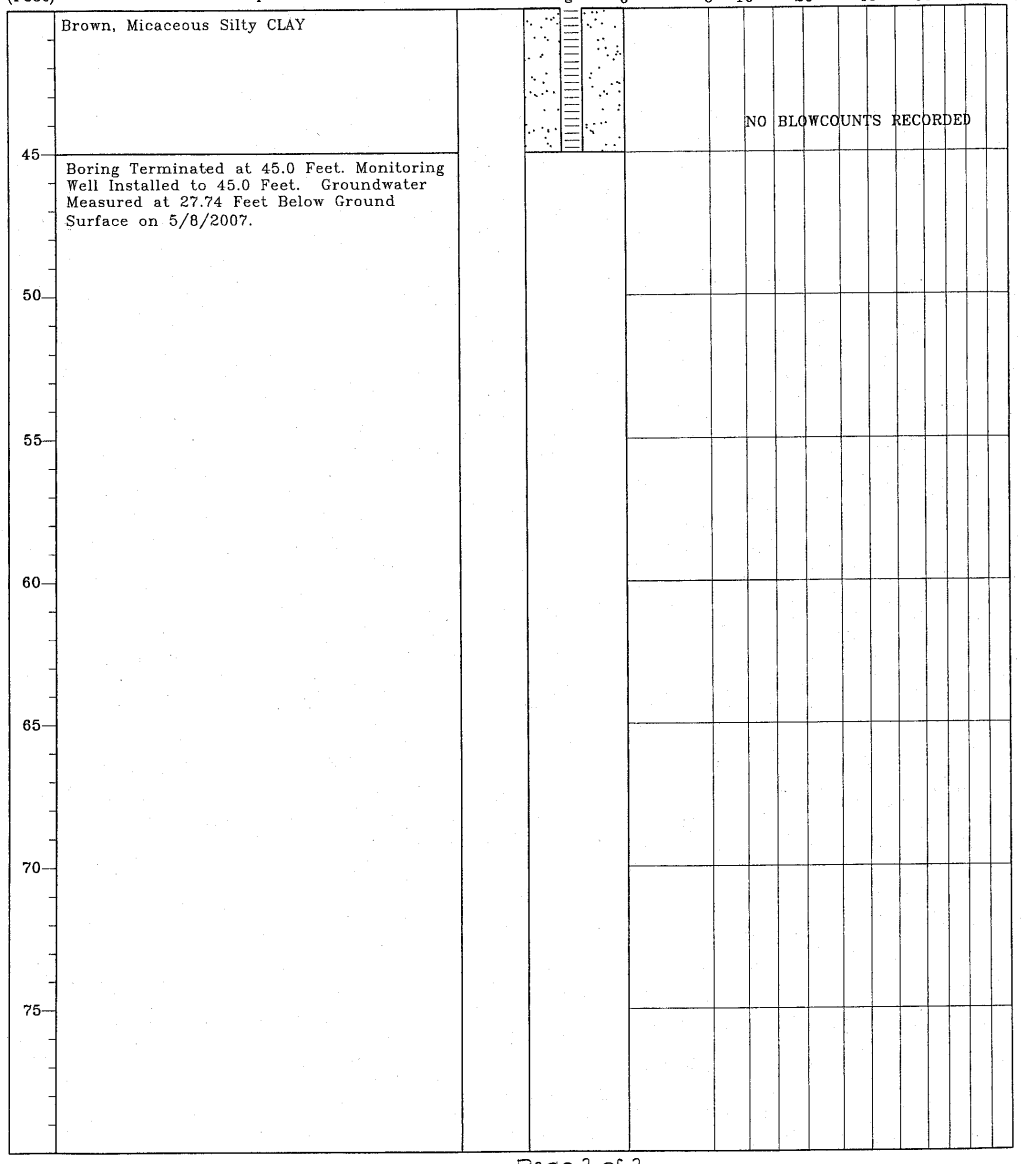
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-15R
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



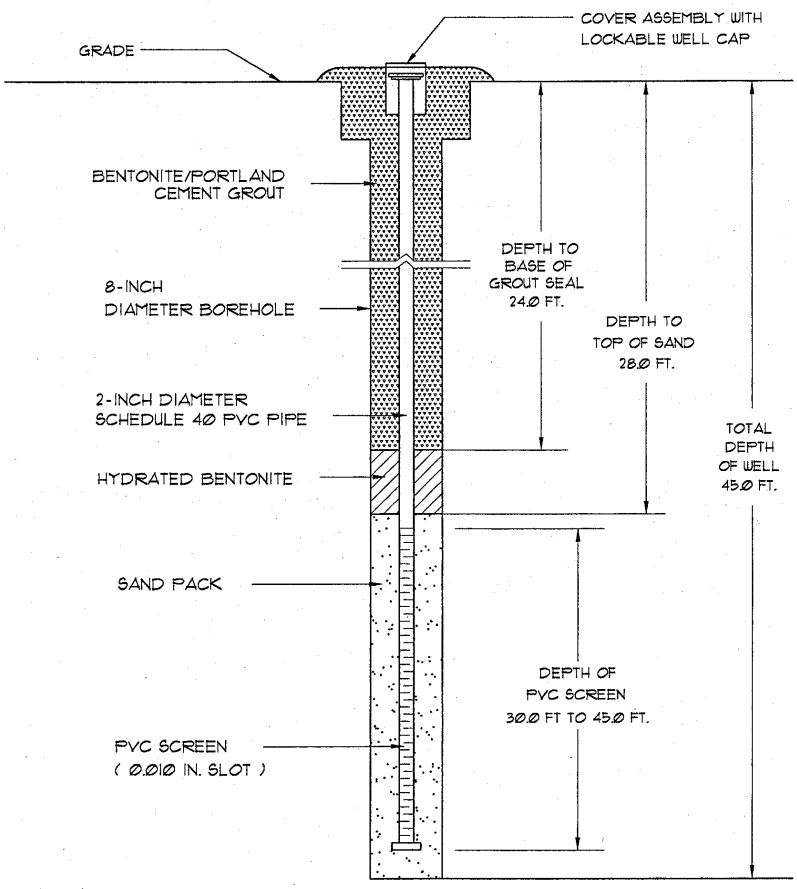
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-15R
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

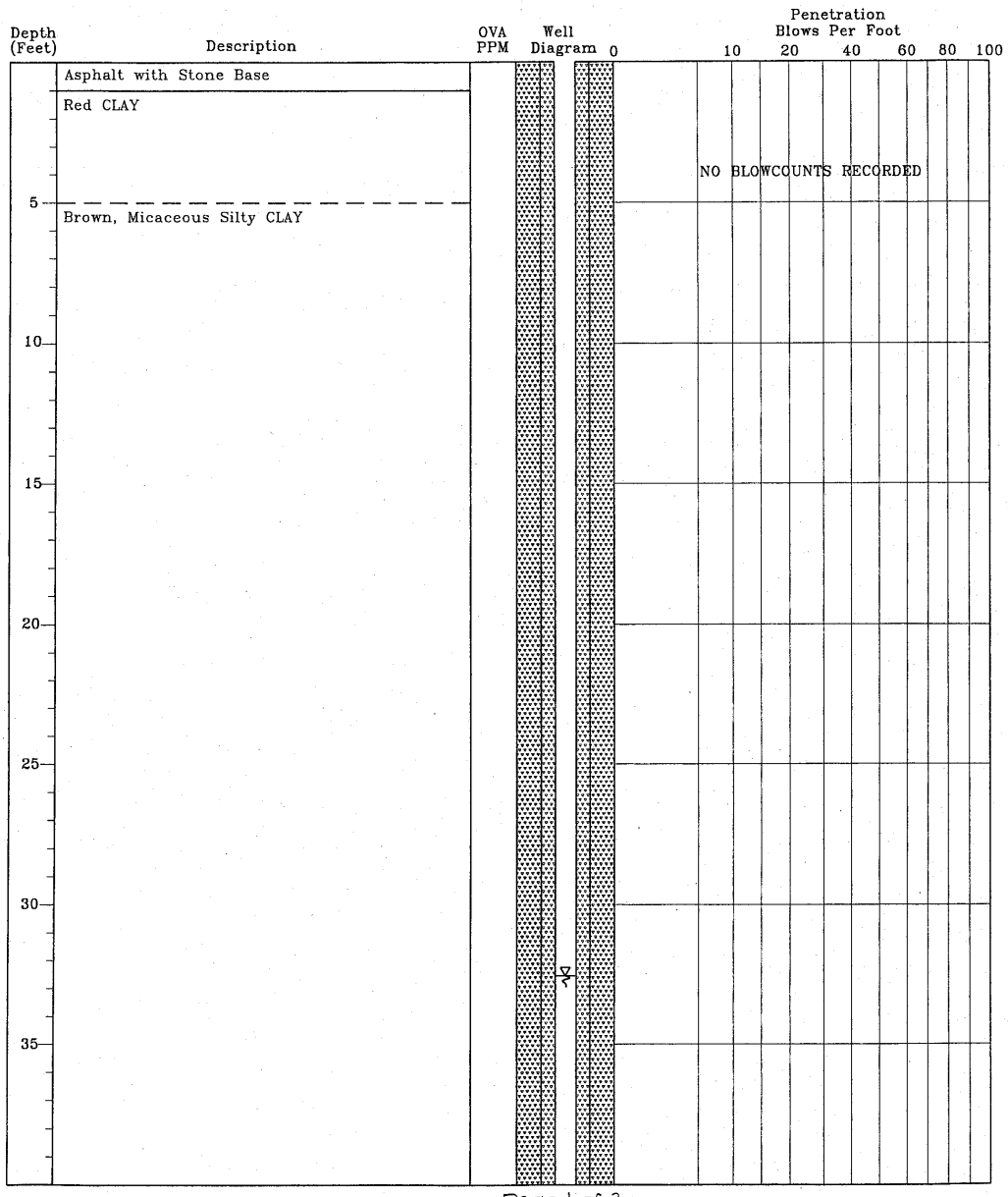
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-15R
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Kelly

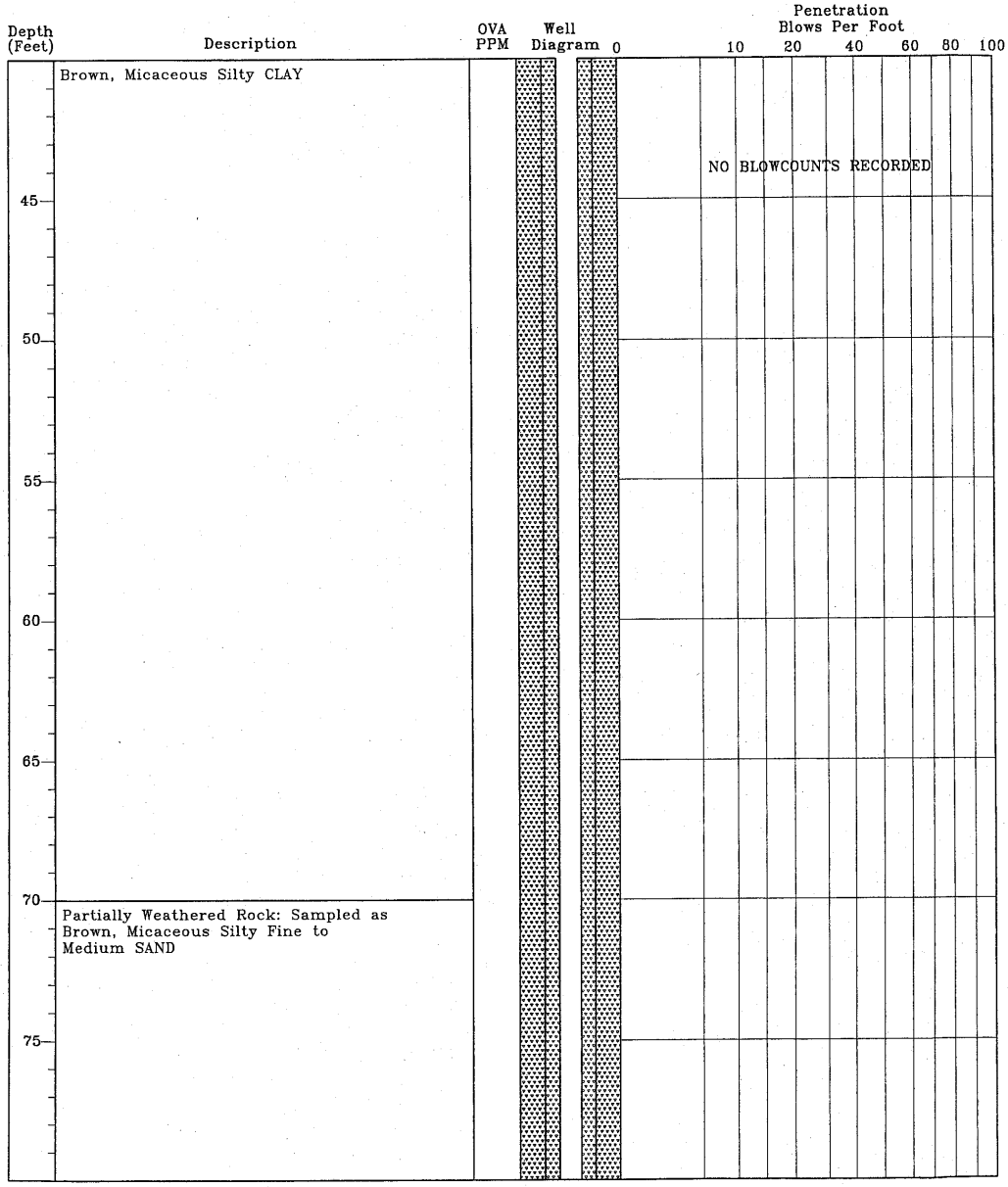
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-16DD
Date Drilled:	3/22/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

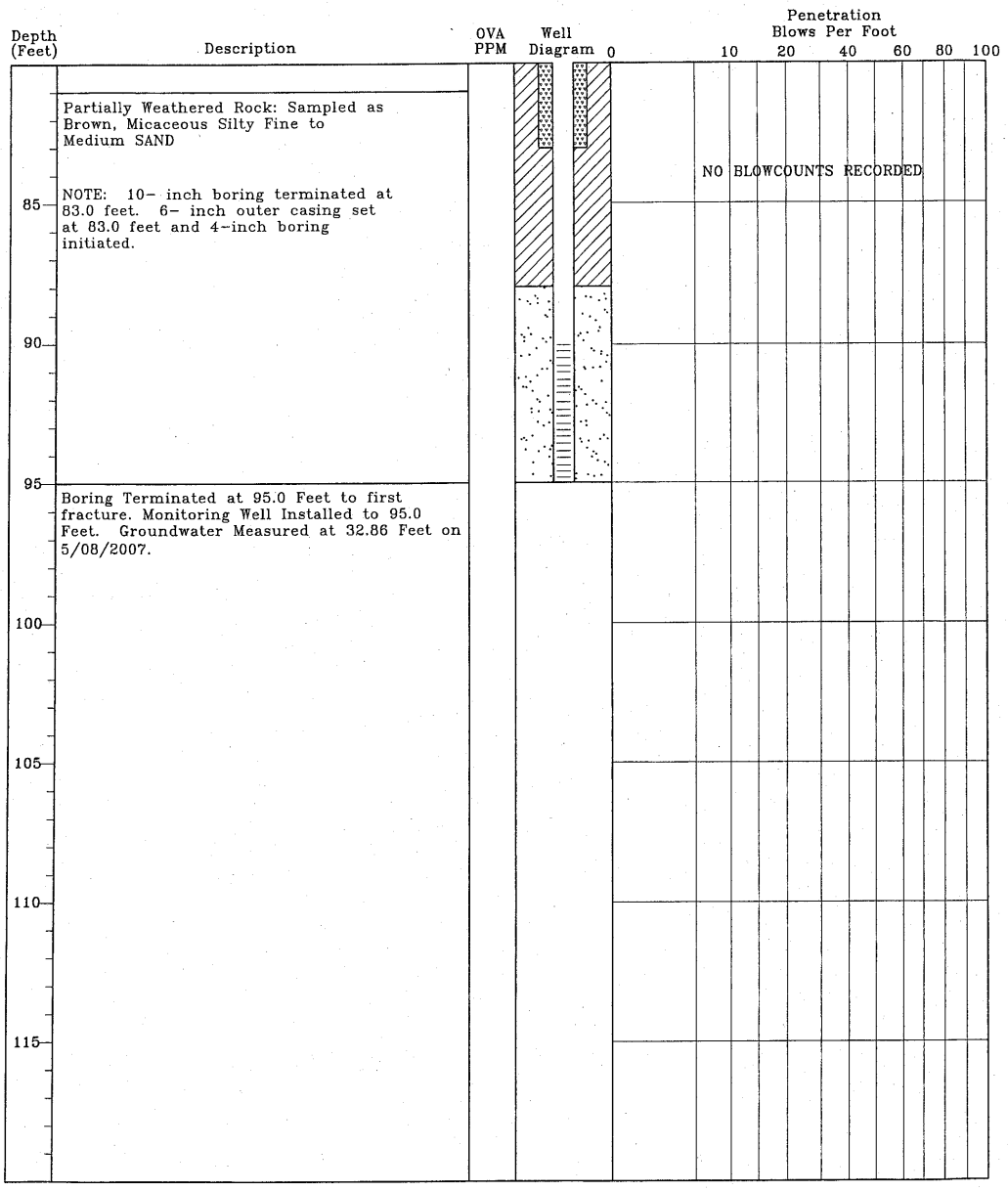
Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-16DD
Date Drilled:	3/22/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 BDooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



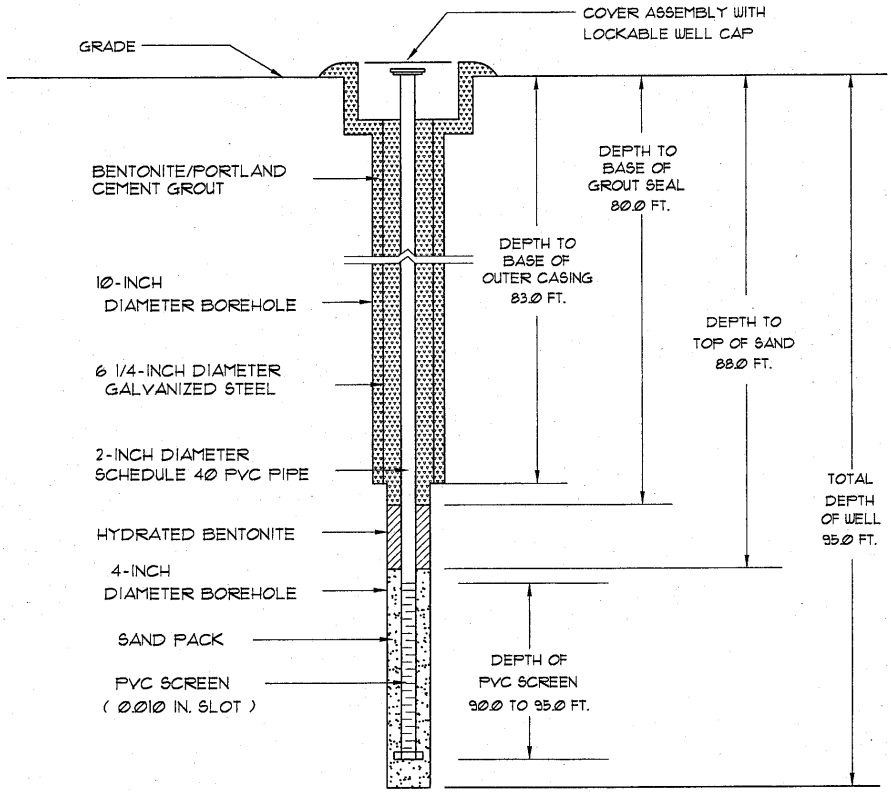
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-16DD
Date Drilled:	3/22/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

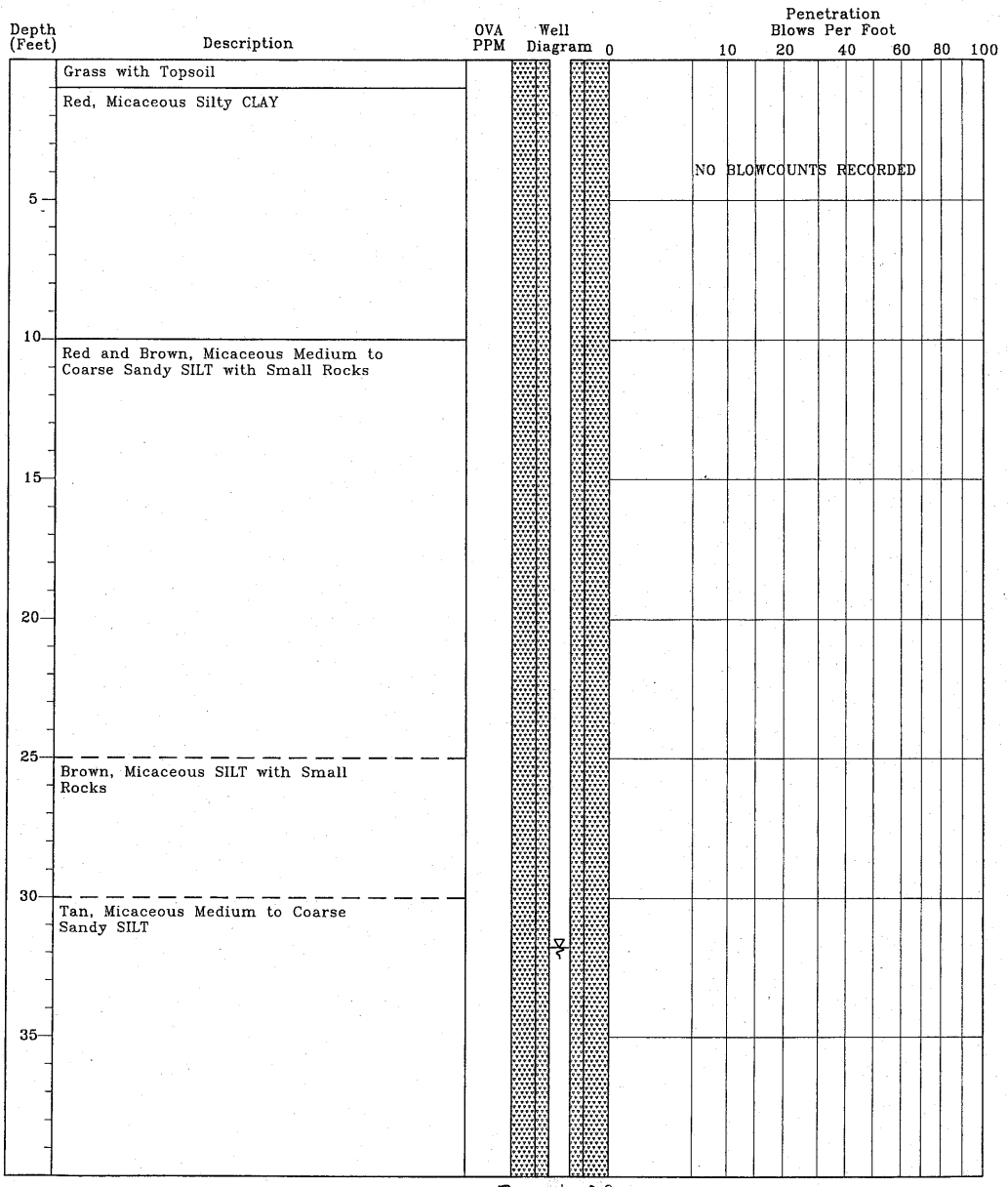
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-16DD
Date Drilled:	3/22/07
Drilled By:	Geologic Exploration, Inc.
Driller: J. Mantak	S.C. I.D. #: 01494
Logged By:	B. Kelly

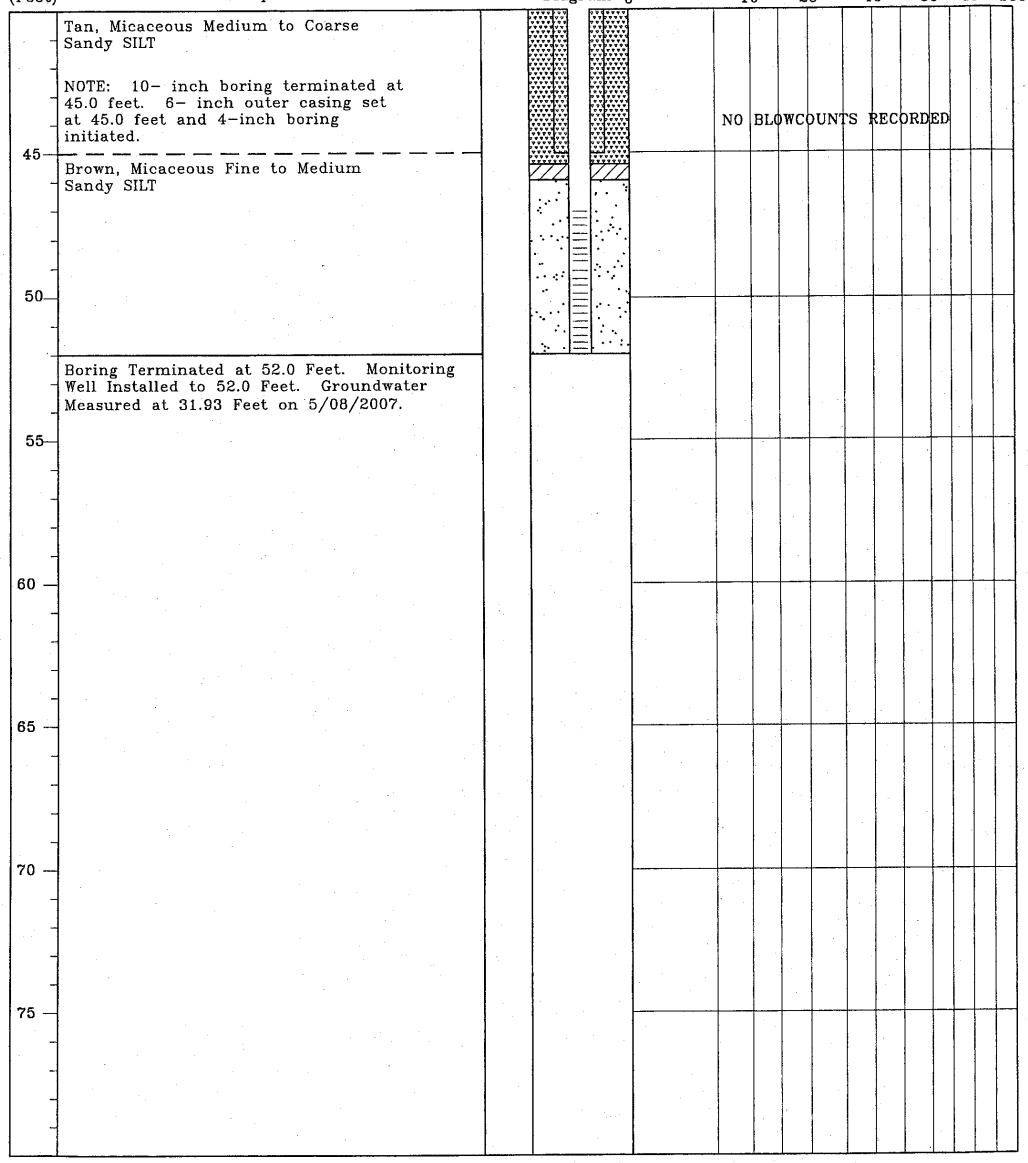
Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-17i
Date Drilled:	4/20/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



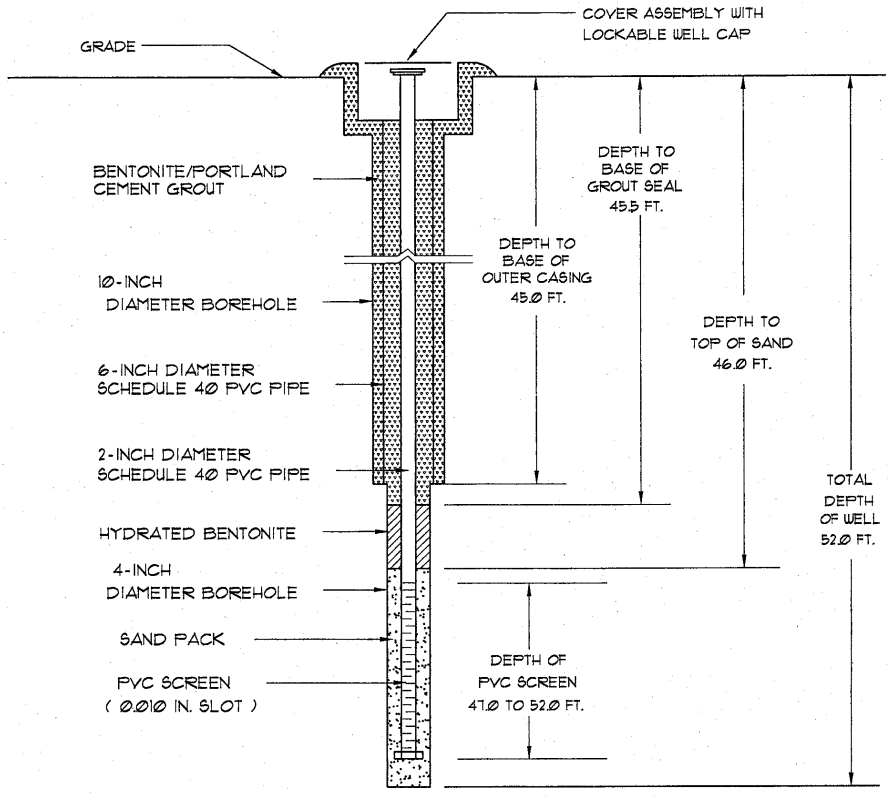
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-17i
Date Drilled:	4/20/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-7048

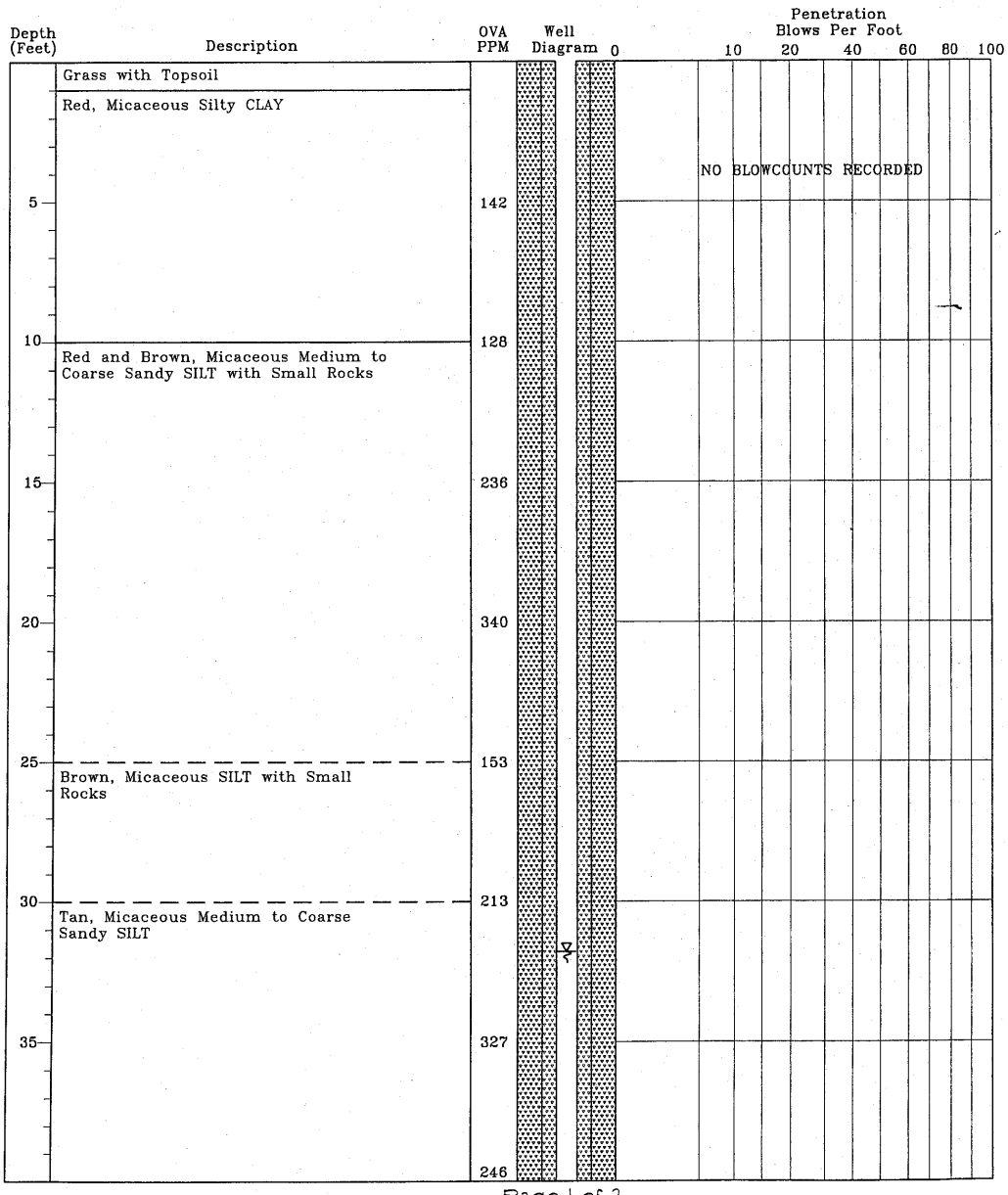
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-17i
Date Drilled:	4/20/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

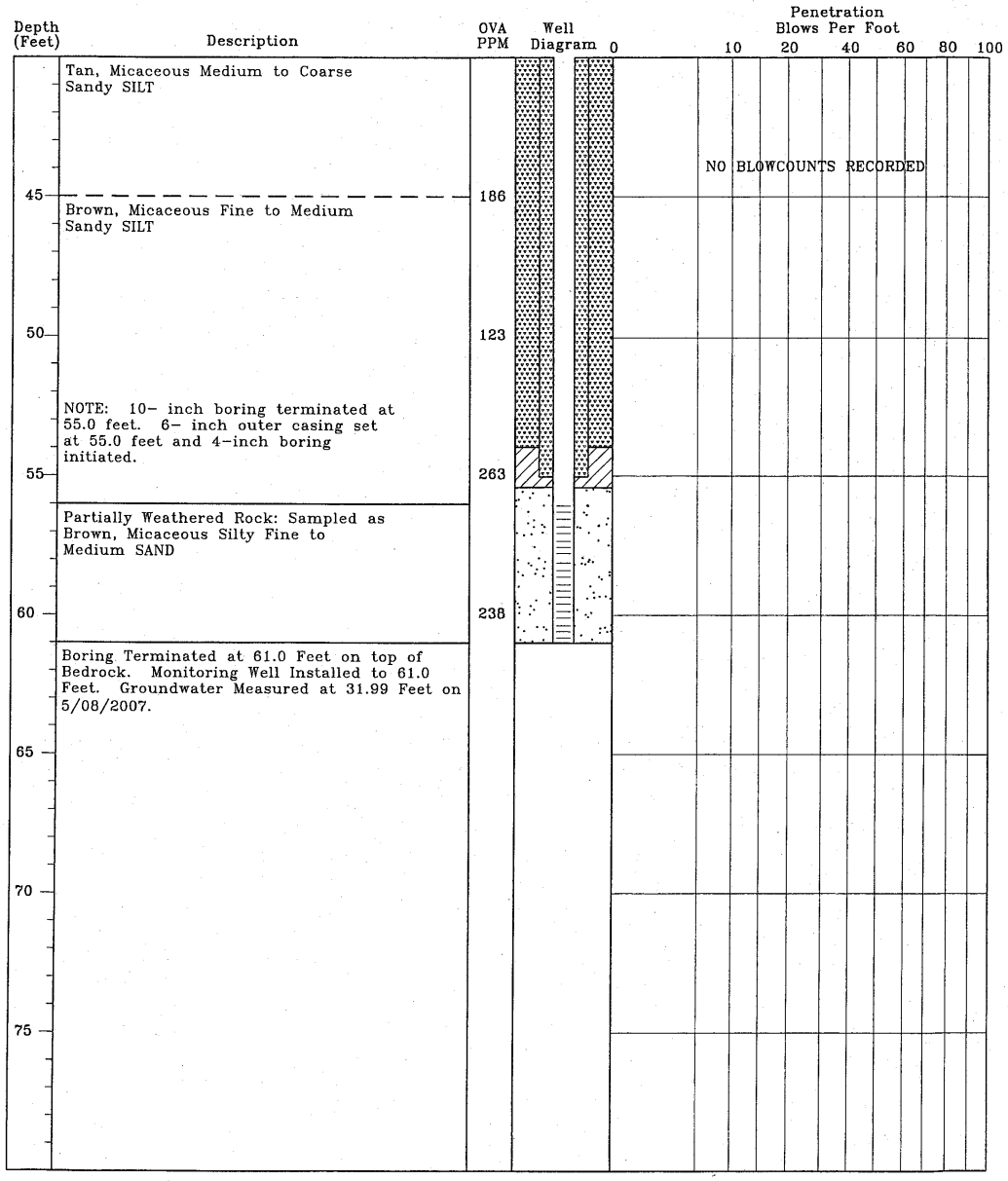
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-18D
Date Drilled:	4/19/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



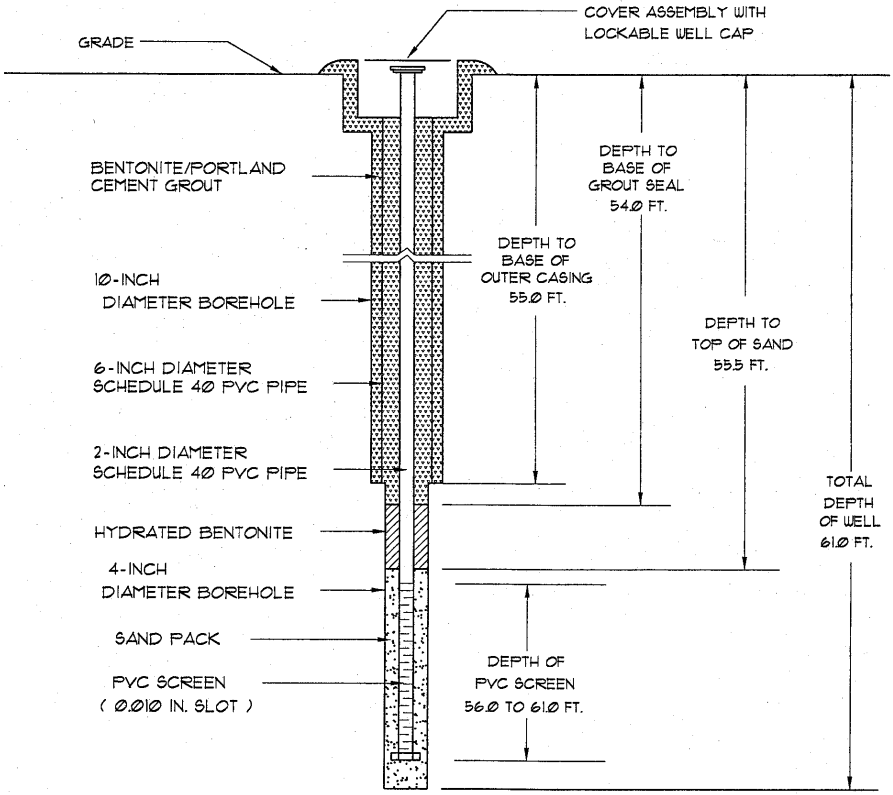
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-18D
Date Drilled:	4/19/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

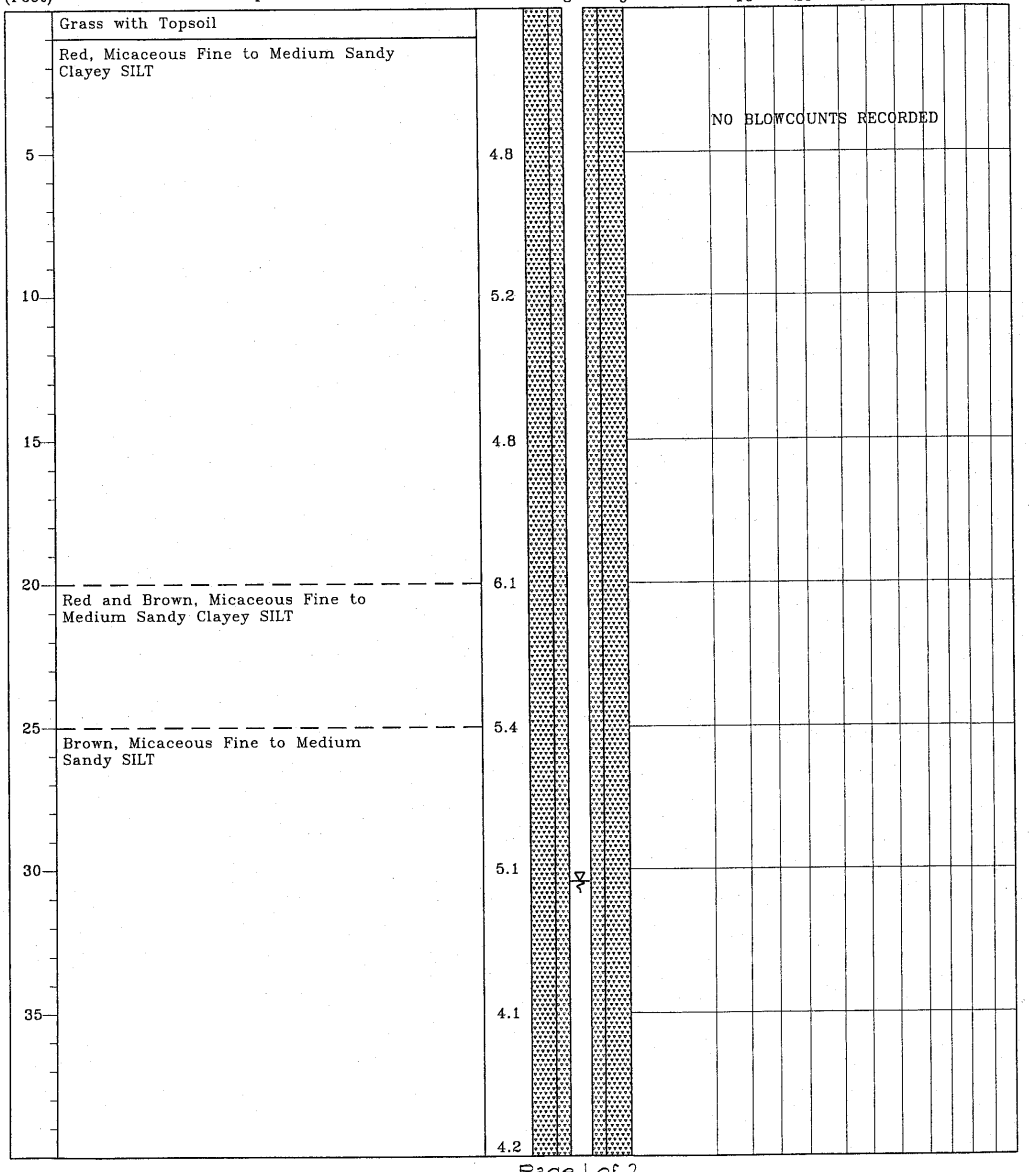
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-18D
Date Drilled:	4/19/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

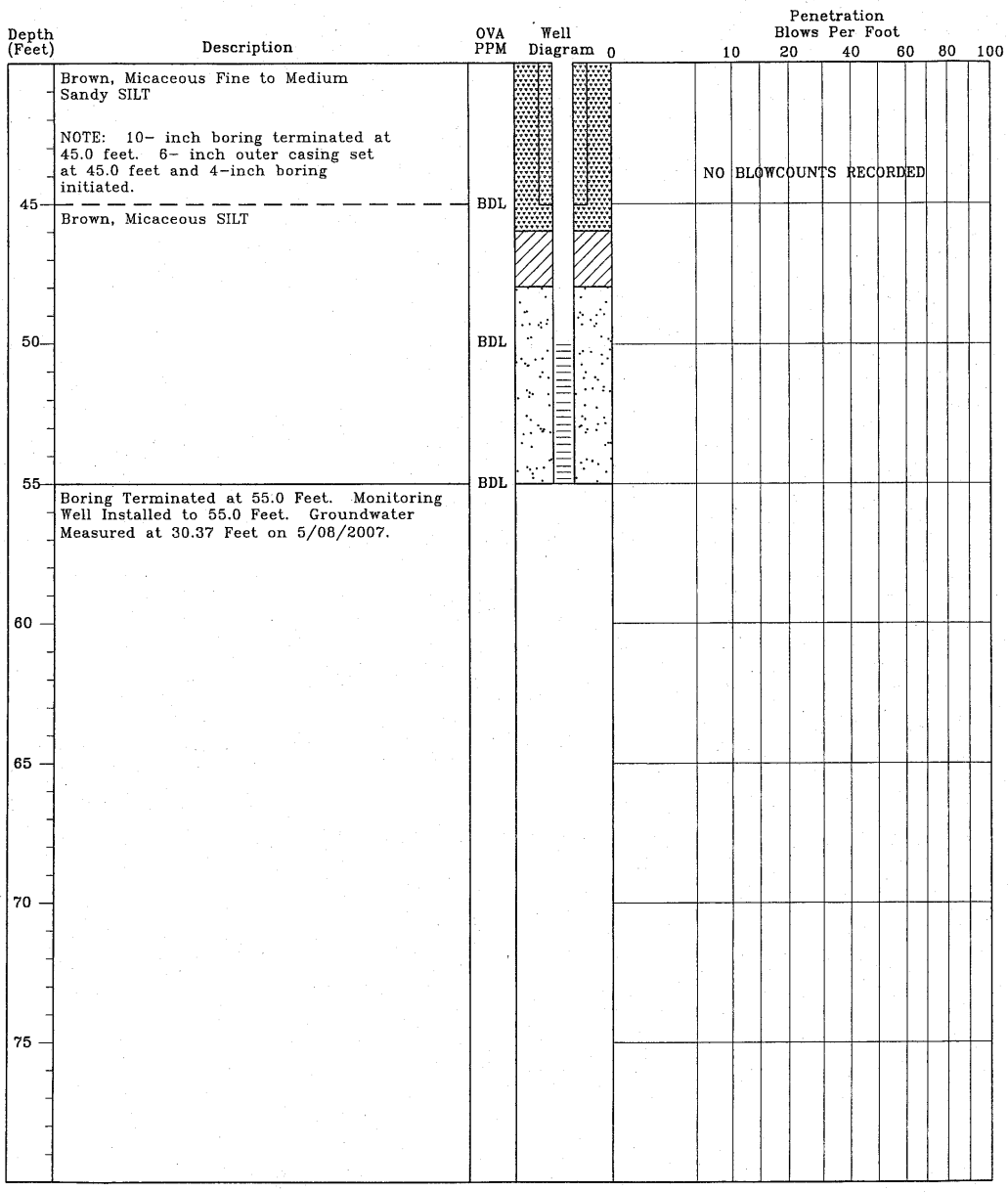
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 Fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-19I
Date Drilled:	4/12/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 Fax: 808-2048



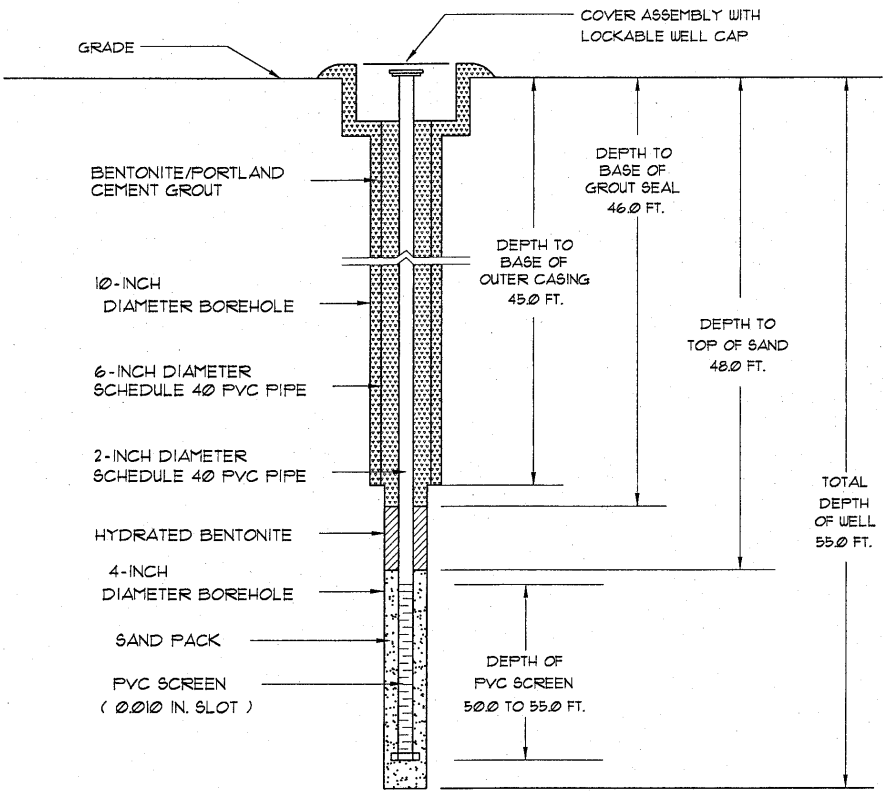
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-19i
Date Drilled:	4/12/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Keily

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

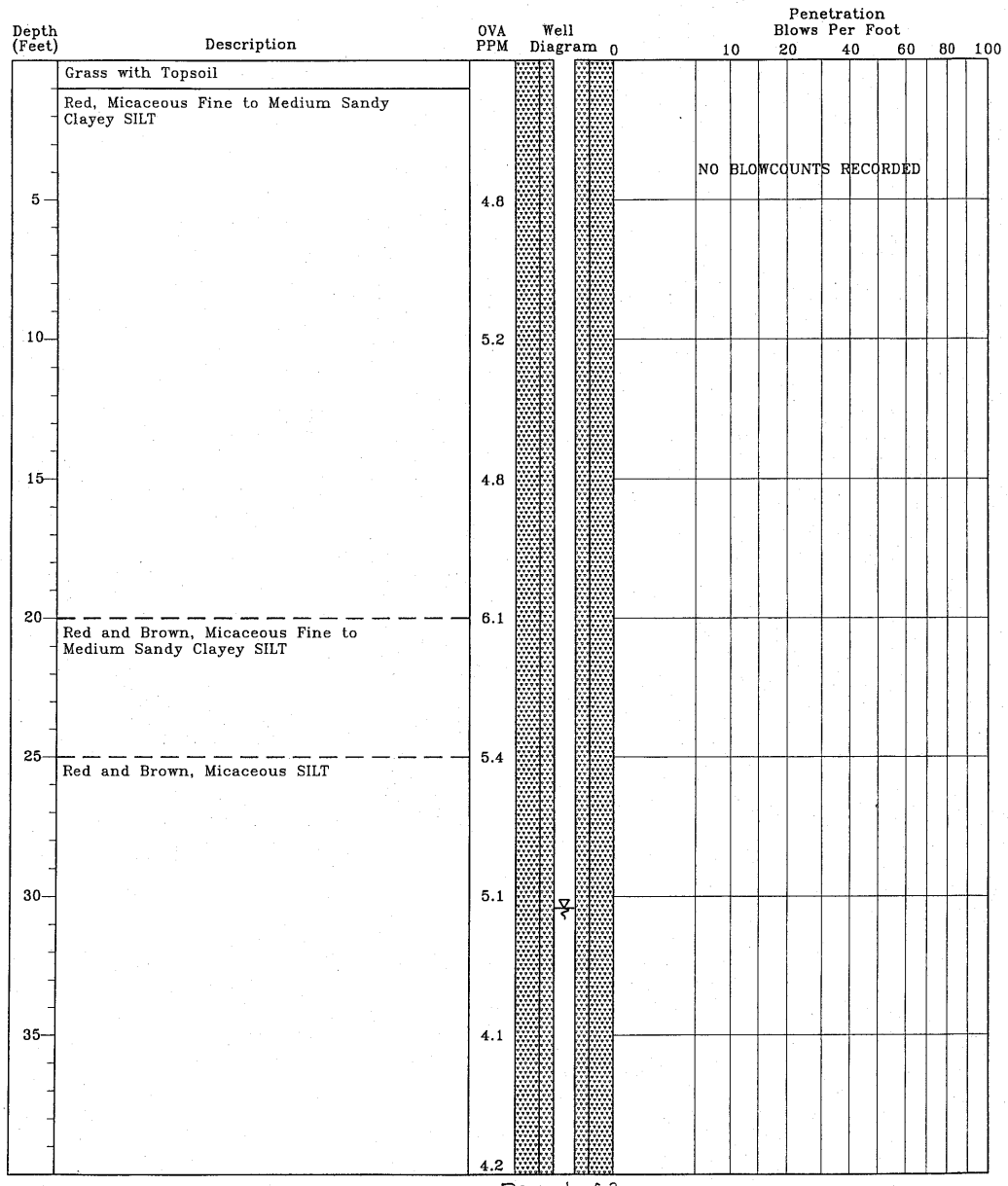
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-19i
Date Drilled:	4/12/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

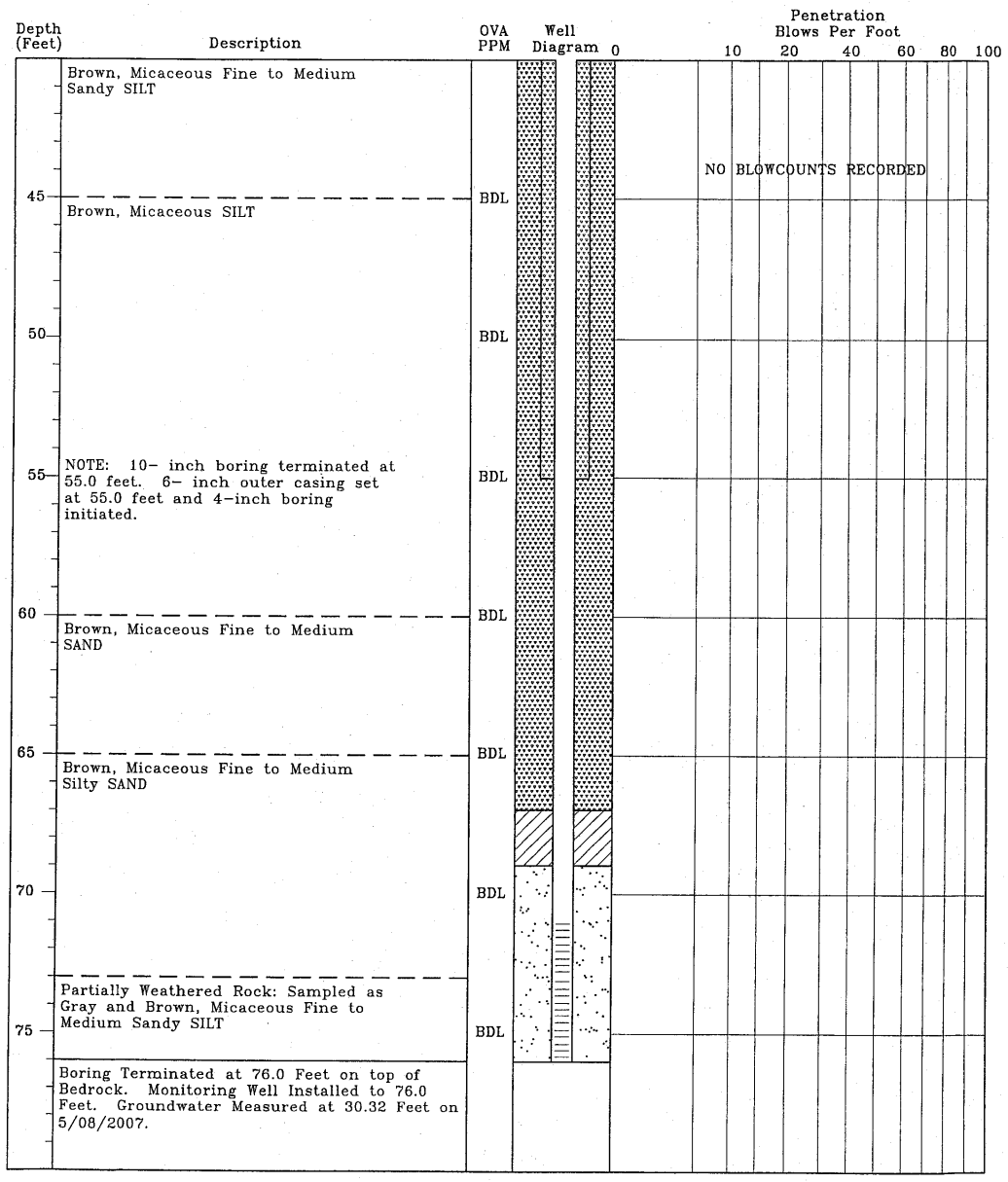
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-20D
Date Drilled:	4/12/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-20D
Date Drilled:	4/12/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
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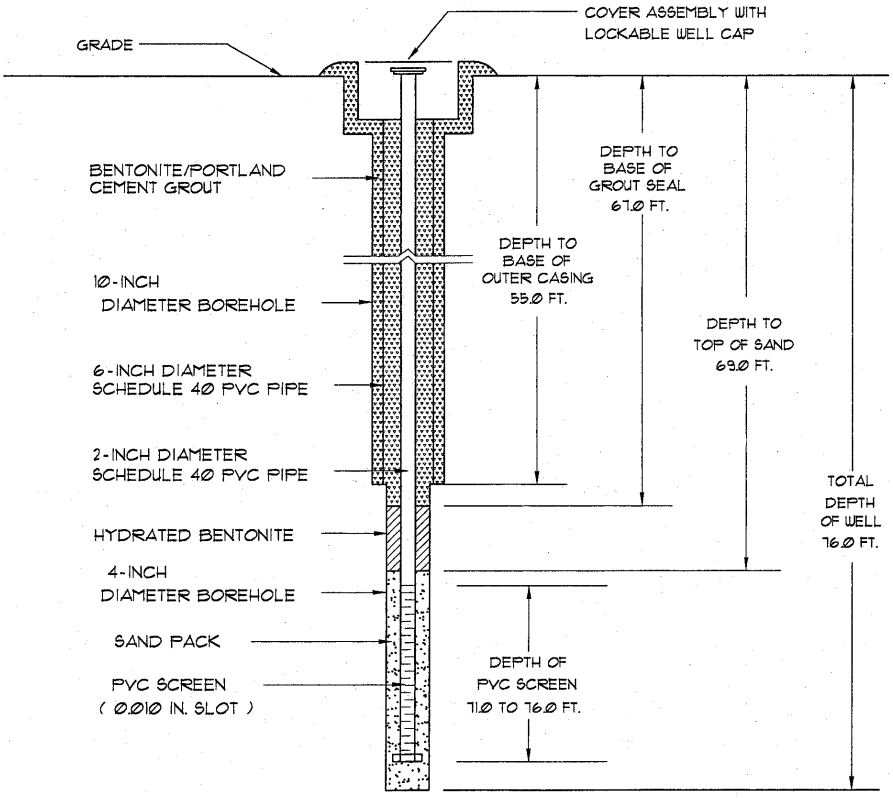
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-20D
Date Drilled:	4/12/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
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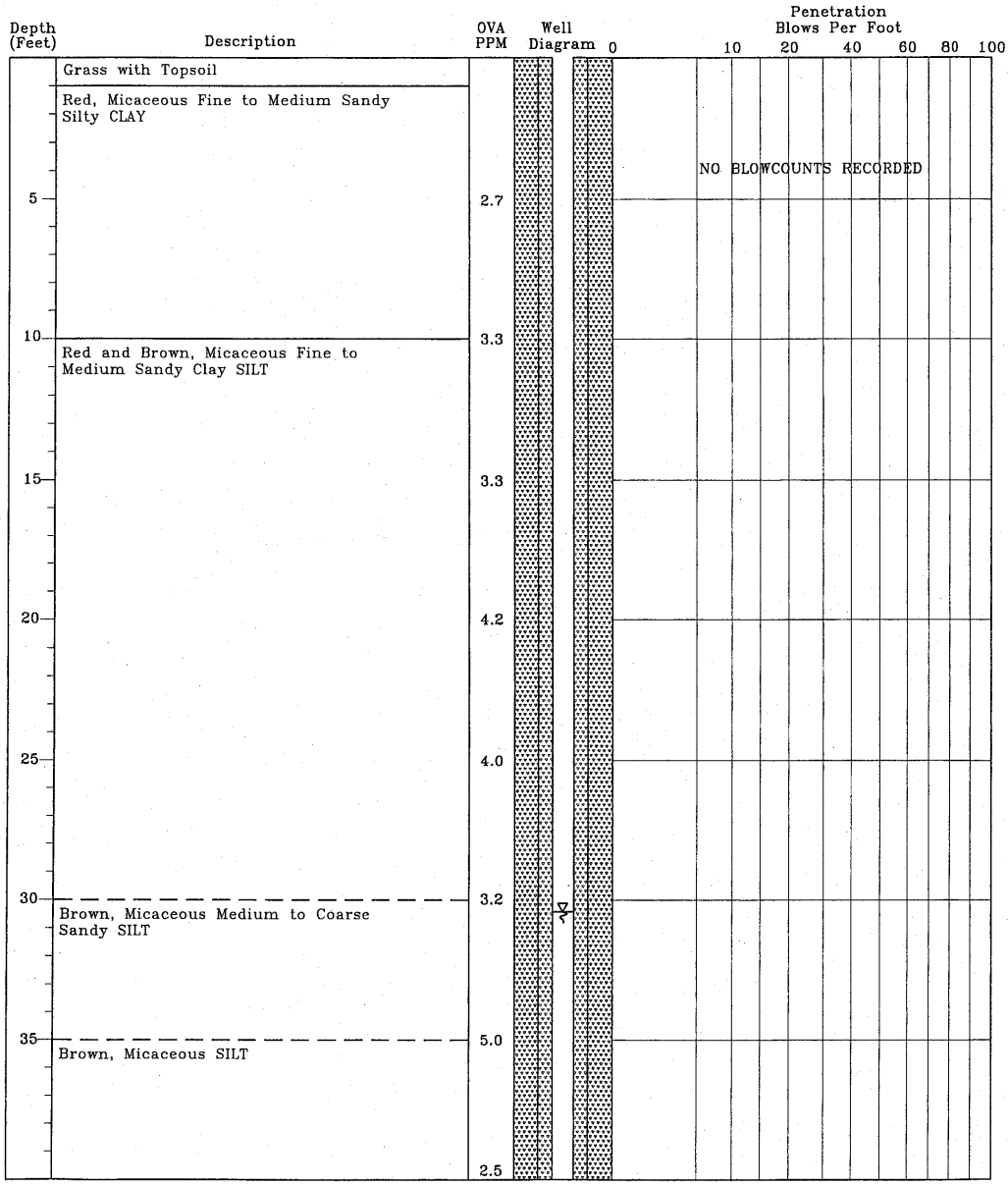
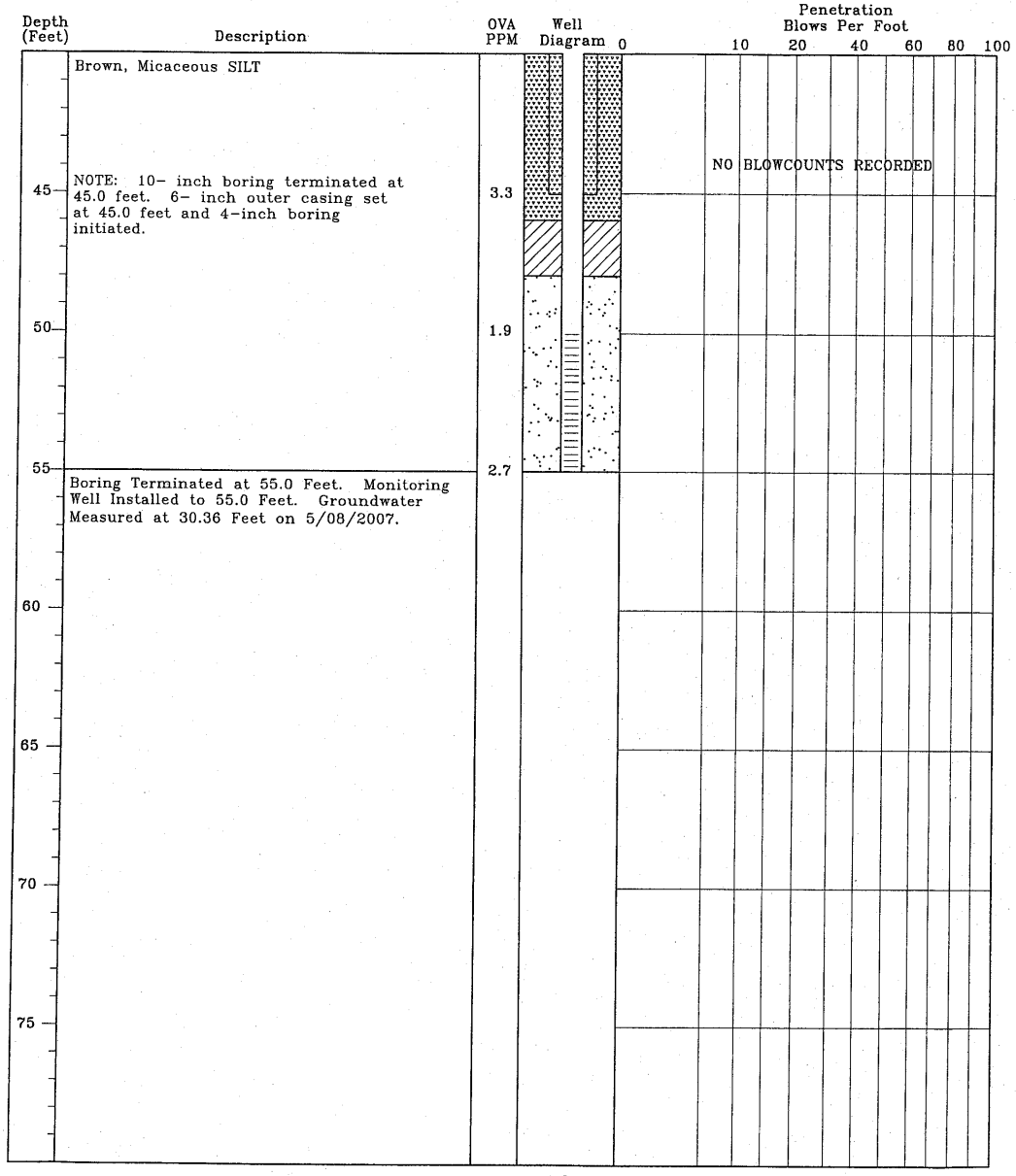


TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-21i
Date Drilled:	4/10/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-21
Date Drilled:	4/10/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
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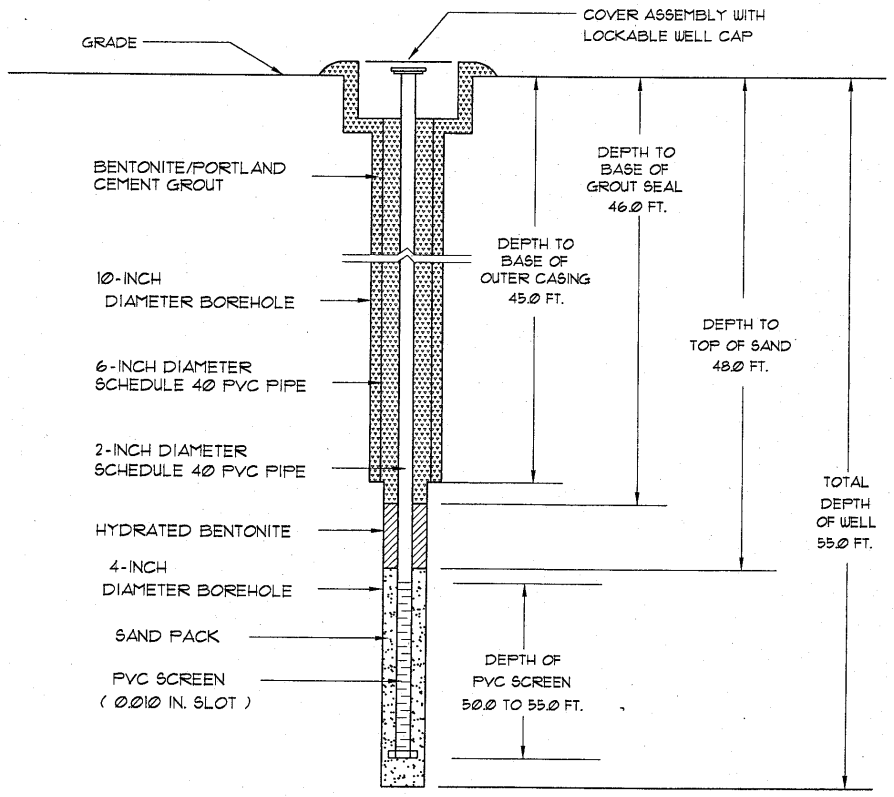
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

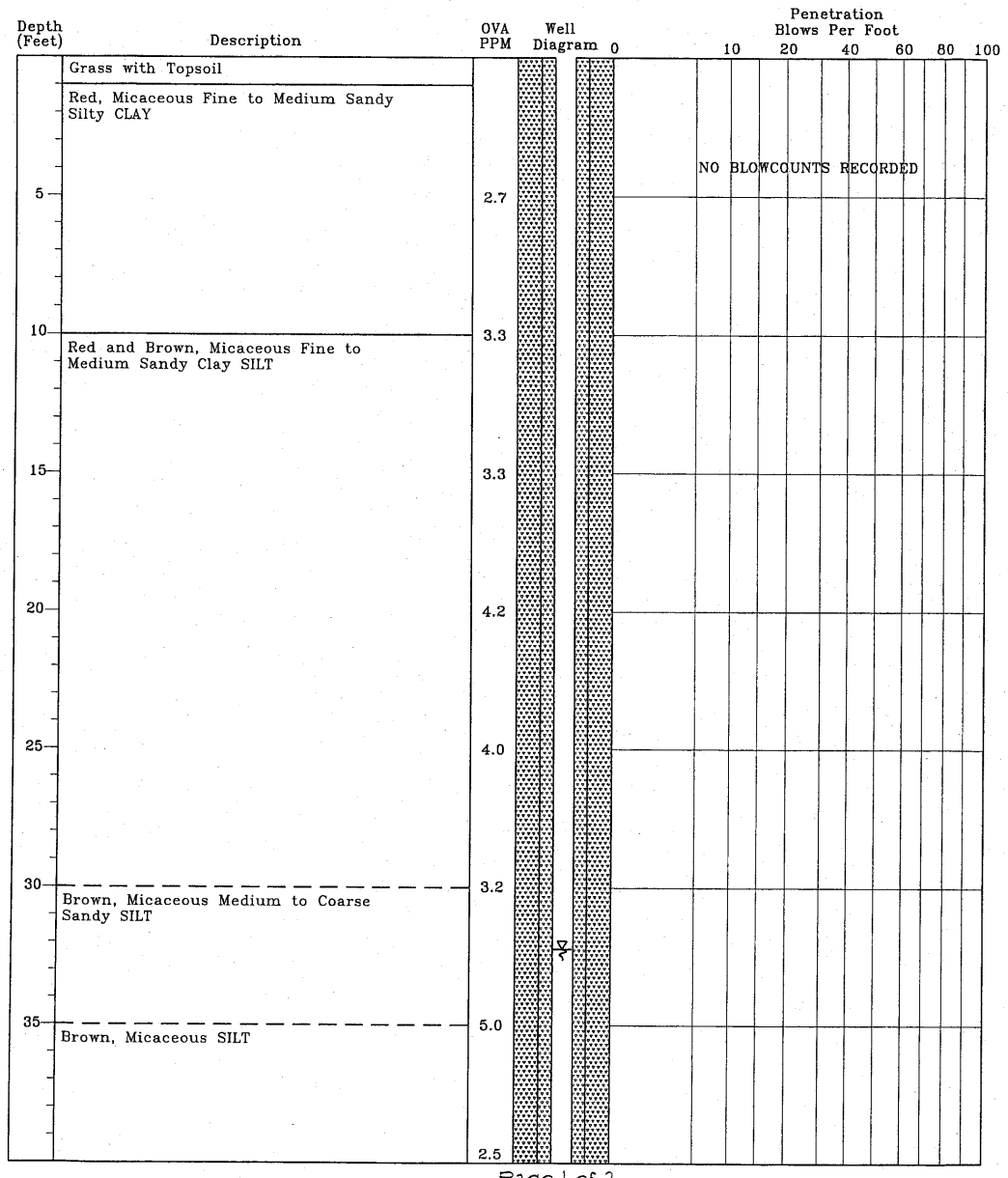
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-21i
Date Drilled:	4/10/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-22D
Date Drilled:	4/13/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
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235 B Dooley Road
Lexington, South Carolina 29073
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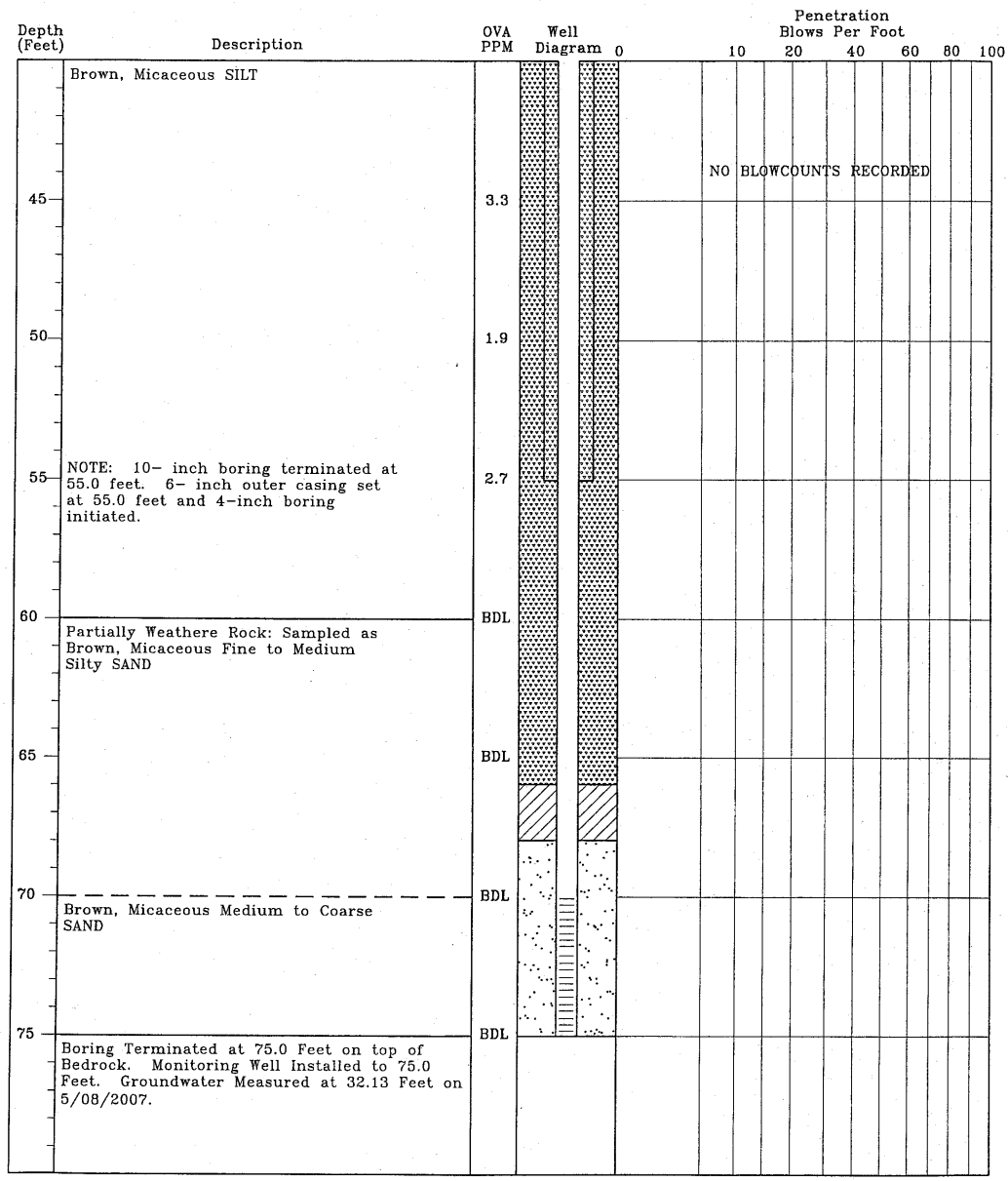

TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-22D
Date Drilled:	4/13/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
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235 B Dooley Road
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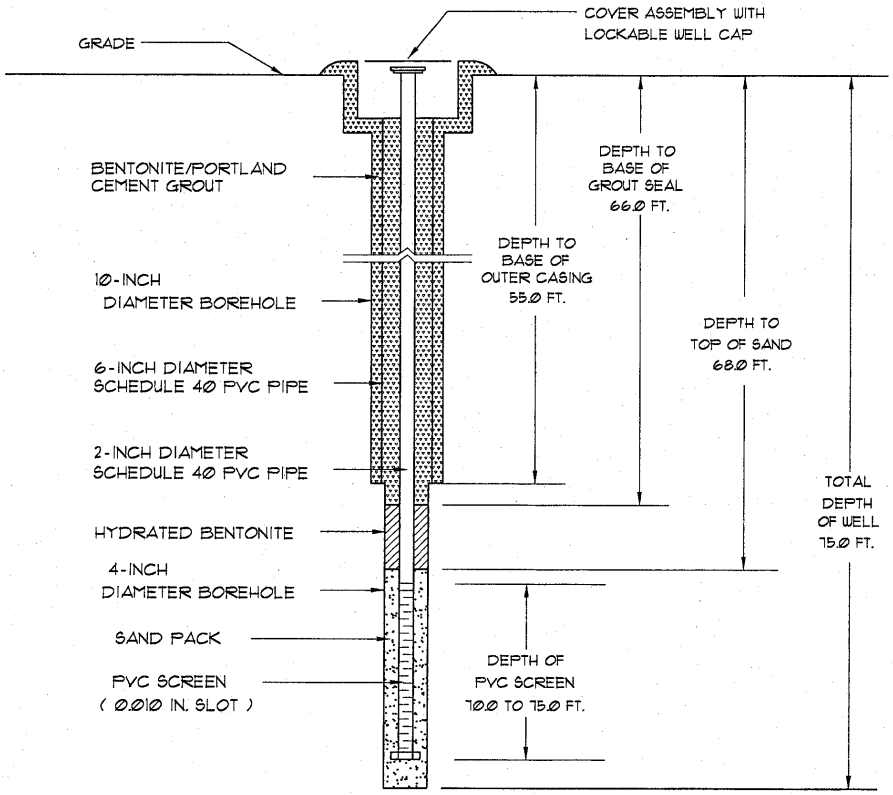
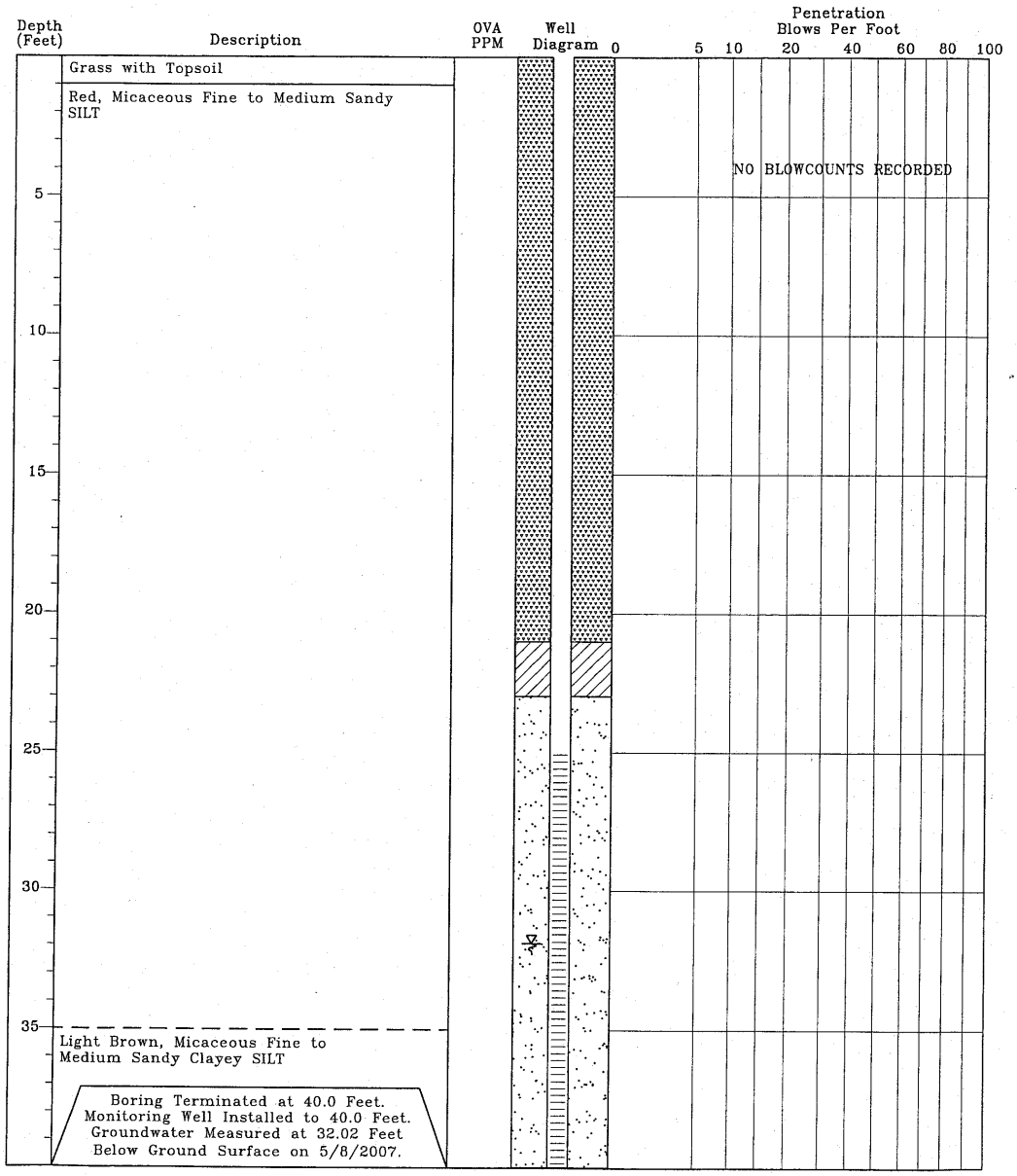
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-22D
Date Drilled:	4/13/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



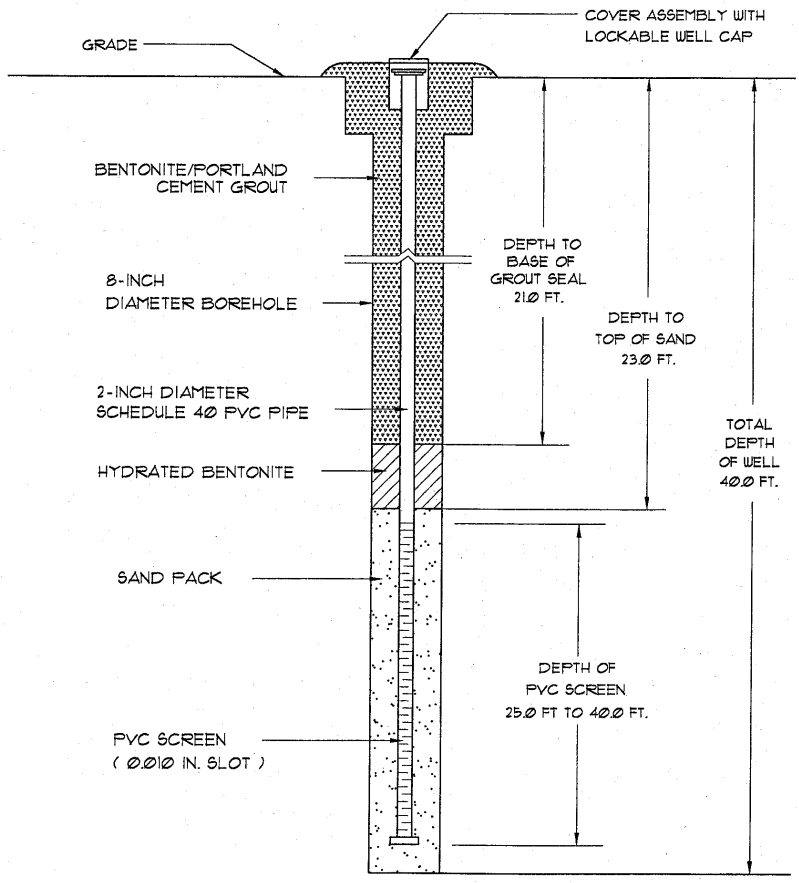
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-23
Date Drilled:	3/17/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

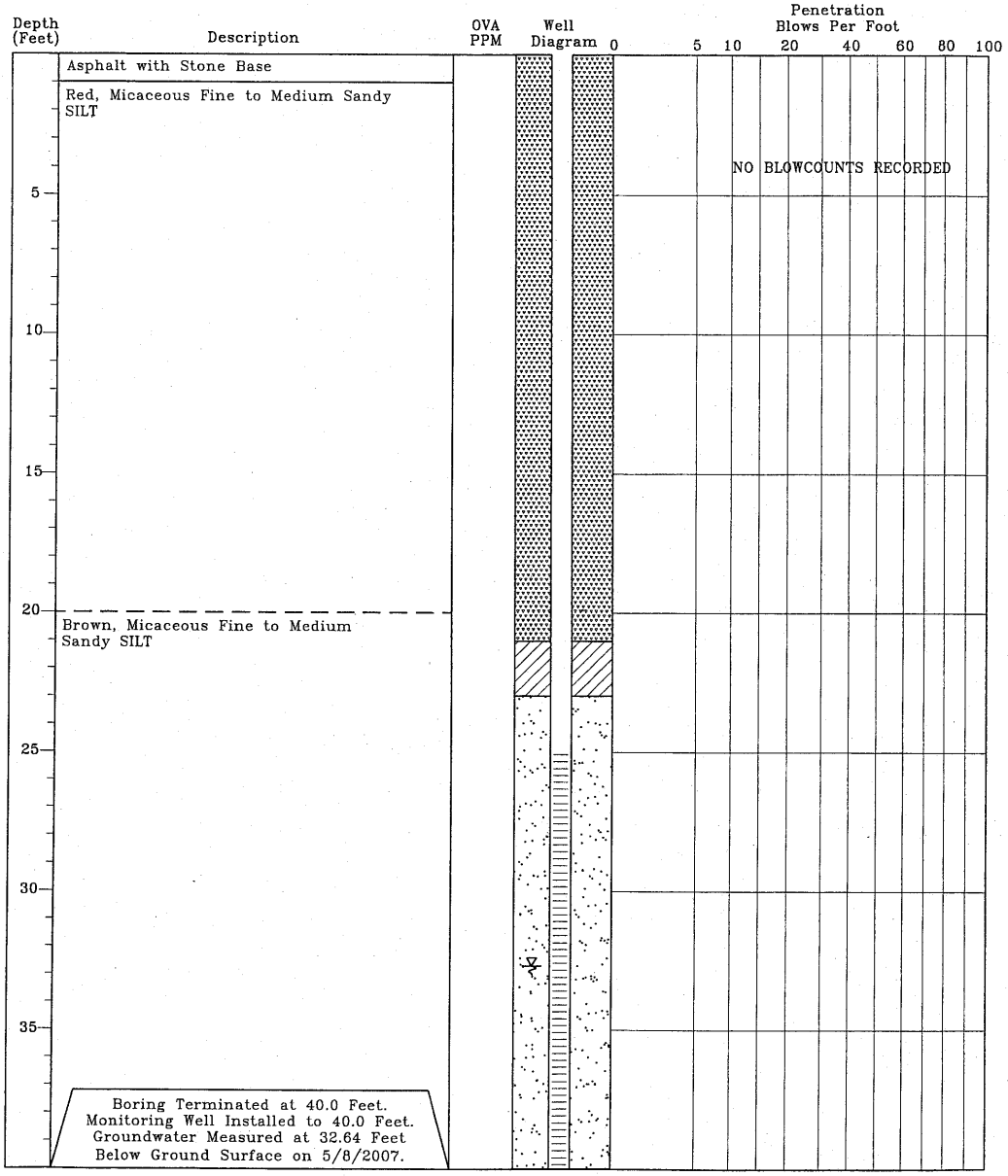
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-23
Date Drilled:	3/17/07
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 01086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



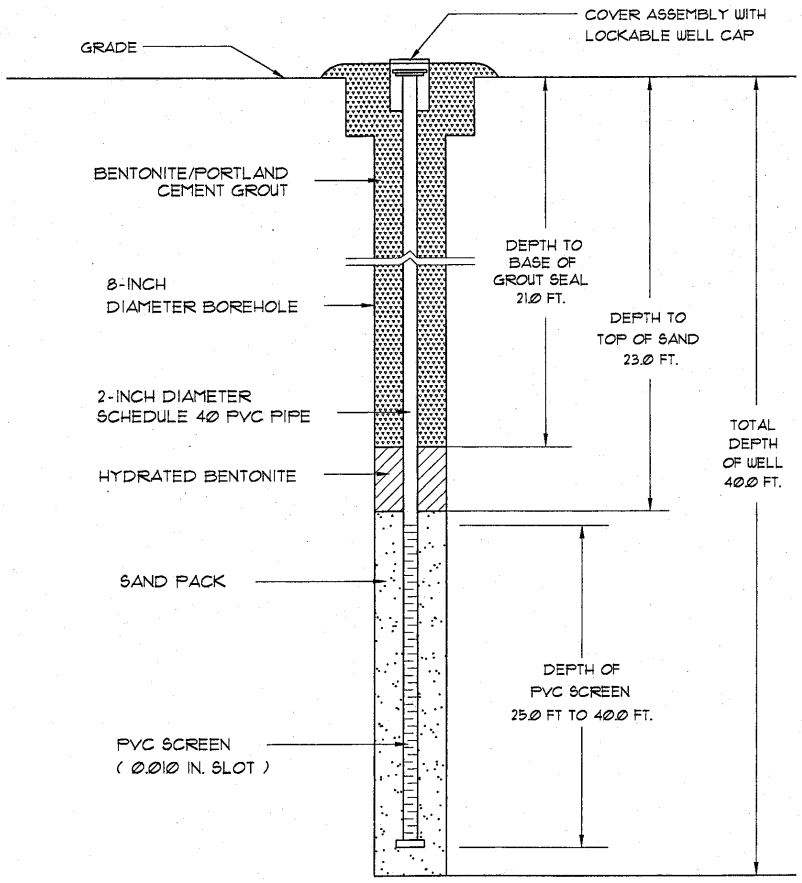
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-24
Date Drilled:	3/17/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

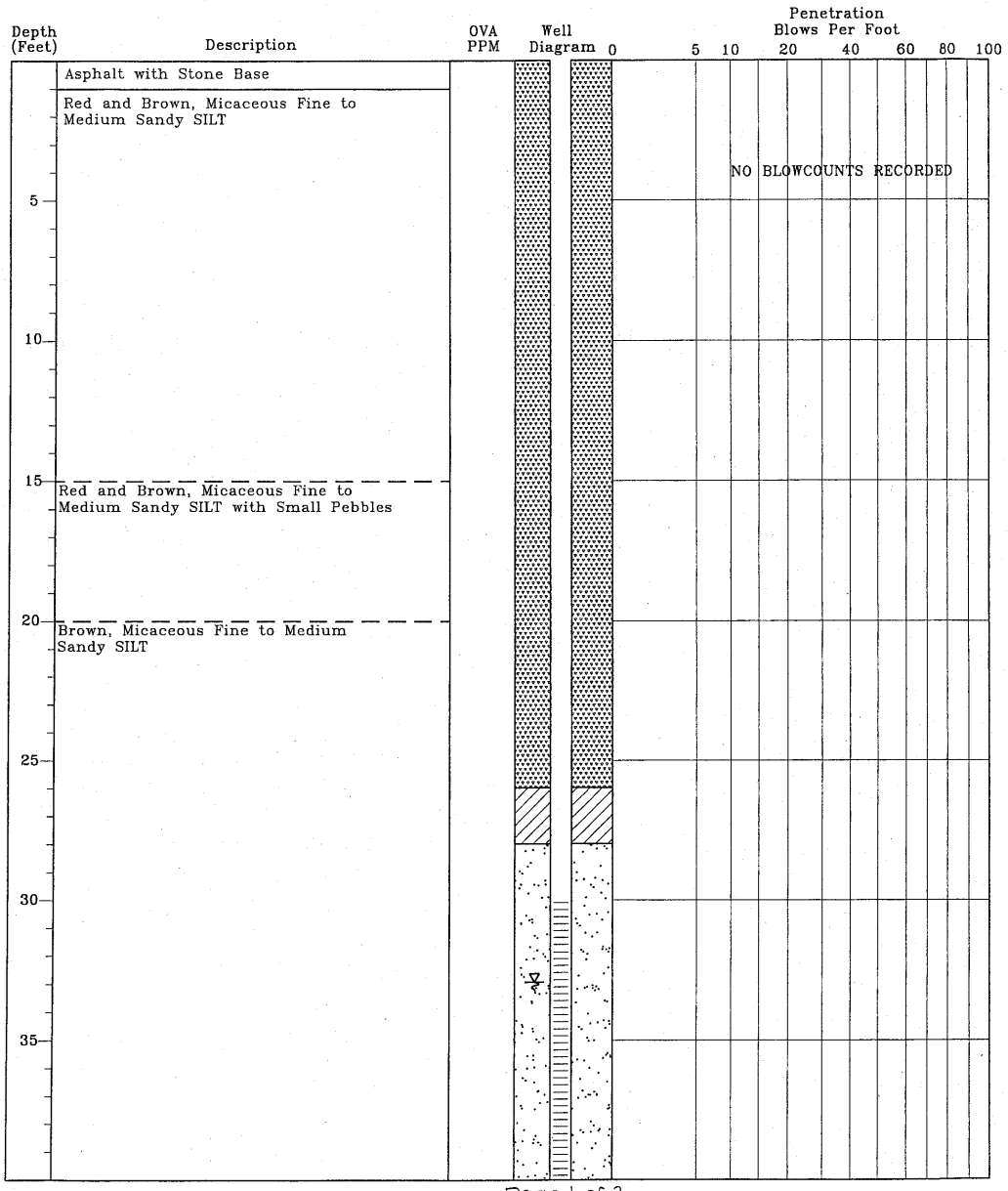
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-24
Date Drilled:	3/17/07
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 01086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-25
Date Drilled:	3/17/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

Depth (Feet)	Description	OVA PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Brown, Micaceous Fine to Medium Sandy SILT			NO BLOWCOUNTS RECORDED
45	Boring Terminated at 45.0 Feet. Monitoring Well Installed to 45.0 Feet. Groundwater Measured at 33.05 Feet Below Ground Surface on 5/8/2007.			
50				
55				
60				
65				
70				
75				

TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-25
Date Drilled:	3/17/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
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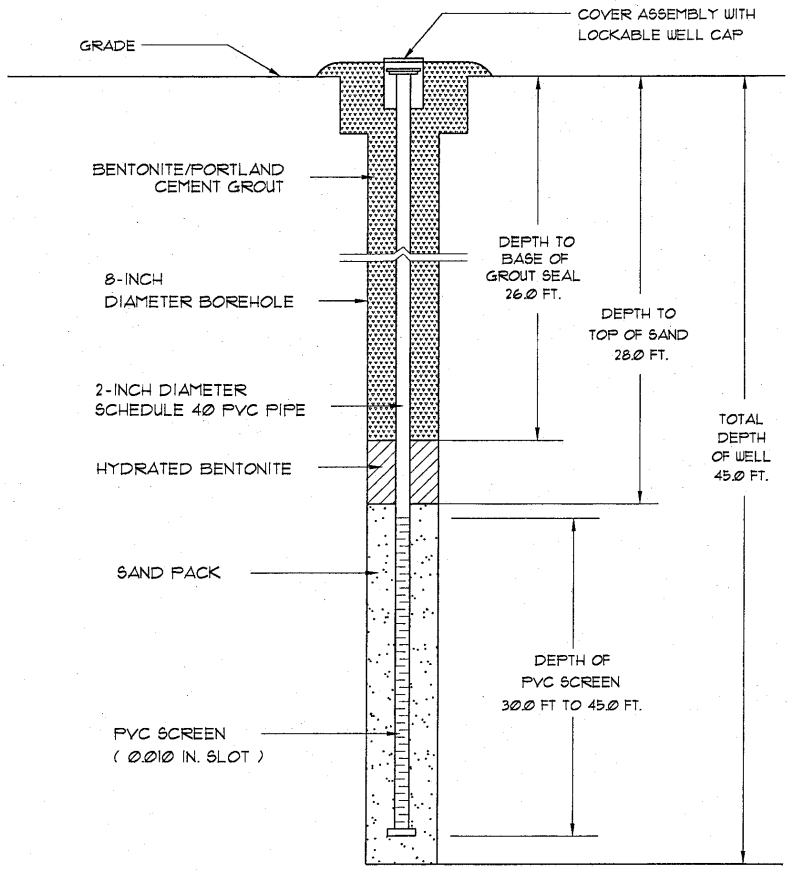
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-25
Date Drilled:	3/17/07
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 01086
Logged By:	B. Kelly

Prepared By:
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235-B Dooley Road
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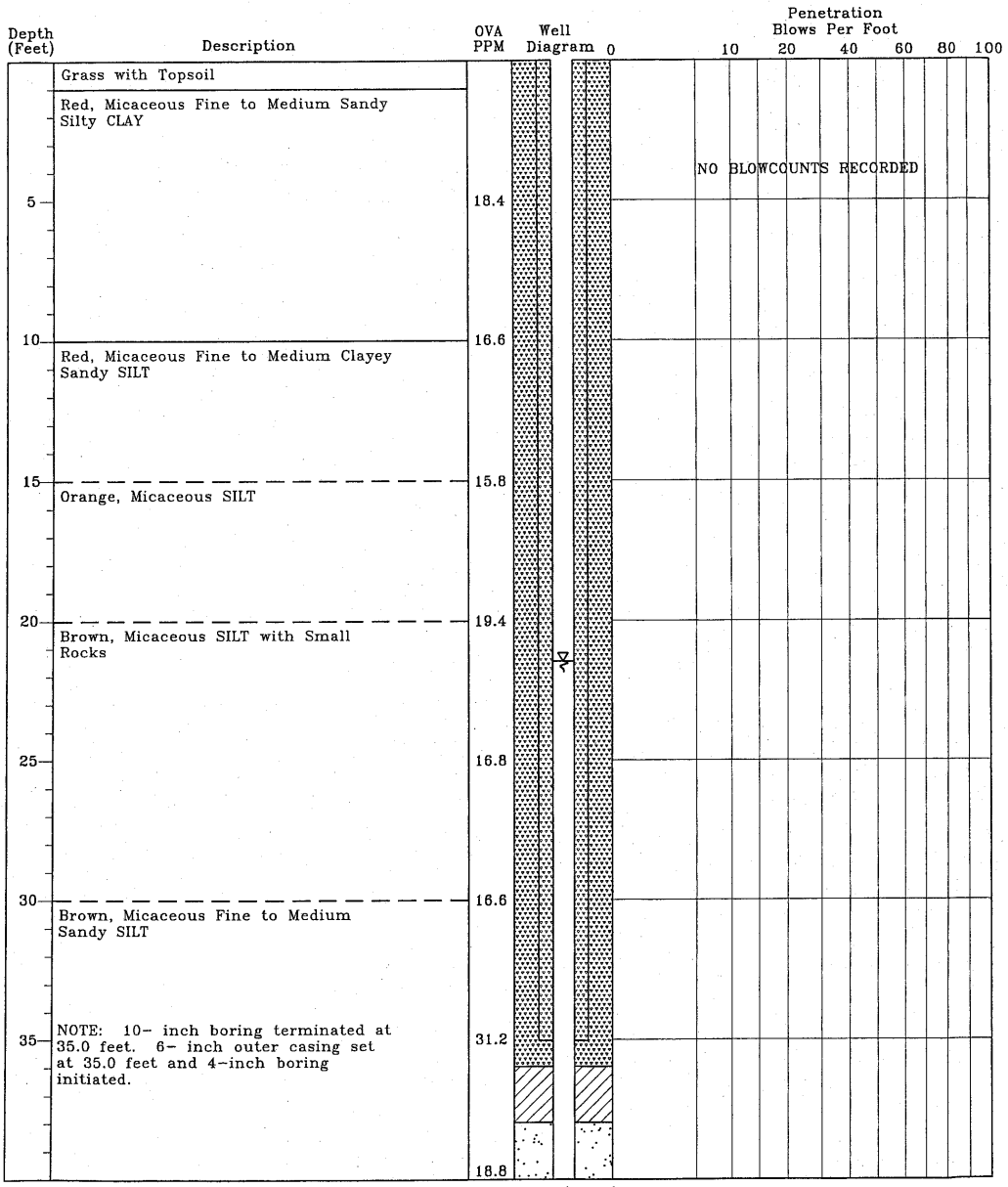
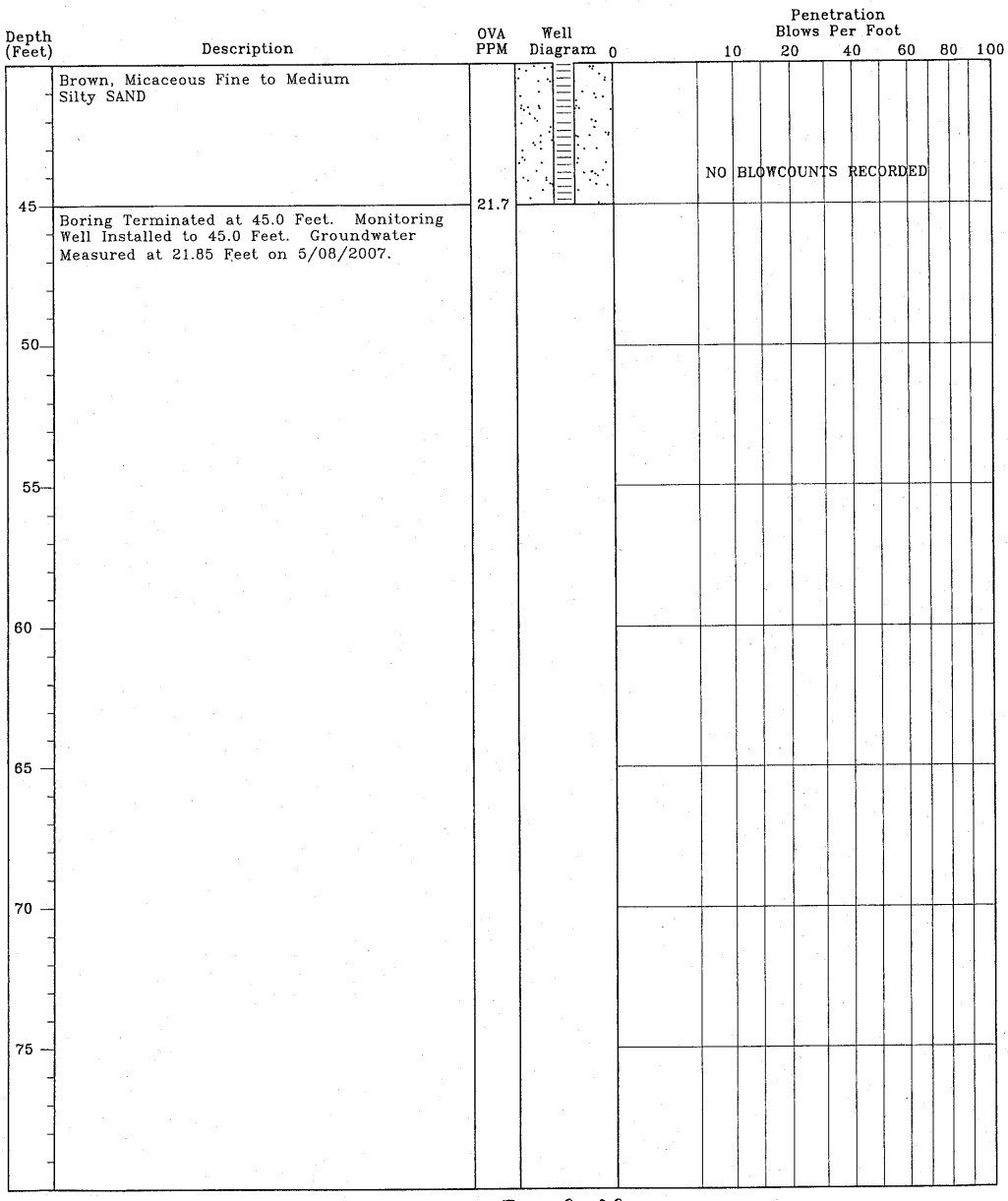
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-26i
Date Drilled:	4/20/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-26i
Date Drilled:	4/20/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
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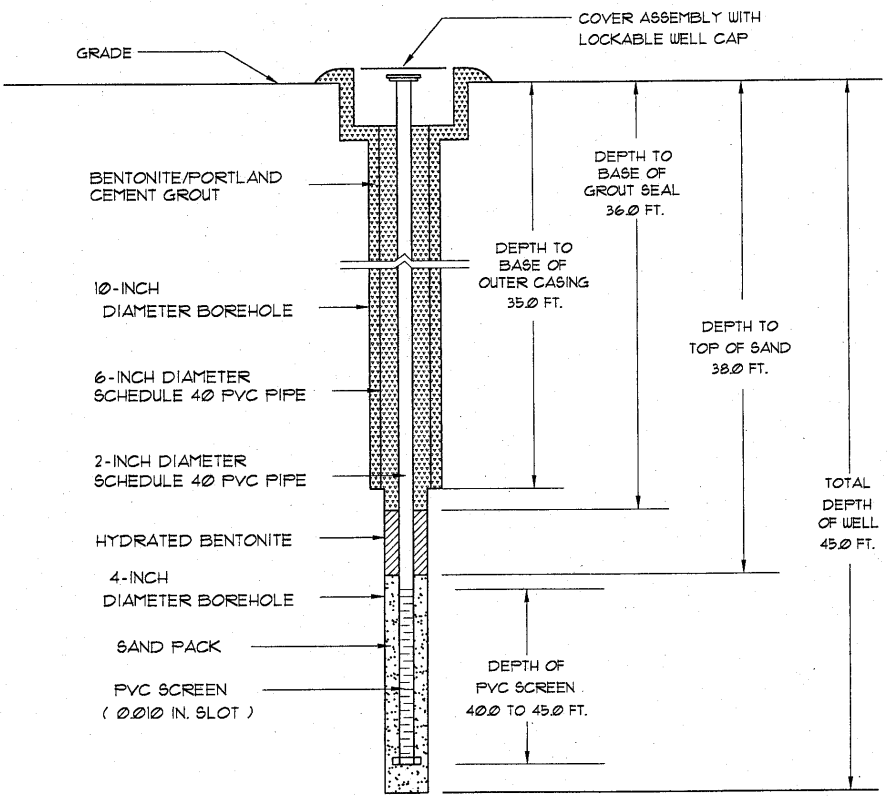
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-26i
Date Drilled:	4/20/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

Prepared By:
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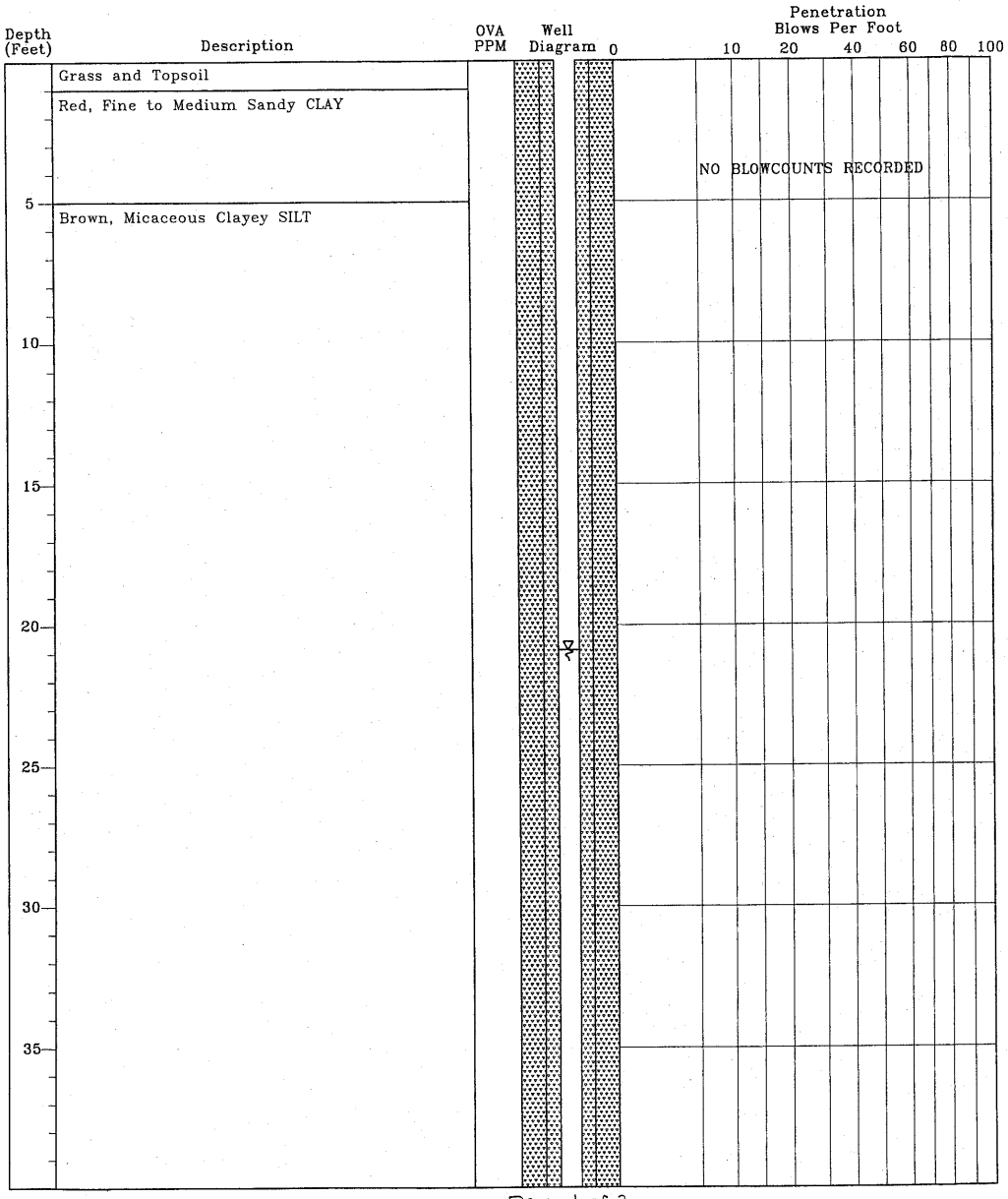
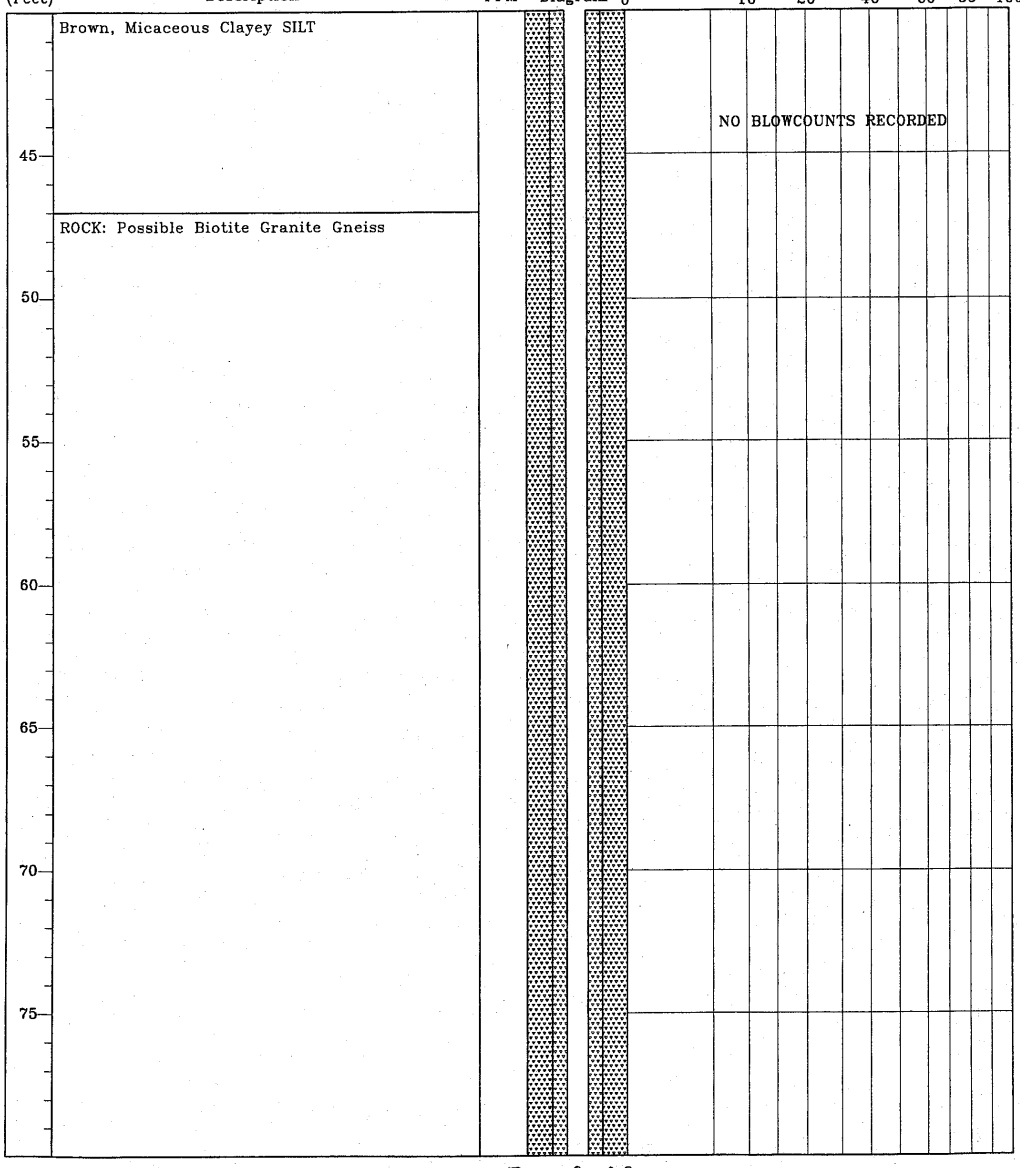
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-28DD
Date Drilled:	3/23/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

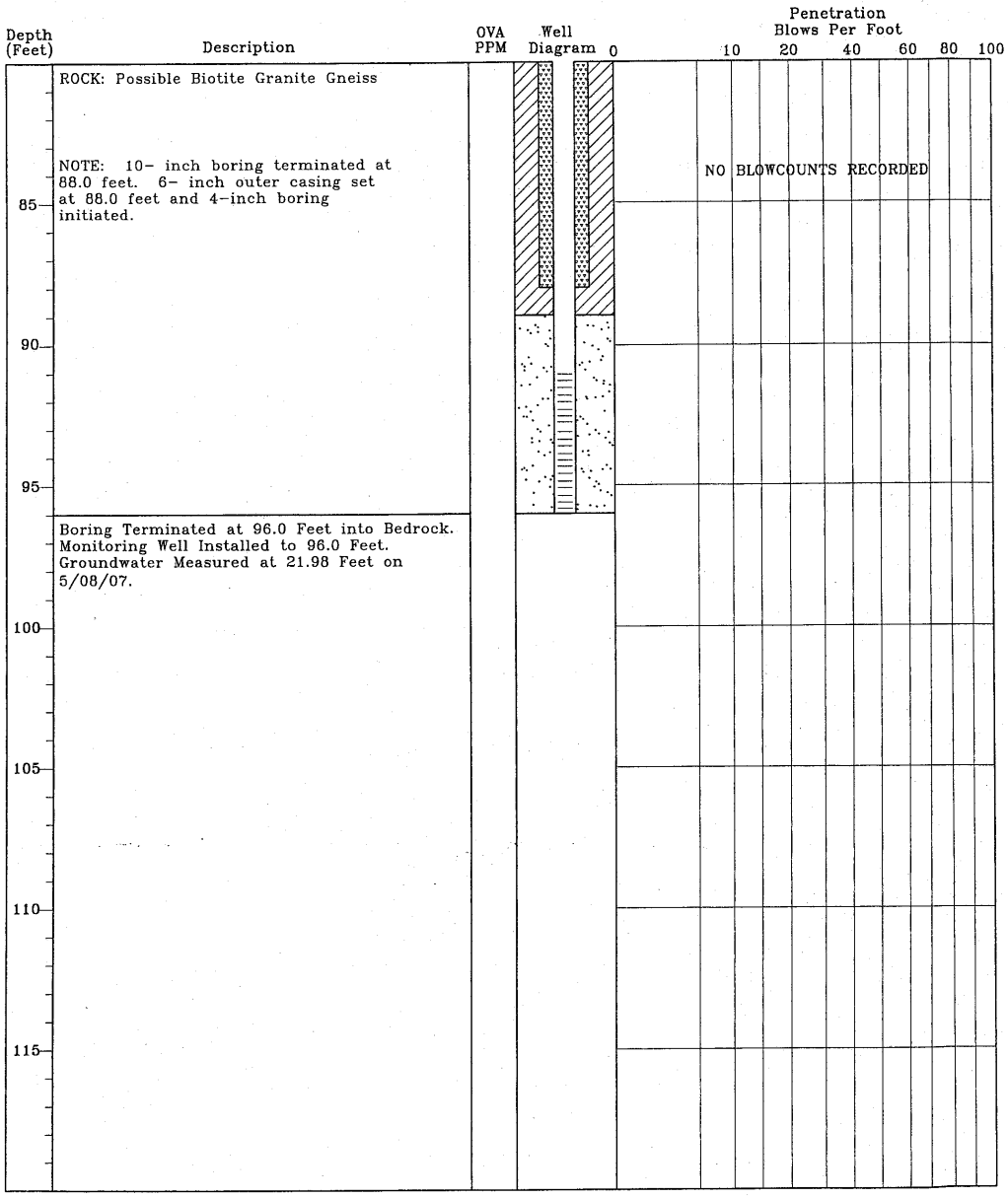
Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-28DD
Date Drilled:	3/23/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-28DD
Date Drilled:	3/23/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
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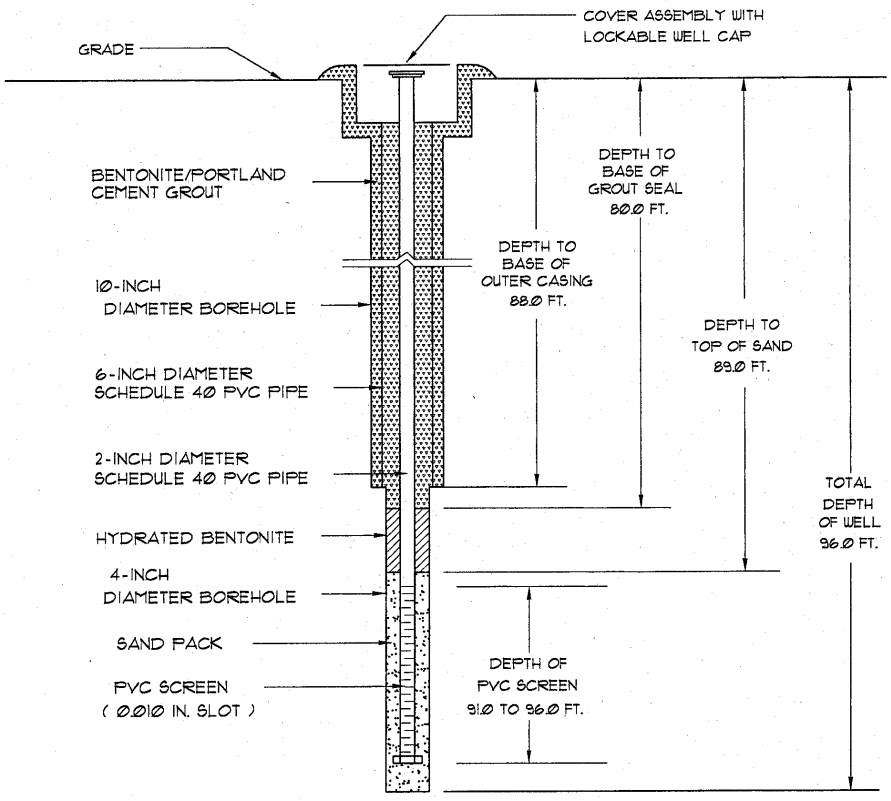
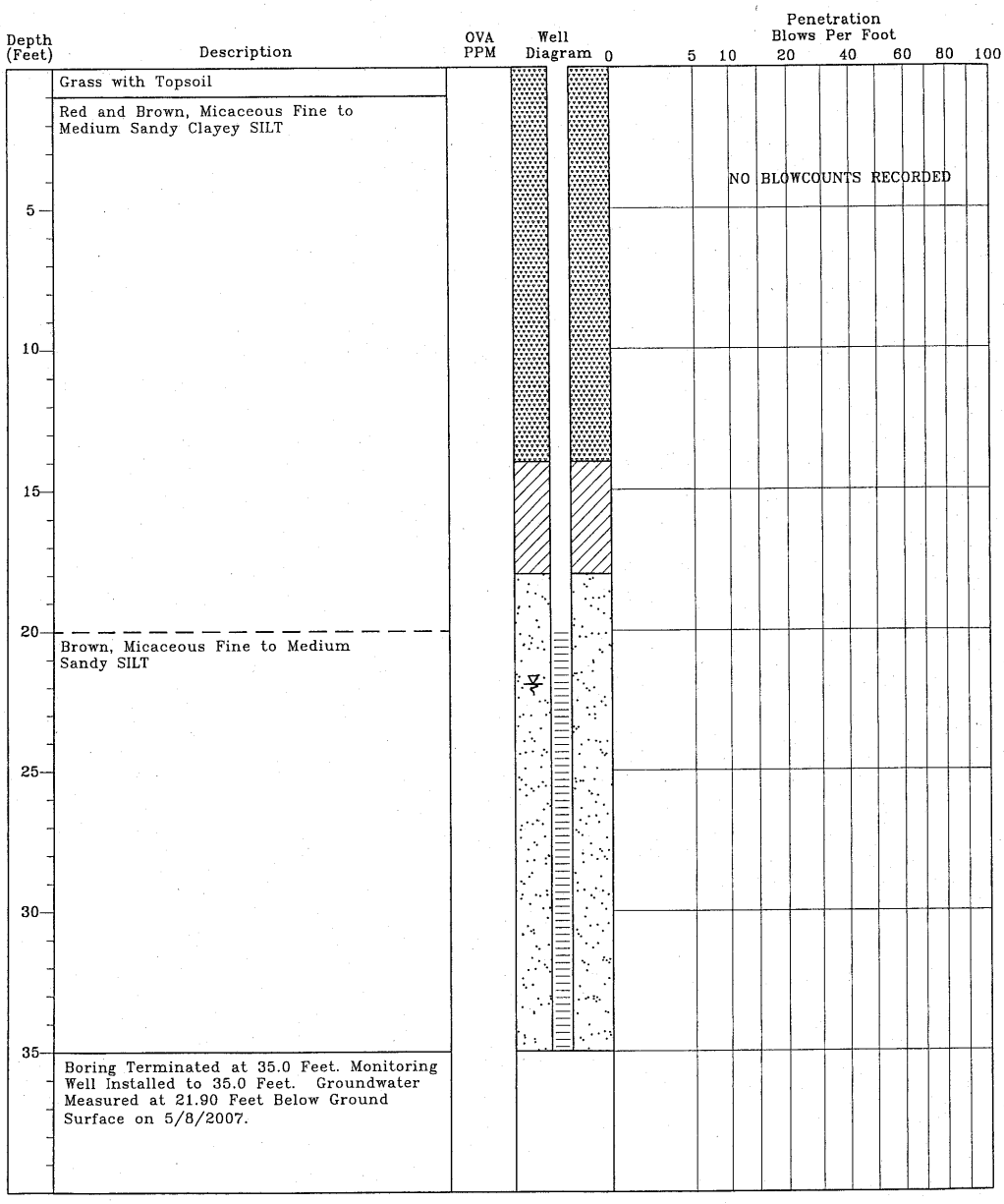
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-28DD
Date Drilled:	3/23/07
Drilled By:	Geologic Exploration, Inc.
Driller: J. Mantak	S.C. I.D. #: B 1494
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-1243 fax: 808-1248



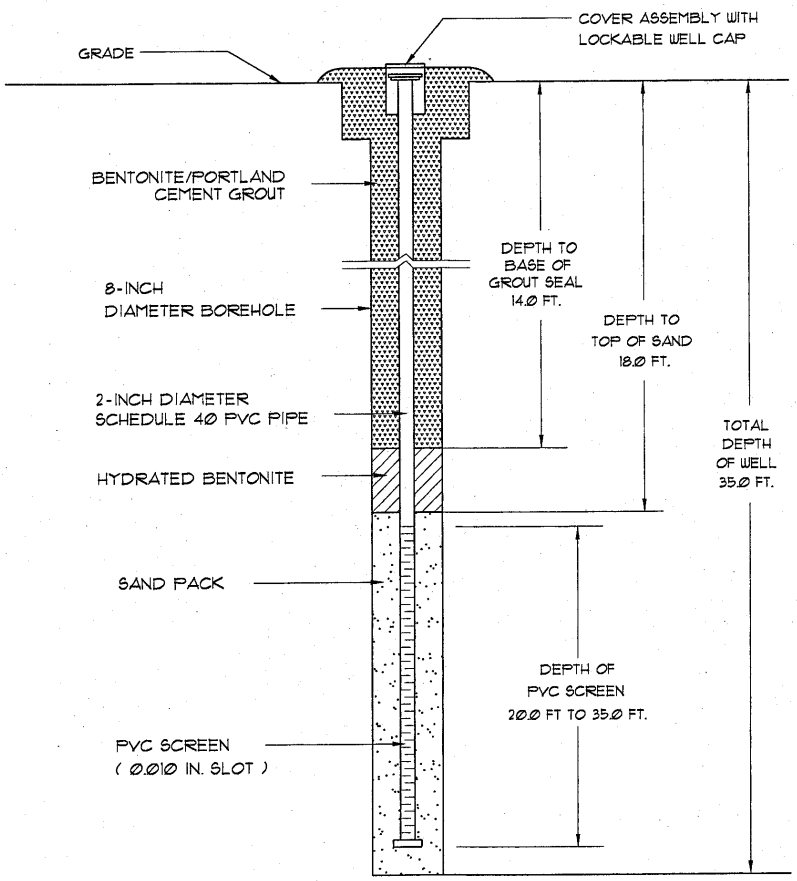
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-29
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

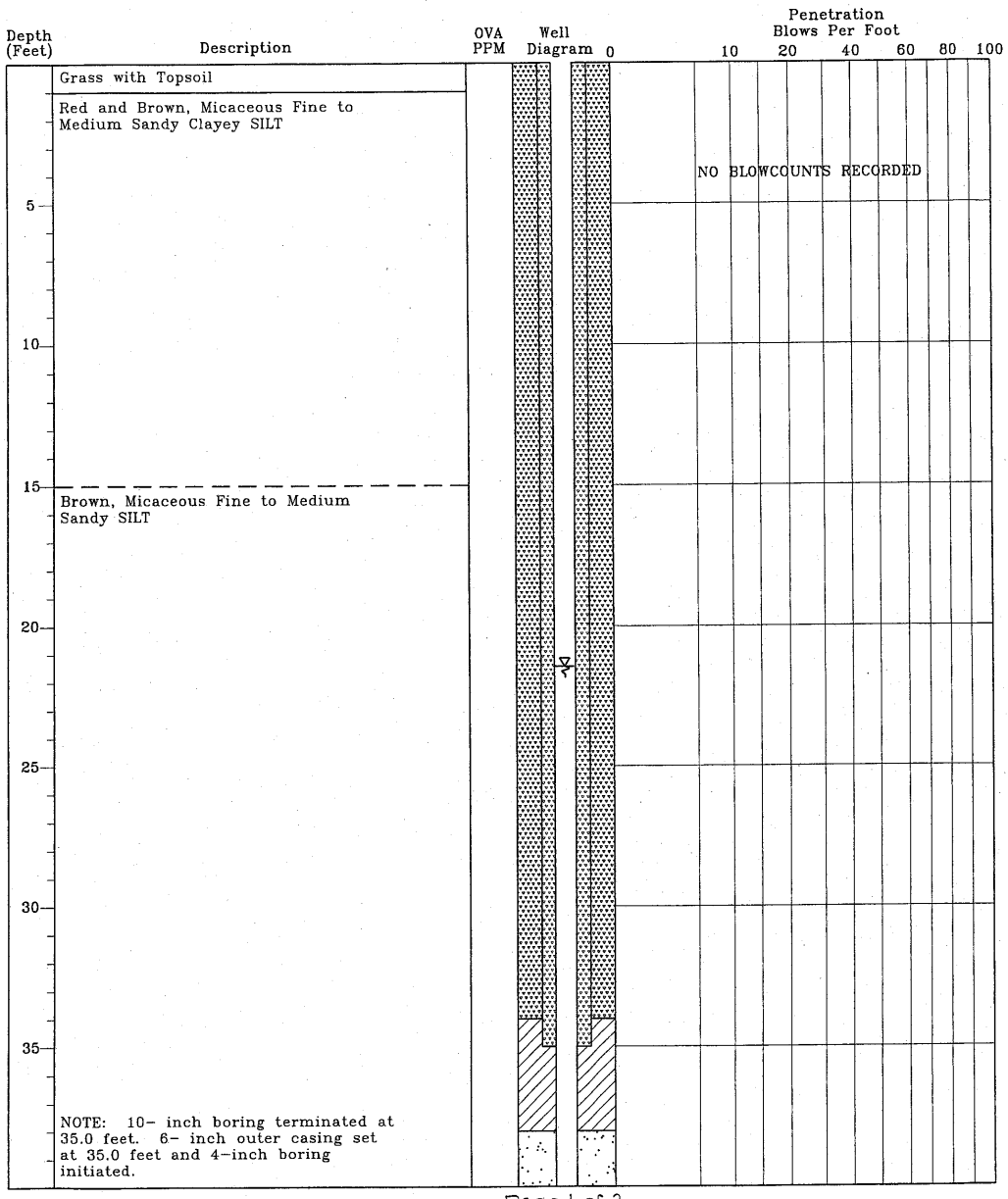
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-29
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Kelly

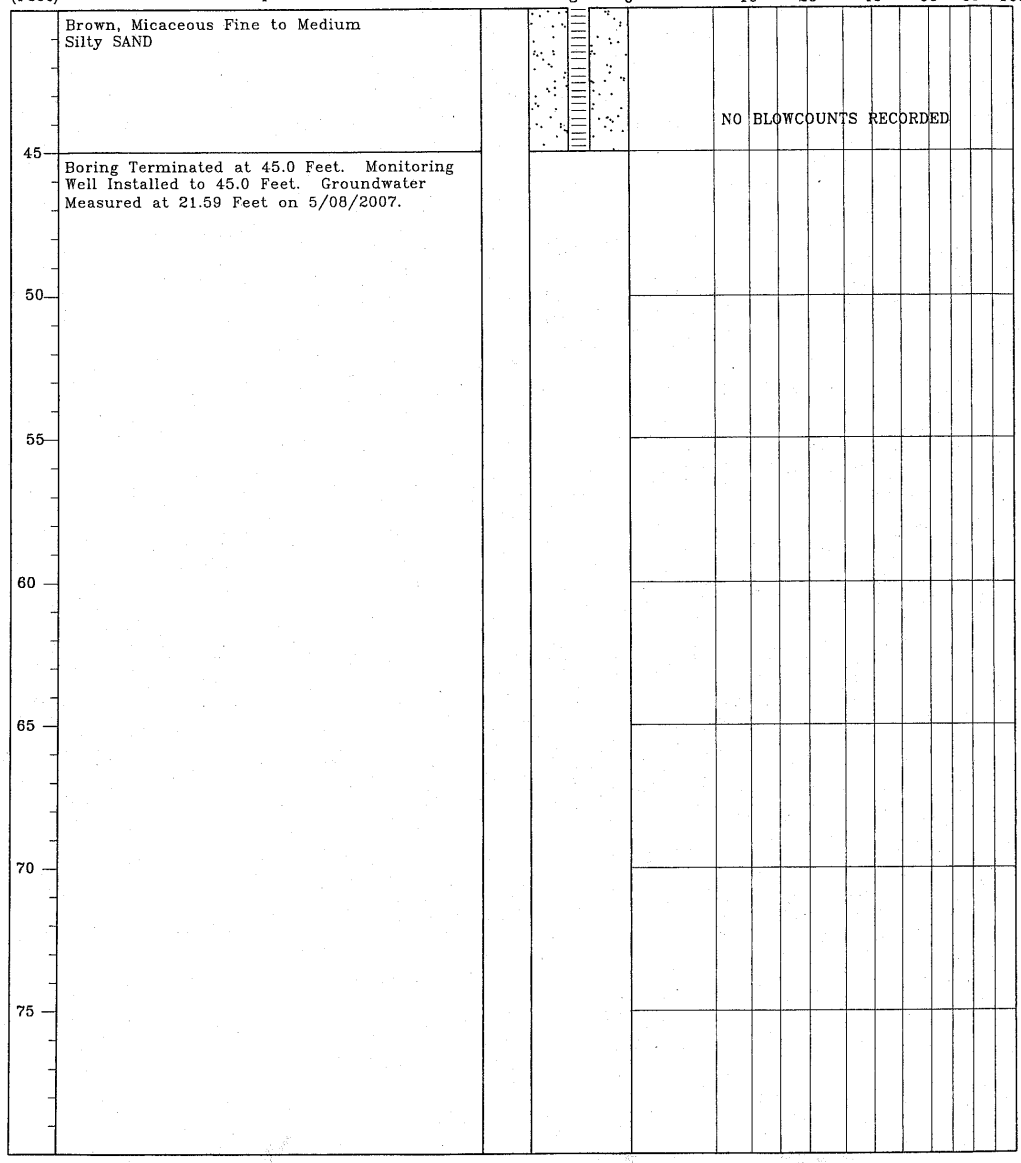
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-1043 fax: 808-1048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-301
Date Drilled:	5/02/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-301
Date Drilled:	5/02/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
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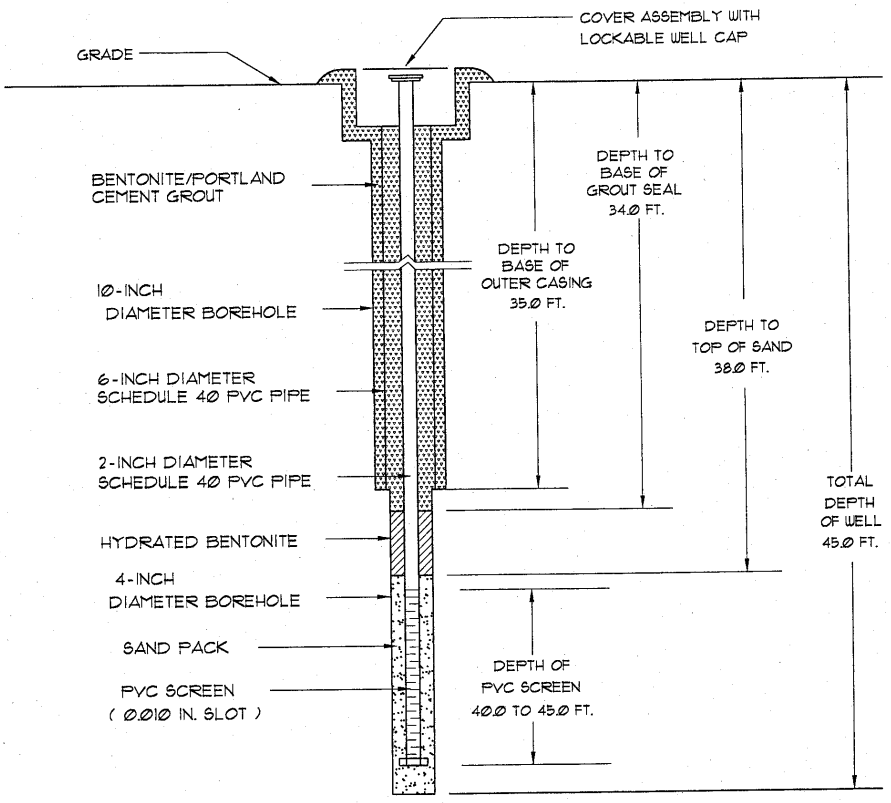
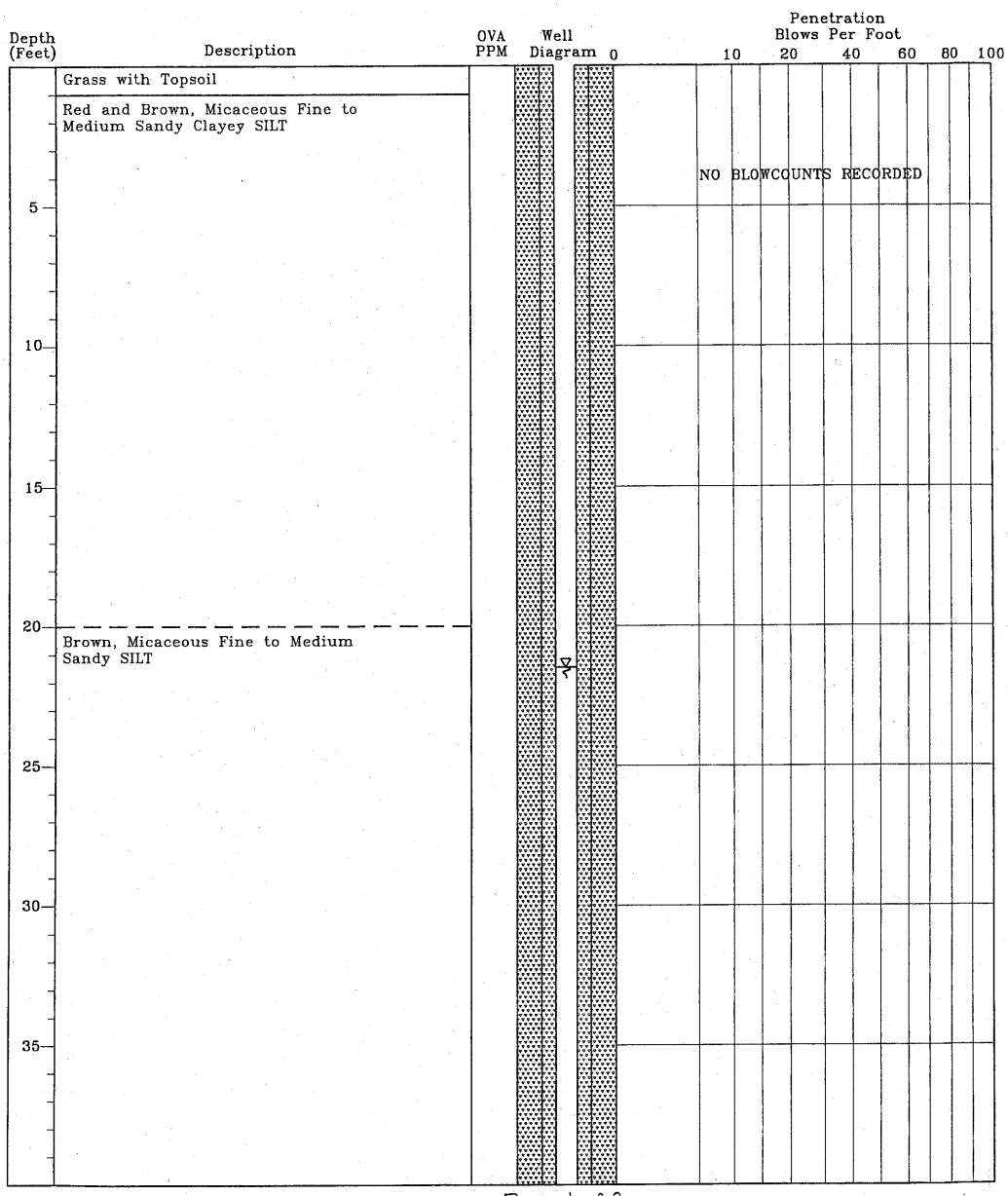
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-30i
Date Drilled:	5/2/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

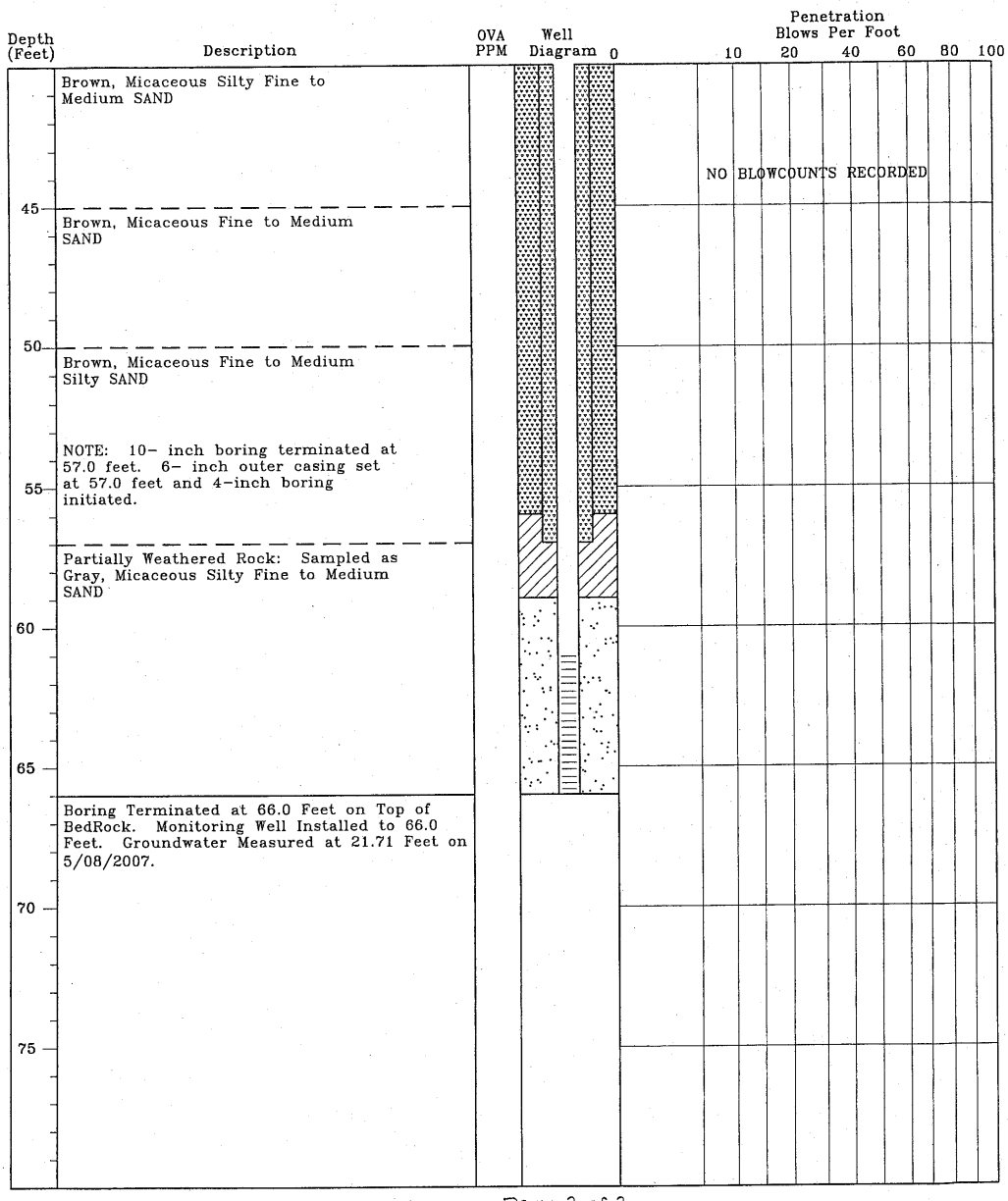
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-31D
Date Drilled:	5/01/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-31D
Date Drilled:	5/01/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
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Lexington, South Carolina 29073
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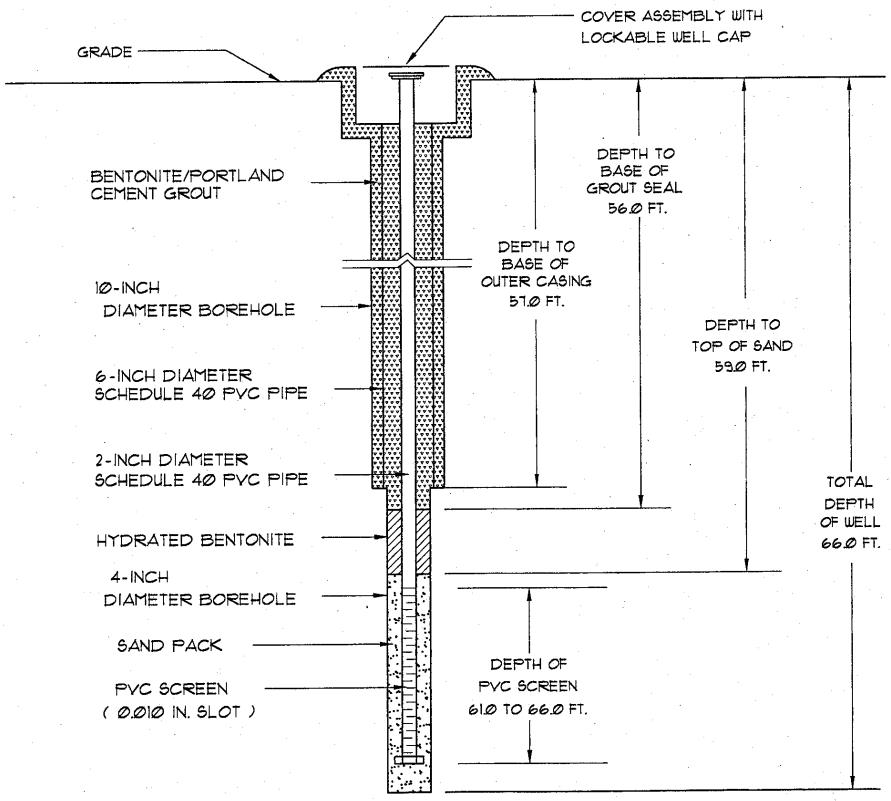
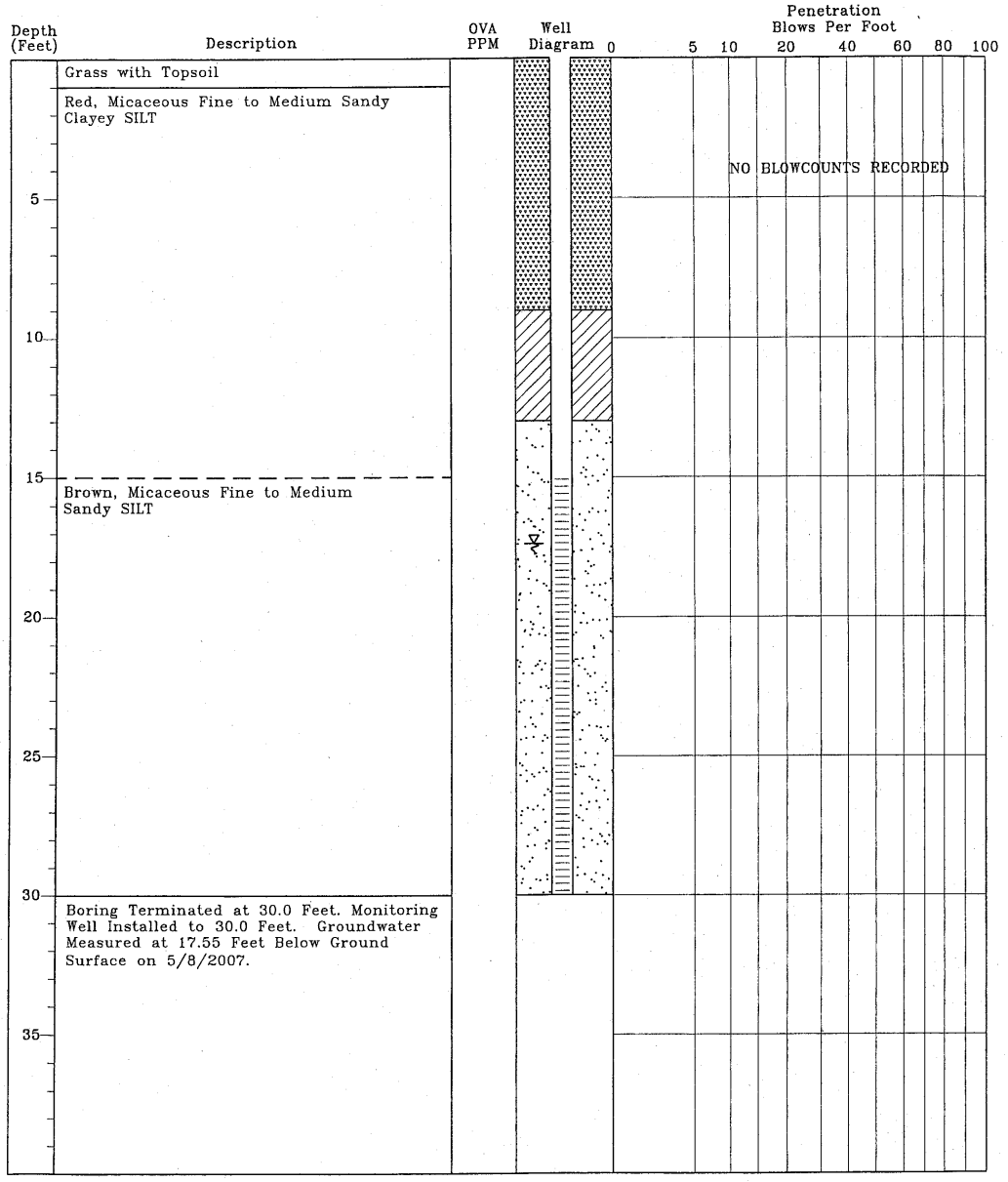
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-31D
Date Drilled:	5/01/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



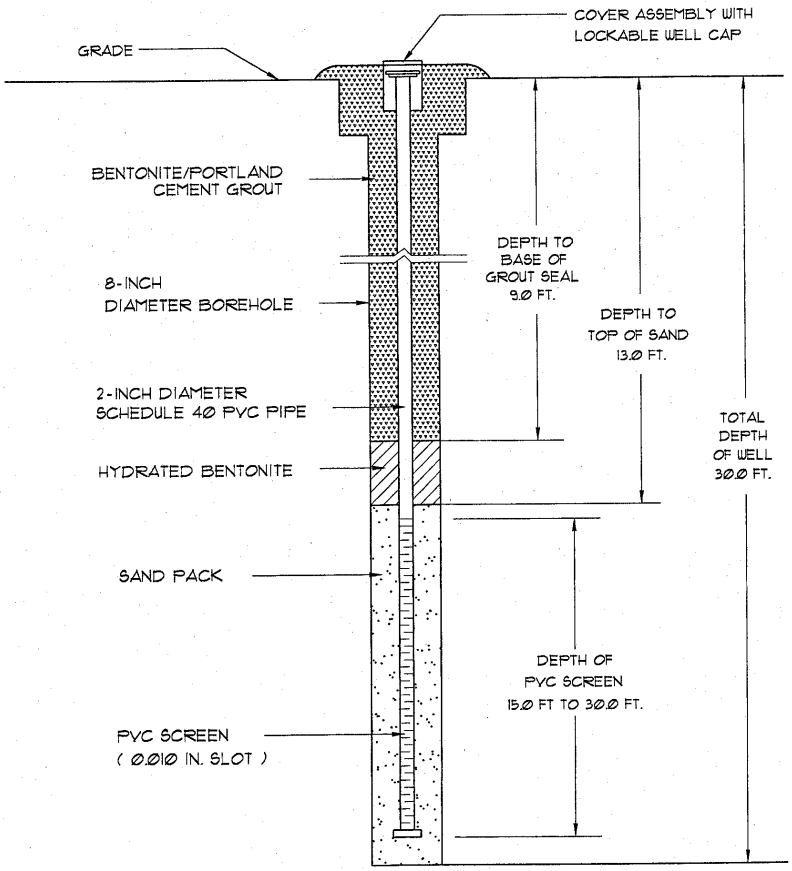
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-32
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

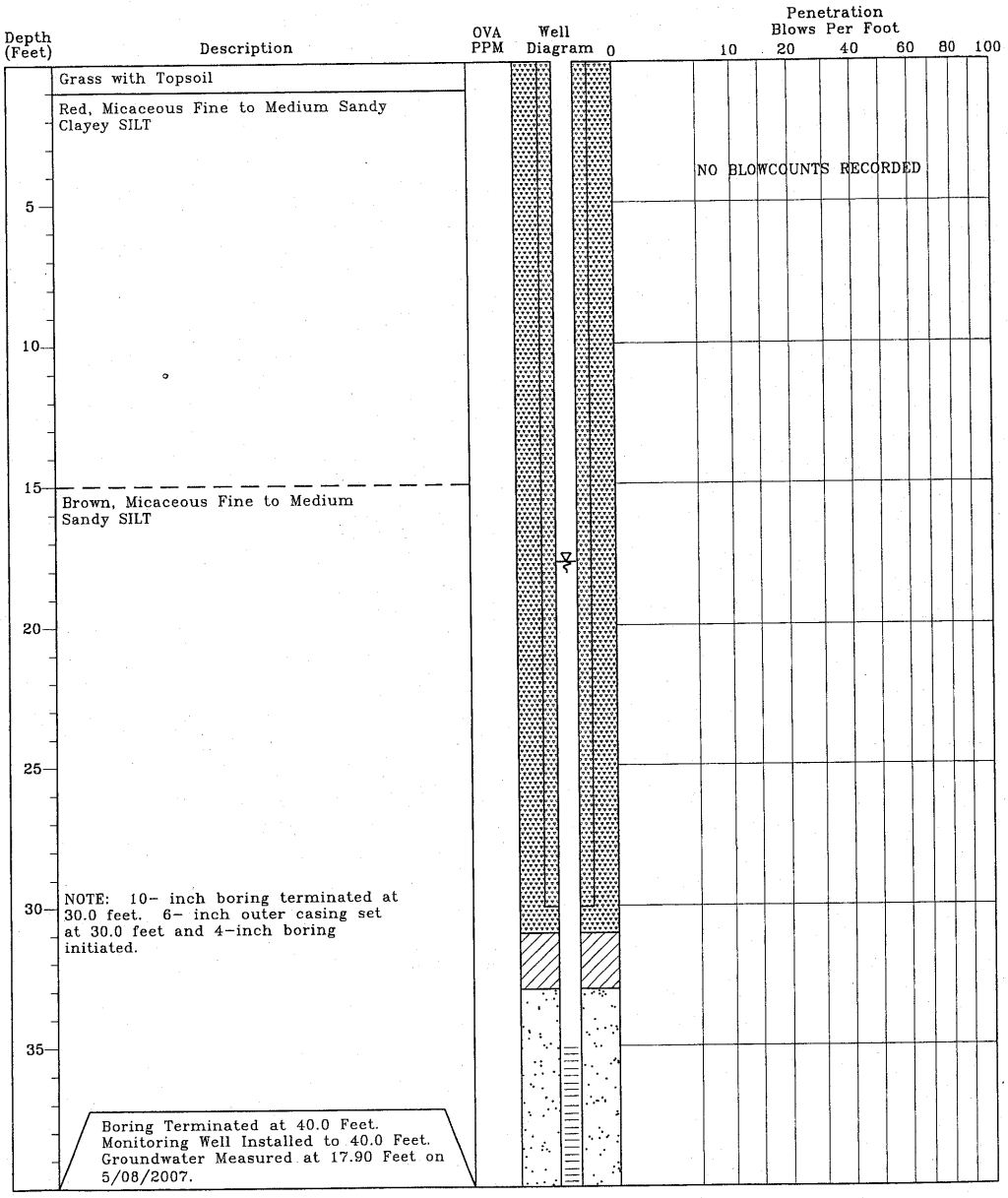
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-32
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-33i
Date Drilled:	4/4/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

Prepared By:
Midlands Environmental Consultants, Inc.
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Lexington, South Carolina 29073
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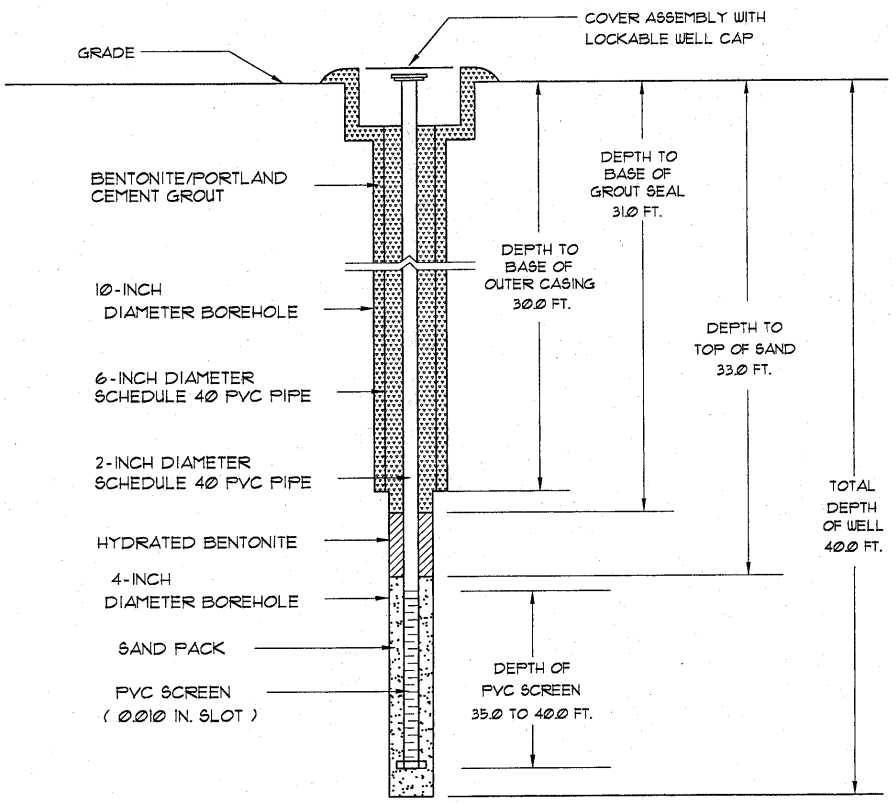
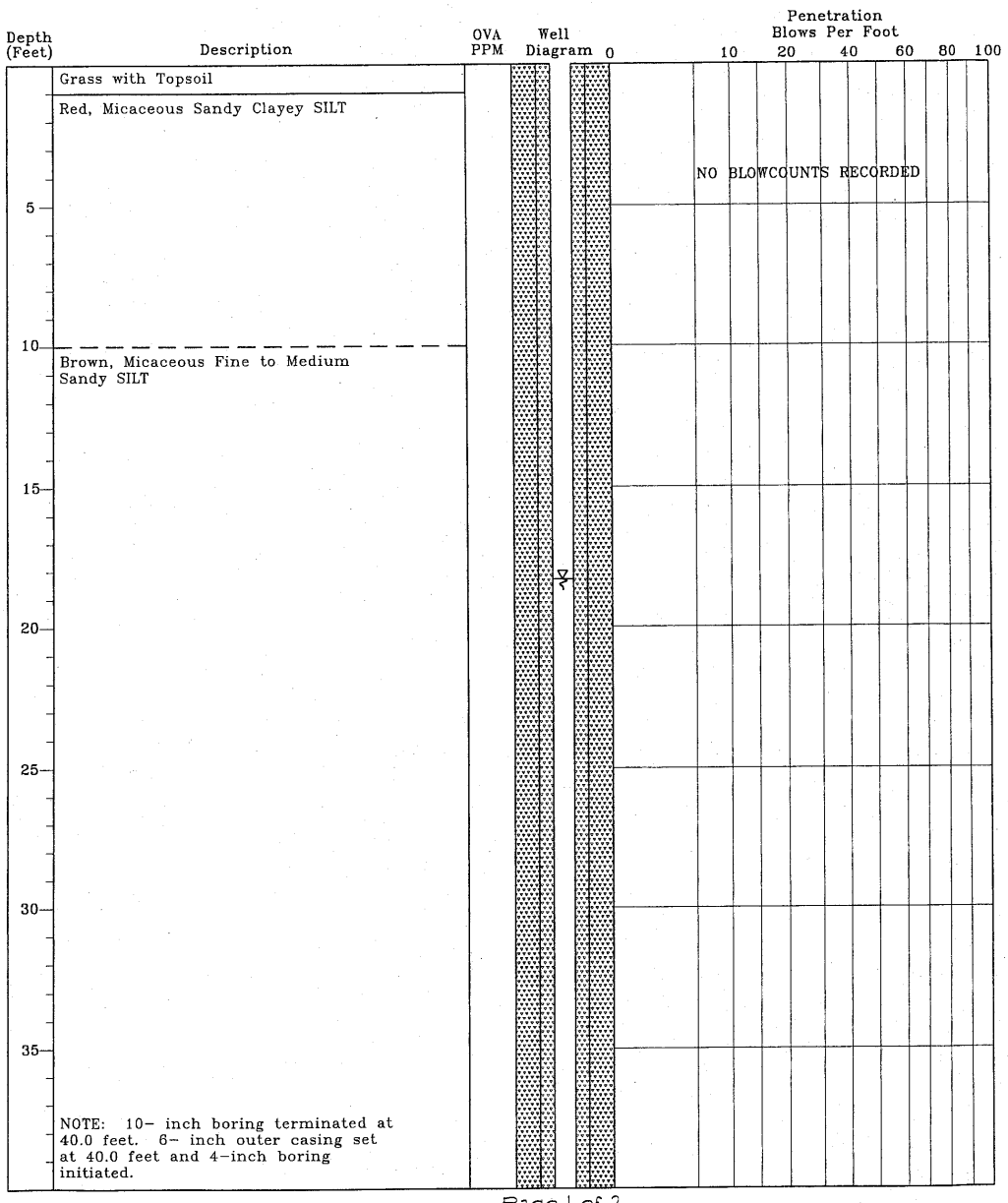
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-33i
Date Drilled:	4/4/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-34D
Date Drilled:	5/04/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

Prepared By:
Midlands Environmental Consultants, Inc.
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Lexington, South Carolina 29073
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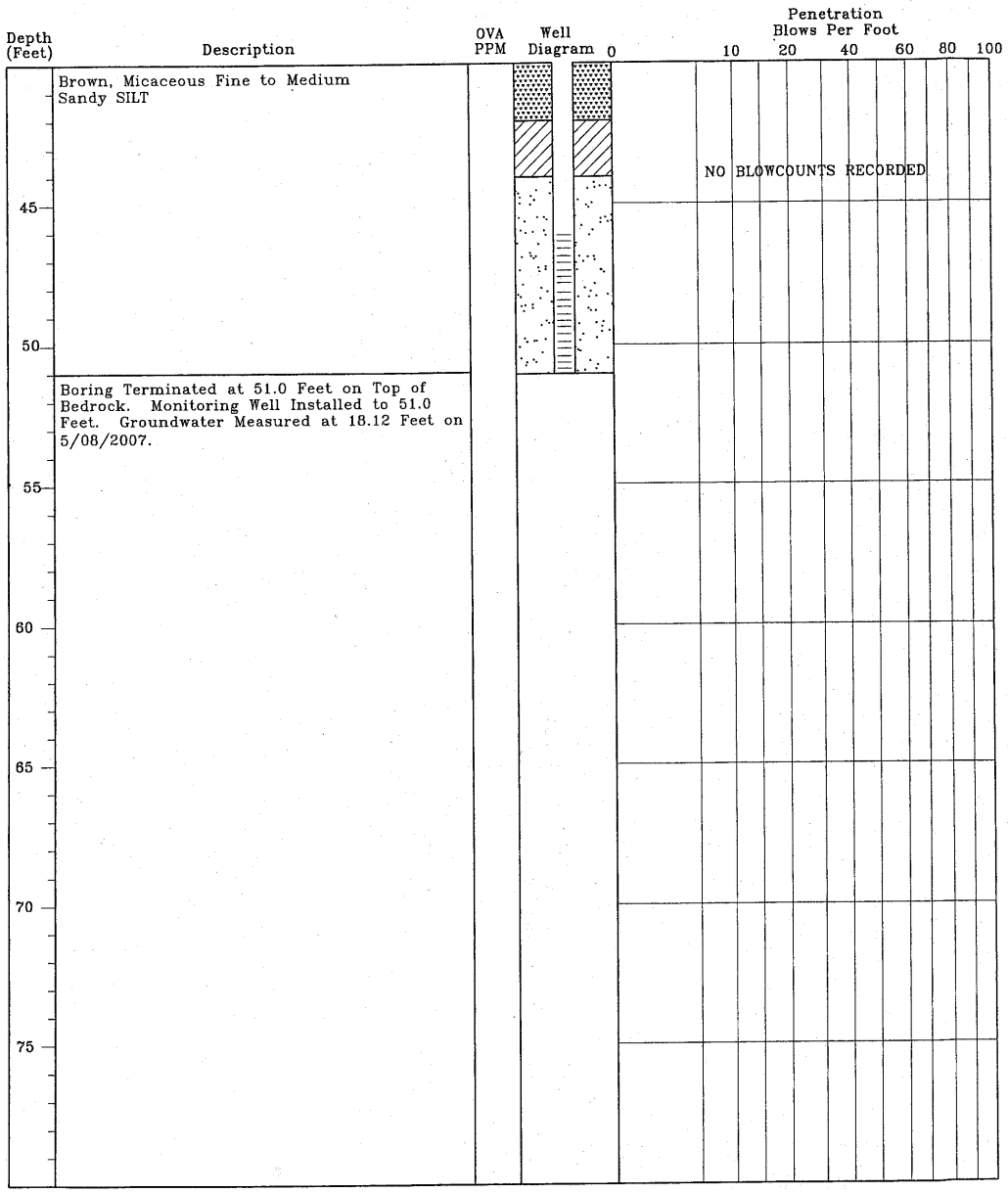

TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-34D
Date Drilled:	5/04/07
Drilled By:	Geologic Exploration Inc.
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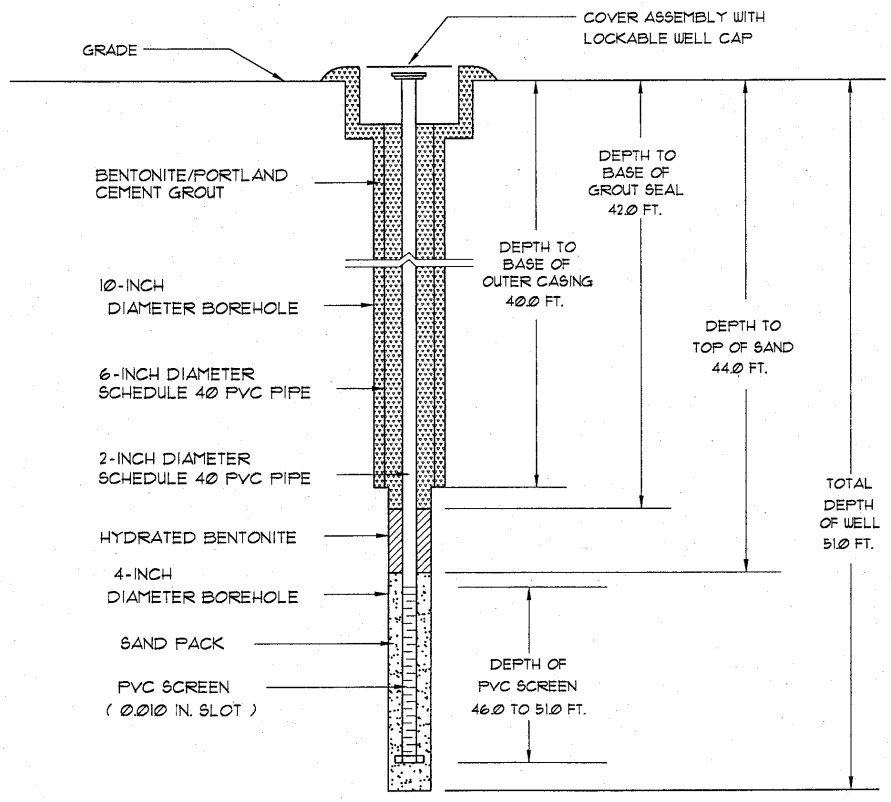
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-34D
Date Drilled:	5/4/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: A 1086
Logged By:	B. Kelly

Prepared By:
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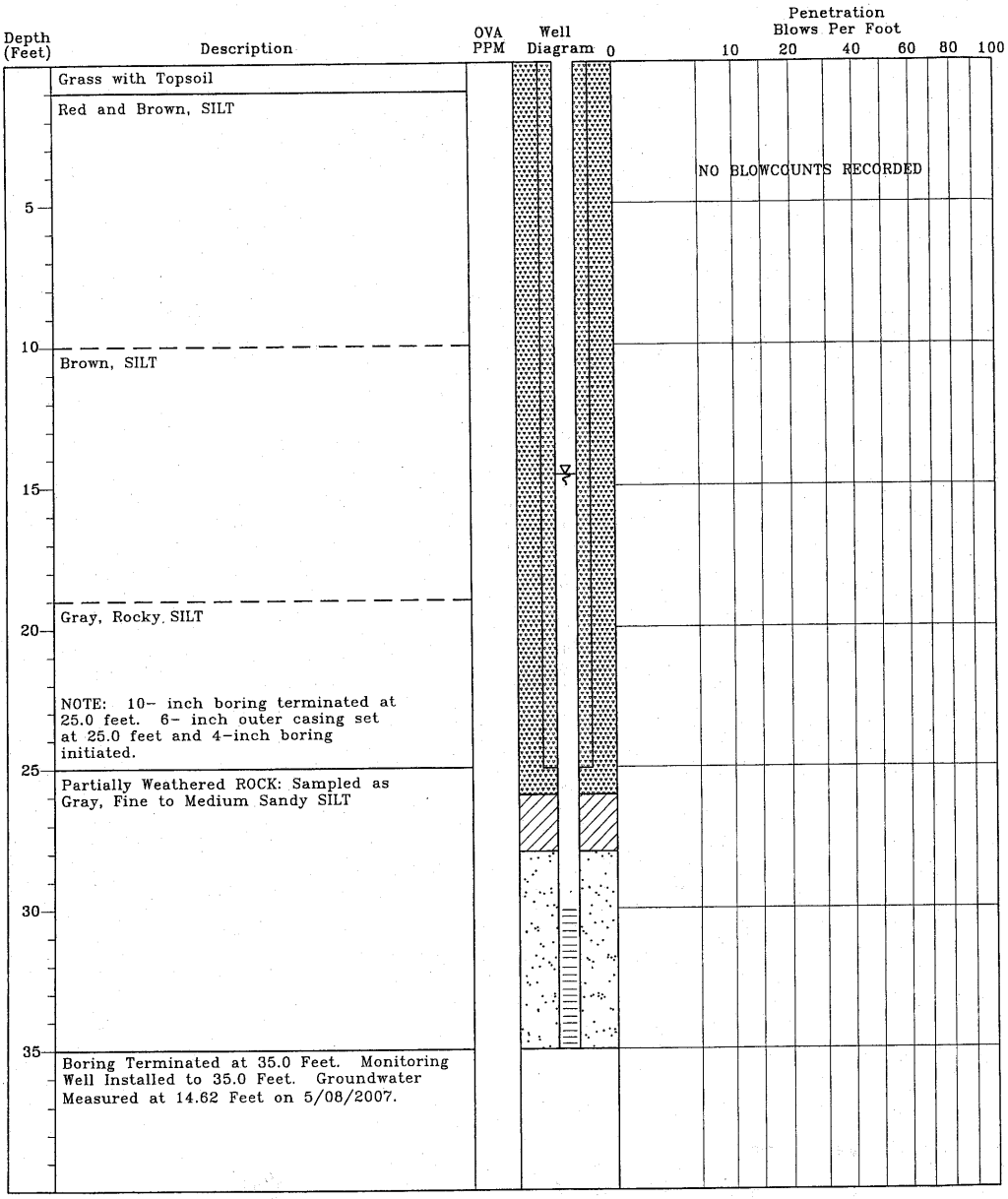

TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-35i
Date Drilled:	4/04/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
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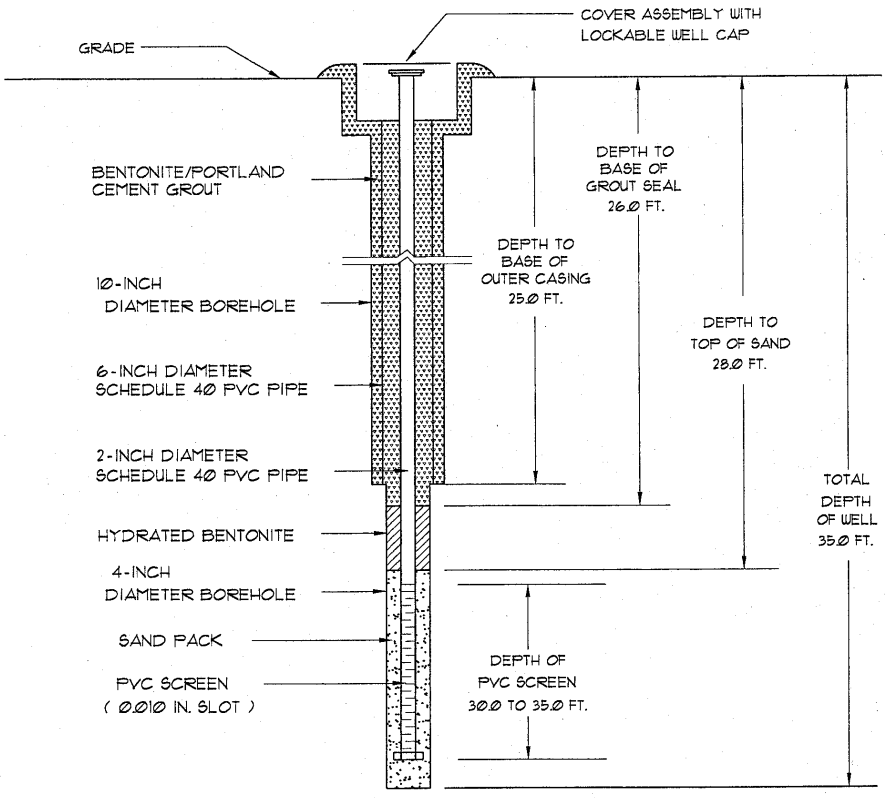
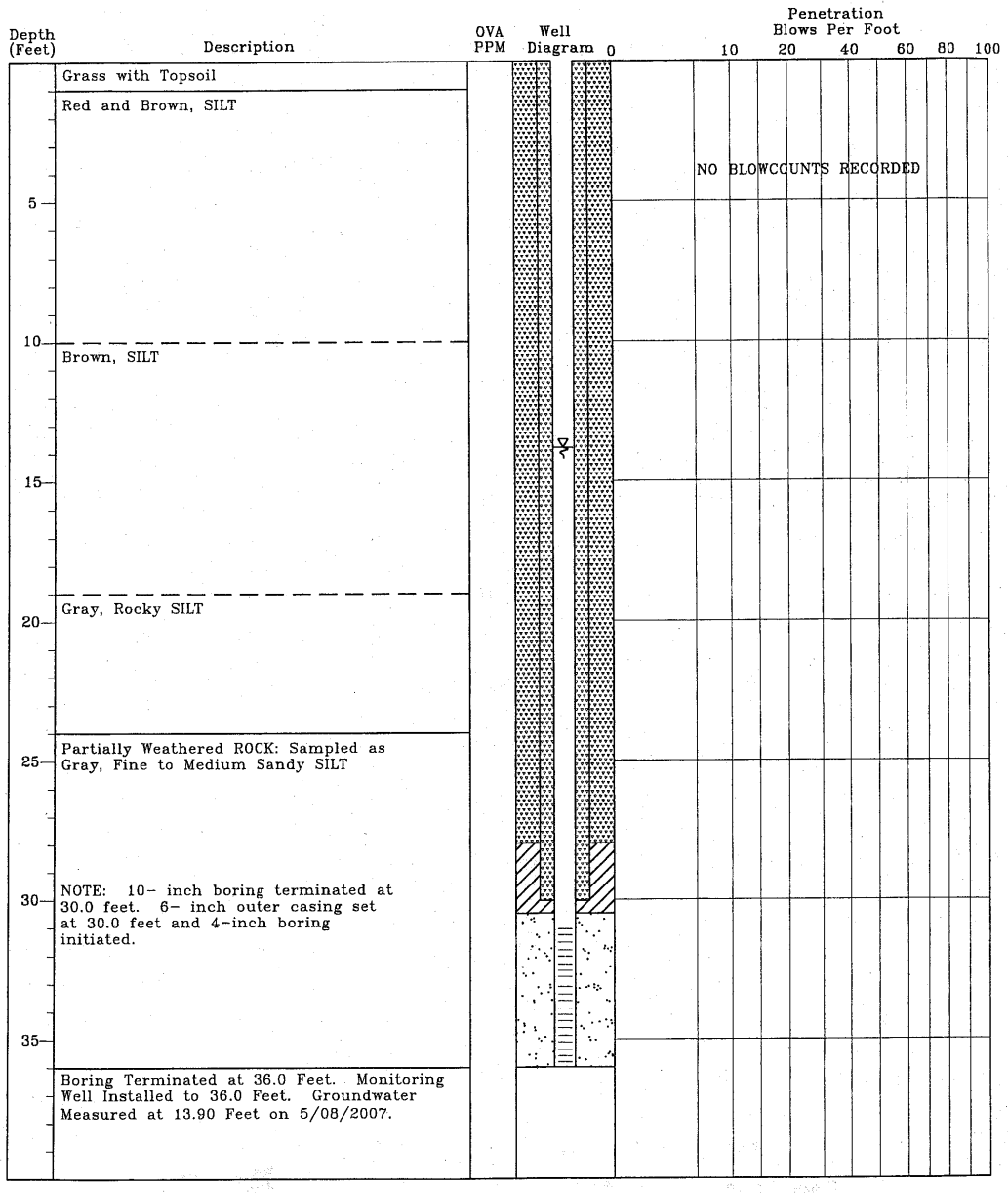
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-35i
Date Drilled:	4/04/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



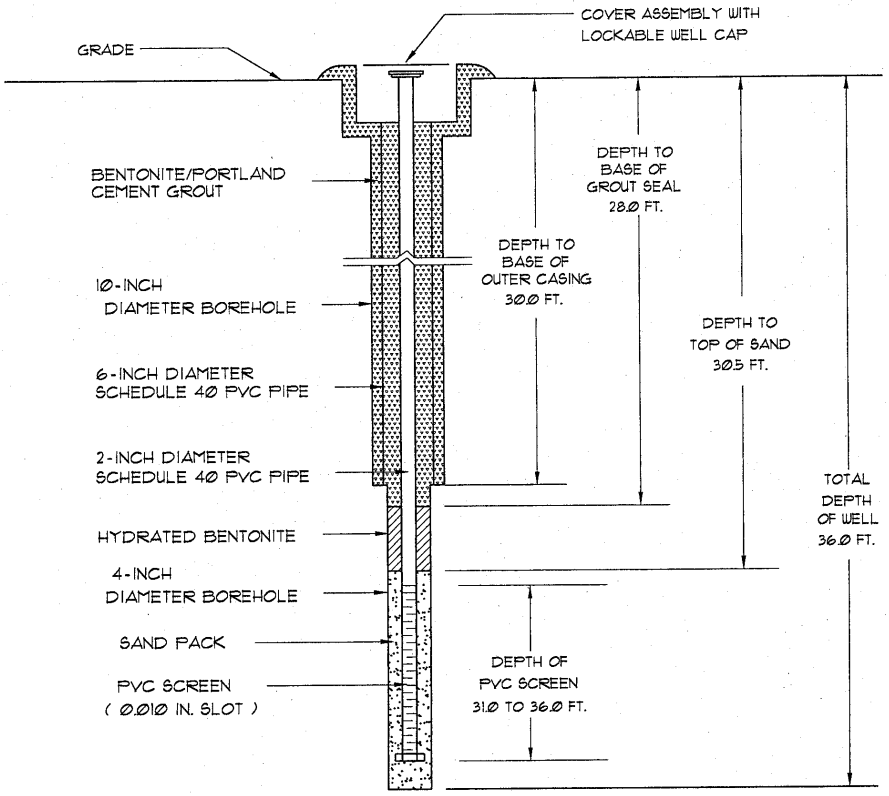
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-36D
Date Drilled:	4/06/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

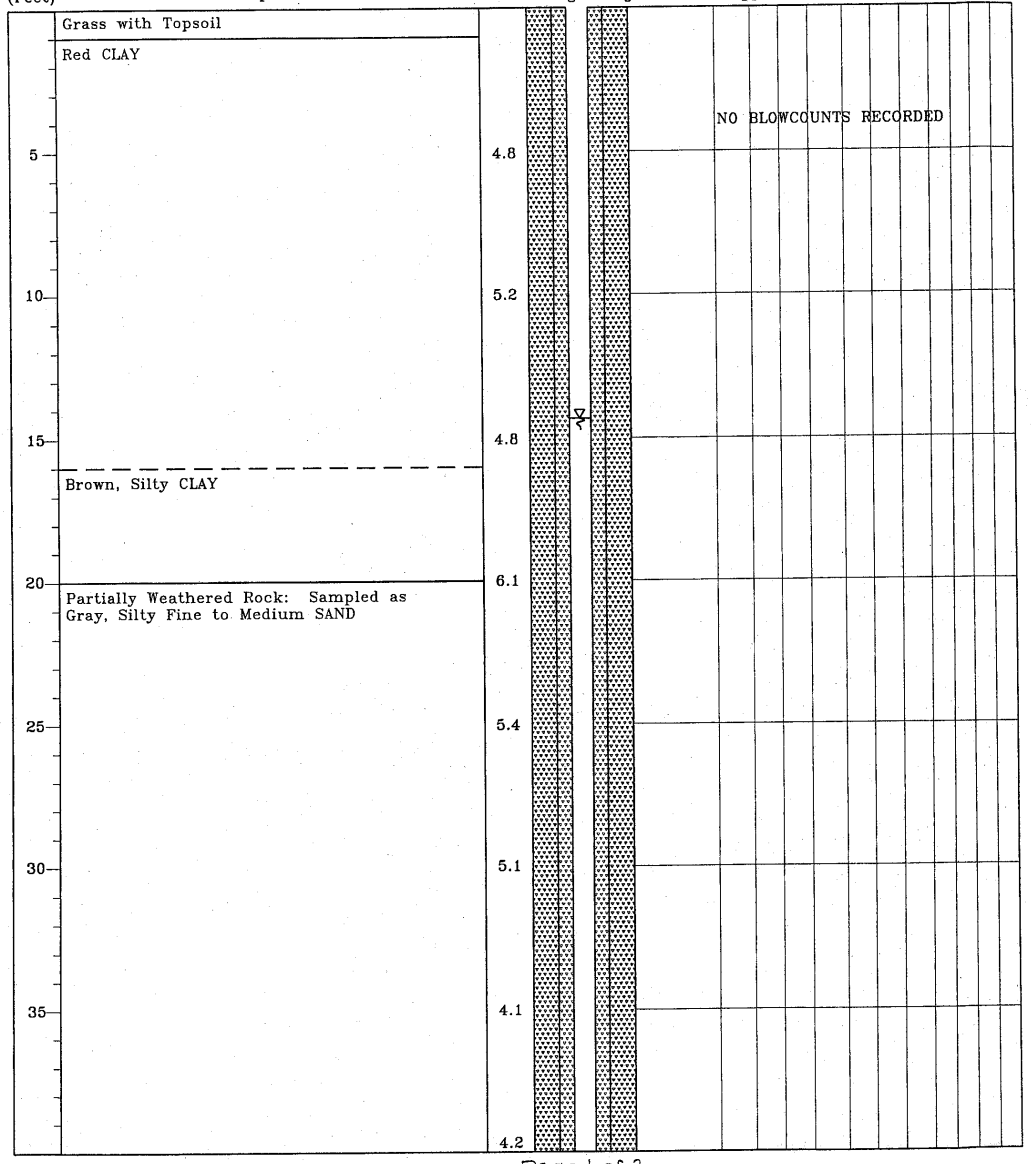
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-36D
Date Drilled:	4/6/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: A 1086
Logged By:	B. Kelly

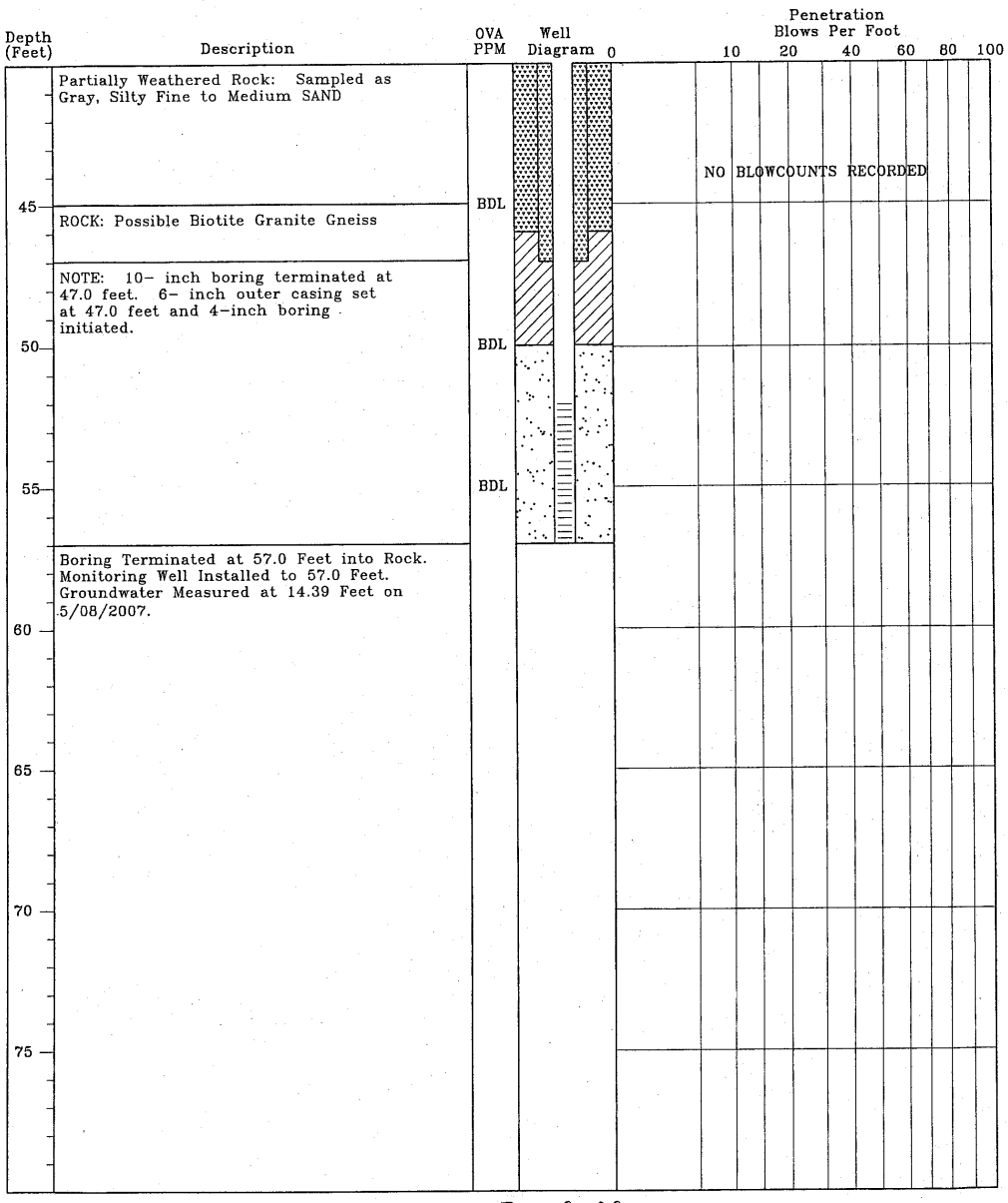
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-37DD
Date Drilled:	3/22/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



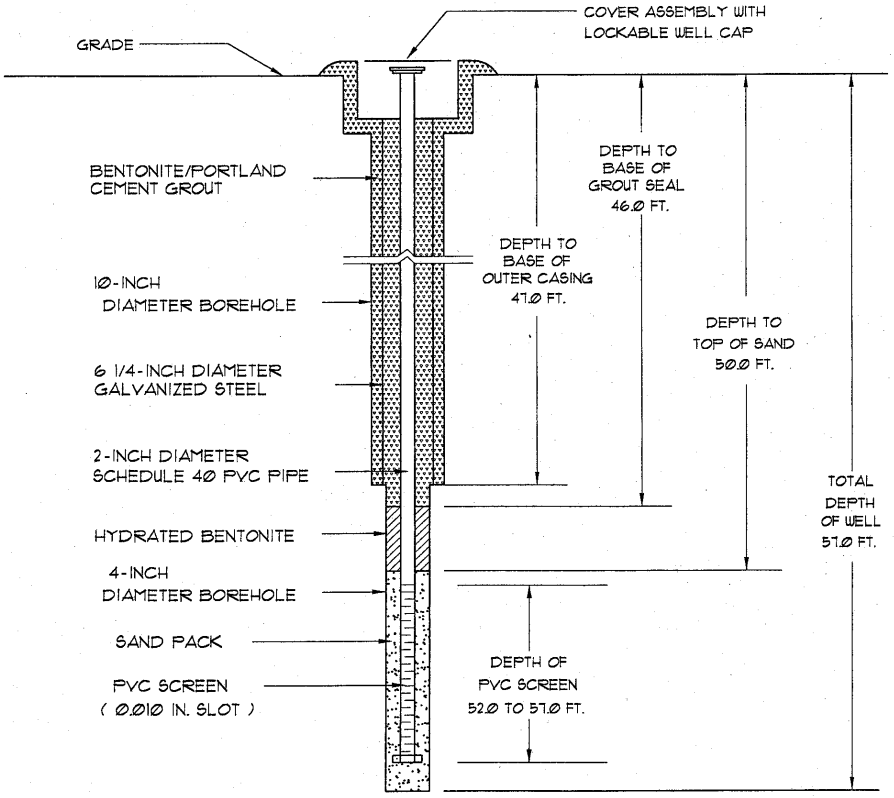
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-37DD
Date Drilled:	3/22/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

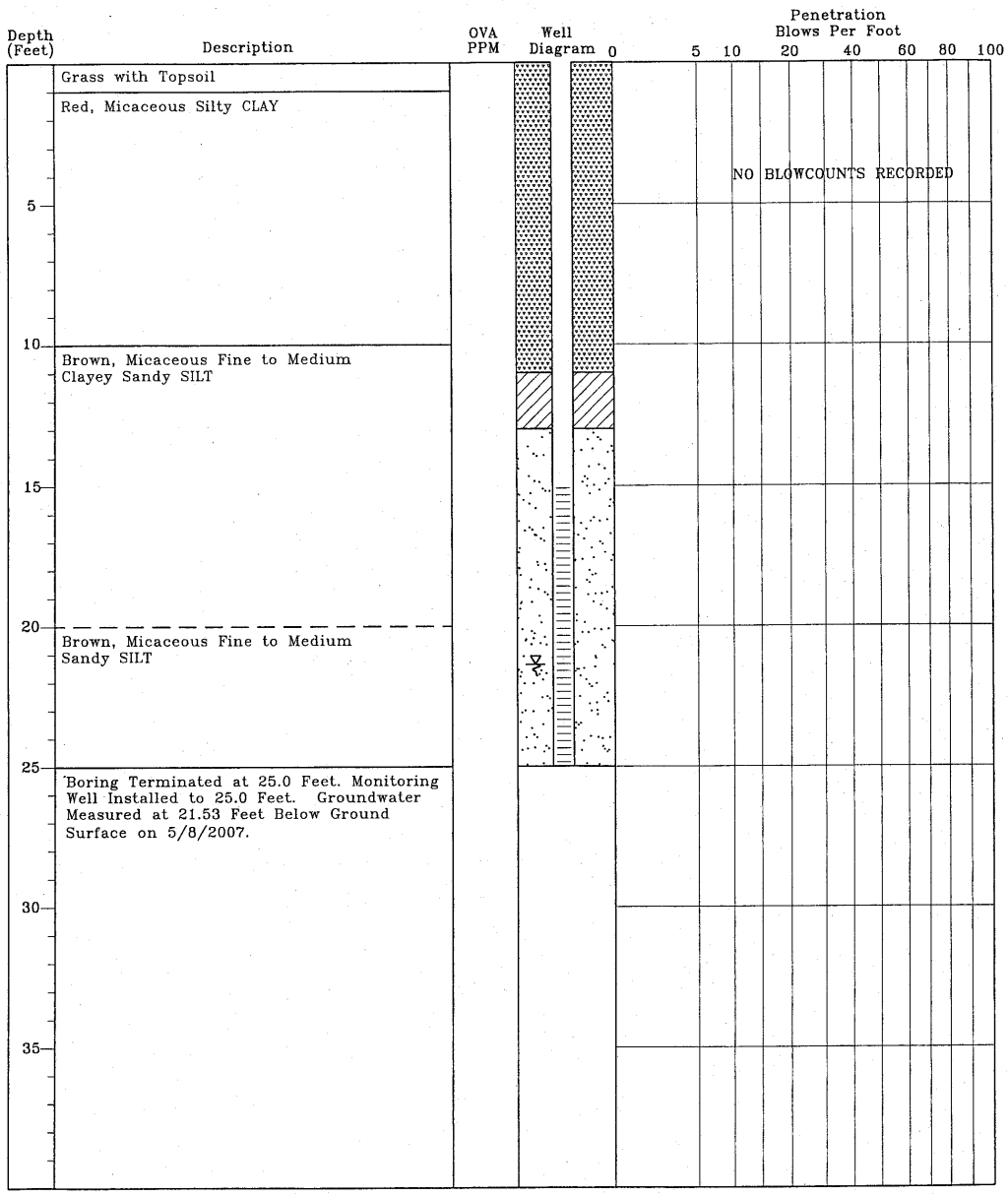
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-37DD
Date Drilled:	3/22/07
Drilled By:	Geologic Exploration, Inc.
Driller: J. Mantak	S.C. I.D. #: 01494
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



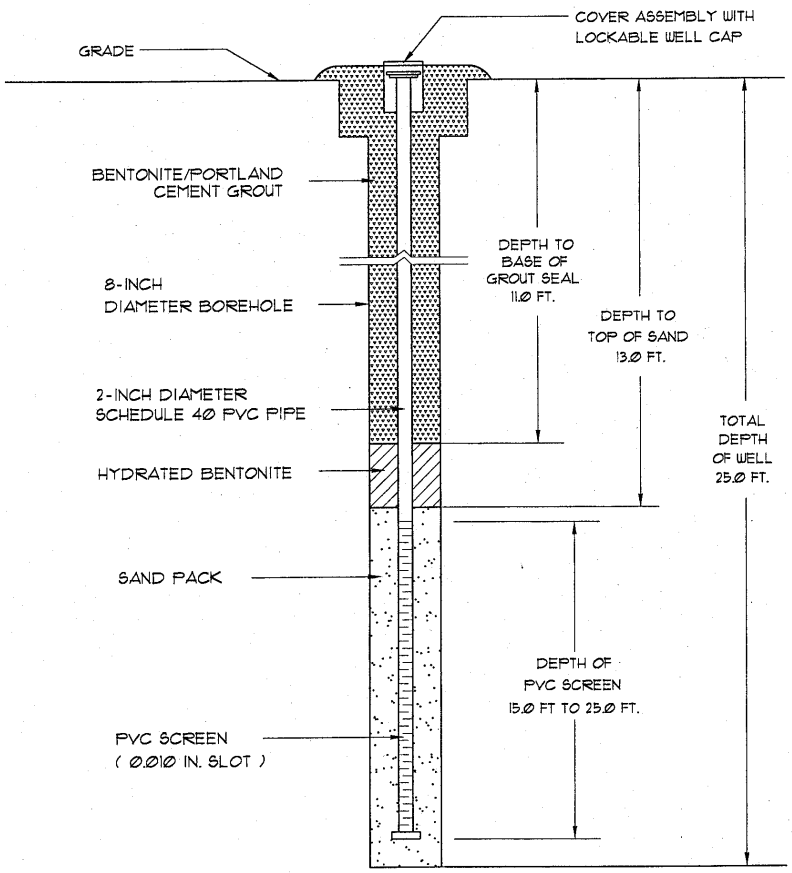
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-38
Date Drilled:	4/06/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

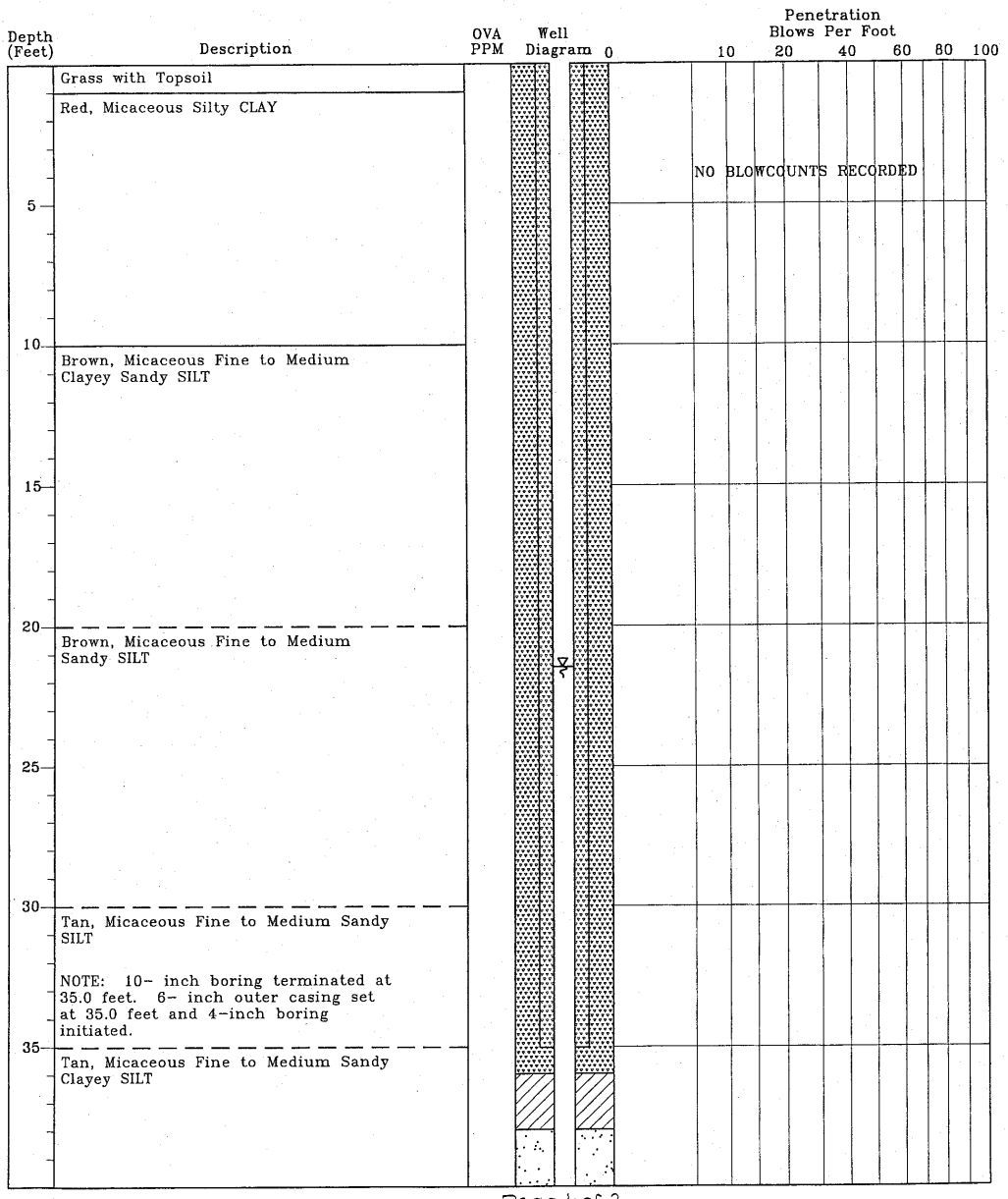
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-38
Date Drilled:	4/06/07
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 01086
Logged By:	B. Kelly

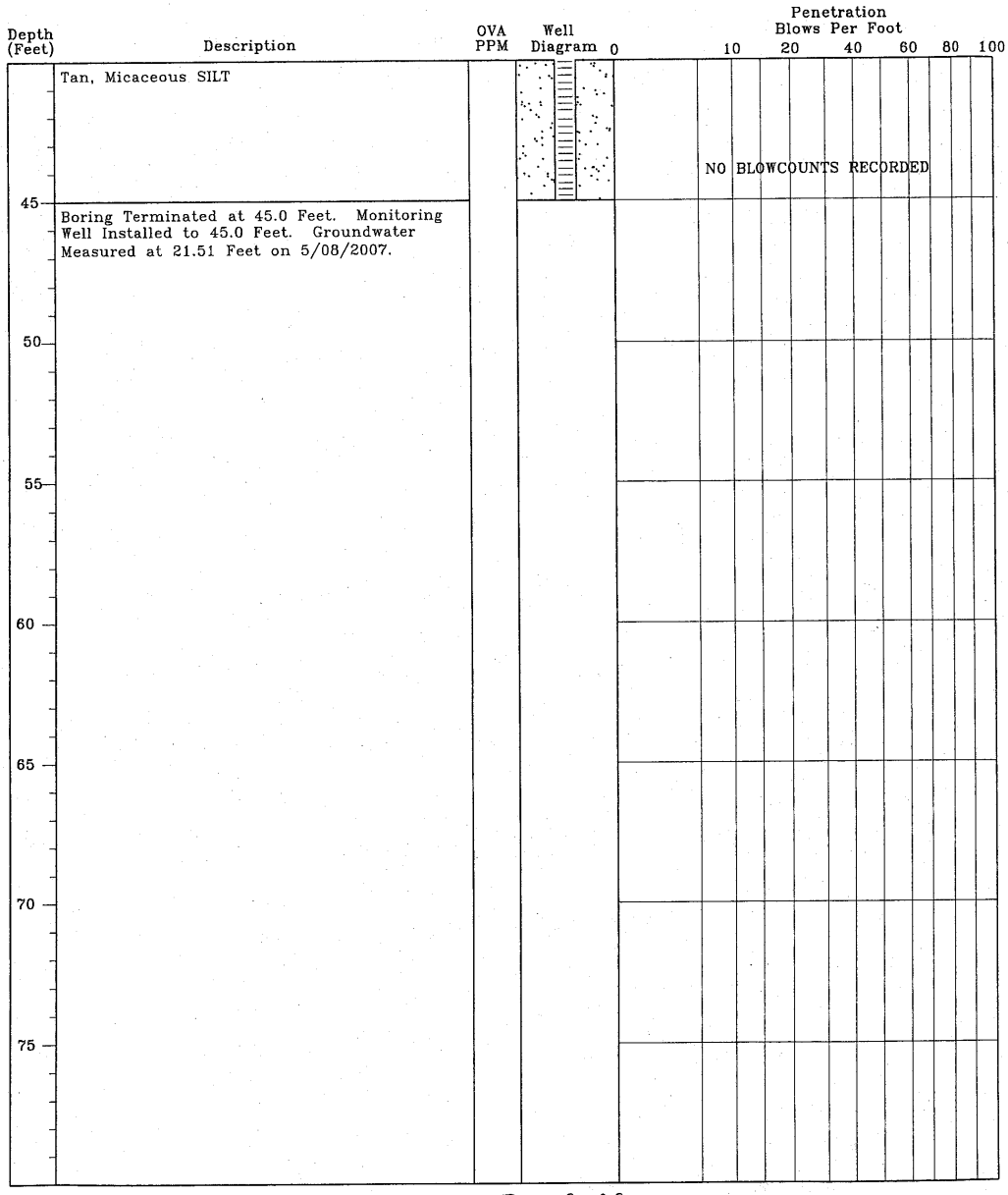
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 Fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-39i
Date Drilled:	4/09/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



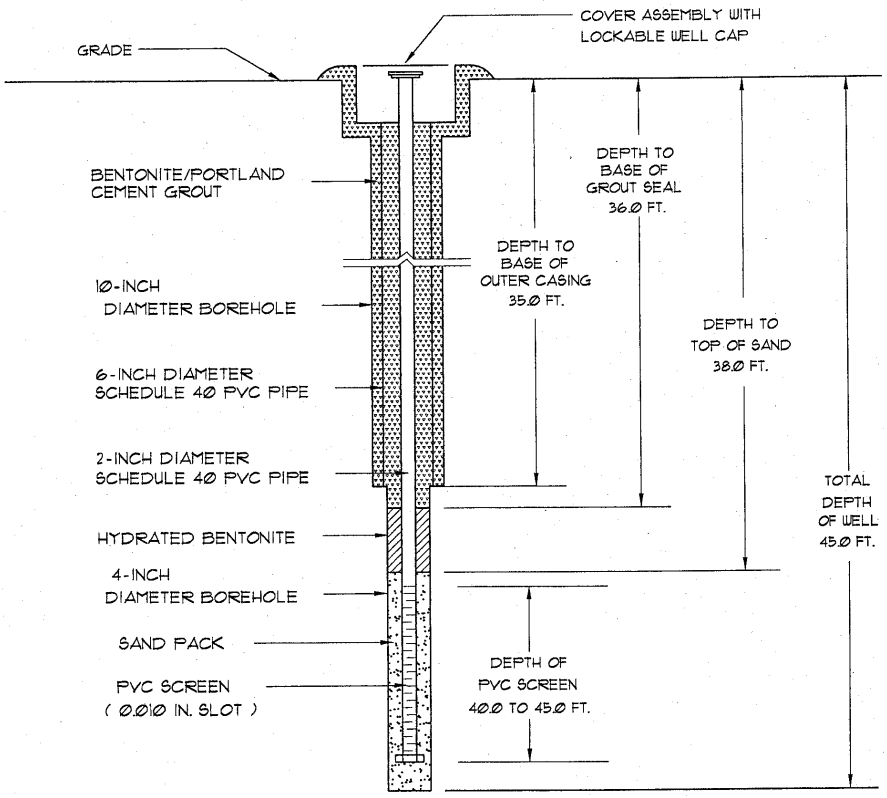
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-39i
Date Drilled:	4/09/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

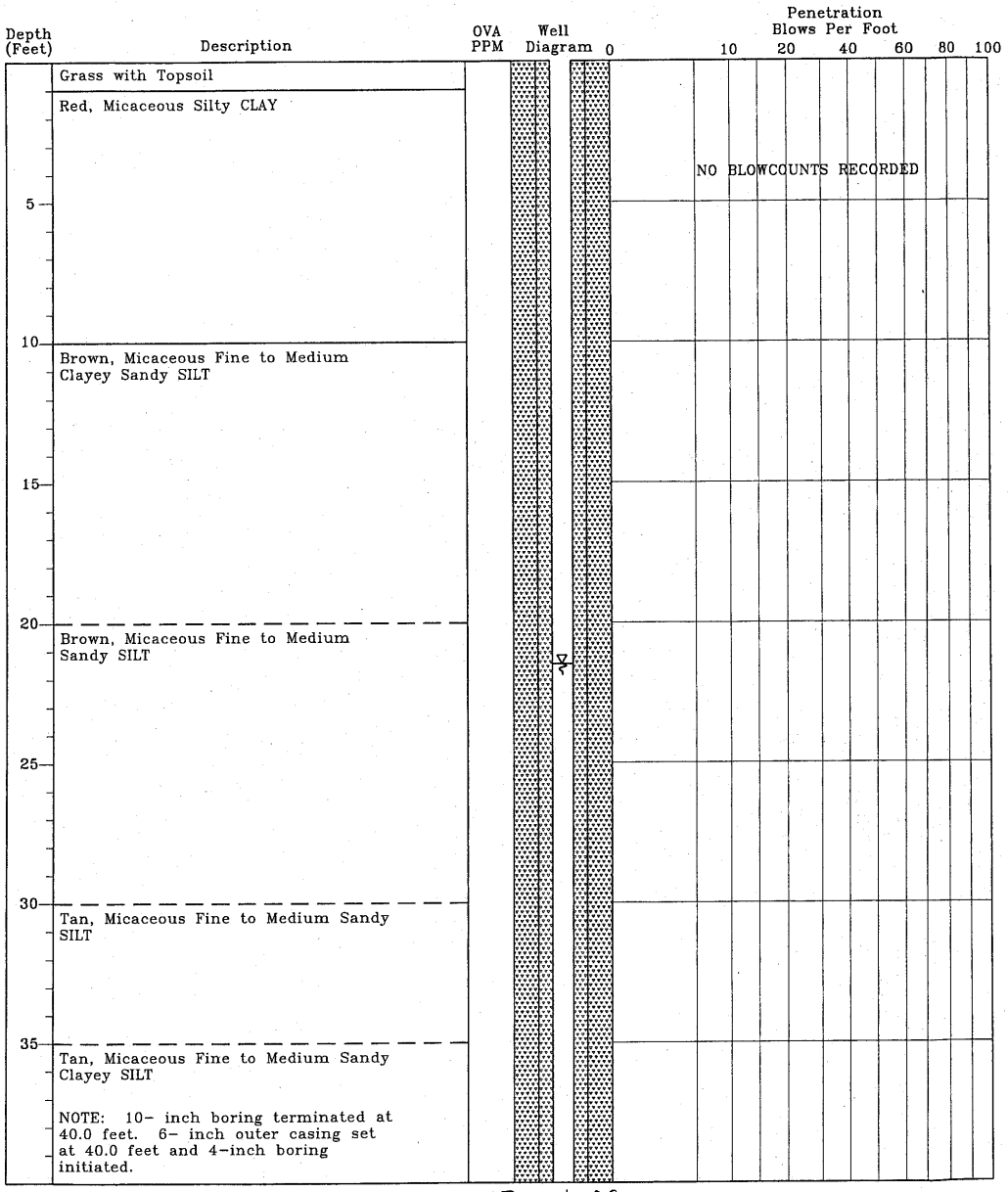
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-39i
Date Drilled:	4/09/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

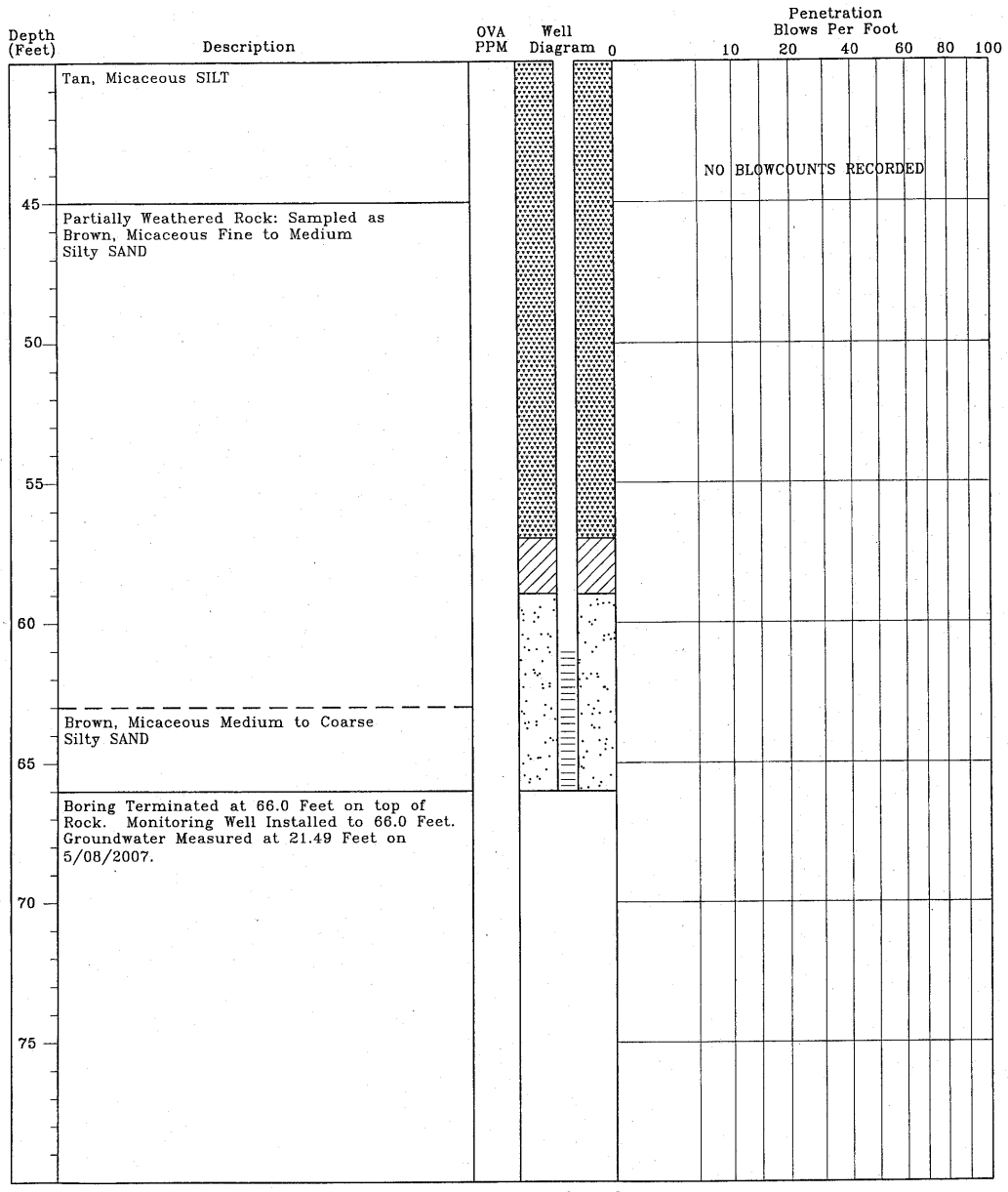
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MEC! Project Number 07-1121

Boring Number:	MW-40D
Date Drilled:	4/10/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



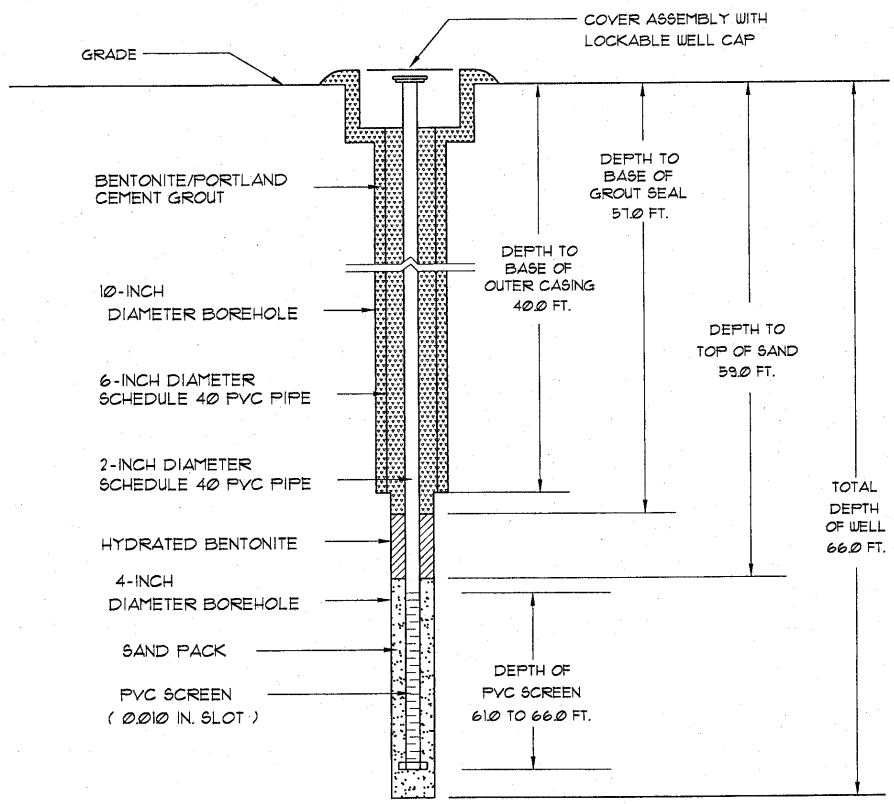
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-40D
Date Drilled:	4/10/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

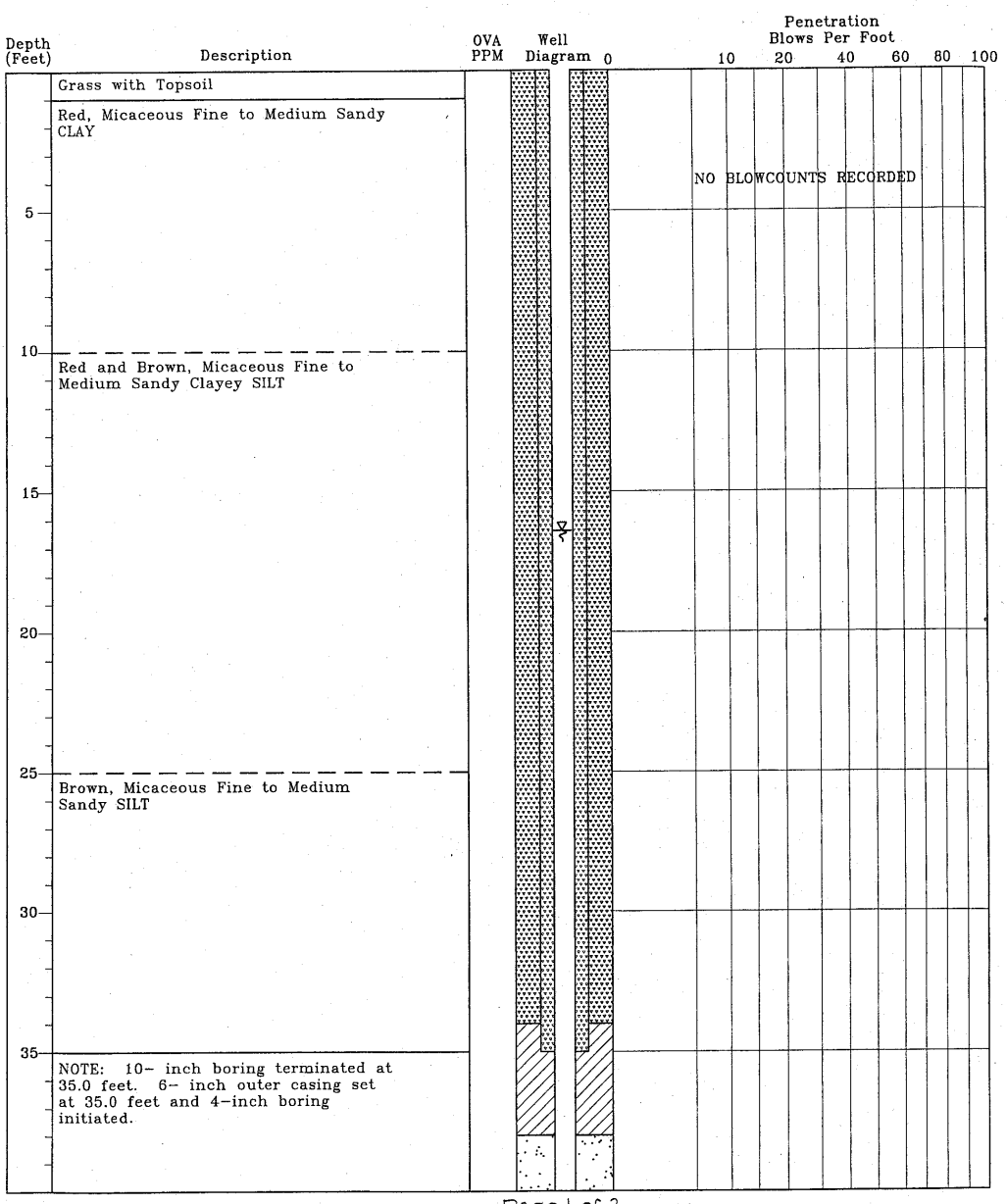
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-40D
Date Drilled:	4/10/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

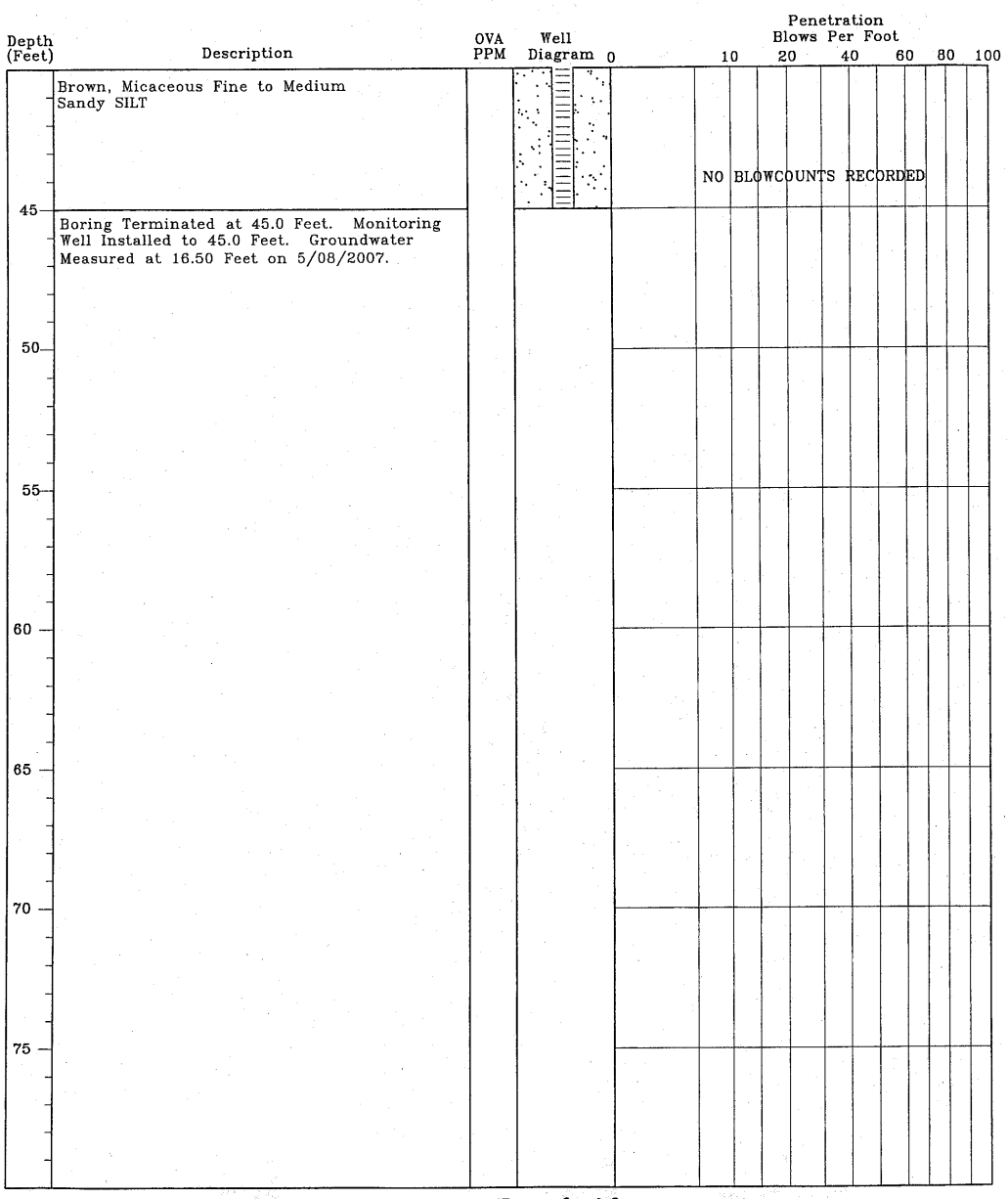
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 Fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-411
Date Drilled:	5/03/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



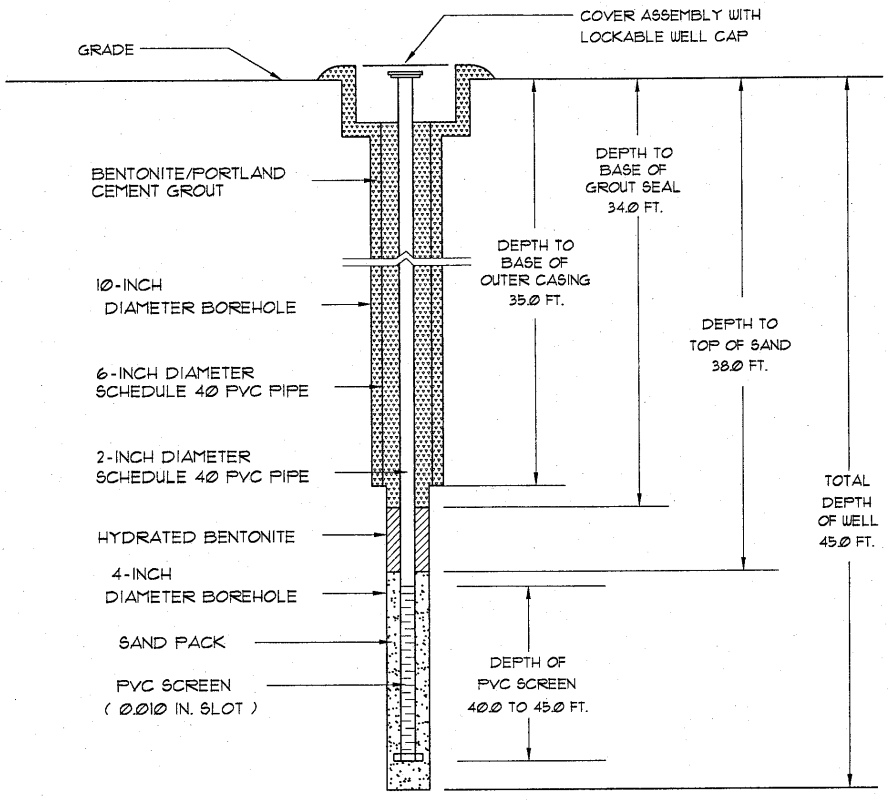
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-411
Date Drilled:	5/03/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

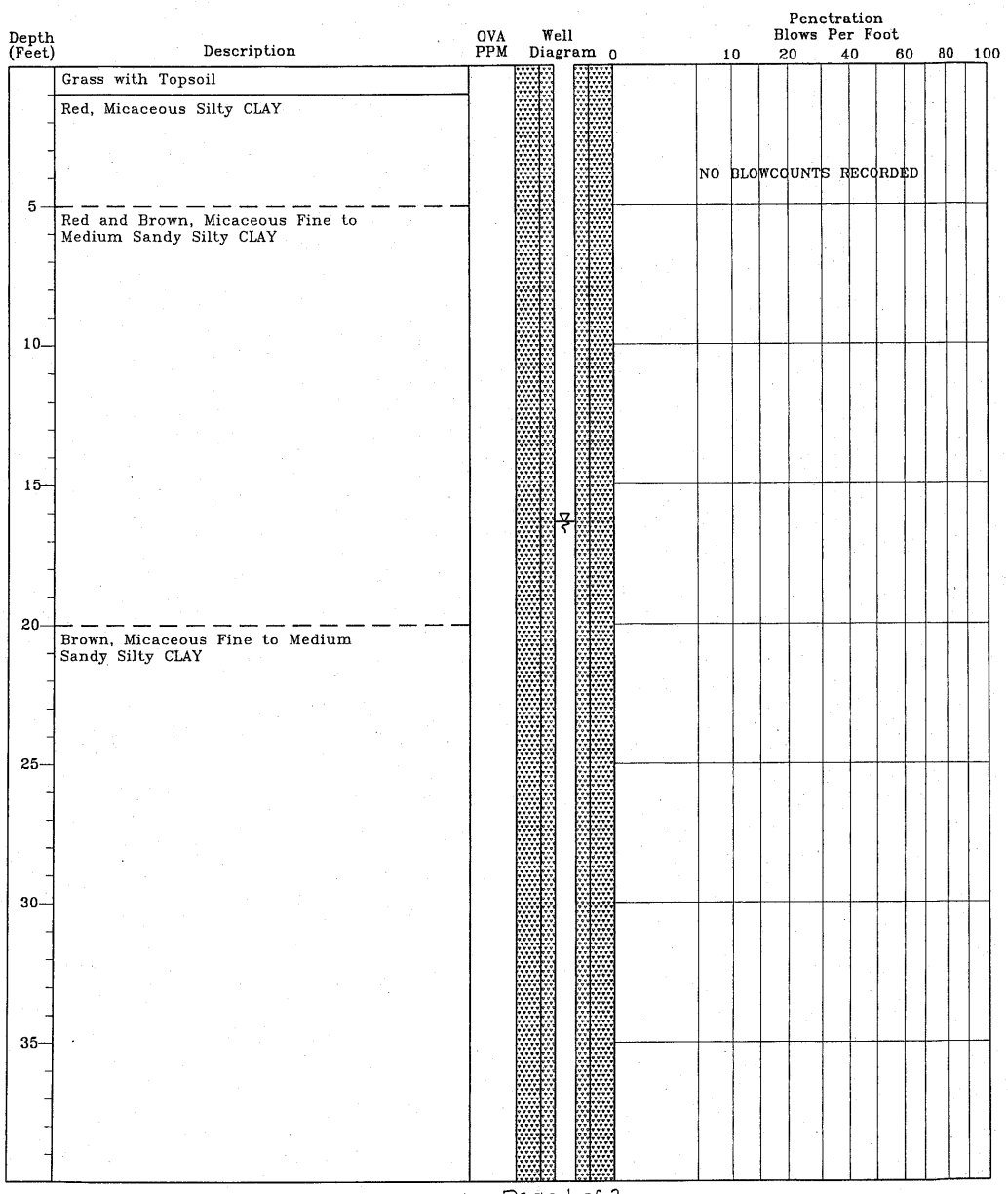
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-41i
Date Drilled:	5/3/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: 01086
Logged By:	B. Kelly

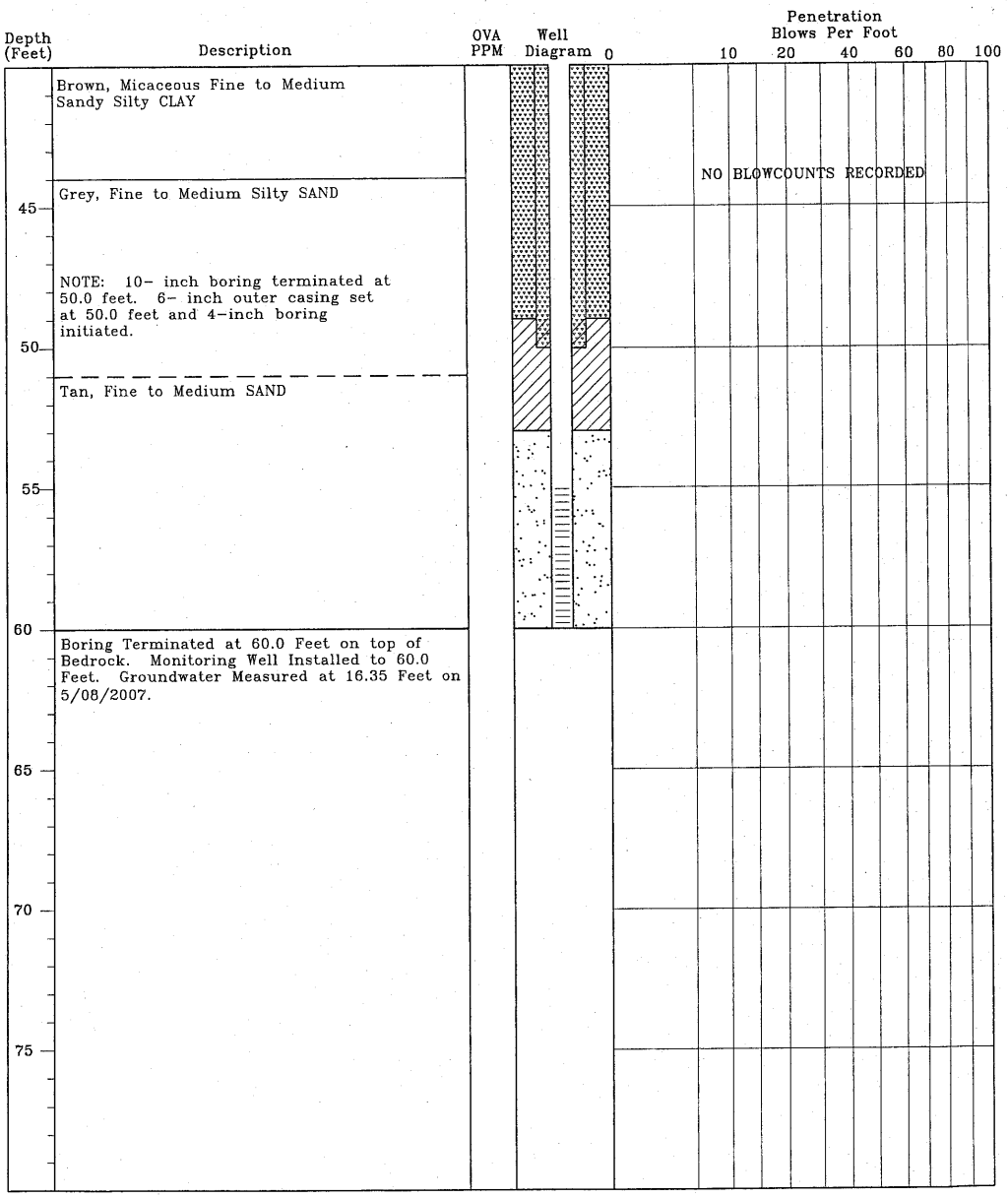
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-42D
Date Drilled:	5/03/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



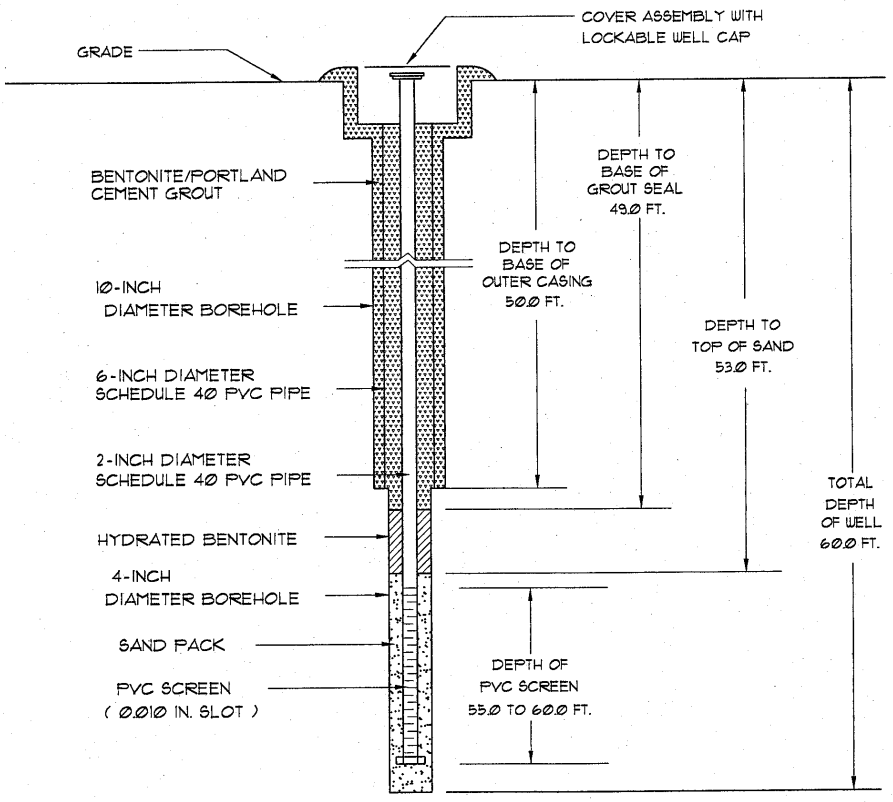
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-42D
Date Drilled:	5/03/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

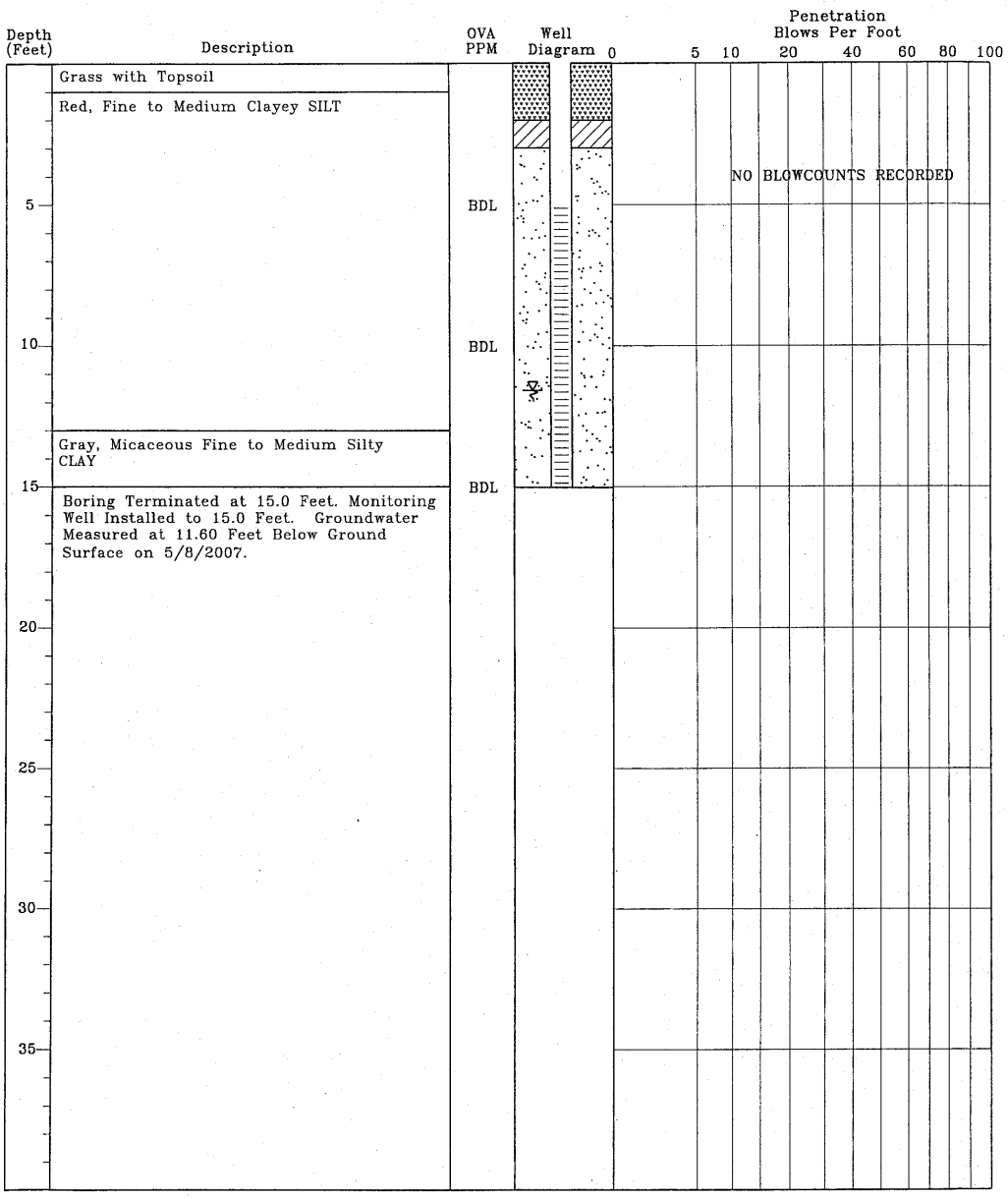
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-42D
Date Drilled:	5/3/07
Drilled By:	Geologic Exploration, Inc.
Driller: M. Gettys	S.C. I.D. #: A 1086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



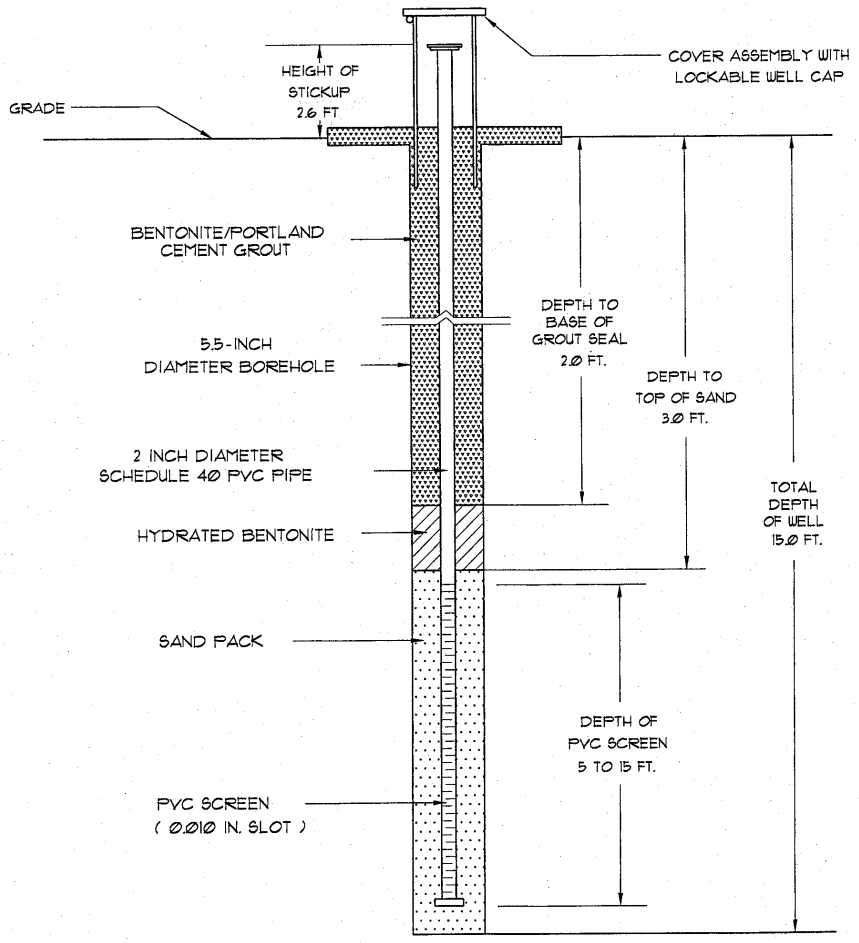
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-43
Date Drilled:	4/30/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

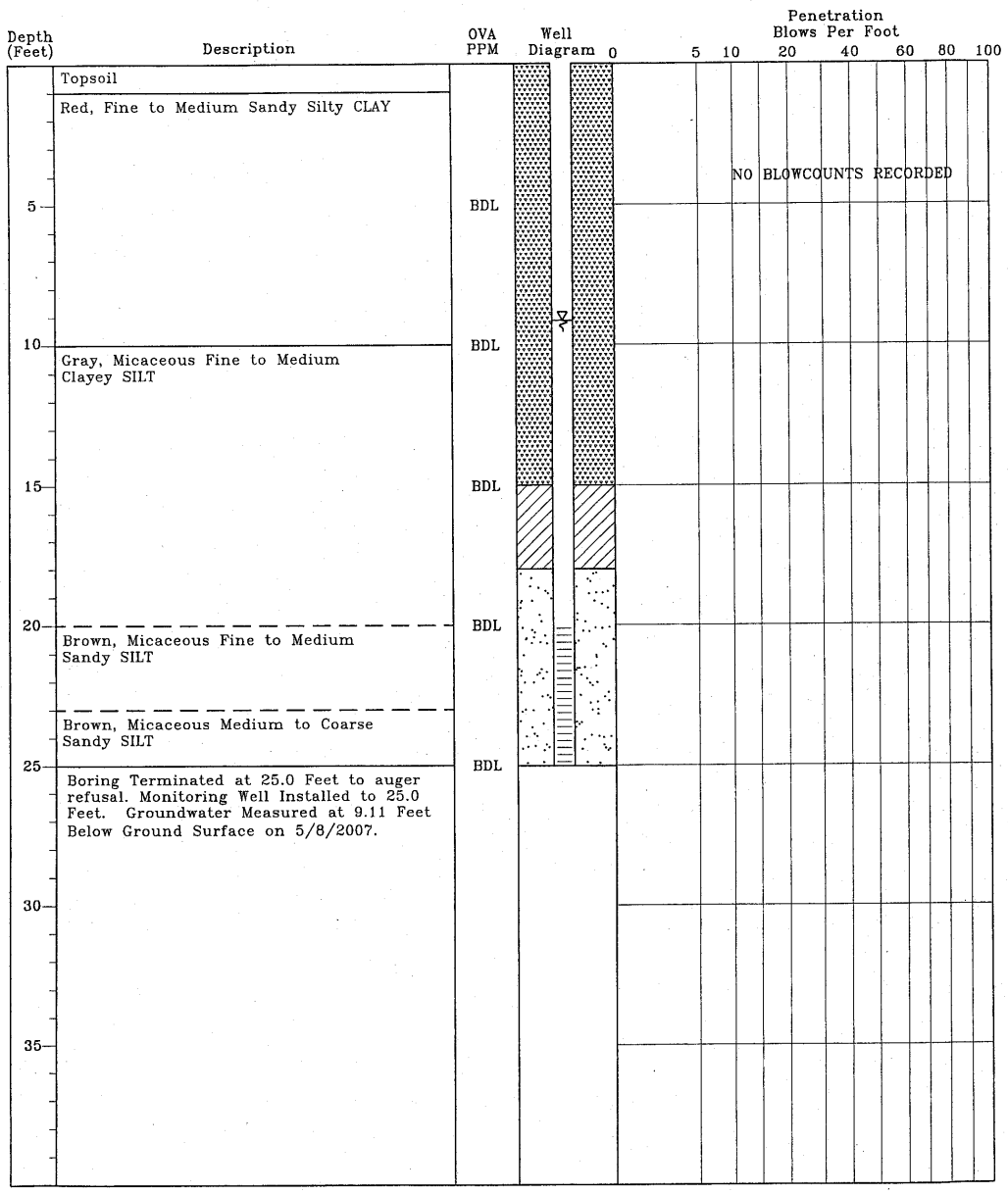
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-43
Date Drilled:	4/30/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Guiles

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-44
Date Drilled:	4/30/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
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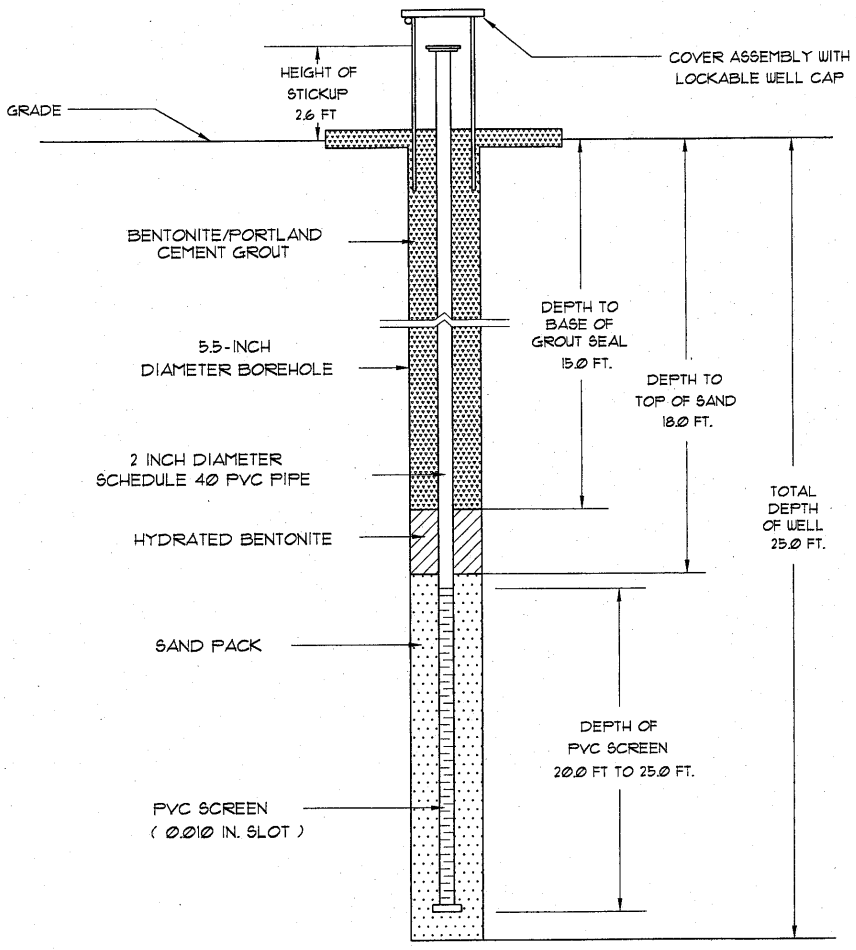
(803) 808-2043 fax: 808-2048

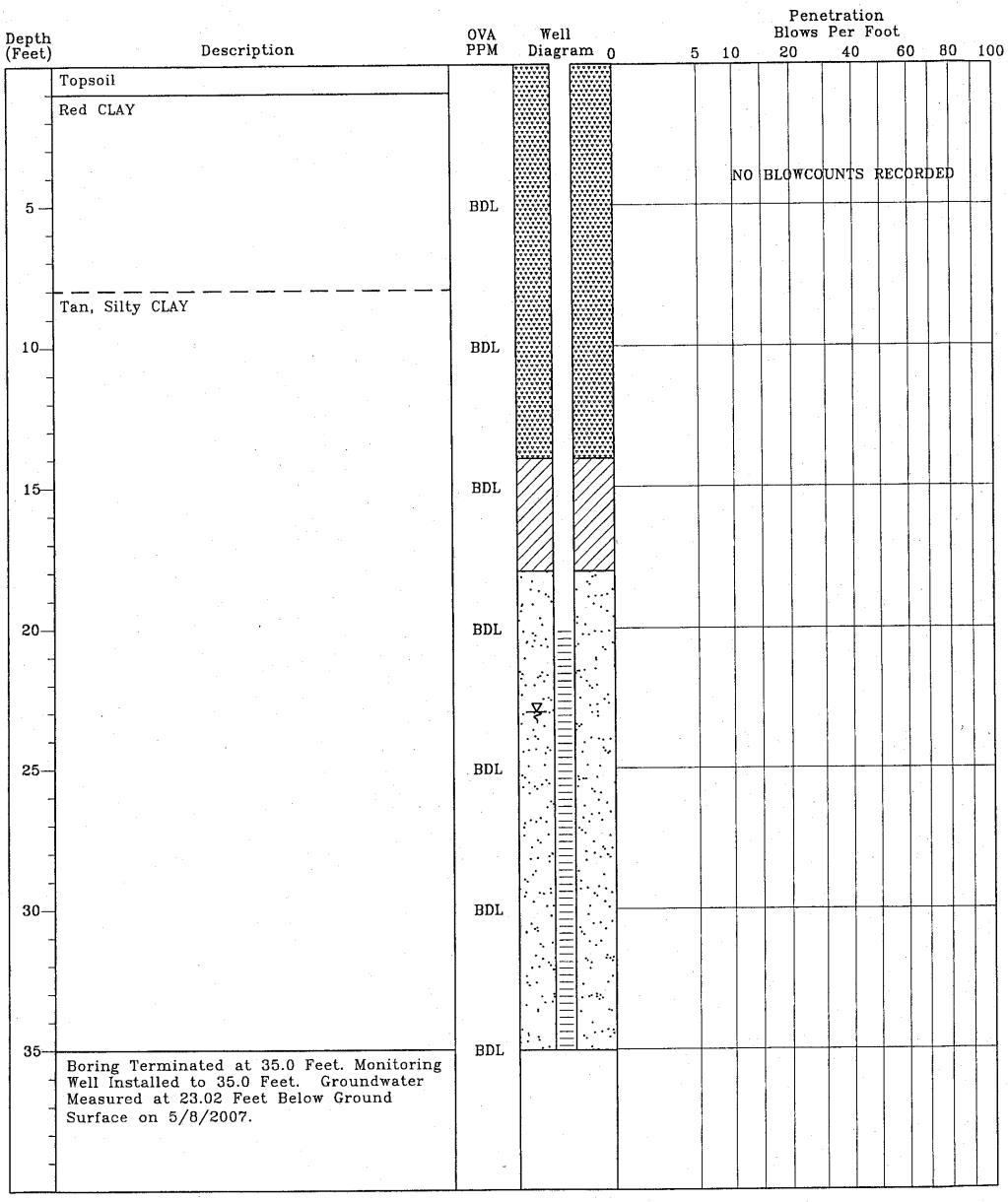
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-44i
Date Drilled:	4/30/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Guiles

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



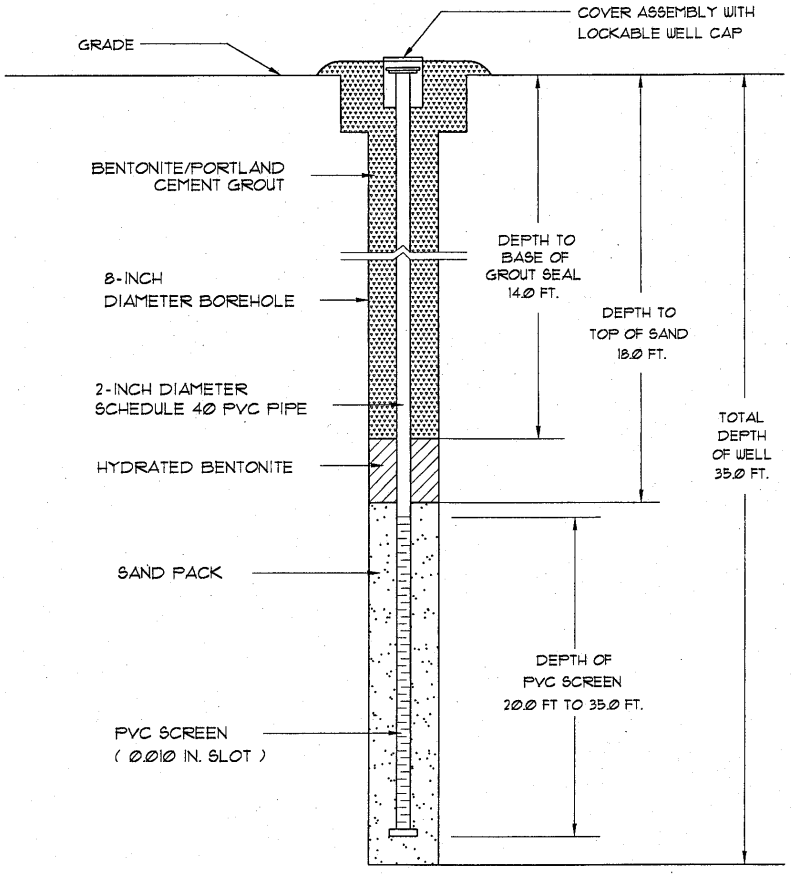
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-46
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 Fax: 808-2048

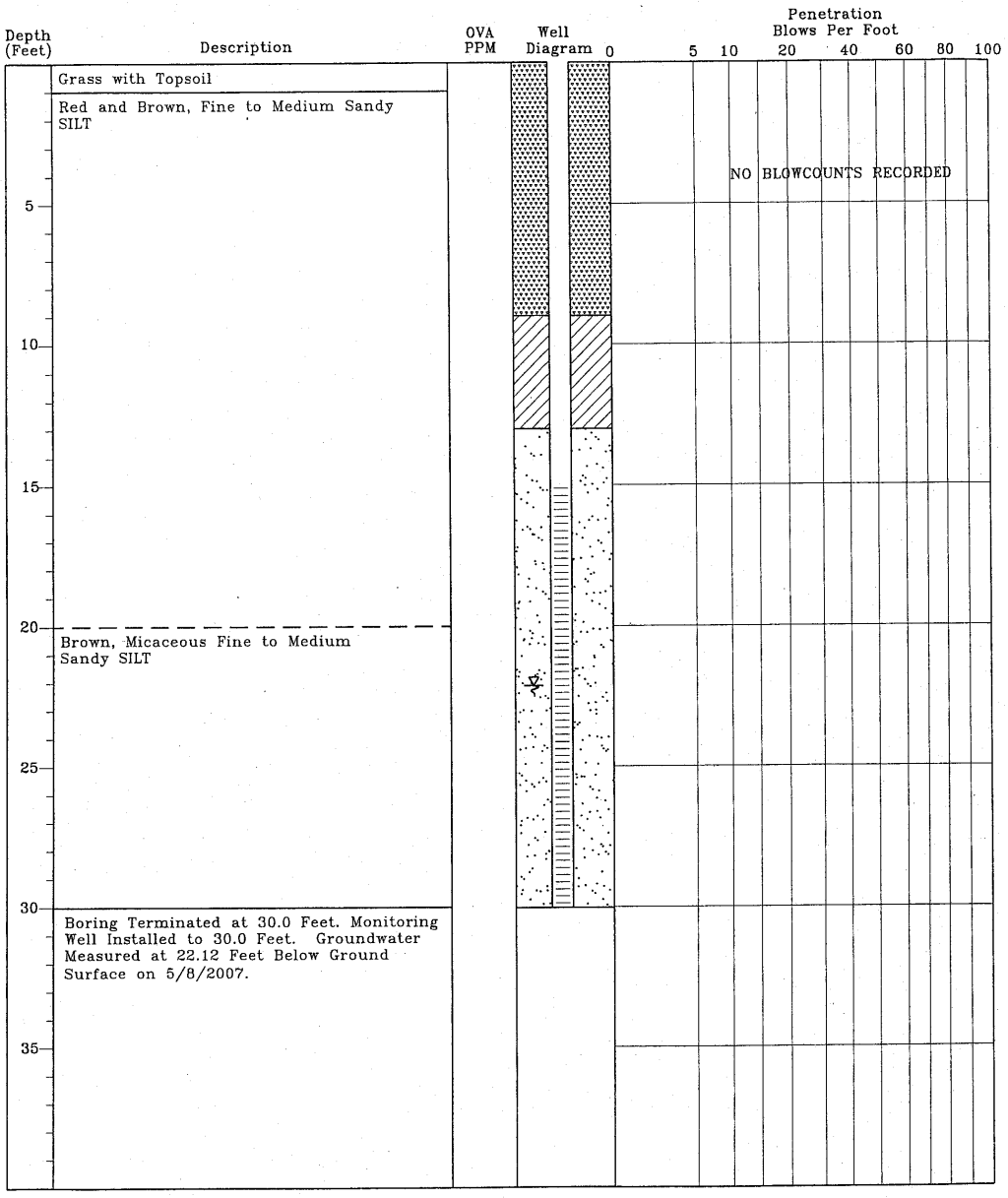
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-46
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



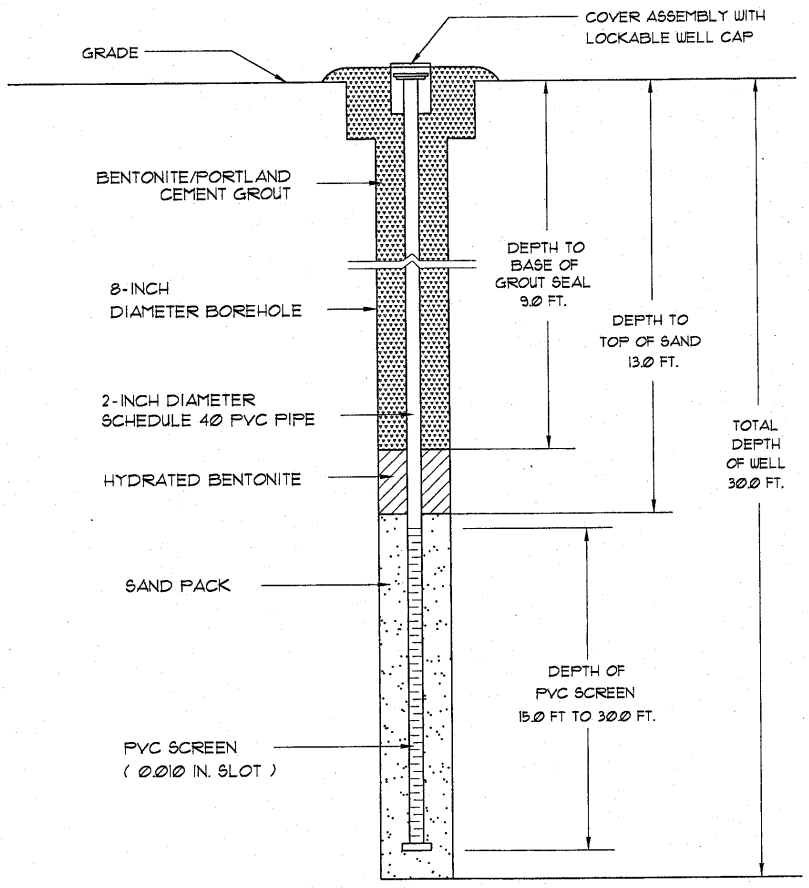
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-47
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

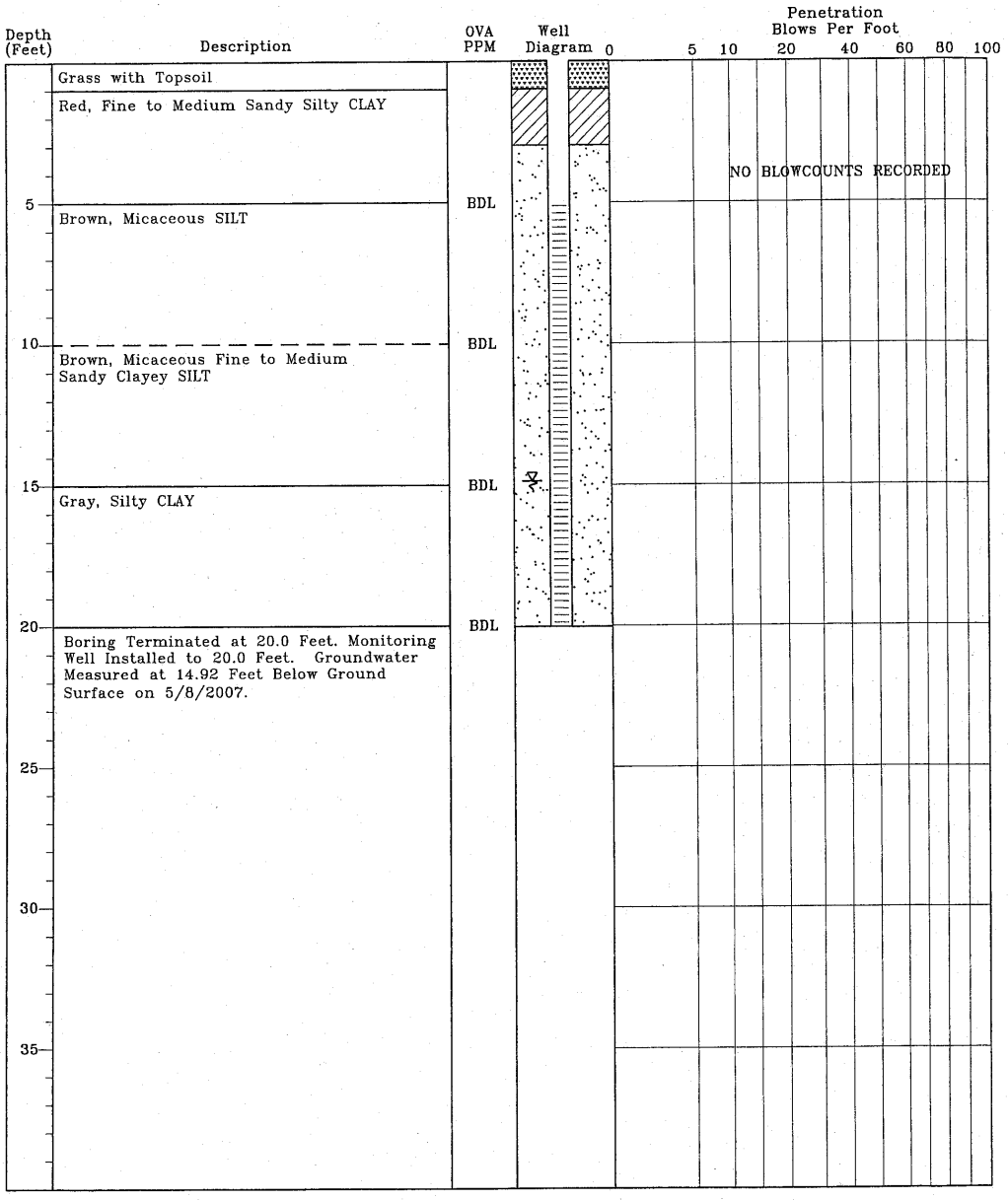
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-47
Date Drilled:	3/20/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



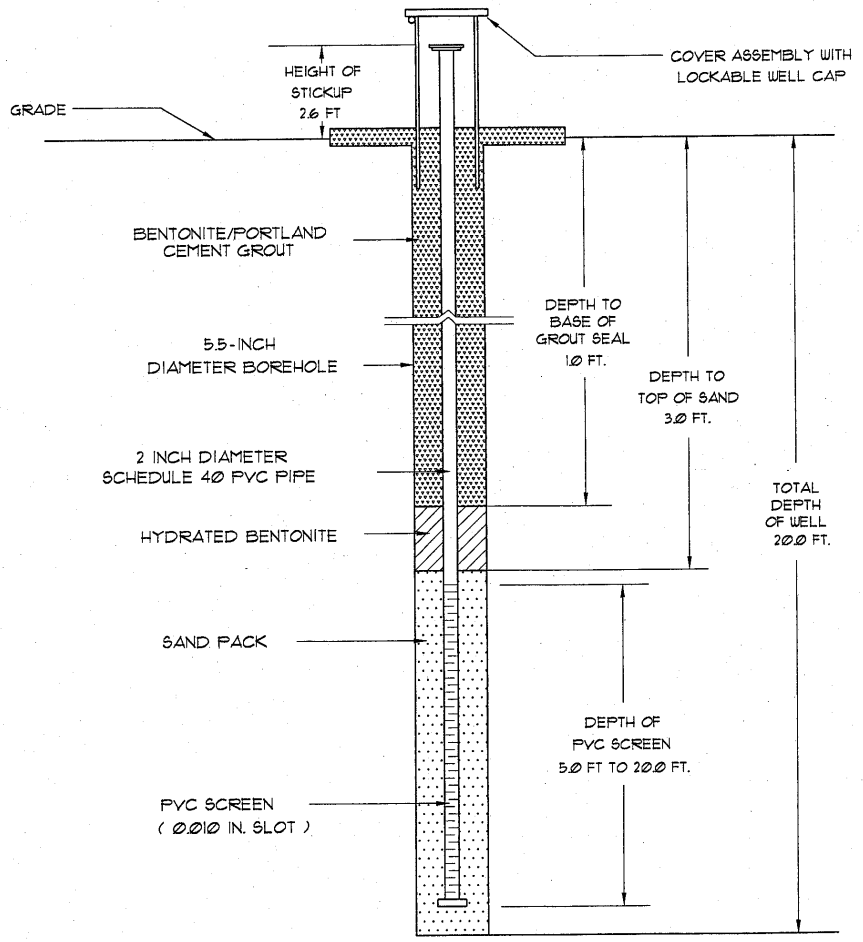
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-49
Date Drilled:	4/30/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

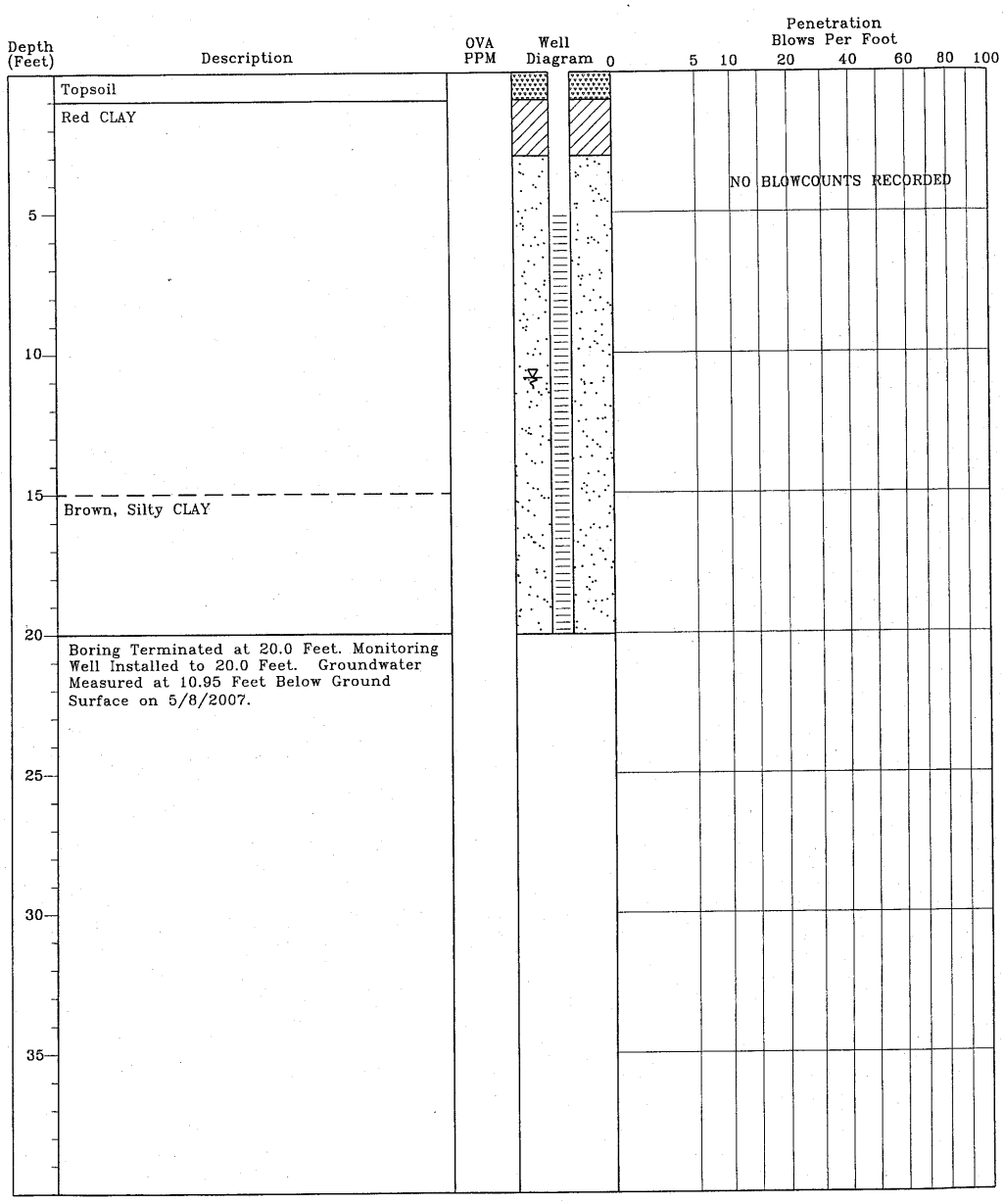
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-49
Date Drilled:	4/30/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Guiles

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-50
Date Drilled:	4/30/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
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Lexington, South Carolina 29073
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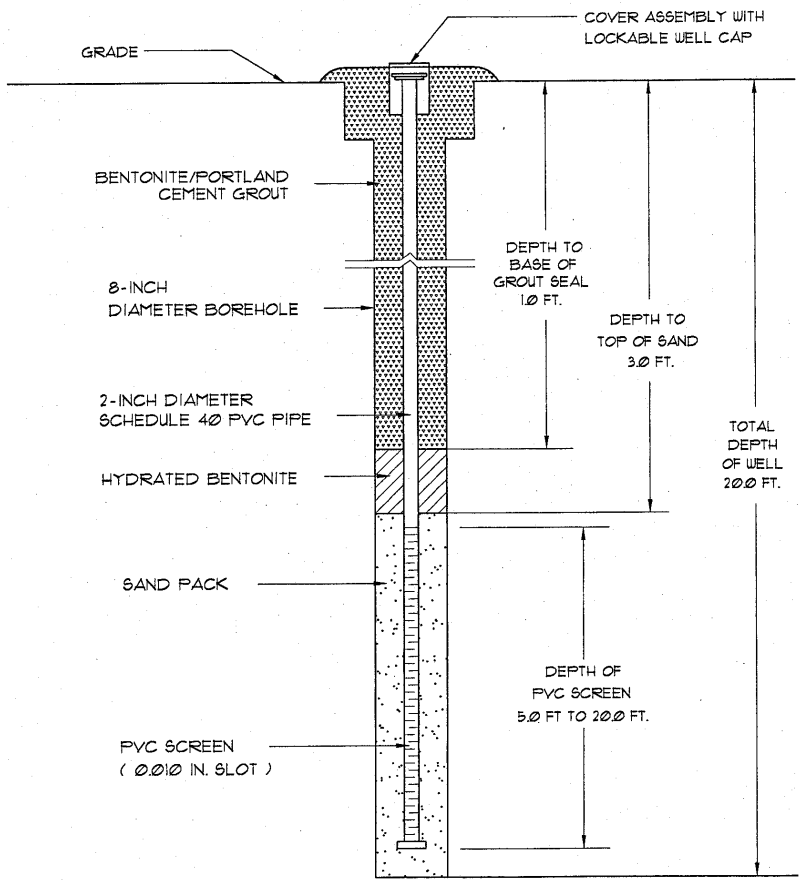
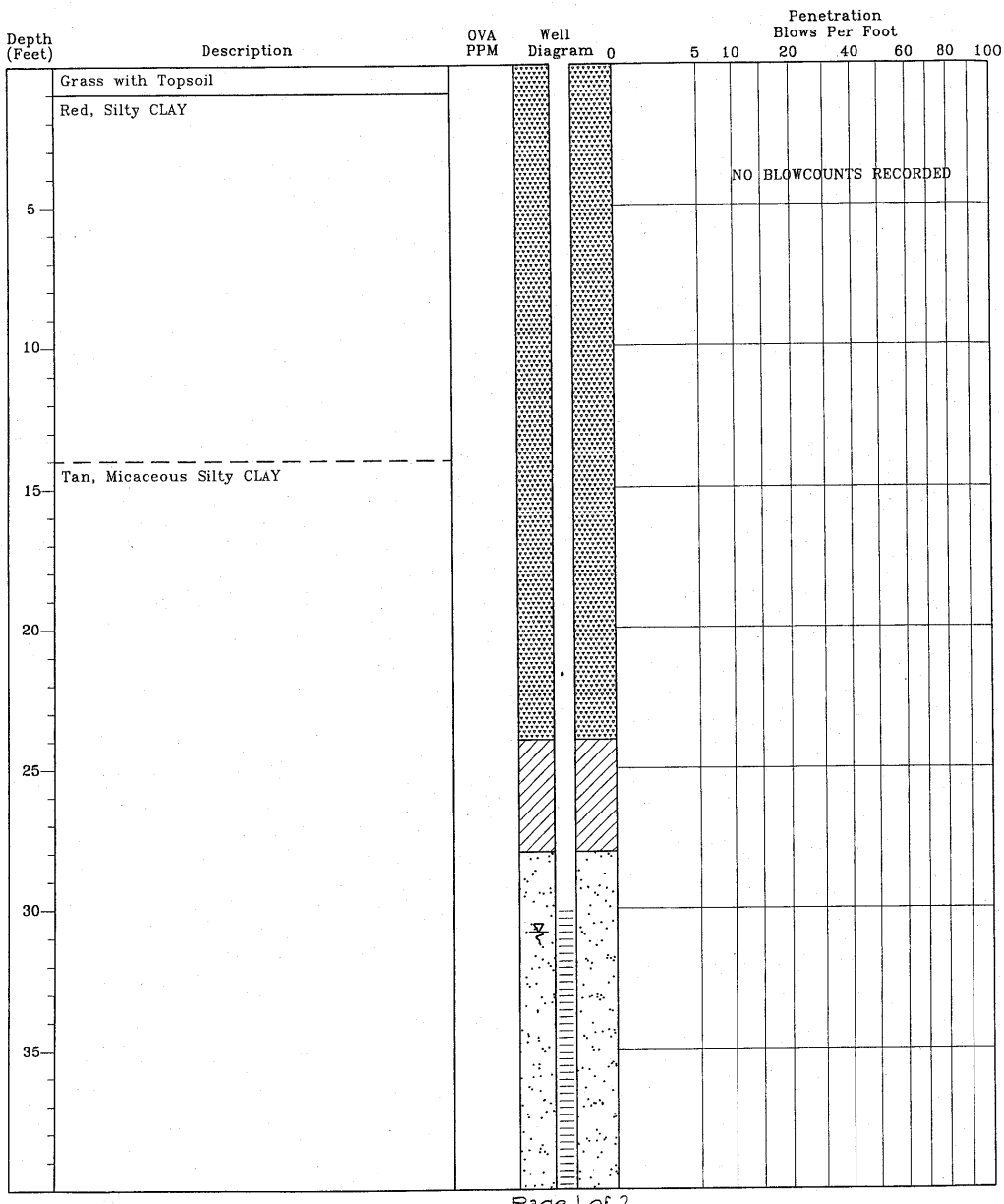
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-50
Date Drilled:	4/30/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Kelly

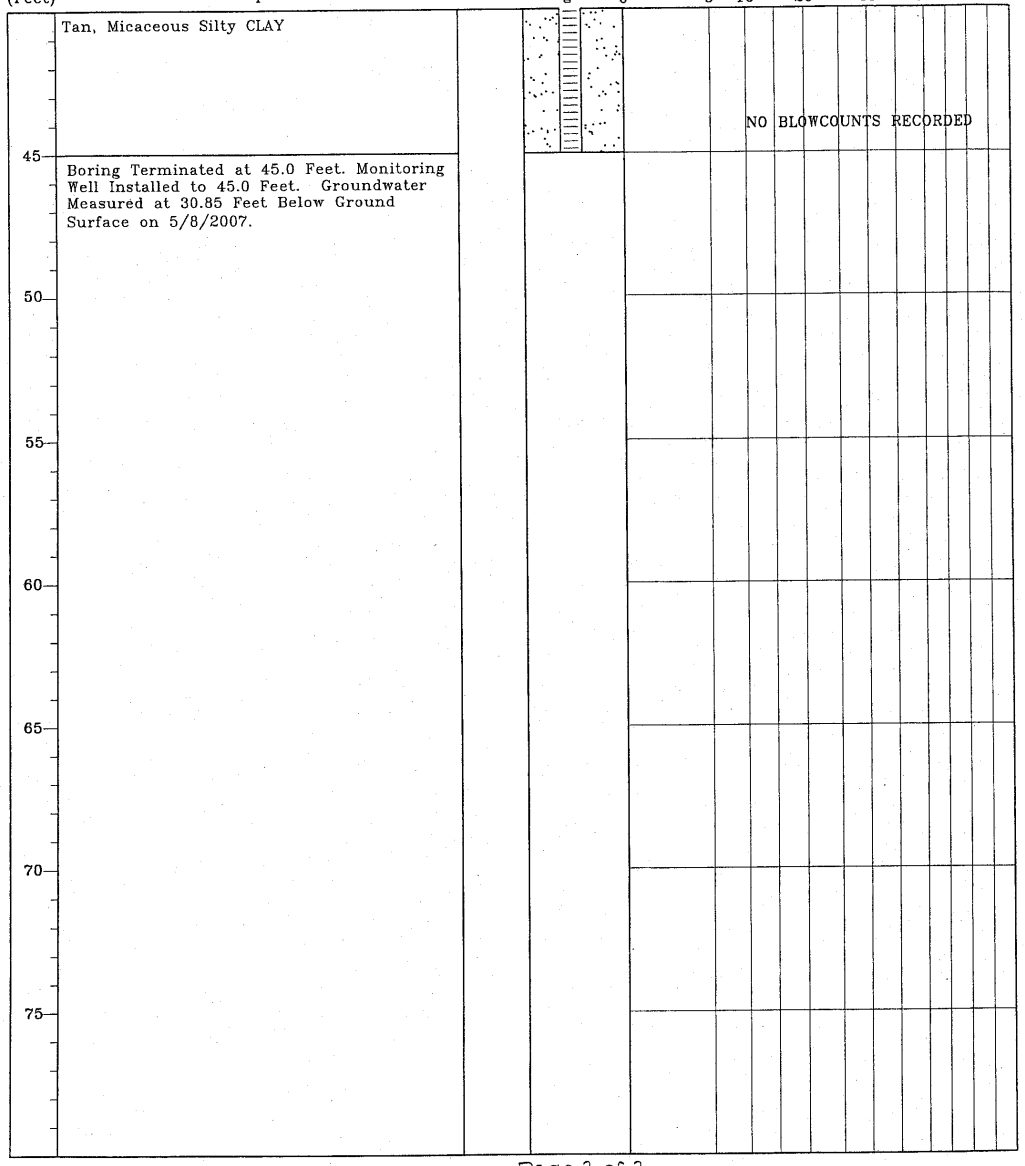
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-51
Date Drilled:	3/24/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



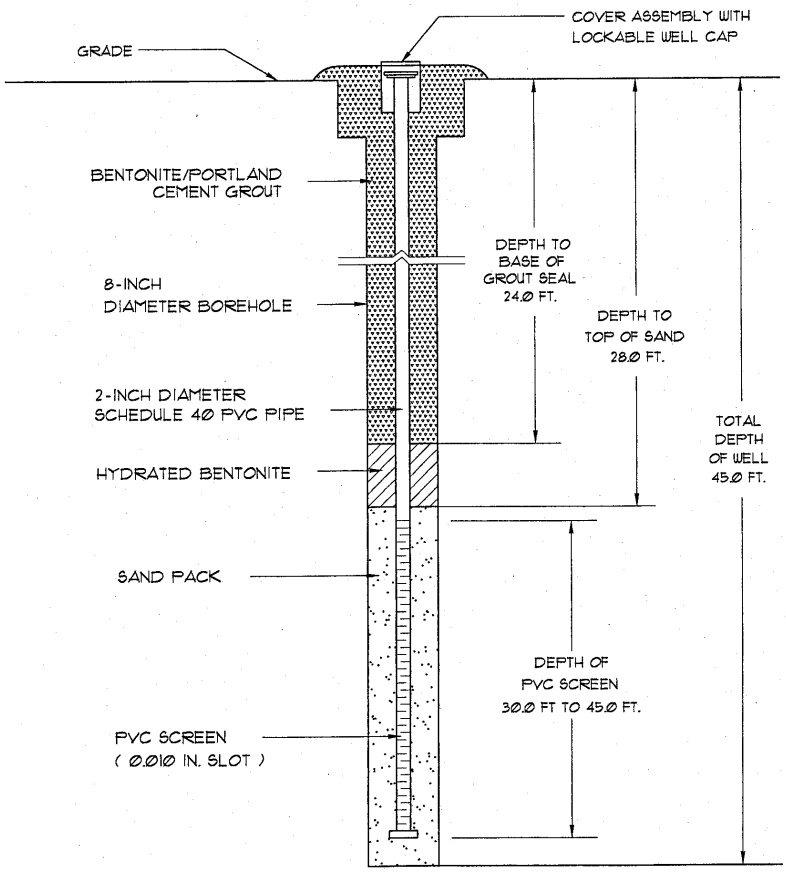
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-51
Date Drilled:	3/24/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

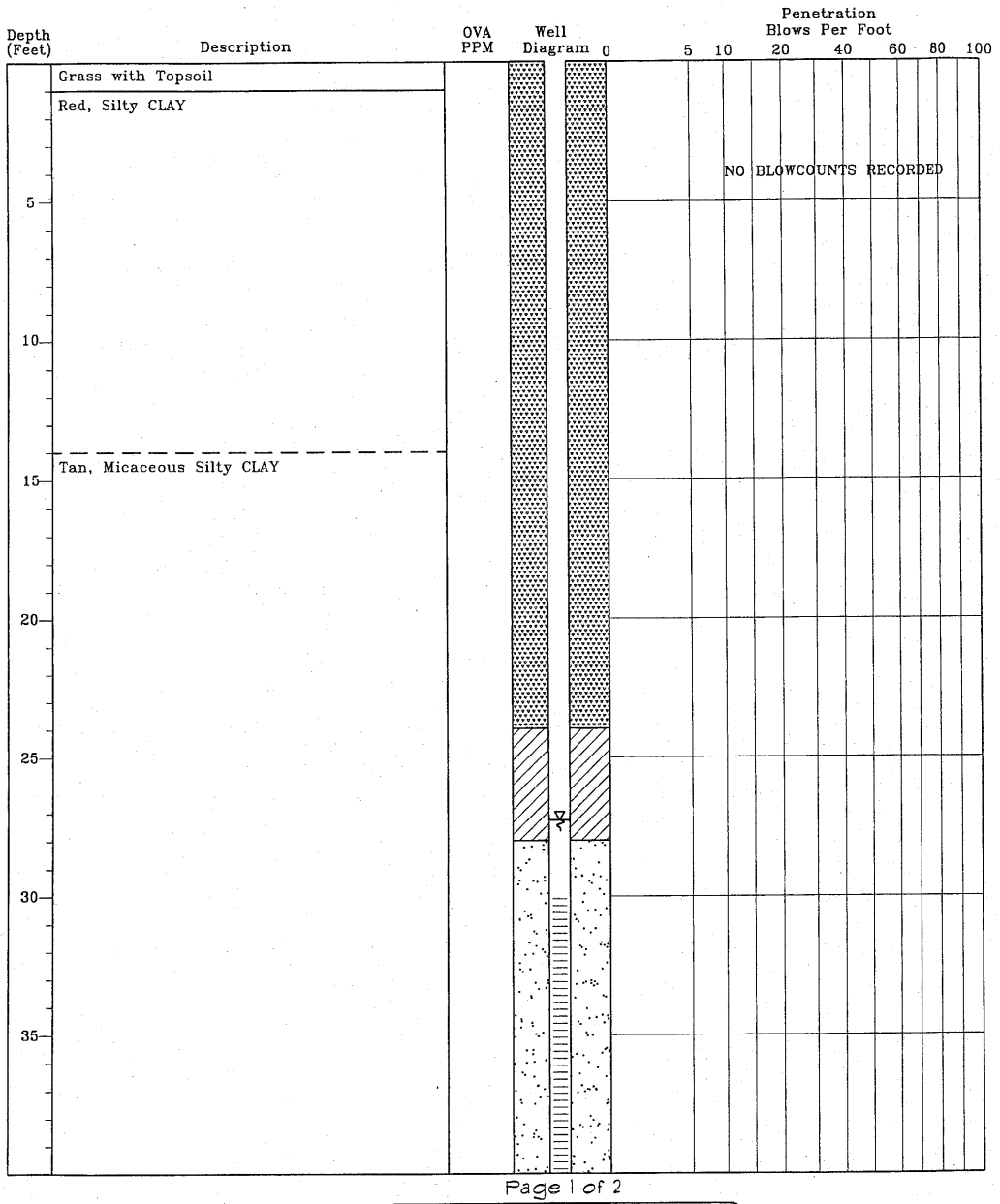
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-51
Date Drilled:	3/24/07
Drilled By:	Geologic Exploration Inc.
Driller: B. Thomas	S.C. I.D. #: B 01465
Logged By:	B. Kelly

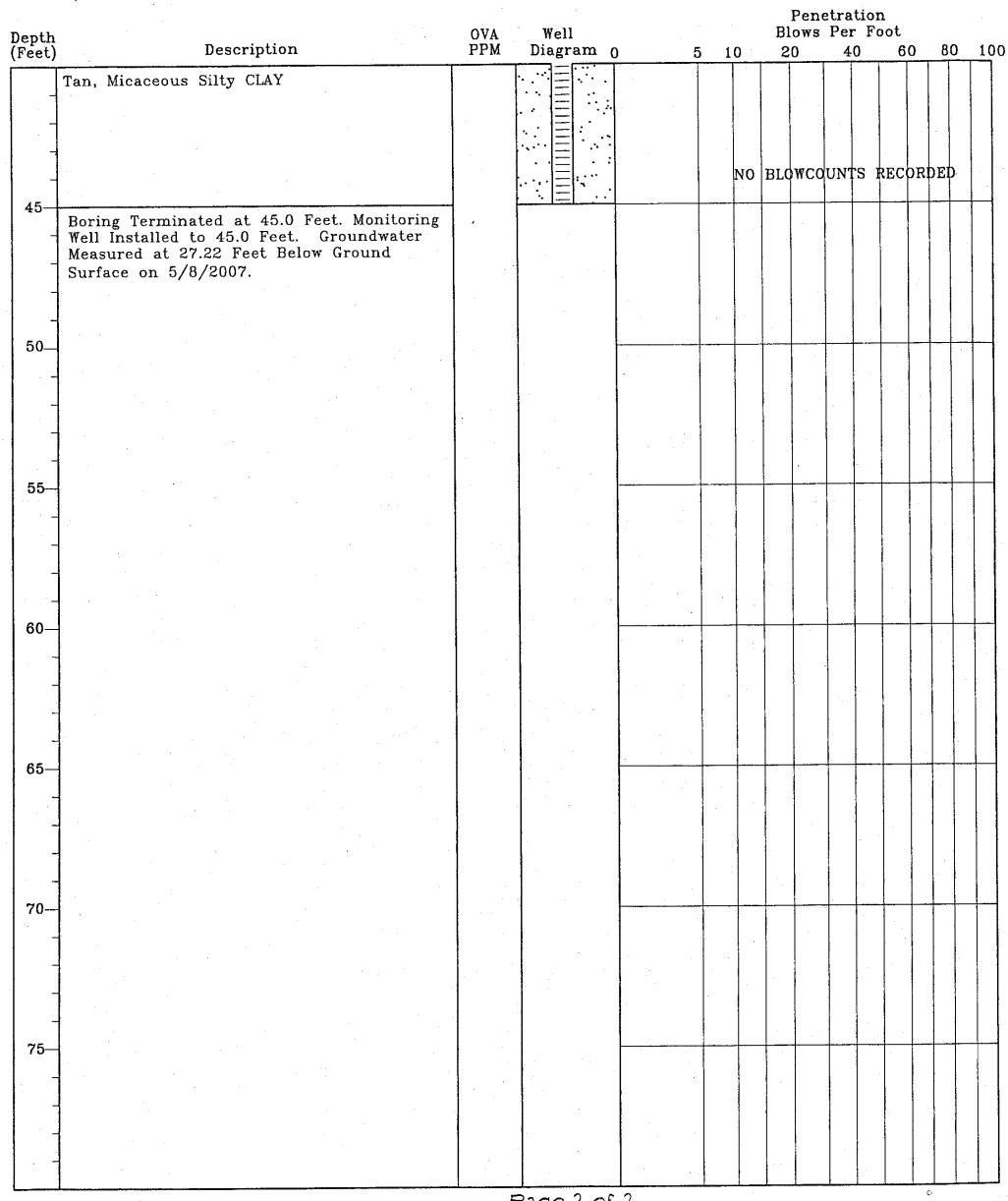
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-52
Date Drilled:	3/24/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



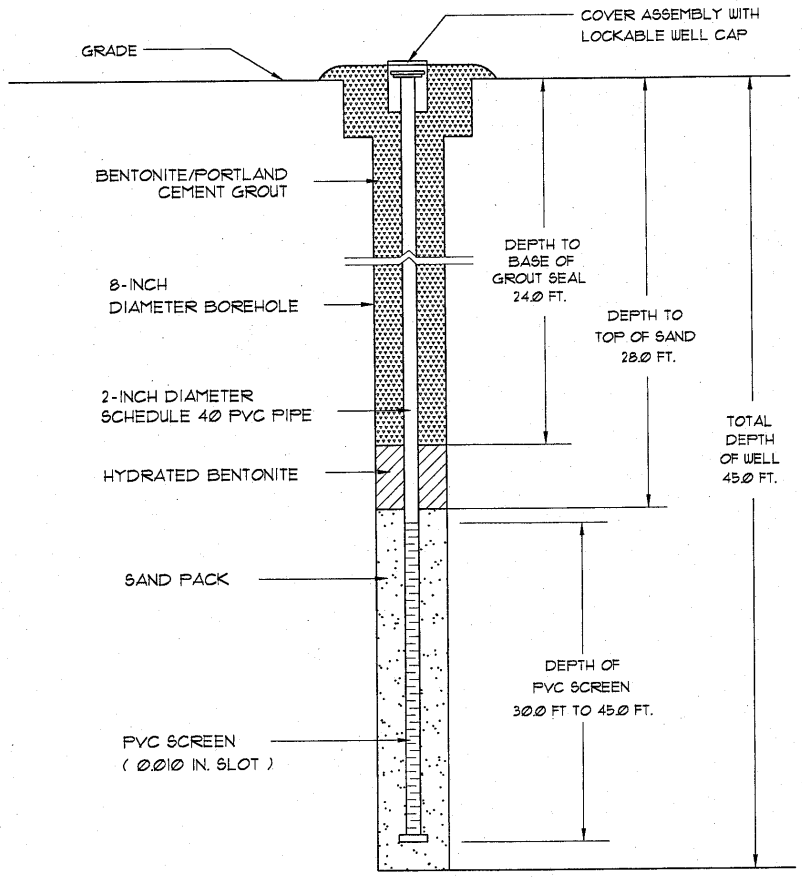
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID* 06742
MECI Project Number 07-1121

Boring Number:	MW-52
Date Drilled:	3/24/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 Fax: 808-2048

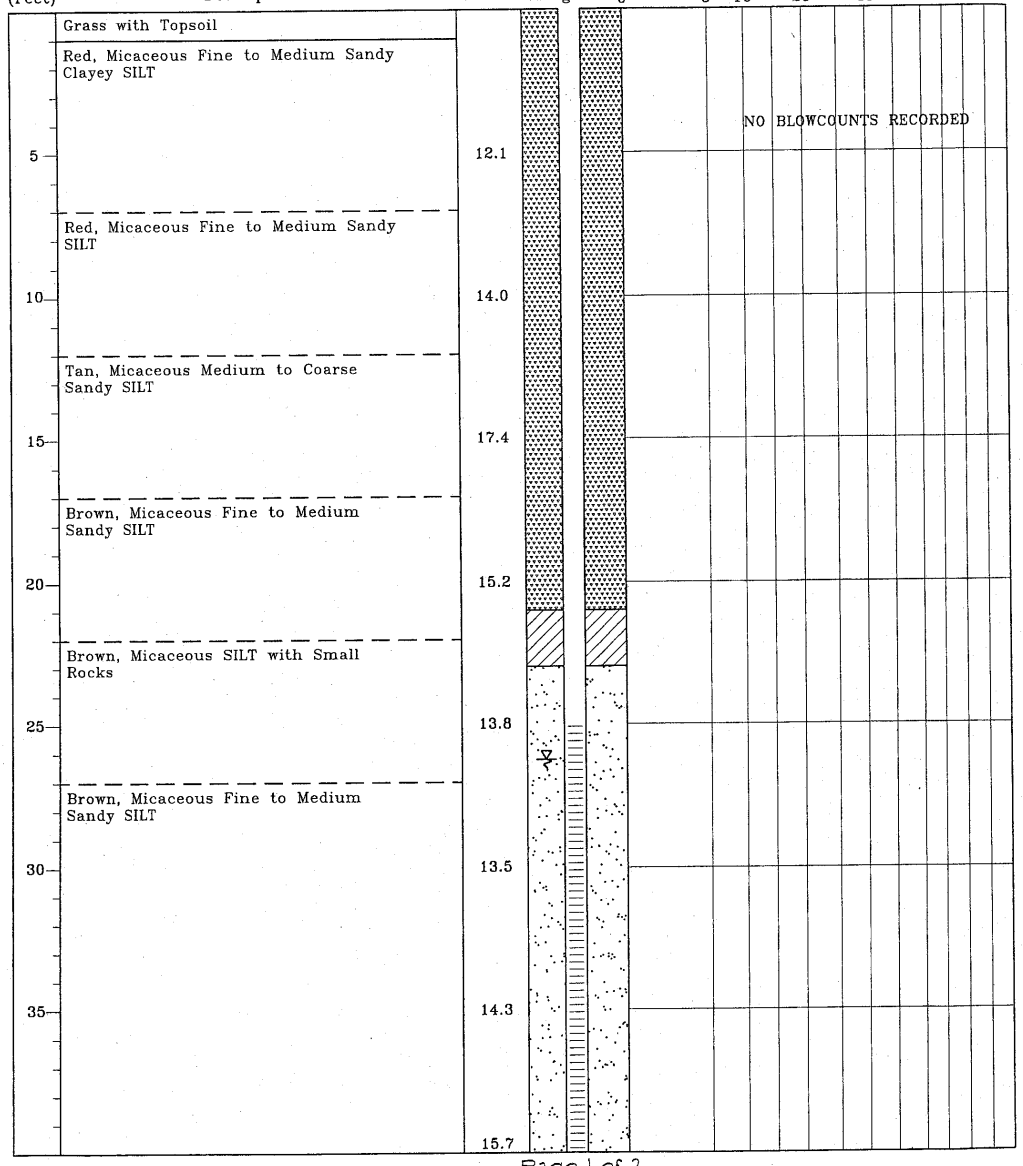
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-52
Date Drilled:	3/24/07
Drilled By:	Geologic Exploration Inc.
Driller: B. Thomas	S.C. I.D. #: B 01465
Logged By:	B. Kelly

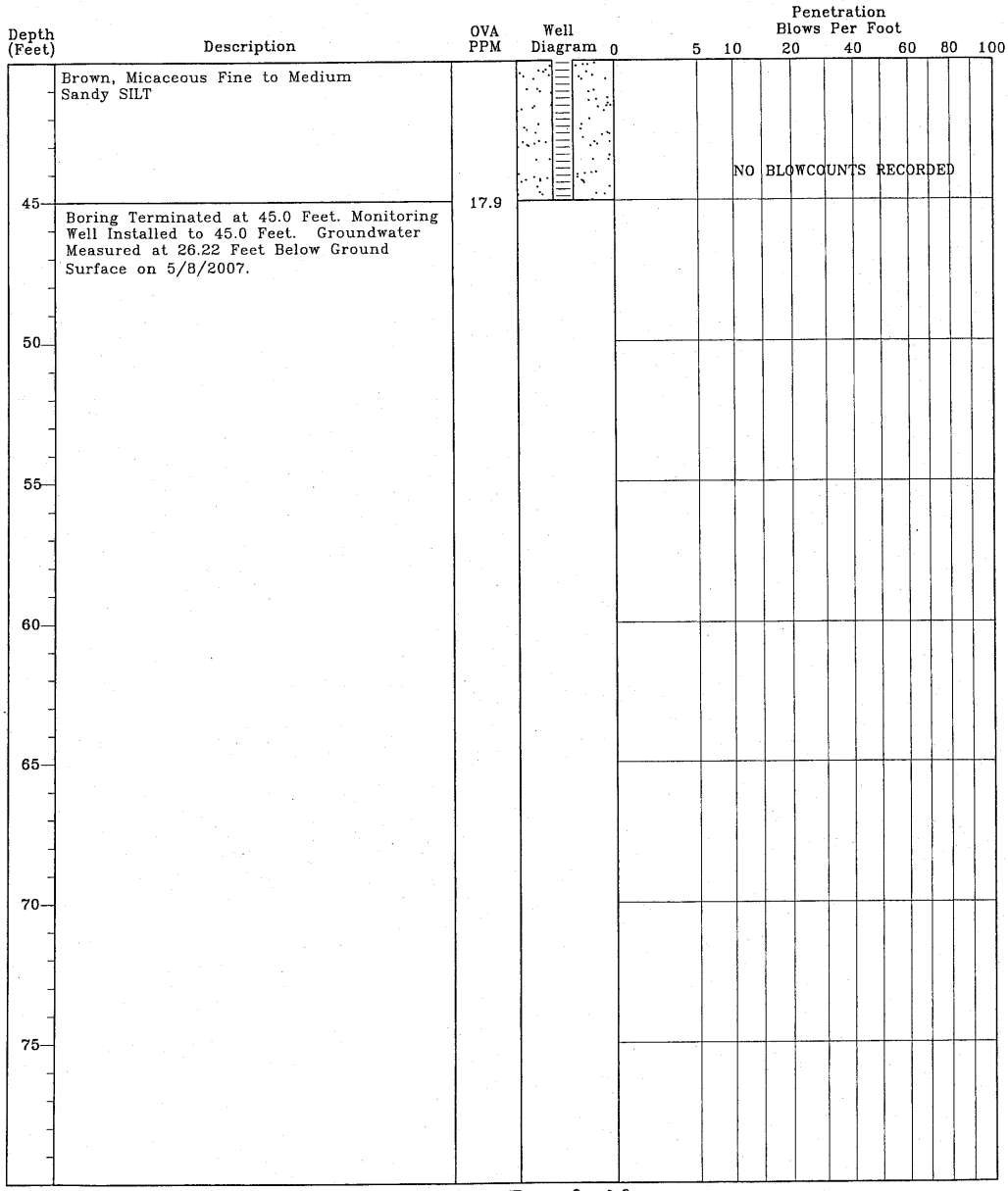
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 Fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-53
Date Drilled:	4/13/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



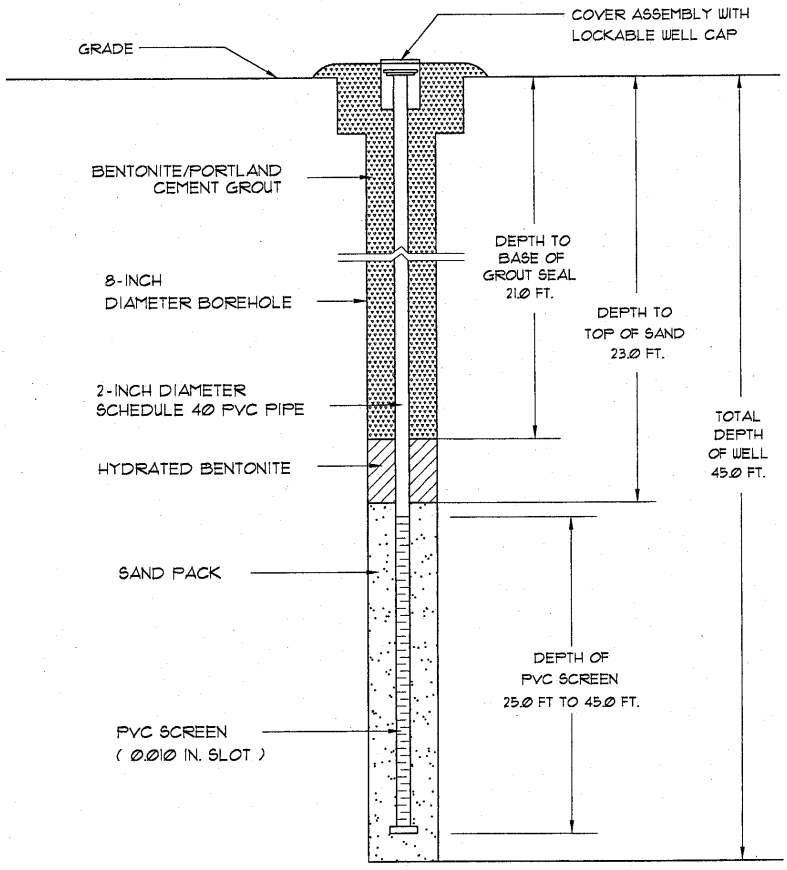
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-53
Date Drilled:	4/13/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

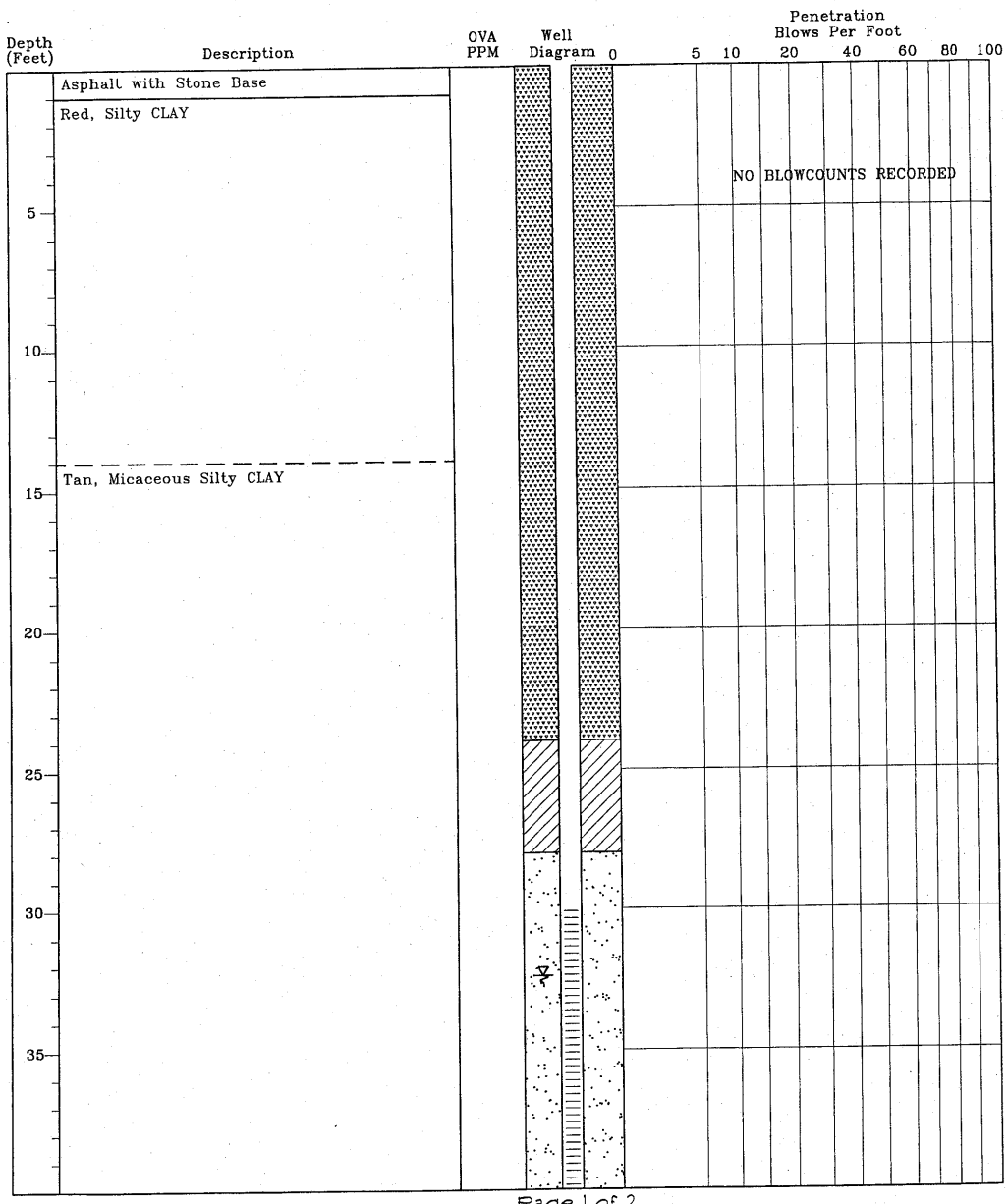
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-53
Date Drilled:	4/13/07
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 01086
Logged By:	B. Kelly

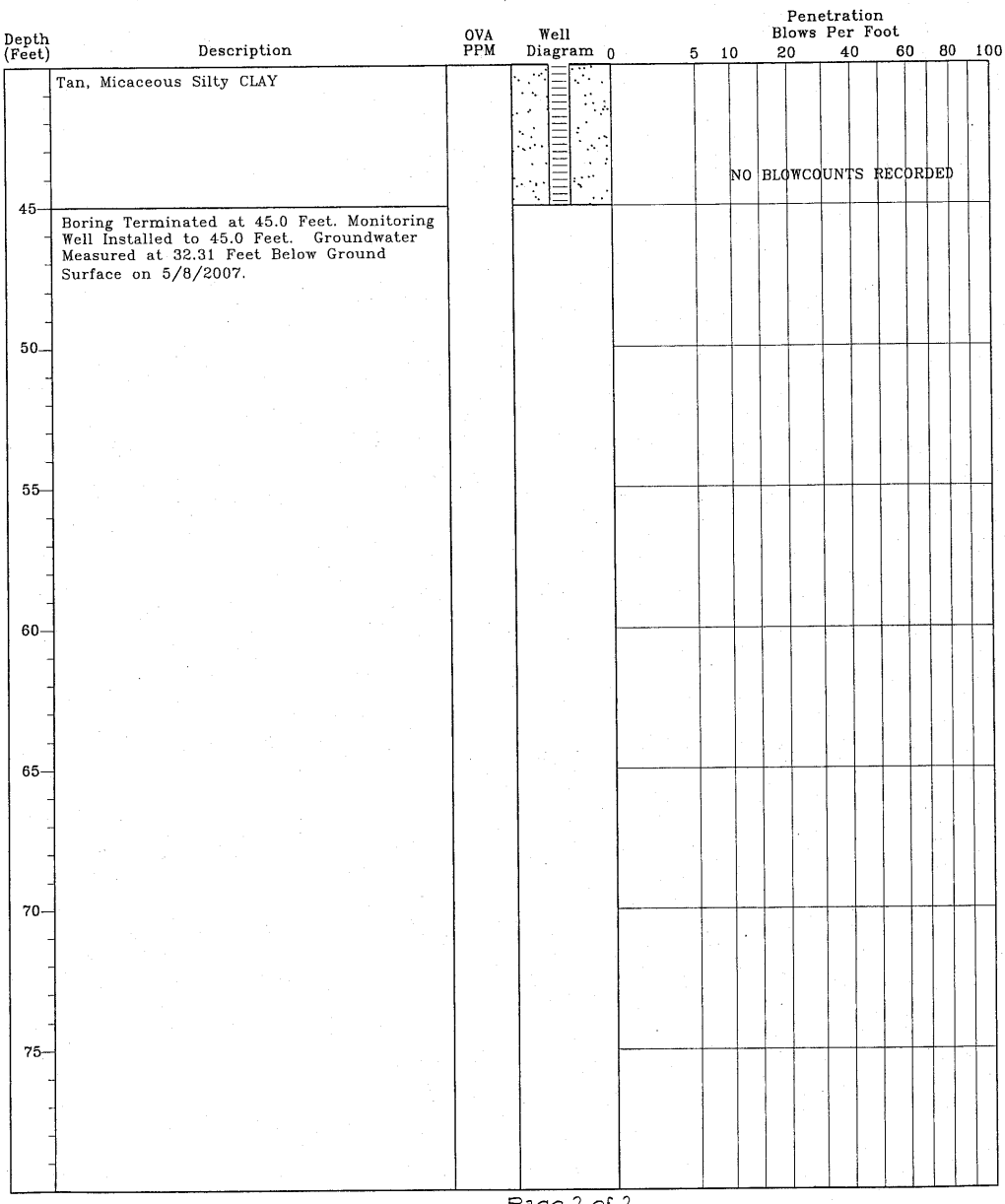
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-54
Date Drilled:	3/24/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



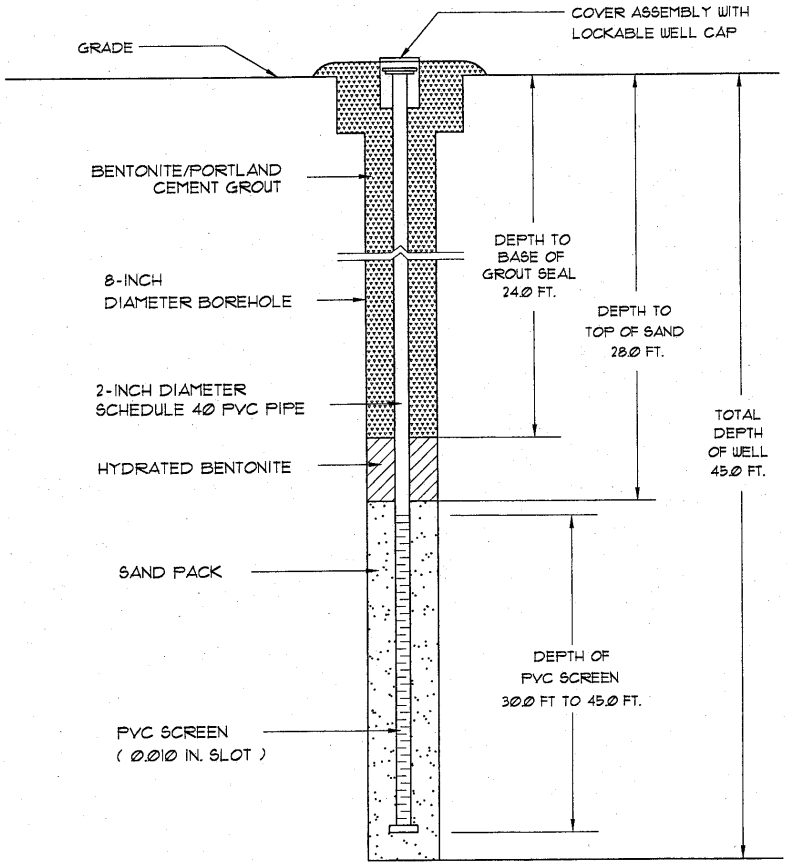
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-54
Date Drilled:	3/24/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

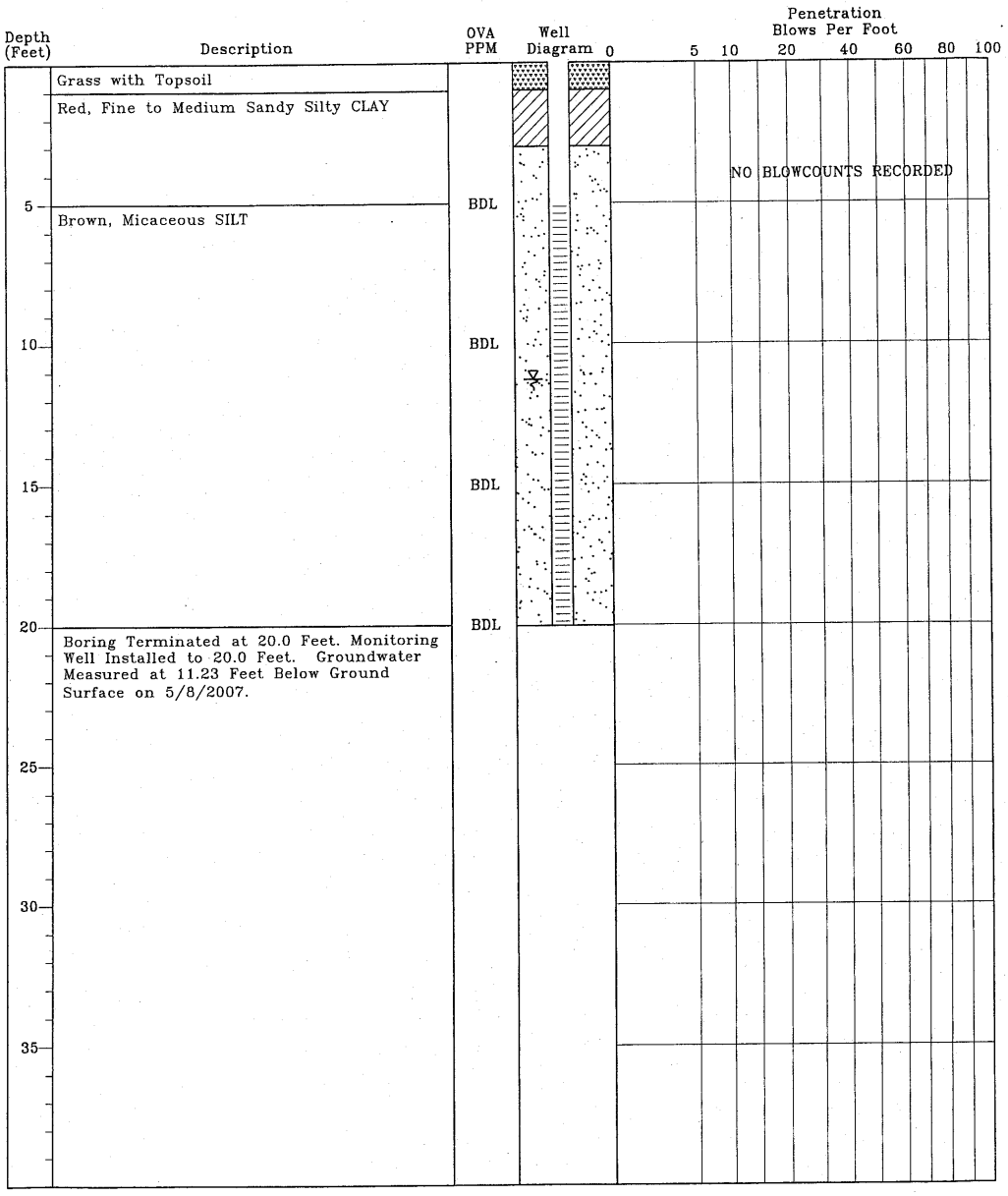
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-54
Date Drilled:	3/24/07
Drilled By:	Geologic Exploration Inc.
Driller: B. Thomas	S.C. I.D. #: B 01465
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



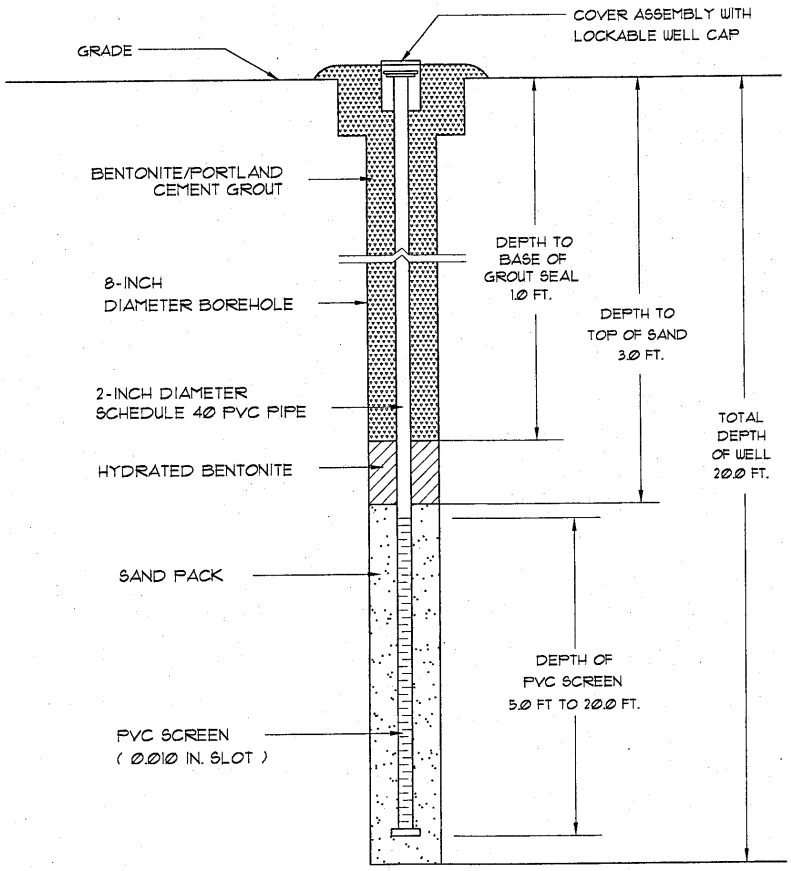
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-55
Date Drilled:	4/30/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

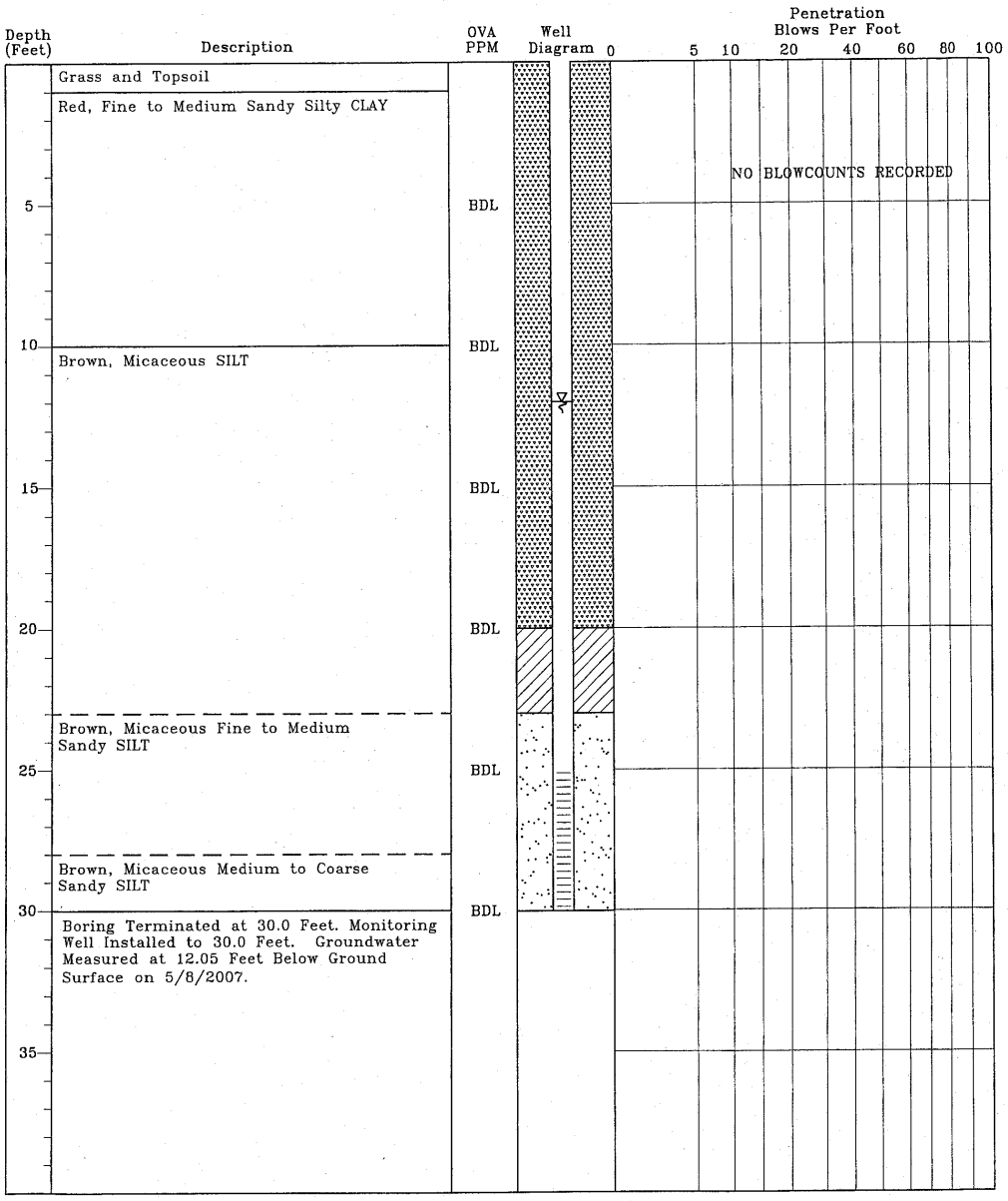
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-55
Date Drilled:	4/30/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



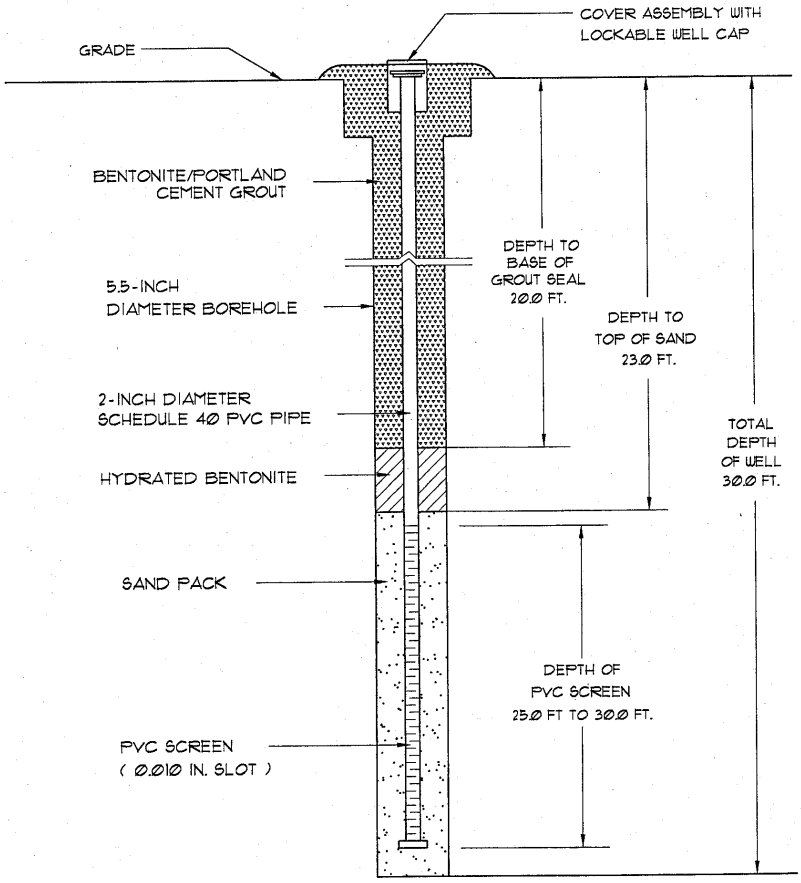
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-5Ti
Date Drilled:	4/30/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

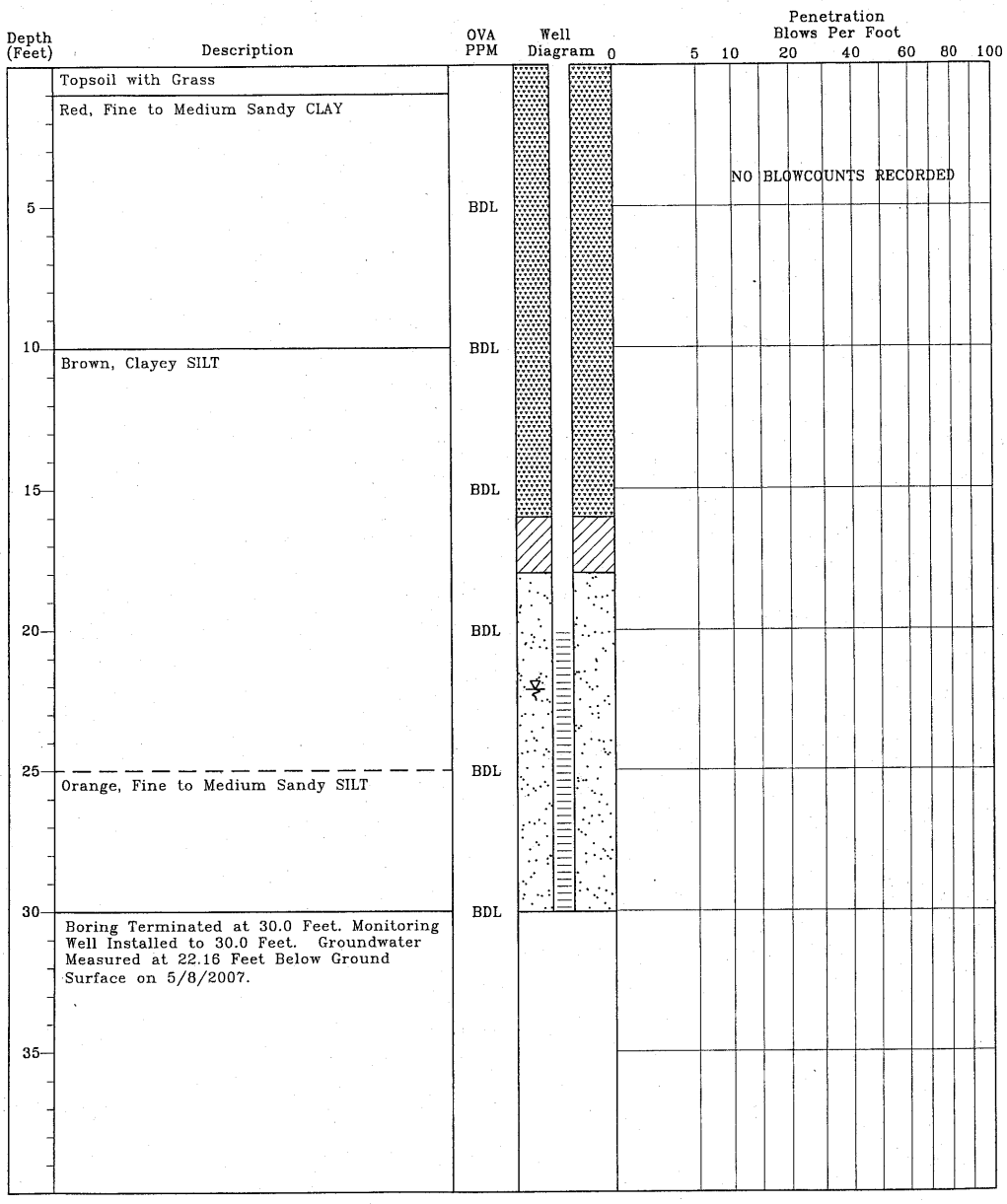
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-57i
Date Drilled:	4/30/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



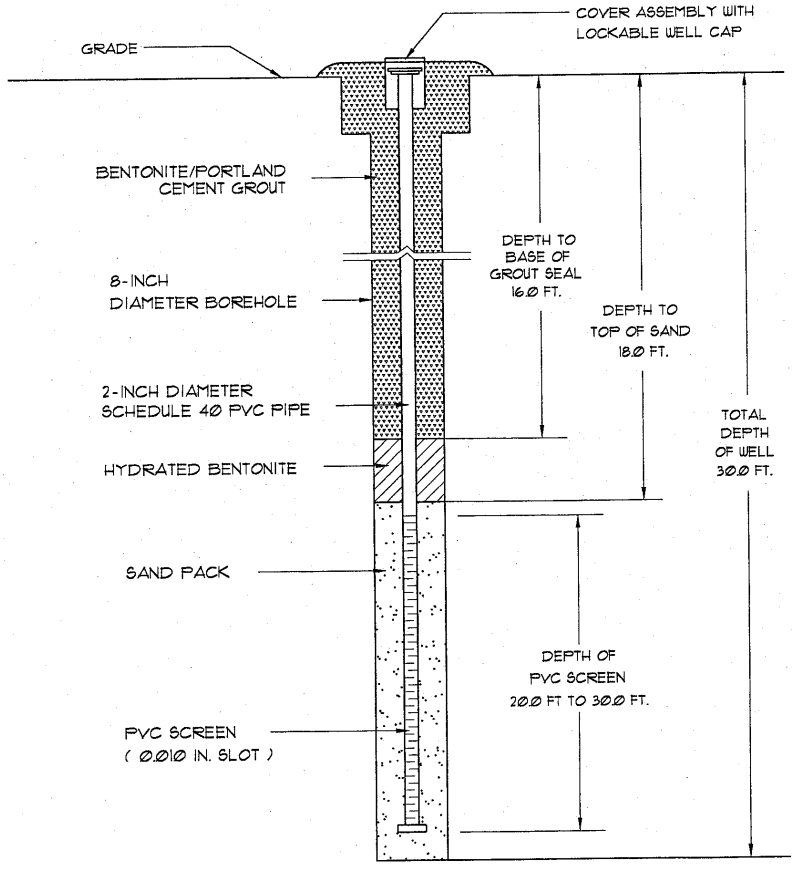
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-58
Date Drilled:	4/26/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

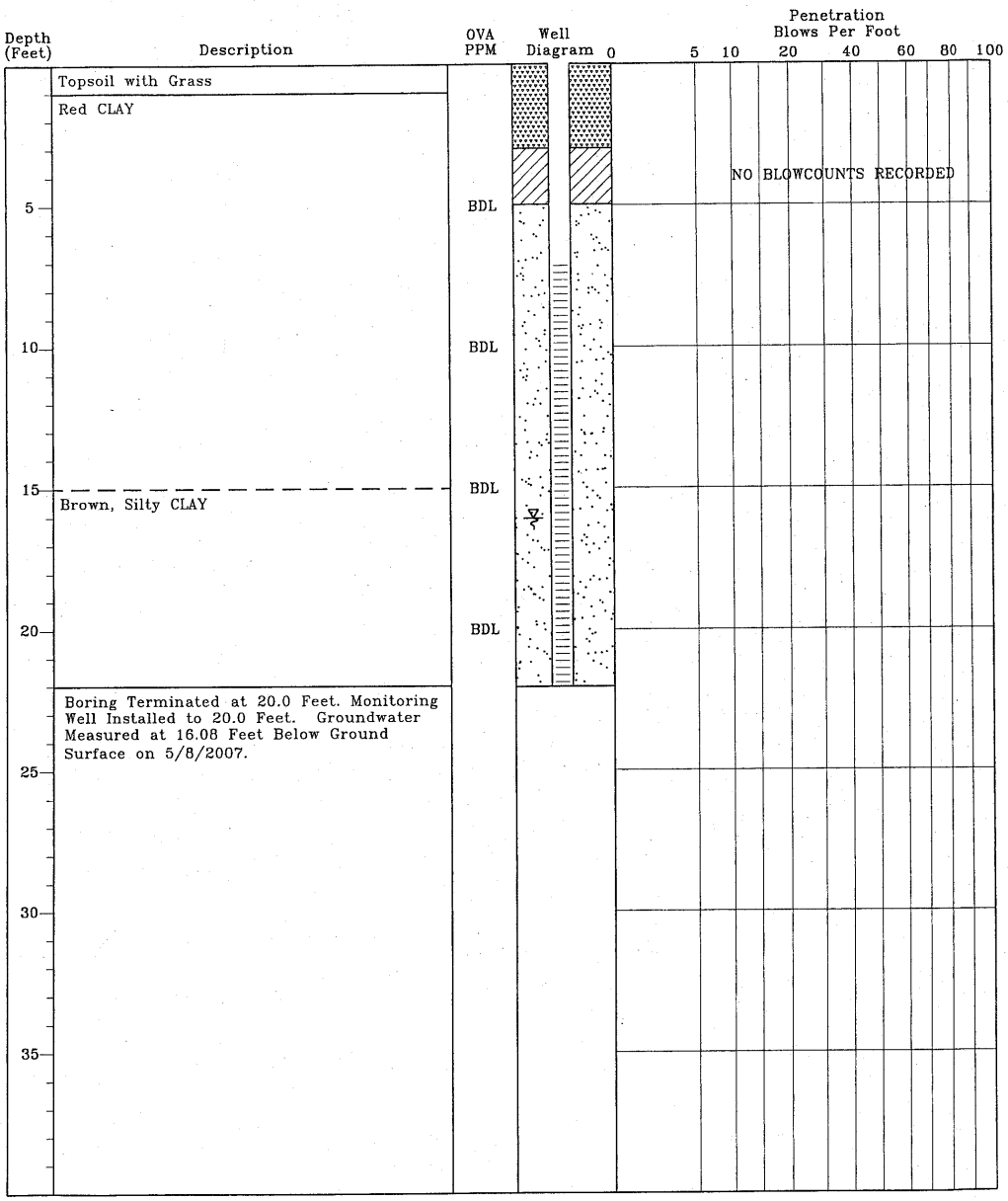
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminster, South Carolina
SCDHEC Site ID* 06742
MECI Project Number 07-1121



Well Number:	MW-58
Date Drilled:	4/26/07
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 01086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



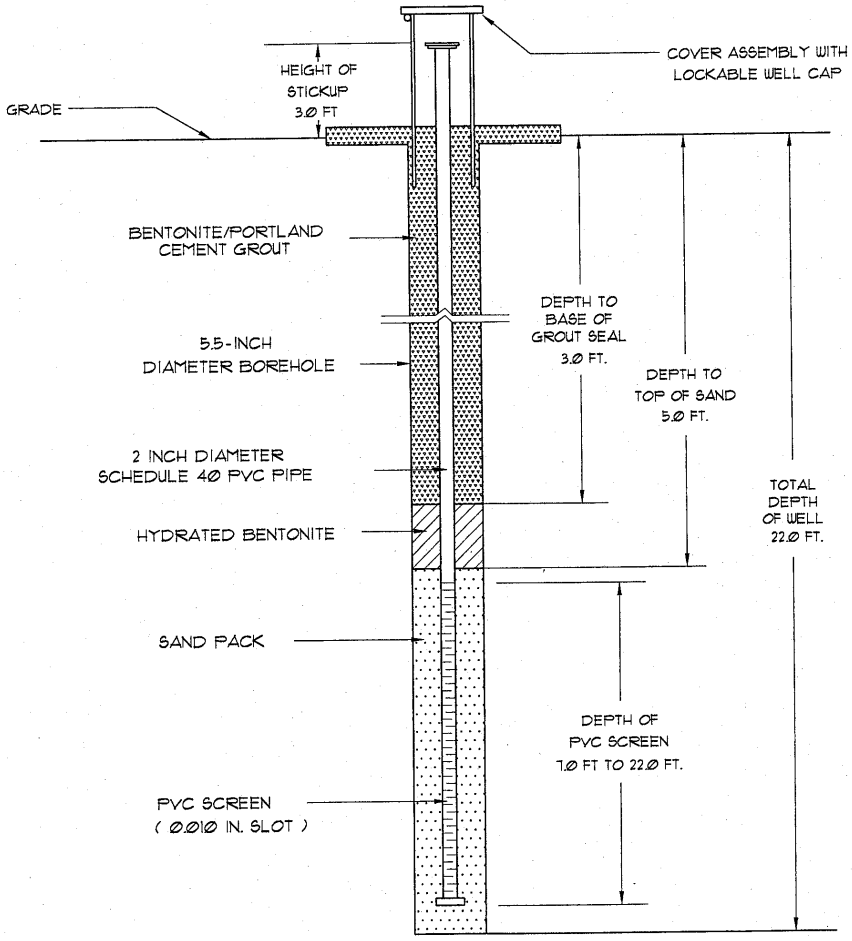
TEST BORING RECORD
Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121

Boring Number:	MW-59
Date Drilled:	5/01/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 07-1121



Well Number:	MW-59
Date Drilled:	5/1/07
Drilled By:	Geologic Exploration Inc.
Driller: J. Mantak	S.C. I.D. #: B 01494
Logged By:	B. Guiles

Prepared By:
Midlands Environmental Consultants, Inc.
235 B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	10.0	10.0
BROWN SILTY CLAY	15.0	25.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-14R2 BENTONITE SEAL FROM 4.0 TO 8.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 25.0 ft. Date Started: 03/20/07 Date Completed: 03/20/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☑ Galvanized ☐ Steel ☐ Other
2.0 in. to 10.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 10.0 ft. and 25.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 12.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 8.0 ft. to 25.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 4.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/19/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	12.0	12.0
BROWN SILTY CLAY	33.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-15R BENTONITE SEAL FROM 24.0 TO 28.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 03/20/07 Date Completed: 03/20/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☑ Galvanized ☐ Steel ☐ Other
2.0 in. to 30.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 30.0 ft. and 45.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 32.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 28.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 24.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 04/19/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
CONCRETE/GRAVEL	1.0	1.0
RED CLAY	4.0	5.0
BROWN SILTY CLAY	65.0	70.0
BROWN WEATHERED ROCK	11.0	81.0
GREY ROCK	14.0	95.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-16DD BENTONITE SEAL FROM 80.0 TO 88.0 FT. 6 1/4 GALVANIZED GROUTED FROM 0.0 TO 83.0.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 95.0 ft. Date Started: 03/19/07 Date Completed: 03/22/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☒ Galvanized ☐ Steel ☐ Other
2.0 in. to 90.0 ft. depth
6 1/4 in. to 83.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 90.0 ft. and 95.0 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 35.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 88.0 ft. to 95.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 0.0 ft. to 80.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date Installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Jason Mantak Well Driller Date: 05/22/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAYEY SILT	5.0	5.0
ORANGE/BROWN CLAYEY SILT	5.0	10.0
BROWN SANDY SILT	30.0	40.0
BROWN CLAYEY SANDY SILT	10.0	50.0
BROWN ROCK	2.0	52.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-17I BENTONITE SEAL FROM 45.5 TO 46.0FT. 6 INCH PVC GROUTED FROM 0.0 TO 45.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 52.0 ft. Date Started: 04/19/07 Date Completed: 04/20/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 47.0 ft. depth
6.0 in. to 45.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight ____ lb/ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 47.0 ft. and 52.0 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 25.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 46.0 ft. to 52.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 0.0 ft. to 45.5 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS CERT. NO.: 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: [signature] Well Driller Date: 04/24/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAYEY SILT	5.0	5.0
ORANGE/BROWN CLAYEY SILT	5.0	10.0
BROWN SANDY SILT	30.0	40.0
BROWN CLAYEY SANDY SILT	15.5	55.0
BROWN PARTIALLY WEATHERED		
ROCK	6.0	61.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-18D BENTONITE SEAL FROM 54.0 TO 55.5 FT. 6 INCH PVC GROUTED FROM 0.0 TO 55.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 61.0 ft. Date Started: 04/18/07 Date Completed: 04/19/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 56.0 ft. depth
6.0 in. to 55.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 56.0 ft. and 61.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 25.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 55.5 ft. to 61.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 54.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/24/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SANDY SILT	10.0	10.0
RED/BROWN SILT	8.0	18.0
BROWN SILT	37.0	55.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-19I BENTONITE SEAL FROM 46.0 TO 48.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 45.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 55.0 ft. Date Started: 04/11/07 Date Completed: 04/12/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 50.0 ft. depth
6.0 in. to 45.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 50.0 ft. and 55.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 25.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 48.0 ft. to 55.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 46.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/24/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SANDY SILT	10.0	10.0
RED/BROWN SILT	8.0	18.0
BROWN SILT	27.0	45.0
BROWN PARTIALLY WEATHERED		
ROCK	5.0	50.0
BROWN SILT	12.0	62.0
BROWN PARTIALLY WEATHERED		
ROCK/SANDSTONE QUARTZ	14.0	76.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-20D BENTONITE SEAL FROM 67.0 TO 69.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 55.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 04/11/07
76.0 ft. Date Completed: 04/12/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 71.0 ft. depth
6.0 in. to 55.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 71.0 ft. and 76.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 25.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 69.0 ft. to 76.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 67.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/24/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED/BROWN CLAYEY SILT	5.0	5.0
BROWN SANDY SILT	5.0	10.0
BROWN SILT	5.0	15.0
BROWN SANDY SILT	30.0	45.0
BROWN PARTIALLY WEATHERED		
QUARTZ SAND	10.0	55.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-21I BENTONITE SEAL FROM 46.0 TO 48.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 45.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 55.0 ft. Date Started: 04/10/07 Date Completed: 04/10/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 50.0 ft. depth
6.0 in. to 45.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 50.0 ft. and 55.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 25.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 48.0 ft. to 55.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 46.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 04/24/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED/BROWN CLAYEY SILT	5.0	5.0
BROWN SANDY SILT	5.0	10.0
GRAY SANDY SILT	5.0	15.0
BROWN PARTIALLY WEATHERED		
ROCK	60.0	75.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-22D BENTONITE SEAL FROM 66.0 TO 68.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 55.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 75.0 ft. Date Started: 04/10/07 Date Completed: 04/13/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 70.0 ft. depth
6.0 in. to 55.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 70.0 ft. and 75.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 25.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 68.0 ft. to 75.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 66.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A B C D (circle one) ☑ ☐ ☐ ☐
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/24/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

1121

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
TAN/RED SANDY SILT	10.0	10.0
RED/ORANGE/BROWN SILT	30.0	40.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-23 BENTONITE SEAL FROM 21.0 TO 23.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 40.0 ft. Date Started: 03/17/07 Date Completed: 03/17/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☑ Galvanized ☐ Steel ☐ Other
2.0 in. to 25.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 25.0 ft. and 40.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 30.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 23.0 ft. to 40.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 21.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 04/19/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED/MAUVE SANDY SILT	10.0	10.0
RED/ORANGE/BROWN SANDY		
SILT	30.0	40.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		
5. REMARKS: MW-24 BENTONITE SEAL FROM 21.0 TO 23.0 FT.		

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 40.0 ft. Date Started: 03/17/07 Date Completed: 03/17/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☑ Galvanized ☐ Steel ☐ Other
2.0 in. to 25.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 25.0 ft. and 40.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 31.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 23.0 ft. to 40.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 21.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/19/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
TAN/RED/BROWN SILTY SAND	10.0	10.0
RED/BROWN/ORANGE SANDY		
SILT	35.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-25 BENTONITE SEAL FROM 26.0 TO 28.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 03/17/07
45.0 ft. Date Completed: 03/17/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☑ Galvanized ☐ Steel ☐ Other
2.0 in. to 30.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 30.0 ft. and 45.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 32.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 28.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 26.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/19/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003)

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

1121

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SANDY SILTY CLAY	10.0	10.0
BROWN SANDY SILT	28.0	38.0
BROWN ROCK	7.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-26I BENTONITE SEAL FROM 36.0 TO 38.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 35.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 04/19/07 Date Completed: 04/20/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 40.0 ft. depth
6.0 in. to 35.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 40.0 ft. and 45.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 20.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 38.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 36.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/24/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	10.0	10.0
BROWN SILTY CLAY	37.0	47.0
BROWN/GRAY ROCK	51.0	98.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-28DD BENTONITE SEAL FROM 80.0 TO 89.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 88.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 96.0 ft. Date Started: 03/22/07 Date Completed: 03/23/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 91.0 ft. depth
6.0 in. to 88.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 91.0 ft. and 96.0 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 30.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 89.0 ft. to 96.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 0.0 ft. to 80.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Jason Mantak Well Driller Date: 04/26/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	8.0	8.0
TAN/BROWN SILTY CLAY	27.0	35.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-29 BENTONITE SEAL FROM 14.0 TO 18.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 35.0 ft. Date Started: 03/20/07 Date Completed: 03/20/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☑ Galvanized ☐ Steel ☐ Other
2.0 in. to 20.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 20.0 ft. and 35.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 25.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 18.0 ft. to 35.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 14.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/19/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SANDY SILTY CLAY	10.0	10.0
RED SANDY SILT	15.0	25.0
BROWN FINE SILTY SAND	20.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-30I BENTONITE SEAL FROM 34.0 TO 38.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 35.0.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 05/01/07 Date Completed: 05/02/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 40.0 ft. depth
6 in. to 35.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 40.0 ft. and 45.0 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 25.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 38.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 0.0 ft. to 34.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Mark K. Gettys Well Driller Date: 05/22/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

1121

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SANDY CLAY	10.0	10.0
BROWN CLAYEY SILT	10.0	20.0
ORANGE SANDY SILT	25.0	45.0
BROWN ROCKY SILT	12.0	57.0
BLACK WEATHERED ROCK	9.0	66.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-31D BENTONITE SEAL FROM 56.0 TO 59.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 57.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 66.0 ft. Date Started: 04/27/07 Date Completed: 05/01/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 61.0 ft. depth
6.0 in. to 57.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 61.0 ft. and 66.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 30.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 59.0 ft. to 66.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 56.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 05/02/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	8.0	8.0
BROWN SILTY CLAY	22.0	30.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-32 BENTONITE SEAL FROM 9.0 TO 13.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 03/20/07
30.0 ft. Date Completed: 03/20/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☑ Galvanized ☐ Steel ☐ Other
2.0 in. to 15.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 15.0 ft. and 30.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 20.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 13.0 ft. to 30.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 9.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/19/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED/BROWN SANDY SILT	10.0	10.0
BROWN SILT	10.0	20.0
BROWN SANDY SILT	10.0	30.0
GRAY/BROWN ROCKY SILT	10.0	40.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-331 BENTONITE SEAL FROM 31.0 TO 33.0FT. 6 INCH PVC GROUTED FROM 0.0 TO 30.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 40.0 ft. Date Started: 04/03/07 Date Completed: 04/04/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 35.0 ft. depth
6.0 in. to 30.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 35.0 ft. and 40.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 15.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 33.0 ft. to 40.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 31.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/24/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SANDY CLAY	10.0	10.0
BROWN SILT	15.0	25.0
BROWN SANDY SILT	15.0	40.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-34D BENTONITE SEAL FROM 42.0 TO 44.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 40.0.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 05/03/07
51.0 ft. Date Completed: 05/04/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 46.0 ft. depth
6.0 in. to 40.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 46.0 ft. and 51.0 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 25.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44.0 ft. to 51.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 0.0 ft. to 42.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date Installed: ____ Not Installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Mark K. Gettys Date: 05/22/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED/BROWN SILT	10.0	10.0
BROWN SILT	9.0	19.0
GRAY ROCKY SILT	6.0	25.0
GRAY ROCKY PARTIALLY		
WEATHERED ROCK	10.0	35.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-35I BENTONITE SEAL FROM 26.0 TO 28.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 25.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 35.0 ft. Date Started: 04/03/07 Date Completed: 04/04/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 30.0 ft. depth
6.0 in. to 25.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 30.0 ft. and 35.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 12.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 28.0 ft. to 35.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 26.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/24/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED/BROWN SILT	10.0	10.0
BROWN SILT	9.0	19.0
GRAY ROCKY SILT	5.0	24.0
GRAY PARTIALLY WEATHERED		
ROCK	6.0	30.0
BEDROCK	6.0	36.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-36D BENTONITE SEAL FROM 28.0 TO 30.5 FT. 6 INCH PVC GROUTED FROM 0.0 TO 30.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 36.0 ft. Date Started: 04/03/07 Date Completed: 04/06/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 31.0 ft. depth
6.0 in. to 30.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 31.0 ft. and 36.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 12.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 30.5 ft. to 36.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 28.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/24/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	8.0	8.0
BROWN WEATHERED ROCK	8.0	16.0
BROWN SILTY CLAY	4.0	20.0
GRAY/BLACK FRACTURED		
WEATHERED ROCK	25.0	45.0
GRAY ROCK	12.0	57.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-37DD BENTONITE SEAL FROM 46.0 TO 50.0 FT. 6 1/4 INCH GALVANIZED GROUTED FROM 0.0 TO 47.0 FEET.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 57.0 ft. Date Started: 03/19/07 Date Completed: 03/22/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☑ Galvanized ☐ Steel ☐ Other
2.0 in. to 52.0 ft. depth
6 1/4 in. to 47.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 52.0 ft. and 57.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 15.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 50.0 ft. to 57.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 46.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/19/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SANDY CLAY	10.0	10.0
RED/ORANGE SANDY SILT	10.0	20.0
ORANGE/BROWN SILT	5.0	25.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-38 BENTONITE SEAL FROM 11.0 TO 13.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 04/06/07
25.0 ft. Date Completed: 04/06/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 15.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 15.0 ft. and 25.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 20.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 13.0 ft. to 25.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 11.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/24/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

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D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SANDY CLAY	10.0	10.0
RED/ORANGE SANDY SILT	10.0	20.0
ORANGE/BROWN SILT	25.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-39I BENTONITE SEAL FROM 36.0 TO 38.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 35.0 FEET.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 04/06/07 Date Completed: 04/09/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 40.0 ft. depth
6.0 in. to 35.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 40.0 ft. and 45.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 20.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 38.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 36.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: mark K. Gettys Date: 04/25/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SILTY CLAY	10.0	10.0
BROWN/RED SANDY SILT	13.0	23.0
BROWN SANDY ROCKY SILT	12.0	35.0
GRAY/BROWN PARTIALLY		
WEATHERED ROCK	5.0	40.0
BROWN SILTY PARTIALLY		
WEATHERED ROCK	26.0	66.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-40D BENTONITE SEAL FROM 57.0 TO 59.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 40.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 04/09/07
66.0 ft. Date Completed: 04/10/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 61.0 ft. depth
6.0 in. to 40.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 61.0 ft. and 66.0 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 15.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 59.0 ft. to 66.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 0.0 ft. to 57.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date Installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: ☑ A ☐ B ☐ C ☐ D (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ Date: 04/24/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SANDY CLAY	10.0	10.0
RED/BROWN CLAYEY SILT	15.0	25.0
BROWN FINE SILT	10.0	35.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-411 BENTONITE SEAL FROM 34.0 TO 38.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 35.0.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 05/02/07 Date Completed: 05/03/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 40.0 ft. depth
6 in. to 35.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 40.0 ft. and 45.0 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 20.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 38.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 0.0 ft. to 34.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: ☑ A ☐ B ☐ C ☐ D (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: mark K. Gettys Well Driller Date: 05/22/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SANDY CLAY	10.0	10.0
RED/BROWN CLAYEY SILT	15.0	25.0
BROWN FINE SILT	15.0	40.0
BROWN SILTY SAND	10.0	50.0
TAN SILTY SANDSTONE AND		
BEDROCK	10.0	60.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-42D BENTONITE SEAL FROM 49.0 TO 53.0 FT. 6 INCH PVC GROUTED FROM 0.0 TO 50.0.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 05/02/07
60.0 ft. Date Completed: 05/03/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 55.0 ft. depth
6 in. to 50.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 55.0 ft. and 60.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 20.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 53.0 ft. to 60.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 49.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: ☑ A ☐ B ☐ C ☐ D (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 05/22/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

For Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	13.0	13.0
GRAY CLAY	2.0	15.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-43 BENTONITE SEAL FROM 2.0 TO 3.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 04/30/07 Date Completed: 04/30/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 5.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 2.5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 5.0 ft. and 15.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 10.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 3.0 ft. to 15.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 2.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 05/03/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	13.0	13.0
GRAY CLAY	12.0	25.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-44I BENTONITE SEAL FROM 15.0 TO 18.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 25.0 ft. Date Started: 04/30/07 Date Completed: 04/30/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 20.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 2.5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 20.0 ft. and 25.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 10.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 18.0 ft. to 25.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 15.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 05/03/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C

PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	8.0	8.0
TAN SILTY CLAY	27.0	35.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-46 BENTONITE SEAL FROM 14.0 TO 18.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 35.0 ft. Date Started: 03/20/07 Date Completed: 03/20/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☑ Galvanized ☐ Steel ☐ Other
2.0 in. to 20.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 20.0 ft. and 35.0 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 25.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 18.0 ft. to 35.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 14.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 04/19/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	8.0	8.0
BROWN SILTY CLAY	22.0	30.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-47 BENTONITE SEAL FROM 9.0 TO 13.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 30.0 ft. Date Started: 03/20/07 Date Completed: 03/20/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☑ Galvanized ☐ Steel ☐ Other
2.0 in. to 15.0 ft. depth
____ in. to ____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 15.0 ft. and 30.0 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 21.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 13.0 ft. to 30.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 0.0 ft. to 9.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P.____ Volts____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 04/19/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	10.0	10.0
GRAY CLAY	10.0	20.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-49 BENTONITE SEAL FROM 1.0 TO 3.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 04/30/07
20.0 ft. Date Completed: 04/30/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 5.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 5.0 ft. and 20.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 10.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 3.0 ft. to 20.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 1.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 05/03/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003)

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

D H E C
PROMOTE. PROTECT. PROSPER.

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	15.0	15.0
BROWN SILTY CLAY	5.0	20.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-50 BENTONITE SEAL FROM 1.0 TO 3.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 04/30/07
20.0 ft. Date Completed: 04/30/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 5.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 5.0 ft. and 20.0 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 10.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 3.0 ft. to 20.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 1.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft.____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD Level: A ☐ B ☑ C ☐ D ☐ (circle one)
STATESVILLE, NC 28625
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 05/03/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SILTY CLAY	14.0	14.0
TAN SILTY CLAY	31.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-51 BENTONITE SEAL FROM 24.0 TO 28.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 03/24/07 Date Completed: 03/24/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 30.0 ft. depth
____ in. to ____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 30.0 ft. and 45.0 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 21.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 28.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 0.0 ft. to 24.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: BRIAN THOMAS **CERT. NO.:** 01465
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Brian Thomas Well Driller Date: 04/25/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

4/25/2007

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SILTY CLAY	14.0	14.0
TAN SILTY CLAY	31.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-52 BENTONITE SEAL FROM 24.0 TO 28.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 03/24/07 Date Completed: 03/24/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 30.0 ft. depth
____ in. to ____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 30.0 ft. and 45.0 ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 21.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 28.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 0.0 ft. to 24.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: BRIAN THOMAS **CERT. NO.:** 01465
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 04/25/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ft. to ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED/BROWN SANDY SILT	10.0	10.0
TAN MICACIOUS SILT	10.0	20.0
BROWN SILT	15.0	35.0
MUD/BROWN SILT	10.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-53 BENTONITE SEAL FROM 21.0 TO 23.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 04/13/07 Date Completed: 04/13/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 25.0 ft. depth
in. to ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 20.0 FEET
Set Between: 25.0 ft. and 45.0 ft. **NOTE: MULTIPLE SCREENS**
ft. and ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 30.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 23.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0.0 ft. to 21.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type
Well Disinfected ☐ Yes ☐ No Type: Amount:

18. PUMP: Date installed: Not installed ☐
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD Level: A ☑ B ☐ C ☐ D ☐ (circle one)
STATESVILLE, NC 28625
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Well Driller Date: 04/24/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SILTY CLAY	14.0	14.0
TAN SILTY CLAY	31.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-54 BENTONITE SEAL FROM 24.0 TO 28.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 03/24/07 Date Completed: 03/24/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 30.0 ft. depth
____ in. to ____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: 010 Length: 15.0 FEET
Set Between: 30.0 ft. and 45.0 ft. NOTE: MULTIPLE SCREENS
____ ft. and ____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 21.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 28.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 0.0 ft. to 24.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date Installed: ____ Not Installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: BRIAN THOMAS **CERT. NO.:** 01465
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Brian Thomas Well Driller Date: 04/25/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	5.0	5.0
BROWN SILTY CLAY	15.0	20.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-~~05~~ 35 BENTONITE SEAL FROM 1.0 TO 3.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 20.0 ft. Date Started: 04/30/07 Date Completed: 04/30/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 5.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 5.0 ft. and 20.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 10.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 3.0 ft. to 20.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 1.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 05/03/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	30.0	30.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-57I BENTONITE SEAL FROM 20.0 TO 23.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 30.0 ft. Date Started: 04/30/07 Date Completed: 04/30/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 25.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 25.0 ft. and 30.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 10.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 23.0 ft. to 30.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 20.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK CERT. NO.: 01494
Address: (Print) 176 COMMERCE BLVD Level: A ☐ B ☑ C ☐ D ☐ (circle one)
STATESVILLE, NC 28625
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 05/03/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED SANDY CLAY	10.0	10.0
BROWN CLAYEY SILT	15.0	25.0
ORANGE SANDY SILT	10.0	35.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-58 BENTONITE SEAL FROM 16.0 TO 18.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 30.0 ft. Date Started: 04/26/07 Date Completed: 04/26/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 20.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 20.0 ft. and 30.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 23.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
installed from 18.0 ft. to 30.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 16.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 05/02/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: ANTIQUE SOUTH CAROLINA PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED CLAY	15.0	15.0
BROWN SILTY CLAY	7.0	22.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-59 BENTONITE SEAL FROM 3.0 TO 5.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☑ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 05/01/07
22.0 ft. Date Completed: 05/01/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 7.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 2.5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 7.0 ft. and 22.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 14.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 5.0 ft. to 22.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 3.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JASON MANTAK **CERT. NO.:** 01494
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 05/03/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

APPENDIX B

ANALYTICAL RESULTS

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

April 04, 2007

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Lab Project Number: 92141425
Client Project ID: COUNTRY SIDE 62-1121

Dear Mr. Shane:

Enclosed are the analytical results for sample(s) received by the laboratory on April 2, 2007. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Andy Stevens
andy.stevens@pacelabs.com
Project Manager

Enclosures

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 92141425
Client Project ID: COUNTRY SIDE 62-1121

Lab Sample No: 928206945 Project Sample Number: 92141425-001 Date Collected: 03/30/07 09:00
Client Sample ID: MW-16DD Matrix: Water Date Received: 04/02/07 16:31

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles								
GC/MS VOCs by 8260	Method: EPA 8260							
Benzene	36.	ug/l	5.0	04/03/07 16:23	MCK	71-43-2		
Ethylbenzene	94.	ug/l	5.0	04/03/07 16:23	MCK	100-41-4		
Methyl-tert-butyl ether	7.4	ug/l	5.0	04/03/07 16:23	MCK	1634-04-4		
Naphthalene	30.	ug/l	5.0	04/03/07 16:23	MCK	91-20-3		
Toluene	260	ug/l	25.	04/03/07 16:23	MCK	108-88-3		
Xylene (Total)	590	ug/l	10.	04/03/07 16:23	MCK	1330-20-7		
m&p-Xylene	390	ug/l	10.	04/03/07 16:23	MCK			
o-Xylene	220	ug/l	25.	04/03/07 16:23	MCK	95-47-6		
Toluene-d8 (S)	99	%		04/03/07 16:23	MCK	2037-26-5		
4-Bromofluorobenzene (S)	98	%		04/03/07 16:23	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		04/03/07 16:23	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	100	%		04/03/07 16:23	MCK	17060-07-0		

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
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Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

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www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 92141425
Client Project ID: COUNTRY SIDE 62-1121

Lab Sample No: 928206952 Project Sample Number: 92141425-002 Date Collected: 03/30/07 09:30
Client Sample ID: MW-28DD Matrix: Water Date Received: 04/02/07 16:31

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles								
GC/MS VOCs by 8260	Method: EPA 8260							
Benzene	110	ug/l	5.0	04/03/07 16:39	MCK	71-43-2		
Ethylbenzene	6.6	ug/l	5.0	04/03/07 16:39	MCK	100-41-4		
Methyl-tert-butyl ether	84.	ug/l	5.0	04/03/07 16:39	MCK	1634-04-4		
Naphthalene	5.7	ug/l	5.0	04/03/07 16:39	MCK	91-20-3		
Toluene	28.	ug/l	5.0	04/03/07 16:39	MCK	108-88-3		
Xylene (Total)	35.	ug/l	10.	04/03/07 16:39	MCK	1330-20-7		
m&p-Xylene	22.	ug/l	10.	04/03/07 16:39	MCK			
o-Xylene	13.	ug/l	5.0	04/03/07 16:39	MCK	95-47-6		
Toluene-d8 (S)	100	%		04/03/07 16:39	MCK	2037-26-5		
4-Bromofluorobenzene (S)	99	%		04/03/07 16:39	MCK	460-00-4		
Dibromofluoromethane (S)	101	%		04/03/07 16:39	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	104	%		04/03/07 16:39	MCK	17060-07-0		

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Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 92141425
Client Project ID: COUNTRY SIDE 62-1121

Lab Sample No: 928206960 Project Sample Number: 92141425-003 Date Collected: 03/30/07 10:00
Client Sample ID: MW-37DD Matrix: Water Date Received: 04/02/07 16:31

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles								
GC/MS VOCs by 8260	Method: EPA 8260							
Benzene	ND	ug/l	5.0	04/03/07 16:55	MCK	71-43-2		
Ethylbenzene	ND	ug/l	5.0	04/03/07 16:55	MCK	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	5.0	04/03/07 16:55	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	04/03/07 16:55	MCK	91-20-3		
Toluene	ND	ug/l	5.0	04/03/07 16:55	MCK	108-88-3		
Xylene (Total)	ND	ug/l	10.	04/03/07 16:55	MCK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	04/03/07 16:55	MCK			
o-Xylene	ND	ug/l	5.0	04/03/07 16:55	MCK	95-47-6		
Toluene-d8 (S)	99	%		04/03/07 16:55	MCK	2037-26-5		
4-Bromofluorobenzene (S)	97	%		04/03/07 16:55	MCK	460-00-4		
Dibromofluoromethane (S)	101	%		04/03/07 16:55	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	103	%		04/03/07 16:55	MCK	17060-07-0		

Asheville Certification IDs
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Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 92141425
Client Project ID: COUNTRY SIDE 62-1121

PARAMETER FOOTNOTES

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

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Phone: 704.875.9092
Fax: 704.875.9091

F

QUALITY CONTROL DATA

Lab Project Number: 92141425
Client Project ID: COUNTRY SIDE 62-1121

QC Batch: 184912 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 928206945 928206952 928206960

METHOD BLANK: 928208891
Associated Lab Samples: 928206945 928206952 928206960

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
Xylene (Total)	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	104		
4-Bromofluorobenzene (S)	%	102		
Dibromofluoromethane (S)	%	96		
1,2-Dichloroethane-d4 (S)	%	97		

LABORATORY CONTROL SAMPLE: 928208909

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	55.38	111	
Ethylbenzene	ug/l	50.00	55.00	110	
Methyl-tert-butyl ether	ug/l	50.00	56.29	113	
Naphthalene	ug/l	50.00	52.72	105	
Toluene	ug/l	50.00	53.03	106	
m&p-Xylene	ug/l	100.00	109.1	109	
o-Xylene	ug/l	50.00	56.83	114	
Toluene-d8 (S)				99	
4-Bromofluorobenzene (S)				104	
Dibromofluoromethane (S)				101	
1,2-Dichloroethane-d4 (S)				100	

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Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

QUALITY CONTROL DATA

Lab Project Number: 92141425
Client Project ID: COUNTRY SIDE 62-1121

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928213552 928213560

Parameter	Units	928202050 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	50.33	51.71	101	103	3	
Toluene	ug/l	0	50.00	47.91	46.90	96	94	2	
Toluene-d8 (S)						99	96		
4-Bromofluorobenzene (S)						105	99		
Dibromofluoromethane (S)						98	98		
1,2-Dichloroethane-d4 (S)						103	104		

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NC Drinking Water 37712
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9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 92141425
Client Project ID: COUNTRY SIDE 62-1121

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

Asheville Certification IDs
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NC Drinking Water 37712
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CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical®

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1043944

Section A Required Client Information:

Company:	Midlands Environmental Consultants
Address:	235 B. Dudley Rd.
Email To:	wcm@meci.net
Phone:	803 808 2043
Fax:	803 808 2048
Requested Due Date/TAT:	2 day TAT

Section B Required Project Information:

Report To:	B. Sherrel
Copy To:	
Purchase Order No.:	
Project Name:	Country Side Fuel
Project Number:	02-1121

Section C Invoice Information:

Attention:	Same
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	T. Adams
Pace Profile #:	4449-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ Other_____

SITE LOCATION ☐GA ☐IL ☐IN ☐MI ☐MN ☐NC ☐OH ☒SC ☐WI ☐OTHER_____

Section D Required Client Information

SAMPLE ID

One Character per box. (A-Z, 0-9 / .-) Samples IDs MUST BE UNIQUE

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N) / Requested Analysis: 8260 B BTEX, naphthalene, MTBE	Residual Chlorine (Y/N)	Pace Project Number 92141425 Lab I.D
1	MW-16DD	~~W~~	G	3-30	9:00				6		X		X					X		928206945
2	MW-28DD	X	X	X	9:36				X											928206952
3	MW-37DD	X	X	X	10:00				X		X		X					X		928206960
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	4/2/07	9:20	[signature]	4/2/07	9:20
[signature]	4/2/07	1500	[signature]	4/2/07	1500
[signature]	4/2/07	1631	[signature]	4/2/07	1631

SAMPLE CONDITION

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
3.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Robert Johnson

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 4/2/07

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

ALLC[illegible] 3,31Ma[illegible]

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

May 22, 2007

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Dear Mr. Shane:

Enclosed are the analytical results for sample(s) received by the laboratory on May 9, 2007. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Andy Stevens
andy.stevens@pacelabs.com
Project Manager

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Phone: 704.875.9092
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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359413 Project Sample Number: 92144210-001 Date Collected: 05/08/07 05:45
Client Sample ID: MWR-1A Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	ND	ug/l	5.0	05/14/07 20:42		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.68	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/11/07 12:01	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	92	%		05/11/07 12:01	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/10/07 19:34	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 19:34	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/10/07 19:34	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 19:34	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 19:34	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 19:34	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 19:34	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 19:34	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 19:34	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 19:34	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 19:34	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/10/07 19:34	MCK	1634-04-4		
Naphthalene	10.	ug/l	5.0	05/10/07 19:34	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/10/07 19:34	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 19:34	MCK			
o-Xylene	5.2	ug/l	5.0	05/10/07 19:34	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/10/07 19:34	MCK	2037-26-5		
4-Bromofluorobenzene (S)	100	%		05/10/07 19:34	MCK	460-00-4		
Dibromofluoromethane (S)	95	%		05/10/07 19:34	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	97	%		05/10/07 19:34	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359454 Project Sample Number: 92144210-002 Date Collected: 05/08/07 05:00
Client Sample ID: MWR-2 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	ND	ug/l	5.0	05/14/07 23:29		7439-92-1		
Date Digested	05/12/07 14:00			05/12/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/10/07 23:06	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	0	%		05/10/07 23:06	RCS1	301-79-56	1	
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	540	ug/l	100	05/12/07 14:12	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/12/07 14:12	MCK	994-05-8		
Benzene	58.	ug/l	5.0	05/12/07 14:12	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/12/07 14:12	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/12/07 14:12	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/12/07 14:12	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/12/07 14:12	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/12/07 14:12	MCK	64-17-5		
Ethylbenzene	56.	ug/l	5.0	05/12/07 14:12	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/12/07 14:12	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/12/07 14:12	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/12/07 14:12	MCK	1634-04-4		
Naphthalene	16.	ug/l	5.0	05/12/07 14:12	MCK	91-20-3		
Toluene	170	ug/l	5.0	05/12/07 14:12	MCK	108-88-3		
m&p-Xylene	440	ug/l	10.	05/12/07 14:12	MCK			
o-Xylene	140	ug/l	5.0	05/12/07 14:12	MCK	95-47-6		
Toluene-d8 (S)	100	%		05/12/07 14:12	MCK	2037-26-5		
4-Bromofluorobenzene (S)	102	%		05/12/07 14:12	MCK	460-00-4		
Dibromofluoromethane (S)	100	%		05/12/07 14:12	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	97	%		05/12/07 14:12	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359462 Project Sample Number: 92144210-003 Date Collected: 05/08/07 05:15
Client Sample ID: MWR-3 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	27.	ug/l	5.0	05/14/07 23:33		7439-92-1		
Date Digested	05/12/07 14:00			05/12/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	27.	mg/l	0.50	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/10/07 23:38	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	76	%		05/10/07 23:38	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/10/07 19:50	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 19:50	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/10/07 19:50	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 19:50	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 19:50	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 19:50	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 19:50	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 19:50	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 19:50	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 19:50	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 19:50	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/10/07 19:50	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/10/07 19:50	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/10/07 19:50	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 19:50	MCK			
o-Xylene	ND	ug/l	5.0	05/10/07 19:50	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/10/07 19:50	MCK	2037-26-5		
4-Bromofluorobenzene (S)	104	%		05/10/07 19:50	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/10/07 19:50	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	96	%		05/10/07 19:50	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359470 Project Sample Number: 92144210-004 Date Collected: 05/08/07 03:15
Client Sample ID: MW-4 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	58.	ug/l	5.0	05/14/07 22:41		7439-92-1		
Date Digested	05/12/07 14:00			05/12/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/13/07 17:47	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	0	%		05/13/07 17:47	RCS1	301-79-56	2	
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	16000	ug/l	5000	05/10/07 17:20	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	500	05/10/07 17:20	MCK	994-05-8		
Benzene	12000	ug/l	2500	05/10/07 17:20	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	1000	05/10/07 17:20	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	250	05/10/07 17:20	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	250	05/10/07 17:20	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	5000	05/10/07 17:20	MCK	624-95-3		
Ethanol	ND	ug/l	10000	05/10/07 17:20	MCK	64-17-5		
Ethylbenzene	5000	ug/l	250	05/10/07 17:20	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	500	05/10/07 17:20	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	2500	05/10/07 17:20	MCK	75-65-0		
Methyl-tert-butyl ether	3900	ug/l	250	05/10/07 17:20	MCK	1634-04-4		
Naphthalene	1600	ug/l	250	05/10/07 17:20	MCK	91-20-3		
Toluene	31000	ug/l	2500	05/10/07 17:20	MCK	108-88-3		
m&p-Xylene	18000	ug/l	500	05/10/07 17:20	MCK			
o-Xylene	9200	ug/l	250	05/10/07 17:20	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/10/07 17:20	MCK	2037-26-5		
4-Bromofluorobenzene (S)	100	%		05/10/07 17:20	MCK	460-00-4		
Dibromofluoromethane (S)	101	%		05/10/07 17:20	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	104	%		05/10/07 17:20	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359496 Project Sample Number: 92144210-005 Date Collected: 05/08/07 11:00
Client Sample ID: MW-5 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	6.3	ug/l	5.0	05/14/07 22:46		7439-92-1		
Date Digested	05/12/07 14:00			05/12/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/11/07 00:27	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	78	%		05/11/07 00:27	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/10/07 20:06	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 20:06	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/10/07 20:06	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 20:06	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 20:06	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 20:06	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 20:06	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 20:06	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 20:06	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 20:06	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 20:06	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/10/07 20:06	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/10/07 20:06	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/10/07 20:06	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 20:06	MCK			
o-Xylene	ND	ug/l	5.0	05/10/07 20:06	MCK	95-47-6		
Toluene-d8 (S)	100	%		05/10/07 20:06	MCK	2037-26-5		
4-Bromofluorobenzene (S)	101	%		05/10/07 20:06	MCK	460-00-4		
Dibromofluoromethane (S)	99	%		05/10/07 20:06	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	102	%		05/10/07 20:06	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359512 Project Sample Number: 92144210-006 Date Collected: 05/08/07 04:00
Client Sample ID: MW-6 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	26.	ug/l	5.0	05/14/07 22:50		7439-92-1		
Date Digested	05/12/07 14:00			05/12/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	0.26	ug/l	0.020	05/11/07 00:43	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	112	%		05/11/07 00:43	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	10000	05/10/07 18:40	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	1000	05/10/07 18:40	MCK	994-05-8		
Benzene	18000	ug/l	500	05/10/07 18:40	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	2000	05/10/07 18:40	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	500	05/10/07 18:40	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	500	05/10/07 18:40	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	10000	05/10/07 18:40	MCK	624-95-3		
Ethanol	ND	ug/l	20000	05/10/07 18:40	MCK	64-17-5		
Ethylbenzene	3800	ug/l	500	05/10/07 18:40	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	1000	05/10/07 18:40	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	5000	05/10/07 18:40	MCK	75-65-0		
Methyl-tert-butyl ether	850	ug/l	500	05/10/07 18:40	MCK	1634-04-4		
Naphthalene	1800	ug/l	500	05/10/07 18:40	MCK	91-20-3		
Toluene	14000	ug/l	2500	05/10/07 18:40	MCK	108-88-3		
m&p-Xylene	17000	ug/l	1000	05/10/07 18:40	MCK			
o-Xylene	8000	ug/l	500	05/10/07 18:40	MCK	95-47-6		
Toluene-d8 (S)	100	%		05/10/07 18:40	MCK	2037-26-5		
4-Bromofluorobenzene (S)	104	%		05/10/07 18:40	MCK	460-00-4		
Dibromofluoromethane (S)	100	%		05/10/07 18:40	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	104	%		05/10/07 18:40	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359561 Project Sample Number: 92144210-007 Date Collected: 05/08/07 06:15
Client Sample ID: MW-7 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	72.	ug/l	5.0	05/14/07 20:46		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/13/07 18:03	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	0	%		05/13/07 18:03	RCS1	301-79-56	2	
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	25000	05/10/07 19:18	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	2500	05/10/07 19:18	MCK	994-05-8		
Benzene	12000	ug/l	1200	05/10/07 19:18	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	5000	05/10/07 19:18	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	1200	05/10/07 19:18	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	1200	05/10/07 19:18	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	25000	05/10/07 19:18	MCK	624-95-3		
Ethanol	ND	ug/l	50000	05/10/07 19:18	MCK	64-17-5		
Ethylbenzene	24000	ug/l	1200	05/10/07 19:18	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	2500	05/10/07 19:18	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	12000	05/10/07 19:18	MCK	75-65-0		
Methyl-tert-butyl ether	1300	ug/l	1200	05/10/07 19:18	MCK	1634-04-4		
Naphthalene	8700	ug/l	1200	05/10/07 19:18	MCK	91-20-3		
Toluene	38000	ug/l	5000	05/10/07 19:18	MCK	108-88-3		
m&p-Xylene	99000	ug/l	2500	05/10/07 19:18	MCK			
o-Xylene	42000	ug/l	1200	05/10/07 19:18	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/10/07 19:18	MCK	2037-26-5		
4-Bromofluorobenzene (S)	106	%		05/10/07 19:18	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/10/07 19:18	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	107	%		05/10/07 19:18	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359587 Project Sample Number: 92144210-008 Date Collected: 05/08/07 06:15
Client Sample ID: MW-7R Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	ND	ug/l	5.0	05/14/07 20:57		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/13/07 18:19	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	0	%		05/13/07 18:19	RCS1	301-79-56	2	
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	11000	ug/l	10000	05/10/07 19:01	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	1000	05/10/07 19:01	MCK	994-05-8		
Benzene	6100	ug/l	500	05/10/07 19:01	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	2000	05/10/07 19:01	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	500	05/10/07 19:01	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	500	05/10/07 19:01	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	10000	05/10/07 19:01	MCK	624-95-3		
Ethanol	ND	ug/l	20000	05/10/07 19:01	MCK	64-17-5		
Ethylbenzene	4300	ug/l	500	05/10/07 19:01	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	1000	05/10/07 19:01	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	5000	05/10/07 19:01	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	500	05/10/07 19:01	MCK	1634-04-4		
Naphthalene	1600	ug/l	500	05/10/07 19:01	MCK	91-20-3		
Toluene	19000	ug/l	500	05/10/07 19:01	MCK	108-88-3		
m&p-Xylene	16000	ug/l	1000	05/10/07 19:01	MCK			
o-Xylene	7000	ug/l	500	05/10/07 19:01	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/10/07 19:01	MCK	2037-26-5		
4-Bromofluorobenzene (S)	101	%		05/10/07 19:01	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/10/07 19:01	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/10/07 19:01	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359611 Project Sample Number: 92144210-009 Date Collected: 05/08/07 06:30
Client Sample ID: MW-9R Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	ND	ug/l	5.0	05/14/07 21:01		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/11/07 12:51	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	98	%		05/11/07 12:51	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	390	ug/l	100	05/12/07 14:28	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/12/07 14:28	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/12/07 14:28	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/12/07 14:28	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/12/07 14:28	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/12/07 14:28	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/12/07 14:28	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/12/07 14:28	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/12/07 14:28	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/12/07 14:28	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/12/07 14:28	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/12/07 14:28	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/12/07 14:28	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/12/07 14:28	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/12/07 14:28	MCK			
o-Xylene	ND	ug/l	5.0	05/12/07 14:28	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/12/07 14:28	MCK	2037-26-5		
4-Bromofluorobenzene (S)	103	%		05/12/07 14:28	MCK	460-00-4		
Dibromofluoromethane (S)	97	%		05/12/07 14:28	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	94	%		05/12/07 14:28	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359645 Project Sample Number: 92144210-010 Date Collected: 05/08/07 06:45
Client Sample ID: MW-11 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	77.	ug/l	5.0	05/14/07 21:05		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/11/07 13:07	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	103	%		05/11/07 13:07	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	500	05/14/07 15:36	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	50.	05/14/07 15:36	MCK	994-05-8		
Benzene	88.	ug/l	25.	05/14/07 15:36	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	100	05/14/07 15:36	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	25.	05/14/07 15:36	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	25.	05/14/07 15:36	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	500	05/14/07 15:36	MCK	624-95-3		
Ethanol	ND	ug/l	1000	05/14/07 15:36	MCK	64-17-5		
Ethylbenzene	340	ug/l	25.	05/14/07 15:36	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	50.	05/14/07 15:36	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	250	05/14/07 15:36	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	25.	05/14/07 15:36	MCK	1634-04-4		
Naphthalene	200	ug/l	25.	05/14/07 15:36	MCK	91-20-3		
Toluene	430	ug/l	25.	05/14/07 15:36	MCK	108-88-3		
m&p-Xylene	1300	ug/l	50.	05/14/07 15:36	MCK			
o-Xylene	700	ug/l	25.	05/14/07 15:36	MCK	95-47-6		
Toluene-d8 (S)	96	%		05/14/07 15:36	MCK	2037-26-5		
4-Bromofluorobenzene (S)	105	%		05/14/07 15:36	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/14/07 15:36	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	96	%		05/14/07 15:36	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359660 Project Sample Number: 92144210-011 Date Collected: 05/08/07 11:15
Client Sample ID: MW-12 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	37.	ug/l	5.0	05/14/07 22:54		7439-92-1		
Date Digested	05/12/07 14:00			05/12/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/11/07 13:23	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	89	%		05/11/07 13:23	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/14/07 19:37	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/14/07 19:37	MCK	994-05-8		
Benzene	14.	ug/l	5.0	05/14/07 19:37	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/14/07 19:37	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/14/07 19:37	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/14/07 19:37	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/14/07 19:37	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/14/07 19:37	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/14/07 19:37	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/14/07 19:37	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/14/07 19:37	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/14/07 19:37	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/14/07 19:37	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/14/07 19:37	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/14/07 19:37	MCK			
o-Xylene	ND	ug/l	5.0	05/14/07 19:37	MCK	95-47-6		
Toluene-d8 (S)	97	%		05/14/07 19:37	MCK	2037-26-5		
4-Bromofluorobenzene (S)	109	%		05/14/07 19:37	MCK	460-00-4		
Dibromofluoromethane (S)	100	%		05/14/07 19:37	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	95	%		05/14/07 19:37	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359702 Project Sample Number: 92144210-012 Date Collected: 05/08/07 02:00
Client Sample ID: MW-13R Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	ND	ug/l	5.0	05/14/07 22:58		7439-92-1		
Date Digested	05/12/07 14:00			05/12/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/11/07 13:39	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	103	%		05/11/07 13:39	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	4600	ug/l	1000	05/10/07 16:19	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	100	05/10/07 16:19	MCK	994-05-8		
Benzene	6600	ug/l	500	05/10/07 16:19	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	200	05/10/07 16:19	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	50.	05/10/07 16:19	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	50.	05/10/07 16:19	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	1000	05/10/07 16:19	MCK	624-95-3		
Ethanol	ND	ug/l	2000	05/10/07 16:19	MCK	64-17-5		
Ethylbenzene	100	ug/l	50.	05/10/07 16:19	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	100	05/10/07 16:19	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	500	05/10/07 16:19	MCK	75-65-0		
Methyl-tert-butyl ether	4400	ug/l	500	05/10/07 16:19	MCK	1634-04-4		
Naphthalene	89.	ug/l	50.	05/10/07 16:19	MCK	91-20-3		
Toluene	87.	ug/l	50.	05/10/07 16:19	MCK	108-88-3		
m&p-Xylene	100	ug/l	100	05/10/07 16:19	MCK			
o-Xylene	150	ug/l	50.	05/10/07 16:19	MCK	95-47-6		
Toluene-d8 (S)	100	%		05/10/07 16:19	MCK	2037-26-5		
4-Bromofluorobenzene (S)	102	%		05/10/07 16:19	MCK	460-00-4		
Dibromofluoromethane (S)	98	%		05/10/07 16:19	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	100	%		05/10/07 16:19	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359728 Project Sample Number: 92144210-013 Date Collected: 05/08/07 12:05
Client Sample ID: MW-14R Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	ND	ug/l	5.0	05/14/07 23:03		7439-92-1		
Date Digested	05/12/07 14:00			05/12/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/11/07 13:55	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	96	%		05/11/07 13:55	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/10/07 20:22	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 20:22	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/10/07 20:22	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 20:22	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 20:22	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 20:22	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 20:22	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 20:22	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 20:22	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 20:22	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 20:22	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/10/07 20:22	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/10/07 20:22	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/10/07 20:22	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 20:22	MCK			
o-Xylene	16.	ug/l	5.0	05/10/07 20:22	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/10/07 20:22	MCK	2037-26-5		
4-Bromofluorobenzene (S)	101	%		05/10/07 20:22	MCK	460-00-4		
Dibromofluoromethane (S)	97	%		05/10/07 20:22	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/10/07 20:22	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359751 Project Sample Number: 92144210-015 Date Collected: 05/08/07 12:00
Client Sample ID: MW-14R2 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	24.	ug/l	5.0	05/14/07 21:10		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 08:39	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	103	%		05/14/07 08:39	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	6300	ug/l	1000	05/10/07 16:39	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	100	05/10/07 16:39	MCK	994-05-8		
Benzene	1100	ug/l	50.	05/10/07 16:39	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	200	05/10/07 16:39	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	50.	05/10/07 16:39	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	50.	05/10/07 16:39	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	1000	05/10/07 16:39	MCK	624-95-3		
Ethanol	ND	ug/l	2000	05/10/07 16:39	MCK	64-17-5		
Ethylbenzene	1000	ug/l	50.	05/10/07 16:39	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	100	05/10/07 16:39	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	500	05/10/07 16:39	MCK	75-65-0		
Methyl-tert-butyl ether	92.	ug/l	50.	05/10/07 16:39	MCK	1634-04-4		
Naphthalene	650	ug/l	50.	05/10/07 16:39	MCK	91-20-3		
Toluene	1800	ug/l	50.	05/10/07 16:39	MCK	108-88-3		
m&p-Xylene	3700	ug/l	100	05/10/07 16:39	MCK			
o-Xylene	3600	ug/l	500	05/10/07 16:39	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/10/07 16:39	MCK	2037-26-5		
4-Bromofluorobenzene (S)	104	%		05/10/07 16:39	MCK	460-00-4		
Dibromofluoromethane (S)	100	%		05/10/07 16:39	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	106	%		05/10/07 16:39	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359769 Project Sample Number: 92144210-016 Date Collected: 05/08/07 03:40
Client Sample ID: MW-15R Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	11.	ug/l	5.0	05/14/07 21:14		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 08:55	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	84	%		05/14/07 08:55	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/10/07 20:38	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 20:38	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/10/07 20:38	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 20:38	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 20:38	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 20:38	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 20:38	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 20:38	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 20:38	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 20:38	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 20:38	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/10/07 20:38	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/10/07 20:38	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/10/07 20:38	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 20:38	MCK			
o-Xylene	ND	ug/l	5.0	05/10/07 20:38	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/10/07 20:38	MCK	2037-26-5		
4-Bromofluorobenzene (S)	103	%		05/10/07 20:38	MCK	460-00-4		
Dibromofluoromethane (S)	95	%		05/10/07 20:38	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/10/07 20:38	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359777 Project Sample Number: 92144210-017 Date Collected: 05/08/07 05:30
Client Sample ID: MW-16DD Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	ND	ug/l	5.0	05/14/07 21:18		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.12	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 09:12	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	90	%		05/14/07 09:12	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/10/07 20:54	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 20:54	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/10/07 20:54	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 20:54	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 20:54	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 20:54	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 20:54	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 20:54	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 20:54	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 20:54	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 20:54	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/10/07 20:54	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/10/07 20:54	MCK	91-20-3		
Toluene	8.6	ug/l	5.0	05/10/07 20:54	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 20:54	MCK			
o-Xylene	ND	ug/l	5.0	05/10/07 20:54	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/10/07 20:54	MCK	2037-26-5		
4-Bromofluorobenzene (S)	102	%		05/10/07 20:54	MCK	460-00-4		
Dibromofluoromethane (S)	97	%		05/10/07 20:54	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	97	%		05/10/07 20:54	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359785 Project Sample Number: 92144210-018 Date Collected: 05/08/07 05:00
Client Sample ID: MW-17I Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	12.	ug/l	5.0	05/14/07 21:22		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 09:28	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	86	%		05/14/07 09:28	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	2600	ug/l	100	05/10/07 23:34	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 23:34	MCK	994-05-8		
Benzene	7900	ug/l	500	05/10/07 23:34	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 23:34	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 23:34	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 23:34	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 23:34	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 23:34	MCK	64-17-5		
Ethylbenzene	3700	ug/l	500	05/10/07 23:34	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 23:34	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 23:34	MCK	75-65-0		
Methyl-tert-butyl ether	2800	ug/l	500	05/10/07 23:34	MCK	1634-04-4		
Naphthalene	1300	ug/l	500	05/10/07 23:34	MCK	91-20-3		
Toluene	14000	ug/l	1200	05/10/07 23:34	MCK	108-88-3		
m&p-Xylene	14000	ug/l	1000	05/10/07 23:34	MCK			
o-Xylene	6600	ug/l	500	05/10/07 23:34	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/10/07 23:34	MCK	2037-26-5		
4-Bromofluorobenzene (S)	101	%		05/10/07 23:34	MCK	460-00-4		
Dibromofluoromethane (S)	94	%		05/10/07 23:34	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	112	%		05/10/07 23:34	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359793 Project Sample Number: 92144210-019 Date Collected: 05/08/07 04:45
Client Sample ID: MW-18D Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	ND	ug/l	5.0	05/14/07 21:26		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.20	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 21:03	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	0	%		05/14/07 21:03	RCS1	301-79-56	2	
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	2000	ug/l	100	05/11/07 04:37	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 04:37	MCK	994-05-8		
Benzene	2000	ug/l	250	05/11/07 04:37	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 04:37	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 04:37	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 04:37	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 04:37	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 04:37	MCK	64-17-5		
Ethylbenzene	620	ug/l	250	05/11/07 04:37	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 04:37	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 04:37	MCK	75-65-0		
Methyl-tert-butyl ether	1700	ug/l	250	05/11/07 04:37	MCK	1634-04-4		
Naphthalene	160	ug/l	5.0	05/11/07 04:37	MCK	91-20-3		
Toluene	3600	ug/l	250	05/11/07 04:37	MCK	108-88-3		
m&p-Xylene	2500	ug/l	500	05/11/07 04:37	MCK			
o-Xylene	1200	ug/l	250	05/11/07 04:37	MCK	95-47-6		
Toluene-d8 (S)	102	%		05/11/07 04:37	MCK	2037-26-5		
4-Bromofluorobenzene (S)	103	%		05/11/07 04:37	MCK	460-00-4		
Dibromofluoromethane (S)	97	%		05/11/07 04:37	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	100	%		05/11/07 04:37	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359801 Project Sample Number: 92144210-020 Date Collected: 05/08/07 05:00
Client Sample ID: MW-19I Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	5.0	ug/l	5.0	05/14/07 21:30		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	0.14	ug/l	0.020	05/14/07 10:01	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	85	%		05/14/07 10:01	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	5000	05/10/07 23:50	MCK	75-85-4		
tert-Amylmethyl ether	26.	ug/l	10.	05/10/07 23:50	MCK	994-05-8		
Benzene	3600	ug/l	250	05/10/07 23:50	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 23:50	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 23:50	MCK	107-06-2		
Diisopropyl ether	40.	ug/l	5.0	05/10/07 23:50	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 23:50	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 23:50	MCK	64-17-5		
Ethylbenzene	400	ug/l	250	05/10/07 23:50	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 23:50	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 23:50	MCK	75-65-0		
Methyl-tert-butyl ether	1700	ug/l	250	05/10/07 23:50	MCK	1634-04-4		
Naphthalene	130	ug/l	5.0	05/10/07 23:50	MCK	91-20-3		
Toluene	4800	ug/l	250	05/10/07 23:50	MCK	108-88-3		
m&p-Xylene	1400	ug/l	500	05/10/07 23:50	MCK			
o-Xylene	730	ug/l	250	05/10/07 23:50	MCK	95-47-6		
Toluene-d8 (S)	100	%		05/10/07 23:50	MCK	2037-26-5		
4-Bromofluorobenzene (S)	104	%		05/10/07 23:50	MCK	460-00-4		
Dibromofluoromethane (S)	94	%		05/10/07 23:50	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	96	%		05/10/07 23:50	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359819 Project Sample Number: 92144210-021 Date Collected: 05/08/07 05:00
Client Sample ID: MW-20D Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	5.9	ug/l	5.0	05/14/07 21:34		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.20	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	0.24	ug/l	0.020	05/14/07 10:17	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	91	%		05/14/07 10:17	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	2200	ug/l	100	05/11/07 00:06	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 00:06	MCK	994-05-8		
Benzene	430	ug/l	25.	05/11/07 00:06	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 00:06	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 00:06	MCK	107-06-2		
Diisopropyl ether	15.	ug/l	5.0	05/11/07 00:06	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 00:06	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 00:06	MCK	64-17-5		
Ethylbenzene	41.	ug/l	5.0	05/11/07 00:06	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 00:06	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 00:06	MCK	75-65-0		
Methyl-tert-butyl ether	570	ug/l	25.	05/11/07 00:06	MCK	1634-04-4		
Naphthalene	21.	ug/l	5.0	05/11/07 00:06	MCK	91-20-3		
Toluene	570	ug/l	25.	05/11/07 00:06	MCK	108-88-3		
m&p-Xylene	150	ug/l	10.	05/11/07 00:06	MCK			
o-Xylene	90.	ug/l	5.0	05/11/07 00:06	MCK	95-47-6		
Toluene-d8 (S)	100	%		05/11/07 00:06	MCK	2037-26-5		
4-Bromofluorobenzene (S)	100	%		05/11/07 00:06	MCK	460-00-4		
Dibromofluoromethane (S)	97	%		05/11/07 00:06	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	97	%		05/11/07 00:06	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359827 Project Sample Number: 92144210-022 Date Collected: 05/08/07 05:15
Client Sample ID: MW-21I Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	9.5	ug/l	5.0	05/14/07 21:45		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	0.30	ug/l	0.020	05/14/07 10:33	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	97	%		05/14/07 10:33	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	1300	ug/l	100	05/11/07 00:22	MCK	75-85-4		
tert-Amylmethyl ether	32.	ug/l	10.	05/11/07 00:22	MCK	994-05-8		
Benzene	3400	ug/l	250	05/11/07 00:22	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 00:22	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 00:22	MCK	107-06-2		
Diisopropyl ether	84.	ug/l	5.0	05/11/07 00:22	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 00:22	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 00:22	MCK	64-17-5		
Ethylbenzene	300	ug/l	250	05/11/07 00:22	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 00:22	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 00:22	MCK	75-65-0		
Methyl-tert-butyl ether	6800	ug/l	250	05/11/07 00:22	MCK	1634-04-4		
Naphthalene	38.	ug/l	5.0	05/11/07 00:22	MCK	91-20-3		
Toluene	3800	ug/l	250	05/11/07 00:22	MCK	108-88-3		
m&p-Xylene	1100	ug/l	500	05/11/07 00:22	MCK			
o-Xylene	530	ug/l	250	05/11/07 00:22	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/11/07 00:22	MCK	2037-26-5		
4-Bromofluorobenzene (S)	101	%		05/11/07 00:22	MCK	460-00-4		
Dibromofluoromethane (S)	97	%		05/11/07 00:22	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/11/07 00:22	MCK	17060-07-0		

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F

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359835 Project Sample Number: 92144210-023 Date Collected: 05/08/07 05:15
Client Sample ID: MW-22D Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	5.9	ug/l	5.0	05/14/07 21:49		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.65	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 10:49	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	86	%		05/14/07 10:49	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	970	ug/l	100	05/11/07 00:38	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 00:38	MCK	994-05-8		
Benzene	82.	ug/l	5.0	05/11/07 00:38	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 00:38	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 00:38	MCK	107-06-2		
Diisopropyl ether	5.5	ug/l	5.0	05/11/07 00:38	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 00:38	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 00:38	MCK	64-17-5		
Ethylbenzene	7.9	ug/l	5.0	05/11/07 00:38	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 00:38	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 00:38	MCK	75-65-0		
Methyl-tert-butyl ether	530	ug/l	25.	05/11/07 00:38	MCK	1634-04-4		
Naphthalene	6.0	ug/l	5.0	05/11/07 00:38	MCK	91-20-3		
Toluene	81.	ug/l	5.0	05/11/07 00:38	MCK	108-88-3		
m&p-Xylene	37.	ug/l	10.	05/11/07 00:38	MCK			
o-Xylene	16.	ug/l	5.0	05/11/07 00:38	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/11/07 00:38	MCK	2037-26-5		
4-Bromofluorobenzene (S)	102	%		05/11/07 00:38	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/11/07 00:38	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	95	%		05/11/07 00:38	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359843 Project Sample Number: 92144210-024 Date Collected: 05/08/07 05:30
Client Sample ID: MW-23 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	11.	ug/l	5.0	05/14/07 21:53		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	1.2	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 11:05	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	84	%		05/14/07 11:05	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	140	ug/l	100	05/11/07 00:54	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 00:54	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/11/07 00:54	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 00:54	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 00:54	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 00:54	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 00:54	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 00:54	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/11/07 00:54	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 00:54	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 00:54	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/11/07 00:54	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/11/07 00:54	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/11/07 00:54	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/11/07 00:54	MCK			
o-Xylene	ND	ug/l	5.0	05/11/07 00:54	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/11/07 00:54	MCK	2037-26-5		
4-Bromofluorobenzene (S)	98	%		05/11/07 00:54	MCK	460-00-4		
Dibromofluoromethane (S)	97	%		05/11/07 00:54	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/11/07 00:54	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359850 Project Sample Number: 92144210-025 Date Collected: 05/08/07 05:30
Client Sample ID: MW-24 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	7.0	ug/l	5.0	05/14/07 21:57		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 13:00	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	97	%		05/14/07 13:00	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/11/07 01:10	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 01:10	MCK	994-05-8		
Benzene	160	ug/l	5.0	05/11/07 01:10	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 01:10	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 01:10	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 01:10	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 01:10	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 01:10	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/11/07 01:10	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 01:10	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 01:10	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/11/07 01:10	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/11/07 01:10	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/11/07 01:10	MCK	108-88-3		
m&p-Xylene	22.	ug/l	10.	05/11/07 01:10	MCK			
o-Xylene	6.6	ug/l	5.0	05/11/07 01:10	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/11/07 01:10	MCK	2037-26-5		
4-Bromofluorobenzene (S)	104	%		05/11/07 01:10	MCK	460-00-4		
Dibromofluoromethane (S)	93	%		05/11/07 01:10	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	94	%		05/11/07 01:10	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359868 Project Sample Number: 92144210-026 Date Collected: 05/08/07 05:45
Client Sample ID: MW-25 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	6.0	ug/l	5.0	05/14/07 22:01		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 13:48	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	95	%		05/14/07 13:48	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	930	ug/l	100	05/11/07 01:26	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 01:26	MCK	994-05-8		
Benzene	3100	ug/l	250	05/11/07 01:26	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 01:26	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 01:26	MCK	107-06-2		
Diisopropyl ether	40.	ug/l	5.0	05/11/07 01:26	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 01:26	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 01:26	MCK	64-17-5		
Ethylbenzene	36.	ug/l	5.0	05/11/07 01:26	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 01:26	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 01:26	MCK	75-65-0		
Methyl-tert-butyl ether	1300	ug/l	250	05/11/07 01:26	MCK	1634-04-4		
Naphthalene	21.	ug/l	5.0	05/11/07 01:26	MCK	91-20-3		
Toluene	490	ug/l	250	05/11/07 01:26	MCK	108-88-3		
m&p-Xylene	540	ug/l	500	05/11/07 01:26	MCK			
o-Xylene	310	ug/l	250	05/11/07 01:26	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/11/07 01:26	MCK	2037-26-5		
4-Bromofluorobenzene (S)	101	%		05/11/07 01:26	MCK	460-00-4		
Dibromofluoromethane (S)	94	%		05/11/07 01:26	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	96	%		05/11/07 01:26	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359876 Project Sample Number: 92144210-027 Date Collected: 05/08/07 03:45
Client Sample ID: MW-26I Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	ND	ug/l	5.0	05/14/07 23:07		7439-92-1		
Date Digested	05/12/07 14:00			05/12/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/16/07 02:29	CAH	106-93-4		
1-Chloro-2-bromopropane (S)	0	%		05/16/07 02:29	CAH	301-79-56	2	
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	10000	05/11/07 01:42	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 01:42	MCK	994-05-8		
Benzene	9800	ug/l	500	05/11/07 01:42	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 01:42	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 01:42	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 01:42	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 01:42	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 01:42	MCK	64-17-5		
Ethylbenzene	730	ug/l	500	05/11/07 01:42	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 01:42	MCK	637-92-3		
2-Methyl-2-propanol	8900	ug/l	5000	05/11/07 01:42	MCK	75-65-0		
Methyl-tert-butyl ether	2900	ug/l	500	05/11/07 01:42	MCK	1634-04-4		
Naphthalene	130	ug/l	5.0	05/11/07 01:42	MCK	91-20-3		
Toluene	890	ug/l	500	05/11/07 01:42	MCK	108-88-3		
m&p-Xylene	3000	ug/l	1000	05/11/07 01:42	MCK			
o-Xylene	1300	ug/l	500	05/11/07 01:42	MCK	95-47-6		
Toluene-d8 (S)	101	%		05/11/07 01:42	MCK	2037-26-5		
4-Bromofluorobenzene (S)	102	%		05/11/07 01:42	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/11/07 01:42	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	96	%		05/11/07 01:42	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359884 Project Sample Number: 92144210-028 Date Collected: 05/08/07 03:45
Client Sample ID: MW-28DD Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	ND	ug/l	5.0	05/14/07 23:10		7439-92-1		
Date Digested	05/12/07 14:00			05/12/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 14:21	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	76	%		05/14/07 14:21	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/12/07 14:44	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/12/07 14:44	MCK	994-05-8		
Benzene	9.2	ug/l	5.0	05/12/07 14:44	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/12/07 14:44	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/12/07 14:44	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/12/07 14:44	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/12/07 14:44	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/12/07 14:44	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/12/07 14:44	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/12/07 14:44	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/12/07 14:44	MCK	75-65-0		
Methyl-tert-butyl ether	28.	ug/l	5.0	05/12/07 14:44	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/12/07 14:44	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/12/07 14:44	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/12/07 14:44	MCK			
o-Xylene	ND	ug/l	5.0	05/12/07 14:44	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/12/07 14:44	MCK	2037-26-5		
4-Bromofluorobenzene (S)	106	%		05/12/07 14:44	MCK	460-00-4		
Dibromofluoromethane (S)	99	%		05/12/07 14:44	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	94	%		05/12/07 14:44	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359892 Project Sample Number: 92144210-029 Date Collected: 05/08/07 03:35
Client Sample ID: MW-29 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	ReqLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	33.	ug/l	5.0	05/14/07 23:21		7439-92-1		
Date Digested	05/12/07 14:00			05/12/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 14:37	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	84	%		05/14/07 14:37	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/11/07 02:13	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 02:13	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/11/07 02:13	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 02:13	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 02:13	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 02:13	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 02:13	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 02:13	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/11/07 02:13	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 02:13	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 02:13	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/11/07 02:13	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/11/07 02:13	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/11/07 02:13	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/11/07 02:13	MCK			
o-Xylene	ND	ug/l	5.0	05/11/07 02:13	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/11/07 02:13	MCK	2037-26-5		
4-Bromofluorobenzene (S)	100	%		05/11/07 02:13	MCK	460-00-4		
Dibromofluoromethane (S)	98	%		05/11/07 02:13	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	100	%		05/11/07 02:13	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359900 Project Sample Number: 92144210-030 Date Collected: 05/08/07 03:25
Client Sample ID: MW-30I Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	5.8	ug/l	5.0	05/14/07 23:25		7439-92-1		
Date Digested	05/12/07 14:00			05/12/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 15:09	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	89	%		05/14/07 15:09	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/11/07 02:29	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 02:29	MCK	994-05-8		
Benzene	41.	ug/l	5.0	05/11/07 02:29	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 02:29	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 02:29	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 02:29	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 02:29	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 02:29	MCK	64-17-5		
Ethylbenzene	7.8	ug/l	5.0	05/11/07 02:29	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 02:29	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 02:29	MCK	75-65-0		
Methyl-tert-butyl ether	21.	ug/l	5.0	05/11/07 02:29	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/11/07 02:29	MCK	91-20-3		
Toluene	20.	ug/l	5.0	05/11/07 02:29	MCK	108-88-3		
m&p-Xylene	29.	ug/l	10.	05/11/07 02:29	MCK			
o-Xylene	11.	ug/l	5.0	05/11/07 02:29	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/11/07 02:29	MCK	2037-26-5		
4-Bromofluorobenzene (S)	104	%		05/11/07 02:29	MCK	460-00-4		
Dibromofluoromethane (S)	100	%		05/11/07 02:29	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/11/07 02:29	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359918 Project Sample Number: 92144210-031 Date Collected: 05/08/07 03:15
Client Sample ID: MW-31D Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	ND	ug/l	5.0	05/14/07 22:05		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 15:26	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	100	%		05/14/07 15:26	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	830	ug/l	100	05/11/07 02:45	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 02:45	MCK	994-05-8		
Benzene	570	ug/l	50.	05/11/07 02:45	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 02:45	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 02:45	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 02:45	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 02:45	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 02:45	MCK	64-17-5		
Ethylbenzene	31.	ug/l	5.0	05/11/07 02:45	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 02:45	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 02:45	MCK	75-65-0		
Methyl-tert-butyl ether	350	ug/l	50.	05/11/07 02:45	MCK	1634-04-4		
Naphthalene	9.1	ug/l	5.0	05/11/07 02:45	MCK	91-20-3		
Toluene	260	ug/l	50.	05/11/07 02:45	MCK	108-88-3		
m&p-Xylene	120	ug/l	10.	05/11/07 02:45	MCK			
o-Xylene	62.	ug/l	5.0	05/11/07 02:45	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/11/07 02:45	MCK	2037-26-5		
4-Bromofluorobenzene (S)	102	%		05/11/07 02:45	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/11/07 02:45	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	97	%		05/11/07 02:45	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359926 Project Sample Number: 92144210-032 Date Collected: 05/08/07 02:30
Client Sample ID: MW-32 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	14.	ug/l	5.0	05/14/07 22:09		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 15:42	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	92	%		05/14/07 15:42	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	2300	ug/l	100	05/11/07 03:01	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 03:01	MCK	994-05-8		
Benzene	3000	ug/l	250	05/11/07 03:01	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 03:01	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 03:01	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 03:01	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 03:01	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 03:01	MCK	64-17-5		
Ethylbenzene	18.	ug/l	5.0	05/11/07 03:01	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 03:01	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 03:01	MCK	75-65-0		
Methyl-tert-butyl ether	540	ug/l	250	05/11/07 03:01	MCK	1634-04-4		
Naphthalene	8.2	ug/l	5.0	05/11/07 03:01	MCK	91-20-3		
Toluene	7.4	ug/l	5.0	05/11/07 03:01	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/11/07 03:01	MCK			
o-Xylene	6.4	ug/l	5.0	05/11/07 03:01	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/11/07 03:01	MCK	2037-26-5		
4-Bromofluorobenzene (S)	102	%		05/11/07 03:01	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/11/07 03:01	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/11/07 03:01	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359934 Project Sample Number: 92144210-033 Date Collected: 05/08/07 02:30
Client Sample ID: MW-33I Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	ND	ug/l	5.0	05/14/07 22:14		7439-92-1		
Date Digested	05/11/07 14:00			05/11/07 14:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 15:58	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	88	%		05/14/07 15:58	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	1500	ug/l	100	05/11/07 03:17	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 03:17	MCK	994-05-8		
Benzene	860	ug/l	50.	05/11/07 03:17	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 03:17	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 03:17	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 03:17	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 03:17	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 03:17	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/11/07 03:17	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 03:17	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 03:17	MCK	75-65-0		
Methyl-tert-butyl ether	50.	ug/l	5.0	05/11/07 03:17	MCK	1634-04-4		
Naphthalene	12.	ug/l	5.0	05/11/07 03:17	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/11/07 03:17	MCK	108-88-3		
m&p-Xylene	23.	ug/l	10.	05/11/07 03:17	MCK			
o-Xylene	5.2	ug/l	5.0	05/11/07 03:17	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/11/07 03:17	MCK	2037-26-5		
4-Bromofluorobenzene (S)	103	%		05/11/07 03:17	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/11/07 03:17	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	95	%		05/11/07 03:17	MCK	17060-07-0		

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Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359942 Project Sample Number: 92144210-034 Date Collected: 05/08/07 02:15
Client Sample ID: MW-34D Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	10.	ug/l	5.0	05/14/07 13:46		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 16:14	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	81	%		05/14/07 16:14	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	630	ug/l	100	05/11/07 03:33	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 03:33	MCK	994-05-8		
Benzene	380	ug/l	50.	05/11/07 03:33	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 03:33	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 03:33	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 03:33	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 03:33	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 03:33	MCK	64-17-5		
Ethylbenzene	13.	ug/l	5.0	05/11/07 03:33	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 03:33	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 03:33	MCK	75-65-0		
Methyl-tert-butyl ether	260	ug/l	50.	05/11/07 03:33	MCK	1634-04-4		
Naphthalene	8.3	ug/l	5.0	05/11/07 03:33	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/11/07 03:33	MCK	108-88-3		
m&p-Xylene	35.	ug/l	10.	05/11/07 03:33	MCK			
o-Xylene	23.	ug/l	5.0	05/11/07 03:33	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/11/07 03:33	MCK	2037-26-5		
4-Bromofluorobenzene (S)	101	%		05/11/07 03:33	MCK	460-00-4		
Dibromofluoromethane (S)	99	%		05/11/07 03:33	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/11/07 03:33	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359959 Project Sample Number: 92144210-035 Date Collected: 05/08/07 12:00
Client Sample ID: MW-35I Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	12.	ug/l	5.0	05/14/07 13:50		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 17:30	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	96	%		05/14/07 17:30	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	1400	ug/l	100	05/11/07 03:49	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 03:49	MCK	994-05-8		
Benzene	1900	ug/l	100	05/11/07 03:49	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 03:49	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 03:49	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 03:49	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 03:49	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 03:49	MCK	64-17-5		
Ethylbenzene	180	ug/l	5.0	05/11/07 03:49	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 03:49	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 03:49	MCK	75-65-0		
Methyl-tert-butyl ether	83.	ug/l	5.0	05/11/07 03:49	MCK	1634-04-4		
Naphthalene	440	ug/l	100	05/11/07 03:49	MCK	91-20-3		
Toluene	83.	ug/l	5.0	05/11/07 03:49	MCK	108-88-3		
m&p-Xylene	87.	ug/l	10.	05/11/07 03:49	MCK			
o-Xylene	1000	ug/l	100	05/11/07 03:49	MCK	95-47-6		
Toluene-d8 (S)	101	%		05/11/07 03:49	MCK	2037-26-5		
4-Bromofluorobenzene (S)	102	%		05/11/07 03:49	MCK	460-00-4		
Dibromofluoromethane (S)	95	%		05/11/07 03:49	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	97	%		05/11/07 03:49	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359967 Project Sample Number: 92144210-036 Date Collected: 05/08/07 12:00
Client Sample ID: MW-36D Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	11.	ug/l	5.0	05/14/07 13:54		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 17:46	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	83	%		05/14/07 17:46	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	1700	ug/l	100	05/11/07 04:05	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 04:05	MCK	994-05-8		
Benzene	1400	ug/l	100	05/11/07 04:05	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 04:05	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 04:05	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 04:05	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 04:05	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 04:05	MCK	64-17-5		
Ethylbenzene	130	ug/l	5.0	05/11/07 04:05	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 04:05	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 04:05	MCK	75-65-0		
Methyl-tert-butyl ether	230	ug/l	100	05/11/07 04:05	MCK	1634-04-4		
Naphthalene	210	ug/l	100	05/11/07 04:05	MCK	91-20-3		
Toluene	56.	ug/l	5.0	05/11/07 04:05	MCK	108-88-3		
m&p-Xylene	94.	ug/l	10.	05/11/07 04:05	MCK			
o-Xylene	450	ug/l	100	05/11/07 04:05	MCK	95-47-6		
Toluene-d8 (S)	100	%		05/11/07 04:05	MCK	2037-26-5		
4-Bromofluorobenzene (S)	99	%		05/11/07 04:05	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/11/07 04:05	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/11/07 04:05	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359975 Project Sample Number: 92144210-037 Date Collected: 05/08/07 11:55
Client Sample ID: MW-37DD Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	9.6	ug/l	5.0	05/14/07 14:06		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 18:03	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	87	%		05/14/07 18:03	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/12/07 15:16	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/12/07 15:16	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/12/07 15:16	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/12/07 15:16	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/12/07 15:16	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/12/07 15:16	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/12/07 15:16	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/12/07 15:16	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/12/07 15:16	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/12/07 15:16	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/12/07 15:16	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/12/07 15:16	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/12/07 15:16	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/12/07 15:16	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/12/07 15:16	MCK			
o-Xylene	ND	ug/l	5.0	05/12/07 15:16	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/12/07 15:16	MCK	2037-26-5		
4-Bromofluorobenzene (S)	104	%		05/12/07 15:16	MCK	460-00-4		
Dibromofluoromethane (S)	98	%		05/12/07 15:16	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/12/07 15:16	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359983 Project Sample Number: 92144210-038 Date Collected: 05/08/07 01:30
Client Sample ID: MW-38 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	88.	ug/l	5.0	05/14/07 14:10		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 18:19	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	82	%		05/14/07 18:19	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/12/07 15:00	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/12/07 15:00	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/12/07 15:00	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/12/07 15:00	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/12/07 15:00	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/12/07 15:00	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/12/07 15:00	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/12/07 15:00	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/12/07 15:00	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/12/07 15:00	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/12/07 15:00	MCK	75-65-0		
Methyl-tert-butyl ether	25.	ug/l	5.0	05/12/07 15:00	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/12/07 15:00	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/12/07 15:00	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/12/07 15:00	MCK			
o-Xylene	ND	ug/l	5.0	05/12/07 15:00	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/12/07 15:00	MCK	2037-26-5		
4-Bromofluorobenzene (S)	104	%		05/12/07 15:00	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/12/07 15:00	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	94	%		05/12/07 15:00	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928359991 Project Sample Number: 92144210-039 Date Collected: 05/08/07 01:35
Client Sample ID: MW-39I Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	9.7	ug/l	5.0	05/14/07 14:15		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 18:35	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	84	%		05/14/07 18:35	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	1600	ug/l	100	05/11/07 05:09	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 05:09	MCK	994-05-8		
Benzene	61.	ug/l	5.0	05/11/07 05:09	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 05:09	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 05:09	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	50.	05/11/07 05:09	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 05:09	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 05:09	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/11/07 05:09	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 05:09	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 05:09	MCK	75-65-0		
Methyl-tert-butyl ether	890	ug/l	50.	05/11/07 05:09	MCK	1634-04-4		
Naphthalene	8.0	ug/l	5.0	05/11/07 05:09	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/11/07 05:09	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/11/07 05:09	MCK			
o-Xylene	ND	ug/l	5.0	05/11/07 05:09	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/11/07 05:09	MCK	2037-26-5		
4-Bromofluorobenzene (S)	102	%		05/11/07 05:09	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/11/07 05:09	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	97	%		05/11/07 05:09	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360007 Project Sample Number: 92144210-040 Date Collected: 05/08/07 02:50
Client Sample ID: MW-40D Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	9.8	ug/l	5.0	05/14/07 14:19		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	0.16	ug/l	0.020	05/14/07 18:52	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	87	%		05/14/07 18:52	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	1400	ug/l	100	05/11/07 05:25	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 05:25	MCK	994-05-8		
Benzene	330	ug/l	50.	05/11/07 05:25	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 05:25	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 05:25	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 05:25	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 05:25	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 05:25	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/11/07 05:25	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 05:25	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 05:25	MCK	75-65-0		
Methyl-tert-butyl ether	340	ug/l	50.	05/11/07 05:25	MCK	1634-04-4		
Naphthalene	5.6	ug/l	5.0	05/11/07 05:25	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/11/07 05:25	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/11/07 05:25	MCK			
o-Xylene	15.	ug/l	5.0	05/11/07 05:25	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/11/07 05:25	MCK	2037-26-5		
4-Bromofluorobenzene (S)	104	%		05/11/07 05:25	MCK	460-00-4		
Dibromofluoromethane (S)	98	%		05/11/07 05:25	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	102	%		05/11/07 05:25	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360015 Project Sample Number: 92144210-041 Date Collected: 05/08/07 12:15
Client Sample ID: MW-41I Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	ReqLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	11.	ug/l	5.0	05/14/07 14:23		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 19:08	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	85	%		05/14/07 19:08	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	250	ug/l	100	05/11/07 05:41	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 05:41	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/11/07 05:41	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 05:41	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 05:41	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 05:41	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 05:41	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 05:41	MCK	64-17-5		
Ethylbenzene	29.	ug/l	5.0	05/11/07 05:41	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 05:41	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 05:41	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/11/07 05:41	MCK	1634-04-4		
Naphthalene	7.5	ug/l	5.0	05/11/07 05:41	MCK	91-20-3		
Toluene	14.	ug/l	5.0	05/11/07 05:41	MCK	108-88-3		
m&p-Xylene	120	ug/l	10.	05/11/07 05:41	MCK			
o-Xylene	60.	ug/l	5.0	05/11/07 05:41	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/11/07 05:41	MCK	2037-26-5		
4-Bromofluorobenzene (S)	102	%		05/11/07 05:41	MCK	460-00-4		
Dibromofluoromethane (S)	95	%		05/11/07 05:41	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/11/07 05:41	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360023 Project Sample Number: 92144210-042 Date Collected: 05/08/07 12:20
Client Sample ID: MW-42D Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	9.9	ug/l	5.0	05/14/07 14:27		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 19:25	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	87	%		05/14/07 19:25	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/11/07 05:57	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 05:57	MCK	994-05-8		
Benzene	7.6	ug/l	5.0	05/11/07 05:57	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 05:57	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 05:57	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 05:57	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 05:57	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 05:57	MCK	64-17-5		
Ethylbenzene	40.	ug/l	5.0	05/11/07 05:57	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 05:57	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 05:57	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/11/07 05:57	MCK	1634-04-4		
Naphthalene	33.	ug/l	5.0	05/11/07 05:57	MCK	91-20-3		
Toluene	46.	ug/l	5.0	05/11/07 05:57	MCK	108-88-3		
m&p-Xylene	160	ug/l	10.	05/11/07 05:57	MCK			
o-Xylene	81.	ug/l	5.0	05/11/07 05:57	MCK	95-47-6		
Toluene-d8 (S)	97	%		05/11/07 05:57	MCK	2037-26-5		
4-Bromofluorobenzene (S)	104	%		05/11/07 05:57	MCK	460-00-4		
Dibromofluoromethane (S)	94	%		05/11/07 05:57	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	102	%		05/11/07 05:57	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360031 Project Sample Number: 92144210-043 Date Collected: 05/08/07 10:50
Client Sample ID: MW-43 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	13.	ug/l	5.0	05/14/07 18:57		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 19:41	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	88	%		05/14/07 19:41	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/11/07 06:12	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 06:12	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/11/07 06:12	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 06:12	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 06:12	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 06:12	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 06:12	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 06:12	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/11/07 06:12	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 06:12	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 06:12	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/11/07 06:12	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/11/07 06:12	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/11/07 06:12	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/11/07 06:12	MCK			
o-Xylene	ND	ug/l	5.0	05/11/07 06:12	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/11/07 06:12	MCK	2037-26-5		
4-Bromofluorobenzene (S)	103	%		05/11/07 06:12	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/11/07 06:12	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/11/07 06:12	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360049 Project Sample Number: 92144210-044 Date Collected: 05/08/07 10:45
Client Sample ID: MW-44I Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	12.	ug/l	5.0	05/14/07 19:01		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 19:57	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	88	%		05/14/07 19:57	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/11/07 06:28	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 06:28	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/11/07 06:28	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 06:28	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 06:28	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 06:28	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 06:28	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 06:28	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/11/07 06:28	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 06:28	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 06:28	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/11/07 06:28	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/11/07 06:28	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/11/07 06:28	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/11/07 06:28	MCK			
o-Xylene	ND	ug/l	5.0	05/11/07 06:28	MCK	95-47-6		
Toluene-d8 (S)	97	%		05/11/07 06:28	MCK	2037-26-5		
4-Bromofluorobenzene (S)	101	%		05/11/07 06:28	MCK	460-00-4		
Dibromofluoromethane (S)	95	%		05/11/07 06:28	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	98	%		05/11/07 06:28	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360056 Project Sample Number: 92144210-045 Date Collected: 05/08/07 03:00
Client Sample ID: MW-46 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	10.	ug/l	5.0	05/14/07 19:04		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/14/07 23:46	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	89	%		05/14/07 23:46	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/11/07 06:44	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 06:44	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/11/07 06:44	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 06:44	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 06:44	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 06:44	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 06:44	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 06:44	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/11/07 06:44	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 06:44	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 06:44	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/11/07 06:44	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/11/07 06:44	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/11/07 06:44	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/11/07 06:44	MCK			
o-Xylene	ND	ug/l	5.0	05/11/07 06:44	MCK	95-47-6		
Toluene-d8 (S)	99	%		05/11/07 06:44	MCK	2037-26-5		
4-Bromofluorobenzene (S)	105	%		05/11/07 06:44	MCK	460-00-4		
Dibromofluoromethane (S)	97	%		05/11/07 06:44	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	99	%		05/11/07 06:44	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360064 Project Sample Number: 92144210-046 Date Collected: 05/08/07 11:15
Client Sample ID: MW-47 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	9.7	ug/l	5.0	05/14/07 19:07		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/15/07 00:19	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	92	%		05/15/07 00:19	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/11/07 07:00	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 07:00	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/11/07 07:00	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 07:00	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 07:00	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 07:00	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 07:00	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 07:00	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/11/07 07:00	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 07:00	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 07:00	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/11/07 07:00	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/11/07 07:00	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/11/07 07:00	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/11/07 07:00	MCK			
o-Xylene	ND	ug/l	5.0	05/11/07 07:00	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/11/07 07:00	MCK	2037-26-5		
4-Bromofluorobenzene (S)	102	%		05/11/07 07:00	MCK	460-00-4		
Dibromofluoromethane (S)	94	%		05/11/07 07:00	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	96	%		05/11/07 07:00	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360072 Project Sample Number: 92144210-047 Date Collected: 05/08/07 11:15
Client Sample ID: MW-49 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	120	ug/l	5.0	05/14/07 19:11		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/15/07 00:52	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	108	%		05/15/07 00:52	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/11/07 07:16	MCK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/11/07 07:16	MCK	994-05-8		
Benzene	ND	ug/l	5.0	05/11/07 07:16	MCK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/11/07 07:16	MCK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/11/07 07:16	MCK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/11/07 07:16	MCK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/11/07 07:16	MCK	624-95-3		
Ethanol	ND	ug/l	200	05/11/07 07:16	MCK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/11/07 07:16	MCK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/11/07 07:16	MCK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/11/07 07:16	MCK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/11/07 07:16	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/11/07 07:16	MCK	91-20-3		
Toluene	ND	ug/l	5.0	05/11/07 07:16	MCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/11/07 07:16	MCK			
o-Xylene	ND	ug/l	5.0	05/11/07 07:16	MCK	95-47-6		
Toluene-d8 (S)	98	%		05/11/07 07:16	MCK	2037-26-5		
4-Bromofluorobenzene (S)	103	%		05/11/07 07:16	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/11/07 07:16	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	96	%		05/11/07 07:16	MCK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360080 Project Sample Number: 92144210-048 Date Collected: 05/08/07 10:50
Client Sample ID: MW-50 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	19.	ug/l	5.0	05/14/07 19:15		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/15/07 01:08	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	92	%		05/15/07 01:08	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/10/07 14:10	DLK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 14:10	DLK	994-05-8		
Benzene	ND	ug/l	5.0	05/10/07 14:10	DLK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 14:10	DLK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 14:10	DLK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 14:10	DLK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 14:10	DLK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 14:10	DLK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 14:10	DLK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 14:10	DLK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 14:10	DLK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/10/07 14:10	DLK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/10/07 14:10	DLK	91-20-3		
Toluene	ND	ug/l	5.0	05/10/07 14:10	DLK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 14:10	DLK			
o-Xylene	ND	ug/l	5.0	05/10/07 14:10	DLK	95-47-6		
Toluene-d8 (S)	100	%		05/10/07 14:10	DLK	2037-26-5		
4-Bromofluorobenzene (S)	94	%		05/10/07 14:10	DLK	460-00-4		
Dibromofluoromethane (S)	100	%		05/10/07 14:10	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	109	%		05/10/07 14:10	DLK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360106 Project Sample Number: 92144210-050 Date Collected: 05/08/07 04:30
Client Sample ID: MW-51 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	24.	ug/l	5.0	05/14/07 19:26		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	0.23	ug/l	0.020	05/16/07 01:56	CAH	106-93-4		
1-Chloro-2-bromopropane (S)	0	%		05/16/07 01:56	CAH	301-79-56	2	
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	28000	ug/l	10000	05/10/07 22:32	DLK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	1000	05/10/07 22:32	DLK	994-05-8		
Benzene	27000	ug/l	2500	05/10/07 22:32	DLK	71-43-2		
tert-Butyl Formate	ND	ug/l	2000	05/10/07 22:32	DLK	762-75-4		
1,2-Dichloroethane	ND	ug/l	500	05/10/07 22:32	DLK	107-06-2		
Diisopropyl ether	ND	ug/l	500	05/10/07 22:32	DLK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	10000	05/10/07 22:32	DLK	624-95-3		
Ethanol	ND	ug/l	20000	05/10/07 22:32	DLK	64-17-5		
Ethylbenzene	3800	ug/l	500	05/10/07 22:32	DLK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	1000	05/10/07 22:32	DLK	637-92-3		
2-Methyl-2-propanol	7000	ug/l	5000	05/10/07 22:32	DLK	75-65-0		
Methyl-tert-butyl ether	31000	ug/l	2500	05/10/07 22:32	DLK	1634-04-4		
Naphthalene	820	ug/l	500	05/10/07 22:32	DLK	91-20-3		
Toluene	37000	ug/l	2500	05/10/07 22:32	DLK	108-88-3		
m&p-Xylene	13000	ug/l	1000	05/10/07 22:32	DLK			
o-Xylene	6100	ug/l	500	05/10/07 22:32	DLK	95-47-6		
Toluene-d8 (S)	101	%		05/10/07 22:32	DLK	2037-26-5		
4-Bromofluorobenzene (S)	102	%		05/10/07 22:32	DLK	460-00-4		
Dibromofluoromethane (S)	100	%		05/10/07 22:32	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	100	%		05/10/07 22:32	DLK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360114 Project Sample Number: 92144210-051 Date Collected: 05/08/07 03:35
Client Sample ID: MW-52 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	20.	ug/l	5.0	05/14/07 19:30		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/16/07 02:12	CAH	106-93-4		
1-Chloro-2-bromopropane (S)	0	%		05/16/07 02:12	CAH	301-79-56	2	
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	5000	05/10/07 20:47	DLK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	500	05/10/07 20:47	DLK	994-05-8		
Benzene	11000	ug/l	1200	05/10/07 20:47	DLK	71-43-2		
tert-Butyl Formate	ND	ug/l	1000	05/10/07 20:47	DLK	762-75-4		
1,2-Dichloroethane	ND	ug/l	250	05/10/07 20:47	DLK	107-06-2		
Diisopropyl ether	ND	ug/l	250	05/10/07 20:47	DLK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	5000	05/10/07 20:47	DLK	624-95-3		
Ethanol	ND	ug/l	10000	05/10/07 20:47	DLK	64-17-5		
Ethylbenzene	3000	ug/l	250	05/10/07 20:47	DLK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	500	05/10/07 20:47	DLK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	2500	05/10/07 20:47	DLK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	250	05/10/07 20:47	DLK	1634-04-4		
Naphthalene	930	ug/l	250	05/10/07 20:47	DLK	91-20-3		
Toluene	23000	ug/l	1200	05/10/07 20:47	DLK	108-88-3		
m&p-Xylene	11000	ug/l	500	05/10/07 20:47	DLK			
o-Xylene	5000	ug/l	250	05/10/07 20:47	DLK	95-47-6		
Toluene-d8 (S)	100	%		05/10/07 20:47	DLK	2037-26-5		
4-Bromofluorobenzene (S)	104	%		05/10/07 20:47	DLK	460-00-4		
Dibromofluoromethane (S)	97	%		05/10/07 20:47	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	100	%		05/10/07 20:47	DLK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360122 Project Sample Number: 92144210-052 Date Collected: 05/08/07 03:45
Client Sample ID: MW-53 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	10.	ug/l	5.0	05/14/07 19:35		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/15/07 01:57	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	88	%		05/15/07 01:57	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/10/07 14:29	DLK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 14:29	DLK	994-05-8		
Benzene	ND	ug/l	5.0	05/10/07 14:29	DLK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 14:29	DLK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 14:29	DLK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 14:29	DLK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 14:29	DLK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 14:29	DLK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 14:29	DLK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 14:29	DLK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 14:29	DLK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/10/07 14:29	DLK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/10/07 14:29	DLK	91-20-3		
Toluene	ND	ug/l	5.0	05/10/07 14:29	DLK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 14:29	DLK			
o-Xylene	ND	ug/l	5.0	05/10/07 14:29	DLK	95-47-6		
Toluene-d8 (S)	99	%		05/10/07 14:29	DLK	2037-26-5		
4-Bromofluorobenzene (S)	98	%		05/10/07 14:29	DLK	460-00-4		
Dibromofluoromethane (S)	99	%		05/10/07 14:29	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	102	%		05/10/07 14:29	DLK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360130 Project Sample Number: 92144210-053 Date Collected: 05/08/07 10:15
Client Sample ID: MW-54 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	11.	ug/l	5.0	05/14/07 19:39		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/10/07 02:31	JMW			
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	0.32	ug/l	0.020	05/16/07 02:45	CAH	106-93-4		
1-Chloro-2-bromopropane (S)	0	%		05/16/07 02:45	CAH	301-79-56	2	
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	5000	05/10/07 21:08	DLK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	500	05/10/07 21:08	DLK	994-05-8		
Benzene	36000	ug/l	5000	05/10/07 21:08	DLK	71-43-2		
tert-Butyl Formate	ND	ug/l	1000	05/10/07 21:08	DLK	762-75-4		
1,2-Dichloroethane	ND	ug/l	250	05/10/07 21:08	DLK	107-06-2		
Diisopropyl ether	ND	ug/l	250	05/10/07 21:08	DLK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	5000	05/10/07 21:08	DLK	624-95-3		
Ethanol	ND	ug/l	10000	05/10/07 21:08	DLK	64-17-5		
Ethylbenzene	4300	ug/l	250	05/10/07 21:08	DLK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	500	05/10/07 21:08	DLK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	2500	05/10/07 21:08	DLK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	250	05/10/07 21:08	DLK	1634-04-4		
Naphthalene	890	ug/l	250	05/10/07 21:08	DLK	91-20-3		
Toluene	62000	ug/l	5000	05/10/07 21:08	DLK	108-88-3		
m&p-Xylene	15000	ug/l	500	05/10/07 21:08	DLK			
o-Xylene	7600	ug/l	250	05/10/07 21:08	DLK	95-47-6		
Toluene-d8 (S)	99	%		05/10/07 21:08	DLK	2037-26-5		
4-Bromofluorobenzene (S)	101	%		05/10/07 21:08	DLK	460-00-4		
Dibromofluoromethane (S)	106	%		05/10/07 21:08	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	106	%		05/10/07 21:08	DLK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360148 Project Sample Number: 92144210-054 Date Collected: 05/08/07 10:20
Client Sample ID: MW-55 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	10.	ug/l	5.0	05/14/07 19:42		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/15/07 03:19	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	86	%		05/15/07 03:19	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/10/07 14:47	DLK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 14:47	DLK	994-05-8		
Benzene	ND	ug/l	5.0	05/10/07 14:47	DLK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 14:47	DLK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 14:47	DLK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 14:47	DLK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 14:47	DLK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 14:47	DLK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 14:47	DLK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 14:47	DLK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 14:47	DLK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/10/07 14:47	DLK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/10/07 14:47	DLK	91-20-3		
Toluene	ND	ug/l	5.0	05/10/07 14:47	DLK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 14:47	DLK			
o-Xylene	ND	ug/l	5.0	05/10/07 14:47	DLK	95-47-6		
Toluene-d8 (S)	100	%		05/10/07 14:47	DLK	2037-26-5		
4-Bromofluorobenzene (S)	98	%		05/10/07 14:47	DLK	460-00-4		
Dibromofluoromethane (S)	100	%		05/10/07 14:47	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	104	%		05/10/07 14:47	DLK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360155 Project Sample Number: 92144210-055 Date Collected: 05/08/07 10:30
Client Sample ID: MW-57I Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	13.	ug/l	5.0	05/14/07 19:46		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/15/07 03:36	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	90	%		05/15/07 03:36	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/10/07 15:06	DLK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 15:06	DLK	994-05-8		
Benzene	ND	ug/l	5.0	05/10/07 15:06	DLK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 15:06	DLK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 15:06	DLK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 15:06	DLK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 15:06	DLK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 15:06	DLK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 15:06	DLK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 15:06	DLK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 15:06	DLK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/10/07 15:06	DLK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/10/07 15:06	DLK	91-20-3		
Toluene	ND	ug/l	5.0	05/10/07 15:06	DLK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 15:06	DLK			
o-Xylene	ND	ug/l	5.0	05/10/07 15:06	DLK	95-47-6		
Toluene-d8 (S)	100	%		05/10/07 15:06	DLK	2037-26-5		
4-Bromofluorobenzene (S)	98	%		05/10/07 15:06	DLK	460-00-4		
Dibromofluoromethane (S)	101	%		05/10/07 15:06	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	113	%		05/10/07 15:06	DLK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360163 Project Sample Number: 92144210-056 Date Collected: 05/08/07 01:30
Client Sample ID: MW-58 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	11.	ug/l	5.0	05/14/07 19:50		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/15/07 03:52	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	90	%		05/15/07 03:52	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/l	100	05/10/07 15:24	DLK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 15:24	DLK	994-05-8		
Benzene	ND	ug/l	5.0	05/10/07 15:24	DLK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 15:24	DLK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 15:24	DLK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 15:24	DLK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 15:24	DLK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 15:24	DLK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 15:24	DLK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 15:24	DLK	637-92-3		
2-Methyl-2-propanol	ND	ug/l	50.	05/10/07 15:24	DLK	75-65-0		
Methyl-tert-butyl ether	ND	ug/l	5.0	05/10/07 15:24	DLK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/10/07 15:24	DLK	91-20-3		
Toluene	ND	ug/l	5.0	05/10/07 15:24	DLK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 15:24	DLK			
o-Xylene	ND	ug/l	5.0	05/10/07 15:24	DLK	95-47-6		
Toluene-d8 (S)	102	%		05/10/07 15:24	DLK	2037-26-5		
4-Bromofluorobenzene (S)	97	%		05/10/07 15:24	DLK	460-00-4		
Dibromofluoromethane (S)	106	%		05/10/07 15:24	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	110	%		05/10/07 15:24	DLK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360171 Project Sample Number: 92144210-057 Date Collected: 05/08/07 01:35
Client Sample ID: MW-59 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead	32.	ug/l	5.0	05/14/07 19:53		7439-92-1		
Date Digested	05/13/07 09:00			05/13/07 09:00				
GC Semivolatiles								
EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	0.065	ug/l	0.020	05/15/07 04:09	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	89	%		05/15/07 04:09	RCS1	301-79-56		
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	320	ug/l	100	05/10/07 19:26	DLK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 19:26	DLK	994-05-8		
Benzene	9.0	ug/l	5.0	05/10/07 19:26	DLK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 19:26	DLK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 19:26	DLK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 19:26	DLK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 19:26	DLK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 19:26	DLK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 19:26	DLK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 19:26	DLK	637-92-3		
2-Methyl-2-propanol	69.	ug/l	50.	05/10/07 19:26	DLK	75-65-0		
Methyl-tert-butyl ether	280	ug/l	25.	05/10/07 19:26	DLK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/10/07 19:26	DLK	91-20-3		
Toluene	ND	ug/l	5.0	05/10/07 19:26	DLK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 19:26	DLK			
o-Xylene	ND	ug/l	5.0	05/10/07 19:26	DLK	95-47-6		
Toluene-d8 (S)	102	%		05/10/07 19:26	DLK	2037-26-5		
4-Bromofluorobenzene (S)	97	%		05/10/07 19:26	DLK	460-00-4		
Dibromofluoromethane (S)	100	%		05/10/07 19:26	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	107	%		05/10/07 19:26	DLK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

Lab Sample No: 928360189 Project Sample Number: 92144210-058 Date Collected: 05/08/07 06:15
Client Sample ID: SW-1 Matrix: Water Date Received: 05/09/07 15:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles								
GC/MS OXYs by 8260, low level	Method: EPA 8260							
tert-Amyl Alcohol	220	ug/l	100	05/10/07 15:43	DLK	75-85-4		
tert-Amylmethyl ether	ND	ug/l	10.	05/10/07 15:43	DLK	994-05-8		
Benzene	ND	ug/l	5.0	05/10/07 15:43	DLK	71-43-2		
tert-Butyl Formate	ND	ug/l	20.	05/10/07 15:43	DLK	762-75-4		
1,2-Dichloroethane	ND	ug/l	5.0	05/10/07 15:43	DLK	107-06-2		
Diisopropyl ether	ND	ug/l	5.0	05/10/07 15:43	DLK	108-20-3		
3,3-Dimethyl-1-butanol	ND	ug/l	100	05/10/07 15:43	DLK	624-95-3		
Ethanol	ND	ug/l	200	05/10/07 15:43	DLK	64-17-5		
Ethylbenzene	ND	ug/l	5.0	05/10/07 15:43	DLK	100-41-4		
Ethyl-tert-butyl ether	ND	ug/l	10.	05/10/07 15:43	DLK	637-92-3		
2-Methyl-2-propanol	86.	ug/l	50.	05/10/07 15:43	DLK	75-65-0		
Methyl-tert-butyl ether	300	ug/l	25.	05/10/07 15:43	DLK	1634-04-4		
Naphthalene	ND	ug/l	5.0	05/10/07 15:43	DLK	91-20-3		
Toluene	ND	ug/l	5.0	05/10/07 15:43	DLK	108-88-3		
m&p-Xylene	ND	ug/l	10.	05/10/07 15:43	DLK			
o-Xylene	ND	ug/l	5.0	05/10/07 15:43	DLK	95-47-6		
Toluene-d8 (S)	101	%		05/10/07 15:43	DLK	2037-26-5		
4-Bromofluorobenzene (S)	99	%		05/10/07 15:43	DLK	460-00-4		
Dibromofluoromethane (S)	105	%		05/10/07 15:43	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	106	%		05/10/07 15:43	DLK	17060-07-0		

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

PARAMETER FOOTNOTES

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate
[1]	Surrogate recovery outside of acceptance window confirmed as a matrix effect by the analysis of a duplicate or MS/MSD on this sample.
[2]	Low surrogate recovery was confirmed as a matrix effect by a second analysis.

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 188282 Analysis Method: EPA 8011
QC Batch Method: EPA 504.1 Analysis Description: EDB and DBCP in Water
Associated Lab Samples: 928359454 928359462 928359470 928359496 928359512

METHOD BLANK: 928362326
Associated Lab Samples: 928359454 928359462 928359470 928359496 928359512

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	0.020	
1-Chloro-2-bromopropane (S)	%	98		

LABORATORY CONTROL SAMPLE & LCSD: 928362334 928362342

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0.2500	0.2469	0.2350	99	94	5	
1-Chloro-2-bromopropane (S)					95	98		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928362359 928362367

Parameter	Units	928359454 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0	0.2500	0	0	0	0	0	1,1
1-Chloro-2-bromopropane (S)						0	0		2,2

SAMPLE DUPLICATE: 928362375

Parameter	Units	928359462 Result	DUP Result	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
1-Chloro-2-bromopropane (S)	%	76	83		

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 188283 — Analysis Method: EPA 8011
QC Batch Method: EPA 504.1 — Analysis Description: EDB and DBCP in Water
Associated Lab Samples: 928359413 928359561 928359587 928359611 928359645 928359660 928359702 928359728

METHOD BLANK: 928362409
Associated Lab Samples: 928359413 928359561 928359587 928359611 928359645 928359660 928359702 928359728

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	0.020	
1-Chloro-2-bromopropane (S)	%	100		

LABORATORY CONTROL SAMPLE & LCSD: 928362417 928362425

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0.2500	0.2172	0.2384	87	95	9	
1-Chloro-2-bromopropane (S)					98	99		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928362433 928362441

Parameter	Units	928355122 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0	0.2500	0.2087	0.2086	84	83	0	
1-Chloro-2-bromopropane (S)						86	87		

SAMPLE DUPLICATE: 928362458

Parameter	Units	928355130 Result	DUP Result	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
1-Chloro-2-bromopropane (S)	%	92	91		

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 188477 Analysis Method: EPA 8011
QC Batch Method: EPA 504.1 Analysis Description: EDB and DBCP in Water
Associated Lab Samples: 928359751 928359769 928359777 928359785 928359793 928359801 928359819 928359827 928359835 928359843

METHOD BLANK: 928373927
Associated Lab Samples: 928359751 928359769 928359777 928359785 928359793 928359801 928359819 928359827 928359835 928359843

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	0.020	
1-Chloro-2-bromopropane (S)	%	85		

LABORATORY CONTROL SAMPLE & LCSD: 928373935 928373943

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0.2500	0.2024	0.2094	81	84	3	
1-Chloro-2-bromopropane (S)					93	96		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928373950 928373968

Parameter	Units	928369586 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0	0.2500	0.1617	0.1711	65	68	6	
1-Chloro-2-bromopropane (S)						78	81		

SAMPLE DUPLICATE: 928373976

Parameter	Units	928369594 Result	DUP Result	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
1-Chloro-2-bromopropane (S)	%	82	82		

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 188478 — Analysis Method: EPA 8011
QC Batch Method: EPA 504.1 — Analysis Description: EDB and DBCP in Water
Associated Lab Samples: 928359850 928359868 928359876 928359884 928359892 928359900 928359918 928359926 928359934 928359942 928359959 928359967 928359975 928359983 928359991 928360007 928360015 928360023 928360031 928360049

METHOD BLANK: 928373984
Associated Lab Samples: 928359850 928359868 928359876 928359884 928359892 928359900 928359918 928359926 928359934 928359942 928359959 928359967 928359975 928359983 928359991 928360007 928360015 928360023 928360031 928360049

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	0.020	
1-Chloro-2-bromopropane (S)	%	94		

LABORATORY CONTROL SAMPLE & LCSD: 928373992 928374008

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0.2500	0.2087	0.2278	84	91	9	
1-Chloro-2-bromopropane (S)					89	95		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928374016 928374024

Parameter	Units	928359850 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0	0.2500	0.1997	0.1990	80	80	0	
1-Chloro-2-bromopropane (S)						90	87		

SAMPLE DUPLICATE: 928374040

Parameter	Units	928359892 Result	DUP Result	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
1-Chloro-2-bromopropane (S)	%	84	87		

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 188575 — Analysis Method: EPA 8011
QC Batch Method: EPA 504.1 — Analysis Description: EDB and DBCP in Water
Associated Lab Samples: 928360056 928360064 928360072 928360080 928360106 928360114 928360122 928360130 928360148 928360155 928360163 928360171

METHOD BLANK: 928375930
Associated Lab Samples: 928360056 928360064 928360072 928360080 928360106 928360114 928360122 928360130 928360148 928360155 928360163 928360171

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	0.020	
1-Chloro-2-bromopropane (S)	%	100		

LABORATORY CONTROL SAMPLE & LCSD: 928375948 928375955

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0.2500	0.2060	0.1951	82	78	5	
1-Chloro-2-bromopropane (S)					100	97		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928375963 928375971

Parameter	Units	928360056 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0	0.2500	0.1708	0.1687	68	68	1	
1-Chloro-2-bromopropane (S)						91	94		

SAMPLE DUPLICATE: 928375989

Parameter	Units	928360064 Result	DUP Result	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
1-Chloro-2-bromopropane (S)	%	92	92		

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 189327 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS OXYs by 8260, low level
Associated Lab Samples: 928359983 928359991 928360007 928360015 928360023 928360031 928360049 928360056 928360064 928360072

METHOD BLANK: 928411982
Associated Lab Samples: 928359983 928359991 928360007 928360015 928360023 928360031 928360049 928360056 928360064 928360072

Parameter	Units	Blank Result	Reporting Limit	Footnotes
tert-Amyl Alcohol	ug/l	ND	100	
tert-Amylmethyl ether	ug/l	ND	10.	
Benzene	ug/l	ND	5.0	
tert-Butyl Formate	ug/l	ND	20.	
1,2-Dichloroethane	ug/l	ND	5.0	
Diisopropyl ether	ug/l	ND	5.0	
3,3-Dimethyl-1-butanol	ug/l	ND	100	
Ethanol	ug/l	ND	200	
Ethylbenzene	ug/l	ND	5.0	
Ethyl-tert-butyl ether	ug/l	ND	10.	
2-Methyl-2-propanol	ug/l	ND	50.	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	98		
4-Bromofluorobenzene (S)	%	103		
Dibromofluoromethane (S)	%	99		
1,2-Dichloroethane-d4 (S)	%	97		

LABORATORY CONTROL SAMPLE: 928411990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
tert-Amyl Alcohol	ug/l	1000.00	1222	122	
tert-Amylmethyl ether	ug/l	100.00	109.6	110	
Benzene	ug/l	50.00	54.73	109	

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

LABORATORY CONTROL SAMPLE: 928411990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
tert-Butyl Formate	ug/l	200.00	206.3	103	
1,2-Dichloroethane	ug/l	50.00	53.47	107	
Diisopropyl ether	ug/l	50.00	52.80	106	
3,3-Dimethyl-1-butanol	ug/l	1000.00	1285	129	
Ethanol	ug/l	2000.00	3217	161	3
Ethylbenzene	ug/l	50.00	53.32	107	
Ethyl-tert-butyl ether	ug/l	100.00	103.1	103	
2-Methyl-2-propanol	ug/l	500.00	515.7	103	
Methyl-tert-butyl ether	ug/l	50.00	53.30	107	
Naphthalene	ug/l	50.00	57.68	115	
Toluene	ug/l	50.00	53.70	107	
m&p-Xylene	ug/l	100.00	107.5	108	
o-Xylene	ug/l	50.00	53.99	108	
Toluene-d8 (S)				100	
4-Bromofluorobenzene (S)				101	
Dibromofluoromethane (S)				99	
1,2-Dichloroethane-d4 (S)				98	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928412006 928412014

Parameter	Units	928360072 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	633.9	67.85	1268	136	161	1,1,4
Toluene	ug/l	0.2941	50.00	1078	84.34	2155	168	171	1,1,4
Toluene-d8 (S)						96	98		
4-Bromofluorobenzene (S)						100	99		
Dibromofluoromethane (S)						82	98		5
1,2-Dichloroethane-d4 (S)						81	98		

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 189328
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: GC/MS OXYs by 8260, low level
Associated Lab Samples: 928359785, 928359793, 928359801, 928359819, 928359827, 928359835, 928359843, 928359850, 928359868, 928359876, 928359884, 928359892, 928359900, 928359918, 928359926, 928359934, 928359942, 928359959, 928359967, 928359975

METHOD BLANK: 928412055
Associated Lab Samples: 928359785, 928359793, 928359801, 928359819, 928359827, 928359835, 928359843, 928359850, 928359868, 928359876, 928359884, 928359892, 928359900, 928359918, 928359926, 928359934, 928359942, 928359959, 928359967, 928359975

Parameter	Units	Blank Result	Reporting Limit	Footnotes
tert-Amyl Alcohol	ug/l	ND	100	
tert-Amylmethyl ether	ug/l	ND	10.	
Benzene	ug/l	ND	5.0	
tert-Butyl Formate	ug/l	ND	20.	
1,2-Dichloroethane	ug/l	ND	5.0	
Diisopropyl ether	ug/l	ND	5.0	
3,3-Dimethyl-1-butanol	ug/l	ND	100	
Ethanol	ug/l	ND	200	
Ethylbenzene	ug/l	ND	5.0	
Ethyl-tert-butyl ether	ug/l	ND	10.	
2-Methyl-2-propanol	ug/l	ND	50.	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	98		
4-Bromofluorobenzene (S)	%	103		
Dibromofluoromethane (S)	%	99		
1,2-Dichloroethane-d4 (S)	%	97		

LABORATORY CONTROL SAMPLE: 928412063

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

LABORATORY CONTROL SAMPLE: 928412063

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
tert-Amyl Alcohol	ug/l	1000.00	1222	122	
tert-Amylmethyl ether	ug/l	100.00	109.6	110	
Benzene	ug/l	50.00	54.73	109	
tert-Butyl Formate	ug/l	200.00	206.3	103	
1,2-Dichloroethane	ug/l	50.00	53.47	107	
Diisopropyl ether	ug/l	50.00	52.80	106	
3,3-Dimethyl-1-butanol	ug/l	1000.00	1285	129	
Ethanol	ug/l	2000.00	3217	161	3
Ethylbenzene	ug/l	50.00	53.32	107	
Ethyl-tert-butyl ether	ug/l	100.00	103.1	103	
2-Methyl-2-propanol	ug/l	500.00	515.7	103	
Methyl-tert-butyl ether	ug/l	50.00	53.30	107	
Naphthalene	ug/l	50.00	57.68	115	
Toluene	ug/l	50.00	53.70	107	
m&p-Xylene	ug/l	100.00	107.5	108	
o-Xylene	ug/l	50.00	53.99	108	
Toluene-d8 (S)				100	
4-Bromofluorobenzene (S)				101	
Dibromofluoromethane (S)				99	
1,2-Dichloroethane-d4 (S)				98	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928412071 928412089

Parameter	Units	928359843 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	1.205	50.00	109.6	85.97	217	170	24	1,1
Toluene	ug/l	2.822	50.00	131.9	103.8	258	202	24	1,1
Toluene-d8 (S)						97	99		
4-Bromofluorobenzene (S)						102	103		
Dibromofluoromethane (S)						98	95		
1,2-Dichloroethane-d4 (S)						94	97		

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 189329 — Analysis Method: EPA 8260
QC Batch Method: EPA 8260 — Analysis Description: GC/MS OXYs by 8260, low level
Associated Lab Samples: 928359413, 928359454, 928359462, 928359470, 928359496, 928359512, 928359561, 928359587, 928359611, 928359645, 928359660, 928359702, 928359728, 928359751, 928359769, 928359777

METHOD BLANK: 928412139
Associated Lab Samples: 928359413, 928359454, 928359462, 928359470, 928359496, 928359512, 928359561, 928359587, 928359611, 928359645, 928359660, 928359702, 928359728, 928359751, 928359769, 928359777

Parameter	Units	Blank Result	Reporting Limit	Footnotes
tert-Amyl Alcohol	ug/l	ND	100	
tert-Amylmethyl ether	ug/l	ND	10.	
Benzene	ug/l	ND	5.0	
tert-Butyl Formate	ug/l	ND	20.	
1,2-Dichloroethane	ug/l	ND	5.0	
Diisopropyl ether	ug/l	ND	5.0	
3,3-Dimethyl-1-butanol	ug/l	ND	100	
Ethanol	ug/l	ND	200	
Ethylbenzene	ug/l	ND	5.0	
Ethyl-tert-butyl ether	ug/l	ND	10.	
2-Methyl-2-propanol	ug/l	ND	50.	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	100		
4-Bromofluorobenzene (S)	%	99		
Dibromofluoromethane (S)	%	97		
1,2-Dichloroethane-d4 (S)	%	98		

LABORATORY CONTROL SAMPLE: 928412147

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

LABORATORY CONTROL SAMPLE: 928412147

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
tert-Amyl Alcohol	ug/l	1000.00	1389	139	
tert-Amylmethyl ether	ug/l	100.00	100.8	101	
Benzene	ug/l	50.00	50.25	101	
tert-Butyl Formate	ug/l	200.00	198.5	99	
1,2-Dichloroethane	ug/l	50.00	49.50	99	
Diisopropyl ether	ug/l	50.00	49.57	99	
3,3-Dimethyl-1-butanol	ug/l	1000.00	1336	134	
Ethanol	ug/l	2000.00	3512	176	3
Ethylbenzene	ug/l	50.00	49.89	100	
Ethyl-tert-butyl ether	ug/l	100.00	99.27	99	
2-Methyl-2-propanol	ug/l	500.00	496.3	99	
Methyl-tert-butyl ether	ug/l	50.00	49.33	99	
Naphthalene	ug/l	50.00	54.62	109	
Toluene	ug/l	50.00	49.35	99	
m&p-Xylene	ug/l	100.00	102.7	103	
o-Xylene	ug/l	50.00	50.89	102	
Toluene-d8 (S)				99	
4-Bromofluorobenzene (S)				102	
Dibromofluoromethane (S)				102	
1,2-Dichloroethane-d4 (S)				100	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928412154 928412162

Parameter	Units	928359413 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	2.490	50.00	59.53	58.92	114	113	1	
Toluene	ug/l	2.748	50.00	56.65	55.58	108	106	2	
Toluene-d8 (S)						98	98		
4-Bromofluorobenzene (S)						101	103		
Dibromofluoromethane (S)						102	99		
1,2-Dichloroethane-d4 (S)						100	98		

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 189339 — Analysis Method: EPA 8260
QC Batch Method: EPA 8260 — Analysis Description: GC/MS OXYs by 8260, low level
Associated Lab Samples: 928360080 928360106 928360114 928360122 928360130 928360148 928360155 928360163 928360171 928360189

METHOD BLANK: 928413608
Associated Lab Samples: 928360080 928360106 928360114 928360122 928360130 928360148 928360155 928360163 928360171 928360189

Parameter	Units	Blank Result	Reporting Limit	Footnotes
tert-Amyl Alcohol	ug/l	ND	100	
tert-Amylmethyl ether	ug/l	ND	10.	
Benzene	ug/l	ND	5.0	
tert-Butyl Formate	ug/l	ND	20.	
1,2-Dichloroethane	ug/l	ND	5.0	
Diisopropyl ether	ug/l	ND	5.0	
3,3-Dimethyl-1-butanol	ug/l	ND	100	
Ethanol	ug/l	ND	200	
Ethylbenzene	ug/l	ND	5.0	
Ethyl-tert-butyl ether	ug/l	ND	10.	
2-Methyl-2-propanol	ug/l	ND	50.	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	102		
4-Bromofluorobenzene (S)	%	95		
Dibromofluoromethane (S)	%	97		
1,2-Dichloroethane-d4 (S)	%	98		

LABORATORY CONTROL SAMPLE: 928413616

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
tert-Amyl Alcohol	ug/l	1000.00	1093	109	
tert-Amylmethyl ether	ug/l	100.00	123.4	123	
Benzene	ug/l	50.00	61.25	123	

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

LABORATORY CONTROL SAMPLE: 928413616

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
tert-Butyl Formate	ug/l	200.00	223.3	112	
1,2-Dichloroethane	ug/l	50.00	64.72	129	3
Diisopropyl ether	ug/l	50.00	62.15	124	
3,3-Dimethyl-1-butanol	ug/l	1000.00	1078	108	
Ethanol	ug/l	2000.00	1741	87	
Ethylbenzene	ug/l	50.00	59.42	119	
Ethyl-tert-butyl ether	ug/l	100.00	117.5	117	
2-Methyl-2-propanol	ug/l	500.00	625.2	125	
Methyl-tert-butyl ether	ug/l	50.00	59.94	120	
Naphthalene	ug/l	50.00	60.48	121	
Toluene	ug/l	50.00	60.42	121	
m&p-Xylene	ug/l	100.00	123.2	123	
o-Xylene	ug/l	50.00	60.65	121	
Toluene-d8 (S)				101	
4-Bromofluorobenzene (S)				100	
Dibromofluoromethane (S)				99	
1,2-Dichloroethane-d4 (S)				102	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928413103 928413111

Parameter	Units	928360080 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	47.95	76.79	96	154	46	1,4
Toluene	ug/l	0	50.00	51.40	87.11	103	174	52	1,4
Toluene-d8 (S)						100	101		
4-Bromofluorobenzene (S)						103	102		
Dibromofluoromethane (S)						103	101		
1,2-Dichloroethane-d4 (S)						105	106		

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 188344 — Analysis Method: EPA 6010
QC Batch Method: EPA 3010 — Analysis Description: Metals by Trace ICP
Associated Lab Samples: 928359454 928359462 928359470 928359496 928359512 928359660 928359702 928359728 928359876 928359892 928359900

METHOD BLANK: 928366699
Associated Lab Samples: 928359454 928359462 928359470 928359496 928359512 928359660 928359702 928359728 928359876 928359884 928359892 928359900

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Lead	ug/l	ND	5.0	

LABORATORY CONTROL SAMPLE: 928366707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Lead	ug/l	500.00	517.0	103	

MATRIX SPIKE: 928366715

Parameter	Units	928355189 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Lead	ug/l	0	500.00	445.0	89	

SAMPLE DUPLICATE: 928366723

Parameter	Units	928355197 Result	DUP Result	RPD	Footnotes
Lead	ug/l	ND	ND	NC	

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F

QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 188345 — Analysis Method: EPA 6010
QC Batch Method: EPA 3010 — Analysis Description: Metals by Trace ICP
Associated Lab Samples: 928359413, 928359561, 928359587, 928359611, 928359645, 928359751, 928359769, 928359777, 928359785, 928359793, 928359801, 928359819, 928359827, 928359835, 928359843, 928359850, 928359868, 928359918, 928359926, 928359934

METHOD BLANK: 928366731
Associated Lab Samples: 928359413, 928359561, 928359587, 928359611, 928359645, 928359751, 928359769, 928359777, 928359785, 928359793, 928359801, 928359819, 928359827, 928359835, 928359843, 928359850, 928359868, 928359918, 928359926, 928359934

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Lead	ug/l	ND	5.0	

LABORATORY CONTROL SAMPLE: 928366749

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Lead	ug/l	500.00	510.0	102	

MATRIX SPIKE: 928366756

Parameter	Units	928359413 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Lead	ug/l	4.520	500.00	448.0	89	

SAMPLE DUPLICATE: 928366764

Parameter	Units	928359561 Result	DUP Result	RPD	Footnotes
Lead	ug/l	72.00	78.00	7	

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 188441 — Analysis Method: EPA 6010
QC Batch Method: EPA 3010 — Analysis Description: Metals by Trace ICP
Associated Lab Samples: 928359942 928359959 928359967 928359975 928359983 928359991 928360007 928360015 928360023

METHOD BLANK: 928373166
Associated Lab Samples: 928359942 928359959 928359967 928359975 928359983 928359991 928360007 928360015 928360023

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Lead	ug/l	ND	5.0	

LABORATORY CONTROL SAMPLE: 928373174

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Lead	ug/l	500.00	548.0	110	

MATRIX SPIKE: 928373182

Parameter	Units	928333244 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Lead	ug/l	420.0	500.00	851.0	86	

SAMPLE DUPLICATE: 928373190

Parameter	Units	928333251 Result	DUP Result	RPD	Footnotes
Lead	ug/l	17.00	18.00	5	

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 188442 — Analysis Method: EPA 6010
QC Batch Method: EPA 3010 — Analysis Description: Metals by Trace ICP
Associated Lab Samples: 928360031 928360049 928360056 928360064 928360072 928360080 928360106 928360114 928360122 928360130 928360148 928360155 928360163 928360171

METHOD BLANK: 928373208
Associated Lab Samples: 928360031 928360049 928360056 928360064 928360072 928360080 928360106 928360114 928360122 928360130 928360148 928360155 928360163 928360171

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Lead	ug/l	ND	5.0	

LABORATORY CONTROL SAMPLE: 928373216

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Lead	ug/l	500.00	539.0	108	

MATRIX SPIKE: 928373224

Parameter	Units	928360031 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Lead	ug/l	13.10	500.00	460.0	89	

SAMPLE DUPLICATE: 928373232

Parameter	Units	928360049 Result	DUP Result	RPD	Footnotes
Lead	ug/l	12.00	12.00	3	

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 188229 — Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 — Analysis Description: 48 Hour NO3 / NO2 / NOX
Associated Lab Samples: 928359413 928359454 928359462 928359561

METHOD BLANK: 928360296
Associated Lab Samples: 928359413 928359454 928359462 928359561

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Nitrate as N	mg/l	ND	0.10	

LABORATORY CONTROL SAMPLE: 928360304

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Nitrate as N	mg/l	5.000	5.240	105	

MATRIX SPIKE: 928360312

Parameter	Units	928354315 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Nitrate as N	mg/l	36.75	5.000	40.55	76	

SAMPLE DUPLICATE: 928360338

Parameter	Units	928354372 Result	DUP Result	RPD	Footnotes
Nitrate as N	mg/l	32.00	31.00	2	

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QUALITY CONTROL DATA

Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QC Batch: 188231 — Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 — Analysis Description: 48 Hour NO3 / NO2 / NOX
Associated Lab Samples: 928359587 928359611 928359645 928359777 928359785 928359793 928359801 928359819 928359827 928359835 928359843 928359850 928359868 928360106 928360130

METHOD BLANK: 928360379
Associated Lab Samples: 928359587 928359611 928359645 928359777 928359785 928359793 928359801 928359819 928359827 928359835 928359843 928359850 928359868 928360106 928360130

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Nitrate as N	mg/l	ND	0.10	

LABORATORY CONTROL SAMPLE: 928360387

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Nitrate as N	mg/l	5.000	5.410	108	

MATRIX SPIKE: 928360395

Parameter	Units	928359587 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Nitrate as N	mg/l	0	5.000	5.600	112	

SAMPLE DUPLICATE: 928360411

Parameter	Units	928359611 Result	DUP Result	RPD	Footnotes
Nitrate as N	mg/l	ND	ND	NC	

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Lab Project Number: 92144210
Client Project ID: Countryside 2 07-1121

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate
[1]	The spike recovery was outside acceptance limits for the MS and /or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
[2]	Surrogate recovery outside of acceptance window confirmed as a matrix effect by the analysis of a duplicate or MS/MSD on this sample.
[3]	Recovery falls outside of QC limits, however, this compound is not found in the associated samples.
[4]	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
[5]	Low surrogate recovery was confirmed as a matrix effect by a second analysis.

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Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359413 / MWR-1A
Project:	92144210	**Collection Date:**	5/8/2007 5:45:00 PM
Lab ID:	0705640-001	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 10:55 AM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359454 / MWR-2
Project:	92144210	**Collection Date:**	5/8/2007 5:00:00 PM
Lab ID:	0705640-002	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN		**SW9056**					Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 11:39 AM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359462 / MWR-3
Project:	92144210	**Collection Date:**	5/8/2007 5:15:00 PM
Lab ID:	0705640-003	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	3.7	1.0		mg/L		1	5/14/2007 11:53 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359561 / MW-7
Project:	92144210	**Collection Date:**	5/8/2007 6:15:00 PM
Lab ID:	0705640-004	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	1.1	1.0		mg/L		1	5/14/2007 12:08 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359587 / MW-7R
Project:	92144210	**Collection Date:**	5/8/2007 6:15:00 PM
Lab ID:	0705640-005	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 12:23 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359611 / MW-9R
Project:	92144210	**Collection Date:**	5/8/2007 6:30:00 PM
Lab ID:	0705640-006	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 12:38 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359645 / MW-11
Project:	92144210	**Collection Date:**	5/8/2007 6:45:00 PM
Lab ID:	0705640-007	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN		**SW9056**					Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 12:52 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359777 / MW-16DD
Project:	92144210	**Collection Date:**	5/8/2007 5:30:00 PM
Lab ID:	0705640-008	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	40	1.0		mg/L		1	5/14/2007 1:07 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359785 / MW-17I
Project:	92144210	**Collection Date:**	5/8/2007 5:00:00 PM
Lab ID:	0705640-009	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	33	1.0		mg/L		1	5/14/2007 2:06 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

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Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359793 / MW-18D
Project:	92144210	**Collection Date:**	5/8/2007 4:45:00 PM
Lab ID:	0705640-010	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	4.0	1.0		mg/L		1	5/14/2007 2:20 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

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Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359801 / MW-19I
Project:	92144210	**Collection Date:**	5/8/2007 5:00:00 PM
Lab ID:	0705640-011	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	7.7	1.0		mg/L		1	5/14/2007 2:35 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359819 / MW-20D
Project:	92144210	**Collection Date:**	5/8/2007 5:00:00 PM
Lab ID:	0705640-012	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	25	1.0		mg/L		1	5/14/2007 3:05 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

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Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359827 / MW-21I
Project:	92144210	**Collection Date:**	5/8/2007 5:15:00 PM
Lab ID:	0705640-013	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	10	1.0		mg/L		1	5/14/2007 3:19 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359835 / MW-22D
Project:	92144210	**Collection Date:**	5/8/2007 5:15:00 PM
Lab ID:	0705640-014	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	10	1.0		mg/L		1	5/14/2007 3:34 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359843 / MW-23
Project:	92144210	**Collection Date:**	5/8/2007 5:30:00 PM
Lab ID:	0705640-015	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	1.1	1.0		mg/L		1	5/14/2007 3:49 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359850 / MW-24
Project:	92144210	**Collection Date:**	5/8/2007 5:30:00 PM
Lab ID:	0705640-016	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 4:03 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928359868 / MW-25
Project:	92144210	**Collection Date:**	5/8/2007 5:45:00 PM
Lab ID:	0705640-017	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN		**SW9056**					Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 4:18 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928360106 / MW-51
Project:	92144210	**Collection Date:**	5/8/2007 4:30:00 PM
Lab ID:	0705640-018	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 5:02 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928360130 / MW-54
Project:	92144210	**Collection Date:**	5/8/2007 10:15:00 AM
Lab ID:	0705640-019	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	1.8	1.0		mg/L		1	5/14/2007 5:17 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355528 MW-43
Project:	92144108	**Collection Date:**	5/8/2007 10:30:00 AM
Lab ID:	0705681-001	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	8.9	1.0		mg/L		1	5/14/2007 5:32 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)	
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits	
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative	
	N	Analyte not NELAC certified	NC	Not Confirmed	
	B	Analyte detected in the associated Method Blank			

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355536 MW-44I
Project:	92144108	**Collection Date:**	5/8/2007 10:45:00 AM
Lab ID:	0705681-002	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 6:45 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355544 MW-46
Project:	92144108	**Collection Date:**	5/8/2007 3:00:00 PM
Lab ID:	0705681-003	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 7:29 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)	
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits	
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative	
	N	Analyte not NELAC certified	NC	Not Confirmed	
	B	Analyte detected in the associated Method Blank			

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355551 MW-49
Project:	92144108	**Collection Date:**	5/8/2007 11:15:00 AM
Lab ID:	0705681-004	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN				**SW9056**			Analyst: **CT**
Sulfate	5.3	1.0		mg/L		1	5/14/2007 7:44 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355569 MW-50
Project:	92144108	**Collection Date:**	5/8/2007 10:50:00 AM
Lab ID:	0705681-005	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 7:59 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355585 MW-52
Project:	92144108	**Collection Date:**	5/8/2007 1:35:00 PM
Lab ID:	0705681-006	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN		**SW9056**					Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 8:13 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355593 MW-53
Project:	92144108	**Collection Date:**	5/8/2007 3:45:00 PM
Lab ID:	0705681-007	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 10:26 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)	
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits	
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative	
	N	Analyte not NELAC certified	NC	Not Confirmed	
	B	Analyte detected in the associated Method Blank			

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355627 MW-55
Project:	92144108	**Collection Date:**	5/8/2007 10:15:00 AM
Lab ID:	0705681-008	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 8:43 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355528 MW-57I
Project:	92144108	**Collection Date:**	5/8/2007 10:20:00 AM
Lab ID:	0705681-009	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 8:58 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355536 MW-58
Project:	92144108	**Collection Date:**	5/8/2007 1:30:00 PM
Lab ID:	0705681-010	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 9:56 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355544 MW-59
Project:	92144108	**Collection Date:**	5/8/2007 3:00:00 PM
Lab ID:	0705681-011	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 10:11 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355551 MW-4
Project:	92144108	**Collection Date:**	5/8/2007 3:30:00 PM
Lab ID:	0705681-012	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 8:28 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355569 MW-5
Project:	92144108	**Collection Date:**	5/8/2007 11:00:00 AM
Lab ID:	0705681-013	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	5.3	1.0		mg/L		1	5/14/2007 10:55 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355585 MW-6
Project:	92144108	**Collection Date:**	5/8/2007 4:00:00 PM
Lab ID:	0705681-014	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	1.2	1.0		mg/L		1	5/14/2007 11:10 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355593 MW-12
Project:	92144108	**Collection Date:**	5/8/2007 10:45:00 AM
Lab ID:	0705681-015	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 11:25 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355627 MW-13R
Project:	92144108	**Collection Date:**	5/8/2007 2:00:00 PM
Lab ID:	0705681-016	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/14/2007 11:39 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355528 MW-14R
Project:	92144108	**Collection Date:**	5/8/2007 12:00:00 PM
Lab ID:	0705681-017	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	2.9	1.0		mg/L		1	5/14/2007 11:54 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355536 MW-14R2
Project:	92144108	**Collection Date:**	5/8/2007 12:05:00 PM
Lab ID:	0705681-018	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	2.8	1.0		mg/L		1	5/15/2007 12:09 AM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355544 MW-15R
Project:	92144108	**Collection Date:**	5/8/2007 3:40:00 PM
Lab ID:	0705681-019	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/15/2007 1:08 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355551 MW-26I
Project:	92144108	**Collection Date:**	5/8/2007 3:00:00 PM
Lab ID:	0705681-020	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	12	1.0		mg/L		1	5/15/2007 1:22 AM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355569 MW-28DD
Project:	92144108	**Collection Date:**	5/8/2007 3:45:00 PM
Lab ID:	0705681-021	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	51	1.0		mg/L		1	5/15/2007 1:37 AM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355585 MW-29
Project:	92144108	**Collection Date:**	5/8/2007 3:35:00 PM
Lab ID:	0705681-022	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/15/2007 12:38 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355593 MW-30I
Project:	92144108	**Collection Date:**	5/8/2007 3:25:00 PM
Lab ID:	0705681-023	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	13	1.0		mg/L		1	5/15/2007 1:22 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355627 MW-31D
Project:	92144108	**Collection Date:**	5/8/2007 3:15:00 PM
Lab ID:	0705681-024	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	7.4	1.0		mg/L		1	5/15/2007 1:37 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355528 MW-32
Project:	92144108	**Collection Date:**	5/8/2007 2:30:00 PM
Lab ID:	0705681-025	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	2.6	1.0		mg/L		1	5/15/2007 1:52 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355536 MW-33I
Project:	92144108	**Collection Date:**	5/8/2007 2:30:00 PM
Lab ID:	0705681-026	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	3.3	1.0		mg/L		1	5/15/2007 2:07 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355544 MW-34D
Project:	92144108	**Collection Date:**	5/8/2007 2:15:00 PM
Lab ID:	0705681-027	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	15	1.0		mg/L		1	5/15/2007 2:21 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355551 MW-35I
Project:	92144108	**Collection Date:**	5/8/2007 12:00:00 PM
Lab ID:	0705681-028	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	5.4	1.0		mg/L		1	5/15/2007 2:36 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355569 MW-36D
Project:	92144108	**Collection Date:**	5/8/2007 12:00:00 PM
Lab ID:	0705681-029	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	1.5	1.0		mg/L		1	5/15/2007 2:51 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355585 MW-37DD
Project:	92144108	**Collection Date:**	5/8/2007 11:55:00 AM
Lab ID:	0705681-030	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	11	1.0		mg/L		1	5/15/2007 3:50 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355593 MW-38
Project:	92144108	**Collection Date:**	5/8/2007 1:30:00 PM
Lab ID:	0705681-031	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/15/2007 4:04 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355627 MW-39I
Project:	92144108	**Collection Date:**	5/8/2007 1:35:00 PM
Lab ID:	0705681-032	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/15/2007 4:19 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355528 MW-40D
Project:	92144108	**Collection Date:**	5/8/2007 2:50:00 PM
Lab ID:	0705681-033	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	4.8	1.0		mg/L		1	5/15/2007 4:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355528 MW-41I
Project:	92144108	**Collection Date:**	5/8/2007 12:15:00 PM
Lab ID:	0705681-034	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	4.6	1.0		mg/L		1	5/15/2007 5:03 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355544 MW-42D
Project:	92144108	**Collection Date:**	5/8/2007 12:20:00 PM
Lab ID:	0705681-035	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	2.3	1.0		mg/L		1	5/15/2007 5:18 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *16-May-07*

CLIENT:	Pace Analytical Services, Inc.	**Client Sample ID:**	928355551 MW-47
Project:	92144108	**Collection Date:**	5/8/2007 11:59:00 PM
Lab ID:	0705681-036	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
ION SCAN			**SW9056**				Analyst: **CT**
Sulfate	BRL	1.0		mg/L		1	5/15/2007 5:32 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

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May 21, 2007

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Dear Mr. Shane:

Enclosed are the analytical results for sample(s) received by the laboratory on May 9, 2007. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Andy Stevens
andy.stevens@pacelabs.com
Project Manager

Enclosures

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355684 Project Sample Number: 92144108-012 Date Collected: 05/08/07 15:30
Client Sample ID: MW-4 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:12	JMW			

Date: 05/21/07

Asheville Certification IDs
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SC Environmental 99030
FL NELAP E87648

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355692 Project Sample Number: 92144108-013 Date Collected: 05/08/07 11:00
Client Sample ID: MW-5 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.46	mg/l	0.10	05/09/07 18:12	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355700 Project Sample Number: 92144108-014 Date Collected: 05/08/07 16:00
Client Sample ID: MW-6 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:12	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355718 Project Sample Number: 92144108-015 Date Collected: 05/08/07 10:45
Client Sample ID: MW-12 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.84	mg/l	0.10	05/09/07 18:12	JMW			

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Fax: 704.875.9091

Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355742 Project Sample Number: 92144108-016 Date Collected: 05/08/07 14:00
Client Sample ID: MW-13R Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:12	JMW			

Date: 05/21/07

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355759 Project Sample Number: 92144108-017 Date Collected: 05/08/07 12:00
Client Sample ID: MW-14R Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.87	mg/l	0.10	05/09/07 18:42	JMW			

Asheville Certification IDs
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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355767 Project Sample Number: 92144108-018 Date Collected: 05/08/07 12:05
Client Sample ID: MW-14R2 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355775 Project Sample Number: 92144108-019 Date Collected: 05/08/07 15:40
Client Sample ID: MW-15R Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	1.4	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355783 Project Sample Number: 92144108-020 Date Collected: 05/08/07 15:00
Client Sample ID: MW-26I Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.58	mg/l	0.10	05/09/07 18:42	JMW			

Date: 05/21/07

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355791 Project Sample Number: 92144108-021 Date Collected: 05/08/07 15:45
Client Sample ID: MW-28DD Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355809 Project Sample Number: 92144108-022 Date Collected: 05/08/07 15:35
Client Sample ID: MW-29 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355817 Project Sample Number: 92144108-023 Date Collected: 05/08/07 15:25
Client Sample ID: MW-30I Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355825 Project Sample Number: 92144108-024 Date Collected: 05/08/07 15:15
Client Sample ID: MW-31D Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355833 Project Sample Number: 92144108-025 Date Collected: 05/08/07 14:30
Client Sample ID: MW-32 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355841 Project Sample Number: 92144108-026 Date Collected: 05/08/07 14:30
Client Sample ID: MW-33I Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355858 Project Sample Number: 92144108-027 Date Collected: 05/08/07 14:15
Client Sample ID: MW-34D Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.17	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355866 Project Sample Number: 92144108-028 Date Collected: 05/08/07 12:00
Client Sample ID: MW-35I Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355874 Project Sample Number: 92144108-029 Date Collected: 05/08/07 12:00
Client Sample ID: MW-36D Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355882 Project Sample Number: 92144108-030 Date Collected: 05/08/07 11:55
Client Sample ID: MW-37DD Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355890 Project Sample Number: 92144108-031 Date Collected: 05/08/07 13:30
Client Sample ID: MW-38 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.15	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355908 Project Sample Number: 92144108-032 Date Collected: 05/08/07 13:35
Client Sample ID: MW-39I Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:42	JMW			

Date: 05/21/07

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355916 Project Sample Number: 92144108-033 Date Collected: 05/08/07 14:50
Client Sample ID: MW-40D Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.11	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355924 Project Sample Number: 92144108-034 Date Collected: 05/08/07 12:15
Client Sample ID: MW-41I Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.40	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355932 Project Sample Number: 92144108-035 Date Collected: 05/08/07 12:20
Client Sample ID: MW-42D Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.13	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355528 Project Sample Number: 92144108-001 Date Collected: 05/08/07 10:30
Client Sample ID: MW-43 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.71	mg/l	0.10	05/09/07 18:12	JMW			

Date: 05/21/07

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355536 Project Sample Number: 92144108-002 Date Collected: 05/08/07 10:45
Client Sample ID: MW-44I Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.72	mg/l	0.10	05/09/07 18:12	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355544 Project Sample Number: 92144108-003 Date Collected: 05/08/07 15:00
Client Sample ID: MW-46 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.45	mg/l	0.10	05/09/07 18:12	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355940 Project Sample Number: 92144108-036 Date Collected: 05/08/07 00:00
Client Sample ID: MW-47 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.53	mg/l	0.10	05/09/07 18:42	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355551 Project Sample Number: 92144108-004 Date Collected: 05/08/07 11:15
Client Sample ID: MW-49 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.18	mg/l	0.10	05/09/07 18:12	JMW			

Date: 05/21/07

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355569 Project Sample Number: 92144108-005 Date Collected: 05/08/07 10:50
Client Sample ID: MW-50 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.54	mg/l	0.10	05/09/07 18:12	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355577 Project Sample Number: 92144108-006 Date Collected: 05/08/07 13:35
Client Sample ID: MW-52 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	2.2	mg/l	0.10	05/09/07 18:12	JMW			

Date: 05/21/07

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355585 Project Sample Number: 92144108-007 Date Collected: 05/08/07 15:45
Client Sample ID: MW-53 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.53	mg/l	0.10	05/09/07 18:12	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355593 Project Sample Number: 92144108-008 Date Collected: 05/08/07 10:15
Client Sample ID: MW-55 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.56	mg/l	0.10	05/09/07 18:12	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355627 Project Sample Number: 92144108-009 Date Collected: 05/08/07 10:20
Client Sample ID: MW-57I Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	0.75	mg/l	0.10	05/09/07 18:12	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355635 Project Sample Number: 92144108-010 Date Collected: 05/08/07 13:30
Client Sample ID: MW-58 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:12	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

Lab Sample No: 928355643 Project Sample Number: 92144108-011 Date Collected: 05/08/07 13:35
Client Sample ID: MW-59 Matrix: Water Date Received: 05/09/07 09:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/09/07 18:12	JMW			

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Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

PARAMETER FOOTNOTES

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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Phone: 704.875.9092
Fax: 704.875.9091

QUALITY CONTROL DATA

Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

QC Batch: 188217
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 48 Hour NO3 / NO2 / NOX
Associated Lab Samples: 928355528 928355536 928355544 928355551 928355569 928355577 928355585 928355593 928355627 928355635 928355643 928355684 928355692 928355700 928355718 928355742

METHOD BLANK: 928358431
Associated Lab Samples: 928355528 928355536 928355544 928355551 928355569 928355577 928355585 928355593 928355627 928355635 928355643 928355684 928355692 928355700 928355718 928355742

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Nitrate as N	mg/l	ND	0.10	

LABORATORY CONTROL SAMPLE: 928358449

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Nitrate as N	mg/l	5.000	5.040	101	

MATRIX SPIKE: 928358670

Parameter	Units	928354729 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Nitrate as N	mg/l	15.24	5.000	19.88	93	

SAMPLE DUPLICATE: 928358688

Parameter	Units	928354737 Result	DUP Result	RPD	Footnotes
Nitrate as N	mg/l	ND	ND	NC	

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
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Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

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Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

QUALITY CONTROL DATA

Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

QC Batch: 188218 — Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 — Analysis Description: 48 Hour NO3 / NO2 / NOX
Associated Lab Samples: 928355759, 928355767, 928355775, 928355783, 928355791, 928355809, 928355817, 928355825, 928355833, 928355841, 928355858, 928355866, 928355874, 928355882, 928355890, 928355908, 928355916, 928355924, 928355932, 928355940

METHOD BLANK: 928358472
Associated Lab Samples: 928355759, 928355767, 928355775, 928355783, 928355791, 928355809, 928355817, 928355825, 928355833, 928355841, 928355858, 928355866, 928355874, 928355882, 928355890, 928355908, 928355916, 928355924, 928355932, 928355940

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Nitrate as N	mg/l	ND	0.10	

LABORATORY CONTROL SAMPLE: 928358480

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Nitrate as N	mg/l	5.000	5.300	106	

MATRIX SPIKE: 928358498

Parameter	Units	928355759 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Nitrate as N	mg/l	0.8700	5.000	6.120	105	

SAMPLE DUPLICATE: 928358506

Parameter	Units	928355767 Result	DUP Result	RPD	Footnotes
Nitrate as N	mg/l	ND	ND	NC	

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

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Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 92144108
Client Project ID: COUNTRY SIDE #2

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

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Charlotte Certification IDs
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NC Drinking Water 37706
SC 99006
FL NELAP E87627

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 6

1066905

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Midlands Environmental Consultants	Report To: B. Shane	Attention:
Address: 235-B Dooley Rd. Lexington, SC 29073	Copy To:	Company Name:
		Address:
Email To: WCM@meci.net	Purchase Order No.:	Pace Quote Reference:
Phone: 803-808-2043 Fax: 803-808-2048	Project Name: Countryside 2	Pace Project Manager: Andy Stevens
Requested Due Date/TAT:	Project Number: 07-1121	Pace Profile #: 4449-[illegible]5

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☒ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC

Section D Required Client Information

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW WT; WATER WW P; WASTE WATER SL; PRODUCT OL; SOIL/SOLID WP; OIL AR; WIPE OT; AIR TS; OTHER; TISSUE

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Btex, Naph, Mtbe 8260-B	EDB 8011	Total Lead	1,2 DCA-Oxygenate	Nitrate	Sulfate	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MWR-1A	WT				5/8	545												X	X	X	X	X	X		[illegible]
2	MWR-2						500																X	X		454
3	MWR-3						515																X	X		466
4	~~MWR-4~~																									
5	~~MWR-4 #2~~																									
6	MW-4						315																			415
7	MW-5						1100																			496
8	MW-6						400																			512
9	MW-7						615																X	X		501
10	MW-7R						615																X	X		507
11	MW-9R						630																X	X		611
12	MW-11	WT				5/8	645												X	X	X	X	X	X		641

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature]	5/9/7	1105	[signature]	5/9/7	1115	
Add to Nitrates Sulfate	[signature]	5/9/7	1230	[signature]	05/09/07	1230	
Sent to Asheville	[signature]	05/09/07	1550	[signature]	5/9/07	[illegible]	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brandon Kelly

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 5/9/07

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

3

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.06, 2-Feb-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: MECI	Report To: Bryan Shane	Attention: Bryan Shane
Address: 235-B Dooley Road	Copy To:	Company Name: MECI
Lexington, SC 29073		Address: 235-B Dooley Road
Email To: wcm@meci.net	Purchase Order No.:	Pace Quote Reference: See MECI pricing
Phone: 803-808-2043 Fax: 803-808-2048	Project Name: Country Side #2	Pace Project Manager: Andy Stevens
Requested Due Date/TAT: 5 DAY TAT	Project Number: 07-1121	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☒ SC ☐ WI ☐ OTHER____

Filtered (Y/N)

Requested Ana

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEX/MN+12DCA&Oxy's	EDB by 8011	Nitrate	Sulfate	Total Lead by 6010	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	[redacted]	WT	G						9	2		1	6					X	X	X	X	X		
2	[redacted]	WT	G						9	2		1	6					X	X	X	X	X		
3	[redacted]	WT	G						9	2		1	6					X	X	X	X	X		
4	MW-12	WT	G			5/8	1115		9	2		1	6					X	X	X	X	X	92835 9660	
5	[redacted]	WT	G				—		9	2		1	6					X	X	X	X	X		
6	MW-13R	WT	G				200		9	2		1	6					X	X	X	X	X		752
7	[redacted]	WT	G				[illegible]		9	2		1	6					X	X	X	X	X		
8	MW-14R	WT	G				1205		9	2		1	6					X	X	X	X	X		726
9	MW-14R2	WT	G				1200		9	2		1	6					X	X	X	X	X	751	~~744~~ 5/9/07
10	MW-15R	WT	G				340		9	2		1	6					X	X	X	X	X		769
11	MW-16DD	WT	G				530		9	2		1	6					X	X	X	X	X		777
12	MW-17I	WT	G			5/8	500		9	2		1	6					X	X	X	X	X		785

92149200

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Add to NO_3s	[signature]	5/9/07	915	[signature]	5/9/7	915
	[signature]	5/9/7	1230	[signature] / Pace	05/09/07	1230
	[signature] / Pace	05/09/07	1550	[signature]	5/9/07	15:50

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
4.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: JEFF COLEMAN

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 5/9/07

e-File(ALLQ020rev.4,29Mar06)22Jun2005

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CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: MECI	Report To: Bryan Shane	Attention: Bryan Shane
Address: 235-B Dooley Road	Copy To:	Company Name: MECI
Lexington, SC 29073		Address: 235-B Dooley Road
Email To: wcm@meci.net	Purchase Order No.:	Pace Quote Reference: See MECI pricing
Phone: 803-808-2043 Fax: 803-808-2048	Project Name: Country Side #2	Pace Project Manager: Andy Stevens
Requested Due Date/TAT: 5 DAY TAT	Project Number: 07-1121	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☒ SC ☐ WI ☐ OTHER____

Filtered (Y/N)

Requested Ana

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEX/MN+12DCA&Oxy's	EDB by 8011	Nitrate	Sulfate	Total Lead by 6010	Residual Chlorine (Y/N)	Pace Project No. Lab I.D. 92149220
1	mw-18D	WT	G			5/8	445		9	2		1	6					X	X	X	X	X		92C 359793
2	MW-19i	WT	G				500		9	2		1	6					X	X	X	X	X		C01
3	MW-20D	WT	G				500		9	2		1	6					X	X	X	X	X		C19
4	MW-21i	WT	G				515		9	2		1	6					X	X	X	X	X		C27
5	MW-22D	WT	G				515		9	2		1	6					X	X	X	X	X		C35
6	MW-23	WT	G				530		9	2		1	6					X	X	X	X	X		C43
7	MW-24	WT	G				530		9	2		1	6					X	X	X	X	X		C50
8	MW-25	WT	G				545		9	2		1	6					X	X	X	X	X		C6C
9	MW-26i	WT	G				345		9	2		1	6					X	X	X	X	X		C76
10	MW-28DD	WT	G				345		9	2		1	6					X	X	X	X	X		CCA
11	MW-29	WT	G				335		9	2		1	6					X	X	X	X	X		C92
12	MW-30i	WT	G			5/8	325		9	2		1	6					X	X	X	X	X		900

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
Add to NO3's	[signature]	5/9	915	[signature]	5/9/7	9:15		Y/N	Y/N	Y/N
	[signature]	5/9/7	1230	[signature] / Pace	05/09/07	1230		Y/N	Y/N	Y/N
	[signature] / Pace	05/09/07	1550	[signature]	5/9/07	15:50	4.0	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: JEFF COLEMAN

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 5/9/07

e-File(ALLQ020rev.4,29Mar06)22Jun2005

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CHAIN-OF-CUSTODY / Analytical Request Document

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Section A — Required Client Information:

Company:	MECI
Address:	235-B Dooley Road
	Lexington, SC 29073
Email To:	wcm@meci.net
Phone:	803-808-2043 Fax: 803-808-2048
Requested Due Date/TAT:	5 DAY TAT

Section B — Required Project Information:

Report To:	Bryan Shane
Copy To:	
Purchase Order No.:	
Project Name:	Country Side #2
Project Number:	07-1121

Section C — Invoice Information:

Attention:	Bryan Shane
Company Name:	MECI
Address:	235-B Dooley Road
Pace Quote Reference:	See MECI pricing
Pace Project Manager:	Andy Stevens
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☒ SC ☐ WI ☐ OTHER____

Section D — Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analyses: BTEX/MN+12DCA&Oxy's	EDB by 8011	Nitrate	Sulfate	Total Lead by 6010	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	MW-31D	WT	G			5/8	315		9	2		1	6					X	X	X	X	X		910
2	MW-32	WT	G				230		9	2		1	6					X	X	X	X	X		926
3	MW-33i	WT	G				230		9	2		1	6					X	X	X	X	X		934
4	MW-34D	WT	G				215		9	2		1	6					X	X	X	X	X		942
5	MW-35i	WT	G				1200		9	2		1	6					X	X	X	X	X		955
6	MW-36D	WT	G				1200		9	2		1	6					X	X	X	X	X		947
7	MW-37DD	WT	G				1155		9	2		1	6					X	X	X	X	X		935
8	MW-38	WT	G				130		9	2		1	6					X	X	X	X	X		903
9	MW-39i	WT	G				135		9	2		1	6					X	X	X	X	X		991
10	MW-40D	WT	G				250		9	2		1	6					X	X	X	X	X		007
11	MW-41i	WT	G				1215		9	2		1	6					X	X	X	X	X		015
12	MW-42D	WT	G			5/8	1220		9	2		1	6					X	X	X	X	X		023

9219210 — Pace Project No. / Lab I.D.

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Add to MS's		5/9	915		5/9/07	915
		5/9/07	1230		05/09/07	1230
		05/09/07	1550		5/9/07	15:50

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
4.9	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: JEFF COLEMAN

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 5/9/07

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Address: 235-B Dooley Road	Copy To:	Company Name: MECI
Lexington, SC 29073		Address: 235-B Dooley Road
Email To: wcm@meci.net	Purchase Order No.:	Pace Quote Reference: See MECI pricing
Phone: 803-808-2043 Fax: 803-808-2048	Project Name: Country Side #2	Pace Project Manager: Andy Stevens
Requested Due Date/TAT: 5 DAY TAT	Project Number: 07-1121	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☒ SC ☐ WI ☐ OTHER____

Filtered (Y/N)

Requested Ana

Section D Required Client Information

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEX/MN+12DCA&Dry's	EDB by 8011	Nitrate	Sulfate	Total Lead by 6010	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	MW-43	WT	G				1030		9	2		1	6					X	X	X	X	X	928366	031
2	MW-44i	WT	G				1045		9	2		1	6					X	X	X	X	X		049
3	MW-46	WT	G				300		9	2		1	6					X	X	X	X	X		056
4	MW-47	WT	G				1115		9	2		1	6					X	X	X	X	X		064
5	MW-49	WT	G				1115		9	2		1	6					X	X	X	X	X		072
6	MW-50	WT	G				1050		9	2		1	6					X	X	X	X	X		080
7	MW-51	WT	G				430		9	2		1	6					X	X	X	X	X		106
8	MW-52	WT	G				335		9	2		1	6					X	X	X	X	X		114
9	MW-53	WT	G				345		9	2		1	6					X	X	X	X	X		122
10	MW-54	WT	G				1015		9	2		1	6					X	X	X	X	X		130
11	MW-55	WT	G				1020		9	2		1	6					X	X	X	X	X		148
12	MW-57i	WT	G				1030		9	2		1	6					X	X	X	X	X		155

92149210

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Add to NO_3's	[signature]	5/9	915	[signature]	5/9/7	915		Y/N	Y/N	Y/N
	[signature]	5/9/7	1230	[signature] Pace	05/09/07	1230		Y/N	Y/N	Y/N
	[signature] Pace	05/09/07	1550	[signature]	5/9/07	15:10	9.8	Y/N	Y/N	Y/N
							Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: JEFF COLEMAN

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 5/9/07

e-File(ALLQ020rev.4,29Mar06)22Jun2005

Pace Analytical™
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: MECI	Report To: Bryan Shane	Attention: Bryan Shane
Address: 235-B Dooley Road	Copy To:	Company Name: MECI
Lexington, SC 29073		Address: 235-B Dooley Road
Email To: wcm@meci.net	Purchase Order No.:	Pace Quote Reference: See MECI pricing
Phone: 803-808-2043 Fax: 803-808-2048	Project Name: Country Side #2	Pace Project Manager: Andy Stevens
Requested Due Date/TAT: 5 DAY TAT	Project Number: 07-1121	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION

☐ GA ☐ IL ☐ IN ☐ MI ☐ NC
☐ OH ☒ SC ☐ WI ☐ OTHER____

Filtered (Y/N)

Requested Ana

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEX/MN+12DCA & Oxy's	EDB 8011	Nitrate	Sulfate	Total lead 6010	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	MW-58	WT	G			5/8	130		9	2		1	6					X	X	X	X	X		163
2	MW-59	WT	G			↓	135		9	2		1	6					X	X	X	X	X		171
3	SW-1	WT	G			5/8	615		3				3					X						169
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

92199210

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Add to NO_3's	[signature]	5/9	915	[signature]	5/9/7	9:15
	[signature]	5/9/7	1230	[signature] / Pace	05/09/07	1230
	[signature] / Pace	05/09/07	1550	[signature]	5/9/07	15:10

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
4.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: JEFF COLEMAN

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 5/9/07

e-File(ALLQ020rev.4,29Mar06)22Jun2005

WASTE DISPOSAL MANIFESTS

WASTE MANAGEMENT

SPECIAL WASTE MANIFEST

WASTE ID # VA2718

EXPIRATION DATE: September 14, 2007

RICHLAND LANDI
1047 Hwy Church Rd
Elgin, SC 29045
(803)788-3054
(803)736-0995-Fax

PREPARED BY CAROL WELDON (205)-652-8186

GENERATOR OF WASTE: M.E.I.C. (Midlands Environmental Consultants, Inc)

CUSTOMER ACCOUNT: MIDLANDS ENV/ 820-469

LOCATION OF WASTE : 1144 Old Two Notch Road

PHONE # 803-808-2043 CONTACT: Bryan Shane

FAX # 803-808-2048

GENERATOR'S SIGNATURE (MECI) DATE: 3/20/07

TRANSPORTER OF WASTE MECI

DATE: 3/20/07 TRUCK NO. 1

DRIVER'S SIGNATURE

**** TO BE COMPLETED BY RICHLAND LANDFILL ****

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC

DESCRIPTION OF WASTE SOIL from UST Assessment Soil

TICKET NO.# 790485 TONNAGE 2.24

RECEIVED BY

County Side 2

WASTE MANAGEMENT

Richland County LF
1047 Highway Church Road
Elgin, SC, 29045
Ph: (803) 788-3054

Original
Ticket# 790495

Customer Name MIDLANDSENVIRON MIDLANDS ENVI
Ticket Date 03/20/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 0
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENVIRON MIDLANDS ENVIRONMENT
Vehicle# 1
Container
Driver
Check#
Billing # 0000469
Gen EPA ID

Volume

	Time	Scale	Operator
In	03/20/2007 08:34:01	Scale2	kenny1
Out	03/20/2007 09:44:31	Scale1	kenny1

Gross	11440	lb
Tare	6960	lb
Net	4480	lb
Tons	2.24	

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	SOIL-Cont. Soil -	100	2.24	Tons				32-LEXINGT
2	FUEL-Fuel Surcharg	100		%				32-LEXINGT
3	ENV-ENVIRONMENTAL	100		%				32-LEXINGT

Total Fees
Total Ticket

SIGNATURE

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

1350

Gate Ticket No. J78613

NON-HAZARDOUS WASTE MANIFEST 84732

GENERATOR

Generator: Midlands Environ. Consultants
Shipping Location
Street:

City: State:

County:

Phone: ( )

Mailing Address
(Return completed manifest to:)
Street or P.O. Box: 235 B. Pooley Rd

City: Lexington

State: SC Zip Code: 29073

Phone: (803) 808 2043

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
	VA2718			
	1,47			

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Robert Johnson — Generator Authorized Agent Name (Print)

Signature

3-20-07 — Delivery Date

TRANSPORTER

Transporter Name Robert Johnson
Address 235 B. Pooley Rd
Lexington, SC 29073

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Driver Signature — 3-20-07 Shipment Date

Driver Name (Print) Robert Johnson
Truck Number 1

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

Driver Signature — 3-20-07 Delivery Date

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North M West J1 Level 875

I hereby acknowledge receipt of the above described materials.

JR — Name of Authorized Agent (Print)

Signature

Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 378113

Customer Name MIDLANDS ENVIRONMENTAL CONSUL
Ticket Date 03/20/2007
Payment Type Credit Account
Hauling Ticket#
Route
State Waste Code
Manifest MIDLANDS
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENV MIDL
Vehicle# 1
Container
Check#
Billing # 0001433
Gen EPA ID
Manual Ticket #

Volume

	Time	Scale	Operator
In	03/20/2007 14:47:57	MANUAL WT	GRANDPA1
Out	03/20/2007 15:10:35	Scale3	GRANDPA1

Gross	12340 lb
Tare	9400 lb
Net	2940 lb
Tons	1.47

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	1.47	Tons	32.54		$47.83	OCONEE
2	FUEL-Fuel Surcharg	100		%	3.81		$1.91	OCONEE
3	HF-SPARTANBURG COU	100	1.47	Tons	1.00		$1.47	OCONEE
4	ENV-ENVIRONMENTAL	100		%	2.00		$0.96	OCONEE

Total Fees
Total Ticket $52.17

Signature

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. 37855

NON-HAZARDOUS WASTE MANIFEST 84733

GENERATOR

Generator: Midlands Environmental Consultants
Shipping Location
Street: _____
City: _____ State: _____
County: _____
Phone: (_____) _____

Mailing Address
(Return completed manifest to:)
Street or P.O. Box: 235 B. Dooley Rd
City: Lexington
State: SC Zip Code: 29073
Phone: (803) 808 2043

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
	VA2718			
	4149			

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Robert Johnson — Generator Authorized Agent Name (Print)
Signature
3-21-07 — Delivery Date

TRANSPORTER

Transporter Name Robert Johnson
Address 235 B Dooley Rd
Lex. SC 29073

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Driver Signature
3-21 — Shipment Date

Driver Name (Print) Robert Johnson
Truck Number 1

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

Driver Signature
3-21-07 — Delivery Date

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North M West J1 Level 875

I hereby acknowledge receipt of the above described materials.

JC — Name of Authorized Agent (Print)
Signature
3/21/07 — Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 378353

Customer Name MIDLANDS ENVIRONMENTAL CONSUL
Ticket Date 03/21/2007
Payment Type Credit Account
Hauling Ticket#
Route
State Waste Code
Manifest MIDLAND
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENV MIDL
Vehicle# 1
Container
Check#
Billing # 0001433
Gen EPA ID
Manual Ticket #

Volume

	Time	Scale	Operator
In	03/21/2007 14:21:05	Scale1	DAVID1
Out	03/21/2007 14:55:42	Scale3	DAVID1

Gross	18520	lb
Tare	9540	lb
Net	8980	lb
Tons	4.49	

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	4.49	Tons	32.54		$146.10	OCONEE
2	FUEL-Fuel Surcharg	100		%	3.81		$5.85	OCONEE
3	HF-SPARTANBURG COU	100	4.49	Tons	1.00		$4.49	OCONEE
4	ENV-ENVIRONMENTAL	100		%	2.00		$2.92	OCONEE

Total Fees
Total Ticket $159.36

Signature

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

10680

Gate Ticket No. _____

NON-HAZARDOUS WASTE MANIFEST 099552

GENERATOR

Generator: Robert Johnson
Shipping Location Street: 235 B. Dooley Rd
City: Lexington State: SC
County: Lexington
Phone: (803) 808 2043

Mailing Address (Return completed manifest to:)
Street or P.O. Box: _____
City: _____
State: _____ Zip Code: _____
Phone: (_____) _____

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
soil	VA 2718			
	168			

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name (Print) | Signature | Delivery Date

TRANSPORTER

Transporter Name Robert Johnson
Address 235 B. Dooley Rd
Lex. SC 29073

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Driver Signature 8.22 | Shipment Date

Driver Name (Print) Robert Johnson
Truck Number 1

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

Driver Signature 8.22 | Delivery Date

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North _____ West _____ Level _____

I hereby acknowledge receipt of the above described materials.

Name of Authorized Agent (Print) | Signature | Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 378842

Customer Name MIDLANDS ENVIRONMENTAL CONSUL
Ticket Date 03/23/2007
Payment Type Credit Account
Hauling Ticket#
Route
State Waste Code
Manifest MIDLANDS
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENV MIDL
Vehicle# 1
Container
Check#
Billing # 0001433
Gen EPA ID
Manual Ticket #

Volume

	Time	Scale	Operator
In	03/23/2007 13:43:48	MANUAL WT	GRANDPA1
Out	03/23/2007 14:22:09	Scale3	GRANDPA1

Gross	10600	lb
Tare	9320	lb
Net	1360	lb
Tons	0.68	

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	0.68	Tons	32.54		$22.13	SPARTANBUR
2	FUEL-Fuel Surcharg	100		%	3.81		$0.89	SPARTANBUR
3	HF-SPARTANBURG COU	100	0.68	Tons	1.00		$0.68	SPARTANBUR
4	ENV-ENVIRONMENTAL	100		%	2.00		$0.44	SPARTANBUR

Total Fees
Total Ticket $24.14

Signature

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. 37855

NON-HAZARDOUS WASTE MANIFEST

84734

GENERATOR

Generator: Midlands Environmental Consultants Inc
Shipping Location
Street: 235 B Dorsey Rd
City: Lexington State: S.C.
County: Lexington
Phone: (803) 808 2043

Mailing Address
(Return completed manifest to:)
Street or P.O. Box: _____
City: _____
State: _____ Zip Code: _____
Phone: (___) _____

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
Soil from UST Assessment	VA 2718			
	20.1			

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Brandon Guiles — Generator Authorized Agent Name (Print)
Signature
3/22/07 — Delivery Date

TRANSPORTER

Transporter Name _____
Address _____

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Driver Signature — Shipment Date

Driver Name (Print) _____
Truck Number _____

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and
were transported without incident, to the destination as stated on this form.

Driver Signature
3/22/07 — Delivery Date

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North M West 31 Level 856

I hereby acknowledge receipt of the above described materials.

Kathy Metcalf — Name of Authorized Agent (Print)
Kathy Metcalf 3/22/07 — Signature / Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 378552

Customer Name MIDLANDS ENVIRONMENTAL CONSUL Carrier MIDLANDSENV MIDL
Ticket Date 03/22/2007 Vehicle# 1 Volume
Payment Type Credit Account Container
Hauling Ticket# Check#
Route Billing # 0001433
State Waste Code Gen EPA ID
Manifest MIDLANDS Manual Ticket #
Destination
PO
Profile VA2710 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

	Time	Scale	Operator
In	03/22/2007 11:50:29	Scale1	KATHY7
Out	03/22/2007 12:10:06	Scale3	KATHY7

Gross	13200	lb
Tare	9180	lb
Net	4020	lb
Tons	2.01	

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	2.01	Tons	32.54		$65.41	LEXINGTON
2	FUEL-Fuel Surcharg	100		%	3.81		$2.62	LEXINGTON
3	HF-SPARTANBURG COU	100	2.01	Tons	1.00		$2.01	LEXINGTON
4	ENV-ENVIRONMENTAL	100		%	2.00		$1.31	LEXINGTON

Total Fees
Total Ticket $71.35

Signature

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. _____

NON-HAZARDOUS WASTE MANIFEST

099551

GENERATOR

Generator: McClards Environmental Consultants
Shipping Location
Street: 235 B - Dooey Rd
City: Lexington State: SC
County: _____
Phone: (803) 808 2043

Mailing Address
(Return completed manifest to:)
Street or P.O. Box: _____
City: Lexington
State: SC Zip Code: 29073
Phone: (803) 808 2043

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
	VA2718			
	4.15			

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name (Print) _____ Signature _____ Delivery Date 3-22-20

TRANSPORTER

Transporter Name _____
Address _____

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Driver Signature _____ Shipment Date _____

Driver Name (Print) _____
Truck Number _____

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

Driver Signature _____ Delivery Date 3-27

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North M West 31 Level 865

I hereby acknowledge receipt of the above described materials.

Name of Authorized Agent (Print) DE Signature DE 23 March Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

AL101

WHITE - ORIGINAL • YELLOW - TRANSPORTER RETAIN • PINK - LANDFILL RETAIN • GOLD - GENERATOR RETAIN

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 378002

Customer Name MIDLANDS ENVIRONMENTAL CONSUL
Ticket Date 03/23/2007
Payment Type Credit Account
Hauling Ticket#
Route
State Waste Code
Manifest MIDLANDS
Destination
PO
Profile VA2710 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENV MIDL
Vehicle# 1
Container
Check#
Billing # 0001433
Gen EPA ID
Manual Ticket #

Volume

	Time	Scale	Operator
In	03/23/2007 12:17:37	Scale1	KATHY7
Out	03/23/2007 12:40:42	Scale3	GRANDPA1

Gross	18760	lb
Tare	10460	lb
Net	8300	lb
Tons	4.15	

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	4.15	Tons	32.54		$135.04	LEXINGTON
2	FUEL-Fuel Surcharg	100		%	3.01		$5.41	LEXINGTON
3	HF-SPARTANBURG COU	100	4.15	Tons	1.00		$4.15	LEXINGTON
4	ENV-ENVIRONMENTAL	100		%	2.00		$2.70	LEXINGTON

Total Fees
Total Ticket $147.30

Signature

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. 380901

NON-HAZARDOUS WASTE MANIFEST

84727

GENERATOR

Generator: Country Side two / midlands Environmental Consultants Inc.
Shipping Location
Street: 8050 W. Oak Hwy
City: Westminster State: SC
County: Oconee
Phone: (803) 808-2043 M.e.c.i.

Mailing Address
(Return completed manifest to:)
Street or P.O. Box:
City:
State: Zip Code:
Phone: ( )

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
Soil	VA2718			
	400			

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name (Print) Signature Delivery Date

TRANSPORTER

Transporter Name Robert Johnson
Address 235 B. Dooley rd. Lex. SC 29073

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

[signature] 4/4/07
Driver Signature Shipment Date

Driver Name (Print) Robert Johnson
Truck Number 1

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

[signature] 4/4/07
Driver Signature Delivery Date

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North I West 74 Level 900

I hereby acknowledge receipt of the above described materials.

DE DE 4Apr07
Name of Authorized Agent (Print) Signature Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (064) 439-0426

Original
Ticket# 380901

Customer Name MIDLANDS ENVIRONMENTAL CONSUL Carrier MIDLANDSENV MIDL
Ticket Date 04/04/2007 Vehicle# 1 Volume
Payment Type Credit Account Container
Hauling Ticket# Check#
Route Billing # 0001433
State Waste Code Gen EPA ID
Manifest MIDLANDS Manual Ticket #
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

	Time	Scale	Operator
In	04/04/2007 15:18:21	Scale1	GRANDPA1
Out	04/04/2007 15:48:28	Scale3	GRANDPA1

Gross	13160 lb
Tare	9160 lb
Net	4000 lb
Tons	2.00

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	2.00	Tons	32.54		$65.00	OCONEE
2	FUEL-Fuel Surcharg	100		%	4.05		$2.77	OCONEE
3	HF-SPARTANBURG COU	100	2.00	Tons	1.00		$2.00	OCONEE
4	ENV-ENVIRONMENTAL	100		%	2.00		$1.30	OCONEE

Total Fees
Total Ticket $71.15

Signature

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. 78625

NON-HAZARDOUS WASTE MANIFEST 84729

GENERATOR

Generator: Country Side Trucking
Shipping Location
Street: Hwy 378
City: Westminster State: SC
County: Oconee
Phone: ( )

Mailing Address
(Return completed manifest to:)
Street or P.O. Box: 235 B. Dooley Rd
City: Lexington
State: SC Zip Code: 29073
Phone: (803) 808 2043

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
Soil	VA2718			
	1647			

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Robert Johnson — Generator Authorized Agent Name (Print)
Signature
4-10-07 — Delivery Date

TRANSPORTER

Transporter Name Robert Johnson
Address 235 B. Dooley Rd
Lex, SC 29073

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Driver Signature
4-10-07 — Shipment Date

Driver Name (Print) Robert Johnson
Truck Number 1

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

Driver Signature
4-10-07 — Delivery Date

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North 1 West 34 Level 900

I hereby acknowledge receipt of the above described materials.

DR — Name of Authorized Agent (Print)
Signature
Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 381625

Customer Name MIDLANDS ENVIRONMENTAL CONSUL
Ticket Date 04/10/2007
Payment Type Credit Account
Hauling Ticket#
Route
State Waste Code
Manifest MIDLAND
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENV MIDL
Vehicle# 1
Container
Check#
Billing # 0001433
Gen EPA ID
Manual Ticket #

Volume

	Time	Scale	Operator
In	04/10/2007 11:10:44	Scale1	KATHY7
Out	04/10/2007 11:35:33	Scale3	KATHY7

Gross	12980 lb
Tare	9640 lb
Net	3340 lb
Tons	1.67

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	1.67	Tons	32.54		$54.34	OCONEE
2	FUEL-Fuel Surcharg	100		%	4.16		$2.38	OCONEE
3	HF-SPARTANBURG COU	100	1.67	Tons	1.00		$1.67	OCONEE
4	ENV-ENVIRONMENTAL	100		%	2.00		$1.09	OCONEE

Total Fees
Total Ticket $59.48

Signature _____

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. JY[illegible]

NON-HAZARDOUS WASTE MANIFEST

099559

GENERATOR

Generator: Country Side two Westminster

Shipping Location
Street: —

City: ✓ State: SC

County: Oconee

Phone: ( )

Mailing Address
(Return completed manifest to:)
Street or P.O. Box: 235 B. Dooley Rd

City: Lexington

State: SC Zip Code: 29073

Phone: (803) 808 2043

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
Soil	VA2718			
	3.63			

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Robert Johnson — Generator Authorized Agent Name (Print)
[signature] — Signature
4-13-07 — Delivery Date

TRANSPORTER

Transporter Name Robert Johnson
Address 235 B Dooley Rd
Cox. SC 29073

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

[signature] — Driver Signature
4-13-07 — Shipment Date

Driver Name (Print) Robert Johnson
Truck Number 1

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

[signature] — Driver Signature
4-13-07 — Delivery Date

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North 1 West 32 Level 971

I hereby acknowledge receipt of the above described materials.

Name of Authorized Agent (Print) JC — Signature [signature] — Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 382273

Customer Name MIDLANDS ENVIRONMENTAL CONSUL
Ticket Date 04/13/2007
Payment Type Credit Account
Hauling Ticket#
Route
State Waste Code
Manifest MIDLAND
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENV MIDL
Vehicle# 1
Container
Check#
Billing # 0001433
Gen EPA ID
Manual Ticket #

Volume

	Time	Scale	Operator
In	04/13/2007 13:59:57	Scale1	DEDGE1
Out	04/13/2007 14:26:50	Scale3	DEDGE1

Gross	16600 lb
Tare	9340 lb
Net	7260 lb
Tons	3.63

Comments

WASTE MANAGEMENT

	Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	3.63	Tons	32.54		$118.12	OCONEE
2	FUEL-Fuel Surcharg	100		%	4.16		$5.16	OCONEE
3	HF-SPARTANBURG COU	100	3.63	Tons	1.00		$3.63	OCONEE
4	ENV-ENVIRONMENTAL	100		%	2.00		$2.36	OCONEE

Total Fees
Total Ticket $129.27

Signature _____

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. 39911

NON-HAZARDOUS WASTE MANIFEST 099560

GENERATOR

Generator: County Side 2
Shipping Location
Street:
City: Westminster State: SC
County:
Phone: ( )

Mailing Address
(Return completed manifest to:)
Street or P.O. Box:
City:
State: Zip Code:
Phone: ( )

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
Soil	WA2718			
	7654			

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name (Print) | Signature | Delivery Date

TRANSPORTER

Transporter Name Midlands Environmental
Address 235 B Dooley Rd
Lexington, SC 29073

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Driver Signature | Shipment Date: 4-18

Driver Name (Print) Robert Johnson
Truck Number 1

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

Driver Signature | Delivery Date: 4-18

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North K West 32 Level 9(7

I hereby acknowledge receipt of the above described materials.

Name of Authorized Agent (Print): JE | Signature: JE Watson | Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

WHITE - ORIGINAL • YELLOW - TRANSPORTER RETAIN • PINK - LANDFILL RETAIN • GOLD - GENERATOR RETAIN

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 382911

Customer Name MIDLANDS ENVIRONMENTAL CONSUL
Ticket Date 04/18/2007
Payment Type Credit Account
Hauling Ticket#
Route
State Waste Code
Manifest MIDLAND
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENV MIDL
Vehicle# 1
Container
Check#
Billing # 0001433
Gen EPA ID
Manual Ticket #

Volume

	Time	Scale	Operator
In	04/18/2007 13:20:43	Scale1	DEDGE1
Out	04/18/2007 13:45:25	Scale3	DEDGE1

Gross	14600 lb
Tare	9480 lb
Net	5120 lb
Tons	2.56

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	2.56	Tons	32.54		$83.30	OCONEE
2	FUEL-Fuel Surcharg	100		%	4.22		$3.69	OCONEE
3	HF-SPARTANBURG COU	100	2.56	Tons	1.00		$2.56	OCONEE
4	ENV-ENVIRONMENTAL	100		%	2.00		$1.67	OCONEE

Total Fees
Total Ticket $91.22

Signature _____

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. _____

NON-HAZARDOUS WASTE MANIFEST 099553

GENERATOR

Generator: Midlands Environmental
Shipping Location
Street: 235-B Dooley Rd
City: Lexington State: S.C.
County: Lexington
Phone: (803) 808-2043

Mailing Address
(Return completed manifest to:)
Street or P.O. Box: _____
City: _____
State: _____ Zip Code: _____
Phone: (____) _____

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
Soil from UST Assessment	VA2718			
	2,94			

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name (Print) _____ Signature _____ Delivery Date _____

TRANSPORTER

Transporter Name B. Guiles
Address _____

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Driver Signature _____ Shipment Date 4/20/07

Driver Name (Print) _____
Truck Number _____

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

Driver Signature _____ Delivery Date _____

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North 1L West 52 Level 917

I hereby acknowledge receipt of the above described materials.

Name of Authorized Agent (Print) JE Signature _____ Receipt Date 4/20/07

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 383350

Customer Name MIDLANDS ENVIRONMENTAL CONSUL
Ticket Date 04/20/2007
Payment Type Credit Account
Hauling Ticket#
Route
State Waste Code
Manifest MIDLANDS
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENV MIDL
Vehicle# 1
Container
Check#
Billing # 0001433
Gen EPA ID
Manual Ticket #

Volume

	Time	Scale	Operator
In	04/20/2007 13:20:44	Scale1	DEDGE1
Out	04/20/2007 13:37:41	Scale3	DEDGE1

Gross	15100	lb
Tare	9620	lb
Net	5480	lb
Tons	2.74	

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	2.74	Tons	32.54		$89.16	LEXINGTON
2	FUEL-Fuel Surcharg	100		%	4.22		$3.95	LEXINGTON
3	MF-SPARTANBURG COU	100	2.74	Tons	1.00		$2.74	LEXINGTON
4	ENV-ENVIRONMENTAL	100		%	2.00		$1.78	LEXINGTON

Total Fees
Total Ticket $97.63

Signature

RECEIVED

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. 384701

NON-HAZARDOUS WASTE MANIFEST 099554

GENERATOR

Generator: _____
Shipping Location
Street: _____

City: _____ State: _____

County: _____

Phone: (___) _____

Mailing Address
(Return completed manifest to:)
Street or P.O. Box: _____

City: _____

State: _____ Zip Code: _____

Phone: (___) _____

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
soil	VA2718	145		

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Robert Johnson _____ _____

Generator Authorized Agent Name (Print) **Signature** **Delivery Date**

TRANSPORTER

Transporter Name _____

Address _____

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

_____

Driver Signature **Shipment Date**

Driver Name (Print) Robert Johnson

Truck Number 1

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

_____ 4/30/07

Driver Signature **Delivery Date**

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North K West 32 Level 917

I hereby acknowledge receipt of the above described materials.

Kathy Metcalf _____ 4/30/07

Name of Authorized Agent (Print) **Signature** **Receipt Date**

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 384701

Customer Name MIDLANDS ENVIRONMENTAL CONSUL
Ticket Date 04/30/2007
Payment Type Credit Account
Hauling Ticket#
Route
State Waste Code
Manifest COUNTY SIDE TWO
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENV MIDL
Vehicle# 1
Container
Check#
Billing # 0001433
Gen EPA ID
Manual Ticket #

Volume

	Time	Scale	Operator
In	04/30/2007 13:07:52	Scale1	KATHY7
Out	04/30/2007 13:24:44	Scale3	KATHY7

Gross	12200 lb
Tare	9300 lb
Net	2900 lb
Tons	1.45

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	1.45	Tons	32.54		$47.18	OCONEE
2	FUEL-Fuel Surcharg	100		%	4.18		$2.07	OCONEE
3	HF-SPARTANBURG COU	100	1.45	Tons	1.00		$1.45	OCONEE
4	ENV-ENVIRONMENTAL	100		%	2.00		$0.94	OCONEE

Total Fees
Total Ticket $51.64

Signature _____

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. 3/9491

NON-HAZARDOUS WASTE MANIFEST 84728

GENERATOR

Generator: Midlands Environmental
Shipping Location
Street: 235-B Duly Rd
City: Lexington State: SC
County: Lexington
Phone: (803) 808-2043

Mailing Address
(Return completed manifest to:)
Street or P.O. Box: PO Box 854
City: Lexington, SC
State: SC Zip Code: 29071
Phone: (803 808-2043

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
Contaminated Soils	VA2718	3.93		
Country Side 2				

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name (Print) | Signature | Delivery Date

TRANSPORTER

Transporter Name
Address

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Driver Signature | Shipment Date

Driver Name (Print) Jeff Coleman
Truck Number 1

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

Driver Signature 5/4/07 Delivery Date

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North 1 West 32 Level 917

I hereby acknowledge receipt of the above described materials.

JC | JC 5/7/07

Name of Authorized Agent (Print) | Signature | Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

WHITE - ORIGINAL - YELLOW - TRANSPORTER RETAIN - PINK - LANDFILL RETAIN - GOLD - GENERATOR RETAIN

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 385491

Customer Name MIDLANDS ENVIRONMENTAL CONSUL
Ticket Date 05/04/2007
Payment Type Credit Account
Hauling Ticket#
Route
State Waste Code
Manifest MIDLANDS
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENV MIDL
Vehicle# 1
Container
Check#
Billing # 0001433
Gen EPA ID
Manual Ticket #

Volume

	Time	Scale	Operator		
In	05/04/2007 11:06:18	Scale1	DEDGE1	Gross	18480 lb
Out	05/04/2007 12:00:12	Scale3	DEDGE1	Tare	10620 lb
				Net	7860 lb
				Tons	3.93

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	3.93	Tons	32.54		$127.88	LEXINGTON
2	FUEL-Fuel Surcharg	100		%	4.09		$5.50	LEXINGTON
3	HF-SPARTANBURG COU	100	3.93	Tons	1.00		$3.93	LEXINGTON
4	ENV-ENVIRONMENTAL	100		%	2.00		$2.56	LEXINGTON

Total Fees
Total Ticket $139.87

Signature

403WM

Crandall

C 120131

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 04112

2. Page 1 of 1

3. Generator's Name and Mailing Address
Crossroads/Countryside#2
8050 West Oak Hwy/ Hwy 24
Westminster, SC 29693

4. Generator's Phone ((803)) 360-7765

5. Transporter 1 Company Name
Crandall Corporation

6. US EPA ID Number
SCD981864499

A. Transporter's Phone
(803) 791-4800

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number
SCD981864499

C. Facility's Phone
(803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste ~~Water~~ drilling mud + Solids	001	TT	Est 00581	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0104112

11a . MID010-001- A

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: + Brandon Guiles
Signature: [signature]
Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: T. Backman
Signature: [signature]
Month Day Year: 03 23 07

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name: Chris Manuel
Signature: [signature]
Month Day Year: 03 23 07

GENERATOR

TRANSPORTER

FACILITY

SPECIAL WASTE MANIFEST

WASTE ID # VA2718

EXPIRATION DATE: November 08, 2006

GENERATOR OF WASTE: MIDLAND ENV. CONSULTANTs,

CUSTOMER ACCOUNT: ACCT.#820-469 (M.E.I.C)

LOCATION OF WASTE : LEXINGTON, SC 29071

PHONE # 803-808-2043 CONTACT: BRYAN SHANE

FAX # 803-808-2048

GENERATOR'S SIGNATURE B.T. Shane DATE: 5/8/06

TRANSPORTER OF WASTE M.E.C.I.

DATE: 5/8/06 TRUCK NO.

DRIVER'S SIGNATURE [signature]

**** TO BE COMPLETED BY RICHLAND LANDFILL ****

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC

DESCRIPTION OF WASTE SOIL FROM UST ASSESSMENT

TICKET NO.# 802007 TONNAGE 1.11

RECEIVED BY [signature]

Country Side # 2-3/4 .83 from Countryside
[illegible] Square - 1/4

WASTE MANAGEMENT

Richland County LF
1047 Highway Church Road
Elgin, SC, 29045
Ph: (803) 788-3054

Original
Ticket# 802017

Customer Name	MIDLANDSENVIRON MIDLANDS ENVI	Carrier	MIDLANDSENVIRON MIDLANDS ENVIRONMENT		
Ticket Date	05/08/2007	Vehicle#	01	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000469		
State Waste Code		Gen EPA ID			
Manifest	0				
Destination					
PO					
Profile	VA2718 (SOIL FROM UST ASSESSMENT)				
Generator	126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL				

	Time	Scale	Operator			
In	05/08/2007 16:01:55	Scale2	bryon	Gross	11520	lb
Out	05/08/2007 16:17:58	Scale1	bryon	Tare	9300	lb
				Net	2220	lb
				Tons	1.11	

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	SOIL-Cont. Soil -	100	1.11	Tons				32-LEXINGT
2	FUEL-Fuel Surcharg	100		%				32-LEXINGT
3	ENV-ENVIRONMENTAL	100		%				32-LEXINGT

Total Fees
Total Ticket

SIGNATURE BT MECI

403WM

Midlands Environmental Consultants, Inc.

June 6, 2007

Re: Treatment of Purge Water
Country Side 2
Westminster, South Carolina
SCDHEC Site ID Number 06742
MECI Project Number 07-1121

To Whom it May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The worst-case well analysis was obtained before usage of the Activated Carbon Unit. The worst-case well analysis shows only petroleum hydrocarbon constituents in the purge/bail water with minimal, background concentrations of lead. The purge/bail water was containerized on site before treatment for less than 30 days prior to treatment.

2. No free-product was detected in any of the purge water drums.

3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

2 – 55-gallon drums were treated on March 30, 2007 at the referenced site.

7 - 55-gallon drums were treated on May 7, 2007 at the referenced site.

A total of nine 55-gallon drums were treated at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Staff Scientist

Midlands
Environmental
Consultants, Inc.

November 5, 2007

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #30052
MECI Project Number 07-1320E

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on October 15, 2007. The event was conducted on monitoring wells MW-1R, MW-8, and MW-54 to remove free phase petroleum product and on monitoring well MW-7 to reduce dissolved CoC concentrations. The event was conducted continuously for eight hours. Free phase petroleum product was detected in monitoring wells MW-1R at a thickness of 0.10 feet, MW-8 at a thickness of 0.02 feet, and in MW-54 at a thickness of 0.07 feet prior to the AFVR event. Free phase petroleum product was not detected in monitoring well MW-7 prior to the AFVR event. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 8.38 pounds or approximately 1.45 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.21 pounds per hour. Concentrations of off gas produced during the event were recorded from 408 parts per million by volume (PPM) to 651 PPM. Measurements were obtained from vapors prior to entering off gas treatment.

UST PROGRAM
DOCKETING # 10

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2E. Monitoring well locations are depicted on attached Figure 1.

A total of 40 gallons of liquid was removed from MW-1R, MW-7, MW-8 and MW-54 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Brandon T. Guiles
Staff Biologist

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1E
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320E
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-1R MW-7 MW-8 MW-54	10/15/07	5:00	0.50	12.0	513	1820	163.80	1.01	0.50
	10/15/07	5:30	0.50	12.0	584	1830	164.70	1.15	0.58
	10/15/07	6:00	0.50	12.0	623	1770	159.30	1.19	0.60
	10/15/07	6:30	0.50	12.0	651	1810	162.90	1.27	0.64
	10/15/07	7:00	0.50	12.0	468	1790	161.10	0.90	0.45
	10/15/07	7:30	0.50	12.0	567	1810	162.90	1.11	0.55
	10/15/07	8:00	0.50	12.0	541	1780	160.20	1.04	0.52
	10/15/07	8:30	0.50	12.0	541	1800	162.00	1.05	0.53
	10/15/07	9:00	0.50	12.0	512	1820	163.80	1.01	0.50
	10/15/07	9:30	0.50	12.0	473	1780	160.20	0.91	0.45
	10/15/07	10:00	0.50	12.0	514	1820	163.80	1.01	0.51
	10/15/07	10:30	0.50	12.0	457	1830	164.70	0.90	0.45
	10/15/07	11:00	0.50	12.0	434	1800	162.00	0.84	0.42
	10/15/07	11:30	0.50	12.0	417	1760	158.40	0.79	0.40
	10/15/07	12:00	0.50	12.0	486	1810	162.90	0.95	0.48
	10/15/07	12:30	0.50	12.0	429	1770	159.30	0.82	0.41
	10/15/07	13:00	0.50	12.0	408	1820	163.80	0.80	0.40
									8.38

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-1R	2"	38	36.43	36.53	0.10	***	36.89	***	0.45
MW-7	2"	40	***	34.96	***	***	35.01	***	0.05
MW-8	2"	40	36.71	36.73	0.02	***	36.28	***	-0.43
MW-54	2"	45	36.13	36.20	0.07	***	36.67	***	0.53

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-1R	36.00
Truck Operator:	B.GUILES	MW-7	5.00
Stack I.D. (feet)	0.33 feet	MW-8	37.00
		MW-54	36.00

Corrected depth to water before AFVR Event in MW-1R = 36.45
Corrected depth to water before AFVR Event in MW-8= 36.71
Corrected depth to water before AFVR Event in MW-54 = 36.14

Recovery / Disposal Information

Hydro carbons Removed (vapor):	8.38	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.45	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	40	Gallons

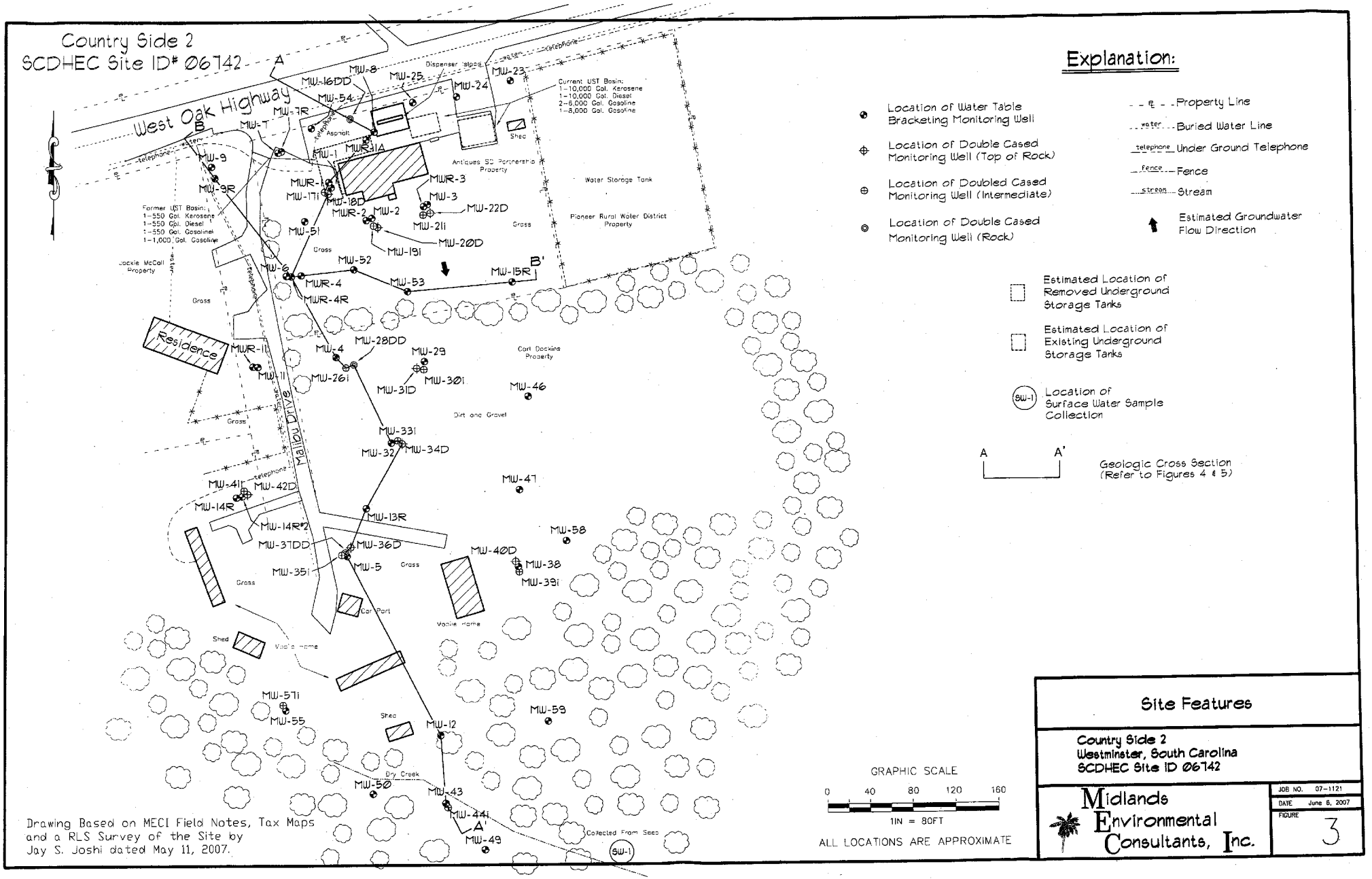
TABLE 2E
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320E
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-9	**MW-11**	**MW-12**
Nearest Extraction Well:		MW-10	MW-10	MW-13
Approximate Distance:		21 ft	22 ft	46 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
5:00	0.0	0	0	0
5:30	0.5	0	0	0
6:00	1.0	0	0	0
6:30	1.5	0	0	0
7:00	2.0	0	0	0
7:30	2.5	0	0	0
8:00	3.0	0	0	0
8:30	3.5	0	0	0
9:00	4.0	0	0	0
9:30	4.5	0	0	0
10:00	5.0	0	0	0
10:30	5.5	0	0	0
11:00	6.0	0	0	0
11:30	6.5	0	0	0
12:00	7.0	0	0	0
12:30	7.5	0	0	0
13:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-9	**MW-11**	**MW-12**
Nearest Extraction Well:		MW-10	MW-10	MW-13
Approximate Distance:		21 ft	22 ft	46 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		29.35	35.49	35.76
9:00	4 hours	29.35	35.56	35.75
13:00	8 hours	29.38	35.63	35.77
Maximum Change:		-0.03	-0.14	-0.01



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Property Line
- Buried Water Line
- Under Ground Telephone
- Fence
- Stream
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- (SW-1) Location of Surface Water Sample Collection
- A — A' Geologic Cross Section (Refer to Figures 4 & 5)

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 3

Crandall

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. ·14006· | 2. Page 1 of 1

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
4. Generator's Phone ((803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation
6. US EPA ID Number: SCD981864499
A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name
8. US EPA ID Number
B. Transporter's Phone

9. Designated Facility Name and Site Address: Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non Hazardous Waste, oil/water	001	TT	1333	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above: FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information: Countryside 2(06742)120gal Avants(02578)120gal McCall(14002)900.35
Service Call ID: GLB0114006 Cracker box(18287)35gal Johnies market(08986)40gal Bay Creek(18662)225gal Bay Creek(18662)225gal. Charleston CPW(01496)70gal Friendly Marks(11693)80gal. Matheny's(06820)100gal Newberry Co. Airport(15590)25gals PIM Stop 23(07837)60gal. JPA(00583)10gal
Emergency Response: Infotrac 800-535-5053
Caller must ID Crandall as registrant
Petzel(00488)60gal) Comm.(Lick Skillet(11694) 35gal Fime(10028)10gal. Fime(10028)200GAL Stonewall Jackson(15581)50GAL.

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
No Signature Available		10	31	07

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Curtis Smith		10	31	07

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
TROY BACKMAN		11	01	07

GENERATOR — TRANSPORTER — FACILITY

ORIGINAL TO OFFICE

Midlands
Environmental
Consultants, Inc.

November 5, 2007

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

RECE
NOV 0 8
UNDERGROUND STORAGE
TANK PROGRAM

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #30052
MECI Project Number 07-1320F

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on October 15, 2007. The event was conducted on monitoring wells MWR-4 and MWR-4R to remove free phase petroleum product and on well MW-51 to reduce dissolved CoC concentrations. The event was conducted continuously for eight hours. Free phase petroleum product was detected in monitoring wells MWR-4 at a thickness of 0.42 feet and in MWR-4R at a thickness of 0.42 feet prior to the AFVR event. Free phase petroleum product was not detected in monitoring well MW-51 prior to the AFVR event. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 9.66 pounds or approximately 1.67 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.21 pounds per hour. Concentrations of off gas produced during the event were recorded from 512 parts per million by volume (PPM) to 732 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 10.0 to 17.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1F.

DOCUMENT

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2F. Monitoring well locations are depicted on attached Figure 1.

A total of 60 gallons of liquid was removed from MWR-4, MWR-4R, and MW-51 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Brandon T. Guiles
Staff Biologist

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1F
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320F
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MWR-4 MWR-4R MW-51	10/15/07	13:00	0.50	17.0	580	1180	106.20	0.74	0.37
	10/15/07	13:30	0.50	17.0	572	1140	102.60	0.70	0.35
	10/15/07	14:00	0.50	17.0	551	1190	107.10	0.71	0.35
	10/15/07	14:30	0.50	17.0	631	1180	106.20	0.80	0.40
	10/15/07	15:00	0.50	16.0	613	1220	109.80	0.81	0.40
	10/15/07	15:30	0.50	15.0	648	1340	120.60	0.94	0.47
	10/15/07	16:00	0.50	15.0	601	1380	124.20	0.90	0.45
	10/15/07	16:30	0.50	10.0	717	2080	187.20	1.61	0.81
	10/15/07	17:00	0.50	10.0	732	2090	188.10	1.65	0.83
	10/15/07	17:30	0.50	10.0	693	2060	185.40	1.54	0.77
	10/15/07	18:00	0.50	10.0	672	2060	185.40	1.50	0.75
	10/15/07	18:30	0.50	10.0	580	2120	190.80	1.33	0.66
	10/15/07	19:00	0.50	10.0	566	2120	190.80	1.30	0.65
	10/15/07	19:30	0.50	10.0	543	2020	181.80	1.18	0.59
	10/15/07	20:00	0.50	10.0	613	2040	183.60	1.35	0.68
	10/15/07	20:30	0.50	10.0	524	2020	181.80	1.14	0.57
	10/15/07	21:00	0.50	10.0	512	2040	183.60	1.13	0.56
									TOTAL 9.66

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MWR-4	2"	38	31.48	31.90	0.42	***	31.70	***	0.16
MWR-4R	2"	40	31.60	32.02	0.42	***	31.65	***	-0.01
MW-51	2"	45	***	35.77	***	***	34.73	***	-1.04

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MWR-4	2.00
Truck Operator:	B.GUILES	MW-R4R	30.00
Stack I.D. (feet)	0.33 feet	MW-51	2.00
			2.00
Corrected depth to water before AFVR Event in MWR-4 =			31.54
Corrected depth to water before AFVR Event in MWR-4R =			31.66

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	9.66	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.67	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	60	Gallons

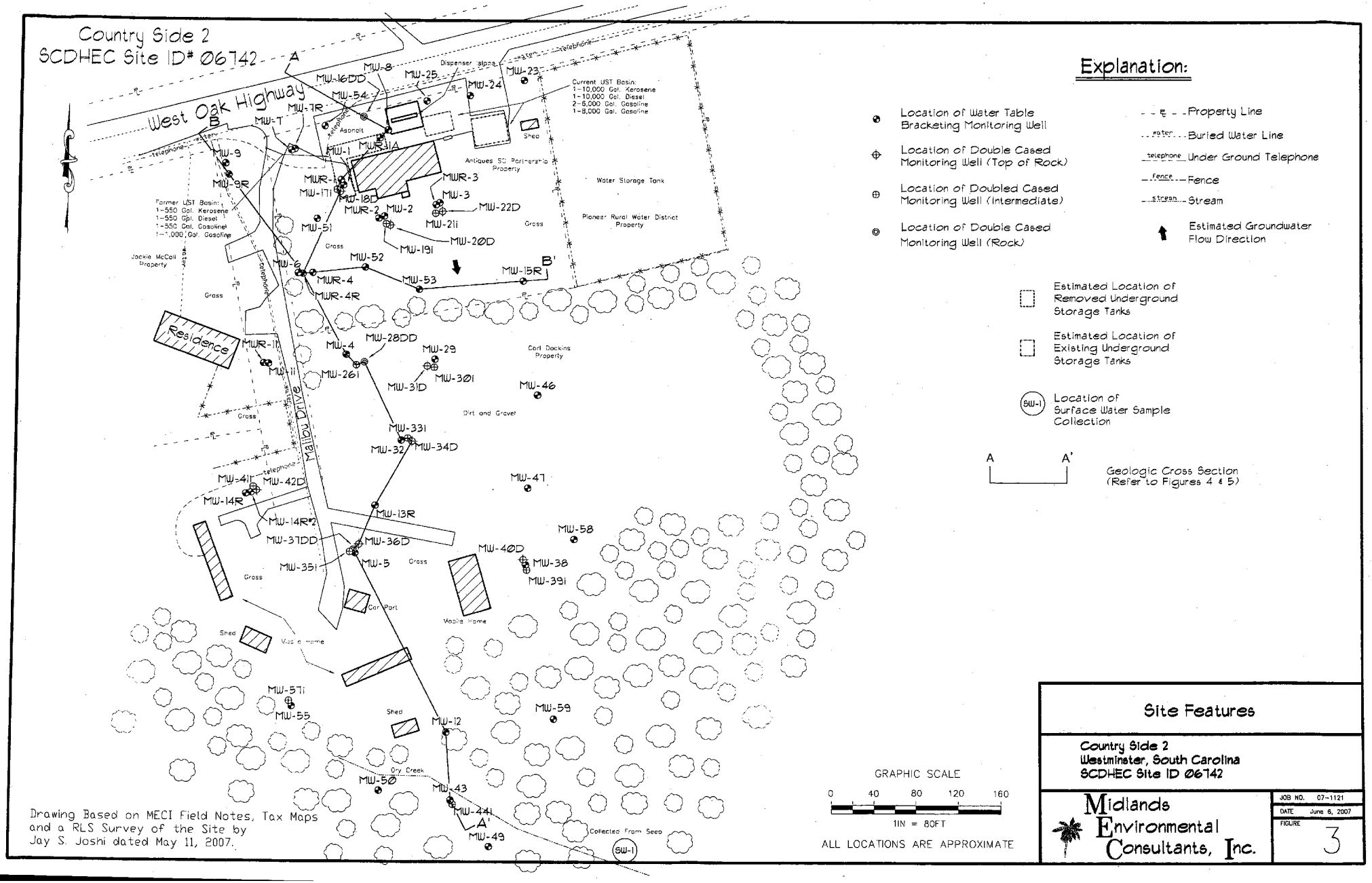
TABLE 2F
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320F
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-6	**MW-17i**	**MW-52**
Nearest Extraction Well:		MWR-4R	MW-51	MWR-4
Approximate Distance:		5 ft	32 ft	50 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
13:00	0.0	0	0	0
13:30	0.5	0	0	0
14:00	1.0	0	0	0
14:30	1.5	0	0	0
15:00	2.0	0	0	0
15:30	2.5	0	0	0
16:00	3.0	0	0	0
16:30	3.5	0	0	0
17:00	4.0	0	0	0
17:30	4.5	0	0	0
18:00	5.0	0	0	0
18:30	5.5	0	0	0
19:00	6.0	0	0	0
19:30	6.5	0	0	0
20:00	7.0	0	0	0
20:30	7.5	0	0	0
21:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-6	**MW-17i**	**MW-52**
Nearest Extraction Well:		MWR-4R	MW-51	MWR-4
Approximate Distance:		5 ft	32 ft	50 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		31.63	35.85	31.18
17:00	4 hours	31.98	35.82	31.21
21:00	8 hours	31.70	35.80	31.24
Maximum Change:		-0.35	0.05	-0.06



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Property Line
- Buried Water Line
- Under Ground Telephone
- Fence
- Stream
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- SW-1 Location of Surface Water Sample Collection
- A — A' Geologic Cross Section (Refer to Figures 4 & 5)

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 3

Crandall

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No. 14006	2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone (803) 808-2043

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Crandall Corporation	SCD981864499	(803) 791-4800
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Crandall Corporation 100 Rich-Lex Drive Lexington, SC 29072	SCD981864499	(803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non Hazardous Waste, oil/water	001	TT	1333	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information Countryside 2(06742) 120gal Avants(02578) 120gal McCoy(19002) gal 0.35 Cracker box(18287) 35 gal
Service Call ID: GLB0114006
Johnies market(08980) 40gal Bay Creek(18662) 225gal Bay Creek(18662) 225gal. Charleston CPW(01496) 70gal Friendly marks(11693) 80gal. Mathenys(00820) 100gal Newberry Co. Airport(15590) 25gals Pit stop 23(07837) 60gal. JFFY(00583) 10gal
Emergency Response: Infotrac - 800-535-5053
Pelzer(00480) 60gal) Comm. Quick shop(11694) 35 gal F+ME(10028) 70gal.
Caller must ID Crandall as registrant
F+ME(10028) 60 GAL Stonewall Jackson(15581) 50 GAL.

TRANSPORTER

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
No Signature Available		10	31	07

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Curtis Smith	[signature]	10	31	07

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman	[signature]	11	01	07

ORIGINAL TO OFFICE

Midlands
Environmental
Consultants, Inc.

January 17, 2008

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

RECEIVED
JAN 23 2008
UNDERGROUND STORAGE
TANK PROGRAM

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #30052
MECI Project Number 07-1320G

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on January 9, 2008. The event was conducted on monitoring wells MWR-1, MWR-4, MWR-4R, and MW-51 to remove free phase petroleum product and reduce dissolved CoC concentrations. The event was conducted continuously for eight hours. Free phase petroleum product was detected in monitoring well MWR-4 at a thickness of 0.39 feet and in MWR-4R at a thickness of 0.09 feet prior to the AFVR event.. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 8.98 pounds or approximately 1.55 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.12 pounds per hour. Concentrations of off gas produced during the event were recorded from 542 parts per million by volume (PPM) to 1,330 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 10.0 to 15.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1G.

UST PROGRAM
DOCKETING # 12

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2G. Monitoring well locations are depicted on attached Figure 1.

A total of 140 gallons of liquid was removed from MWR-1, MWR-4, MWR-4R, and MW-51 during this event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Rorey E. Garnett

Rorey E. Garnett
Staff Biologist

William C. McClary

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1G
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320G
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MWR-1	01/09/08	10:00	0.50	15.0	942	900	81.00	0.92	0.46
MWR-4	01/09/08	10:30	0.50	15.0	550	880	79.20	0.52	0.26
MWR-4R	01/09/08	11:00	0.50	15.0	542	970	87.30	0.57	0.28
MW-51	01/09/08	11:30	0.50	15.0	604	930	83.70	0.61	0.30
	01/09/08	12:00	0.50	12.0	926	1080	97.20	1.08	0.54
	01/09/08	12:30	0.50	12.0	687	1150	103.50	0.85	0.43
	01/09/08	13:00	0.50	10.0	715	1420	127.80	1.10	0.55
	01/09/08	13:30	0.50	10.0	1,044	1480	133.20	1.67	0.83
	01/09/08	14:00	0.50	12.0	1,312	1380	124.20	1.96	0.98
	01/09/08	14:30	0.50	12.0	1,316	1280	115.20	1.82	0.91
	01/09/08	15:00	0.50	12.0	1,330	1210	108.90	1.74	0.87
	01/09/08	15:30	0.50	14.0	890	1090	98.10	1.05	0.52
	01/09/08	16:00	0.50	11.0	720	1180	106.20	0.92	0.46
	01/09/08	16:30	0.50	11.0	823	1040	93.60	0.92	0.46
	01/09/08	17:00	0.50	11.0	840	1120	100.80	1.02	0.51
	01/09/08	17:30	0.50	11.0	1,020	1120	100.80	1.23	0.62
	01/09/08	18:00	0.50	11.0	974	1190	107.10	1.25	
									TOTAL
									8.98

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MWR-1	2"	45	***	38.38	***	***	38.42	***	0.04
MWR-4	2"	38	33.40	33.79	0.39	***	33.70	***	0.24
MWR-4R	2"	40	33.45	33.54	0.09	***	33.48	***	0.02
MW-51	2"	45	***	36.57	***	***	36.32	***	-0.25

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MWR-1	10.00
Truck Operator:	R. Garnett	MWR-4	10.00
Stack I.D. (feet)	0.33 feet	MW-R4R	30.00
		MW-51	30.00
Corrected depth to water before AFVR Event in MWR-4 =			33.46
Corrected depth to water before AFVR Event in MWR-4R =			33.46

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	8.98	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.55	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	140	Gallons

TABLE 2G
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320G
SCDHEC SITE ID NUMBER 06742

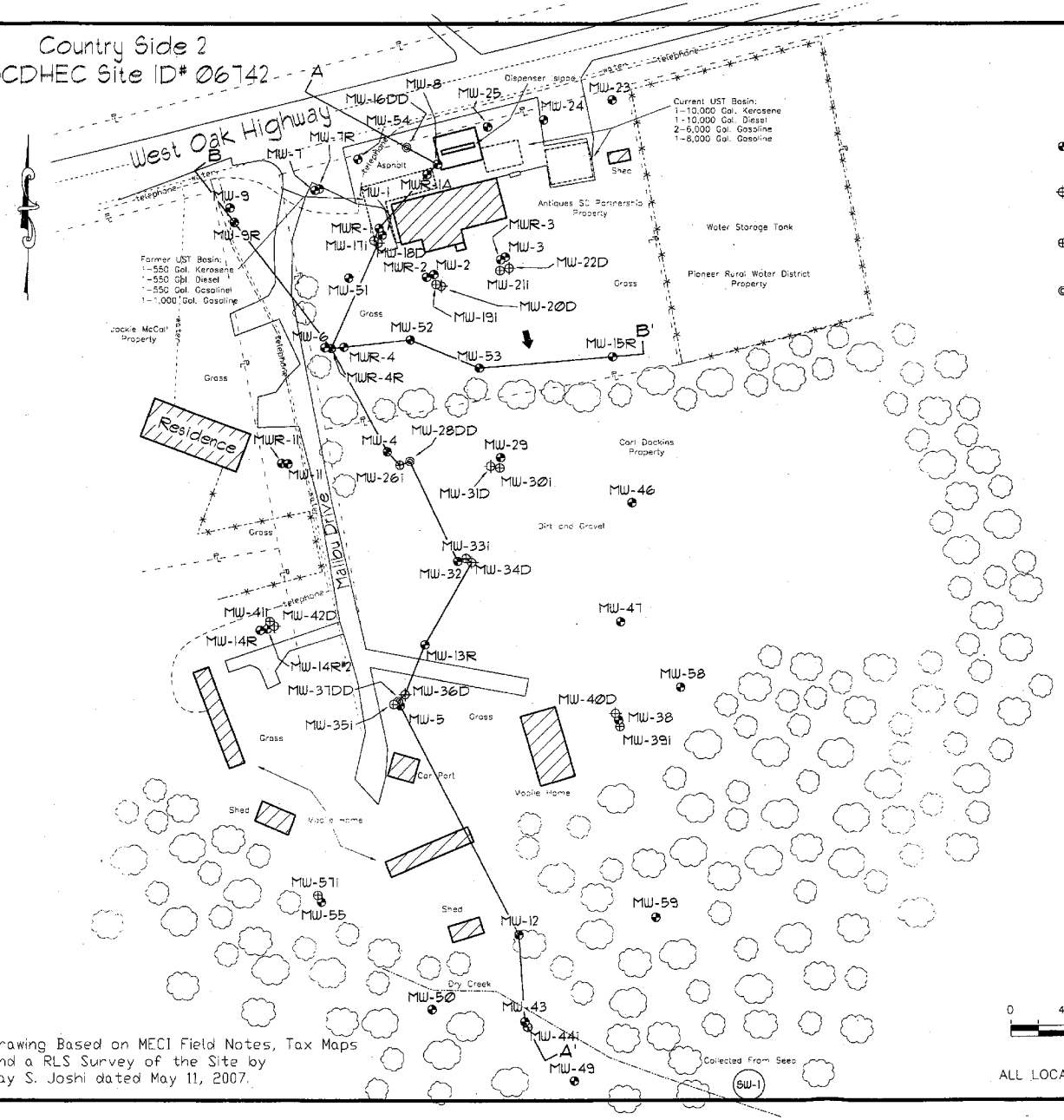
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MWR-2	**MW-17i**	**MW-52**
Nearest Extraction Well:		MWR-1R	MWR-1R	MWR-4
Approximate Distance:		48 ft	9 ft	50 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
10:00	0.0	0	0	0
10:30	0.5	0	0	0
11:00	1.0	0	0	0
11:30	1.5	0	0	0
12:00	2.0	0	0	0
12:30	2.5	0	0	0
13:00	3.0	0	0	0
13:30	3.5	0	0	0
14:00	4.0	0	0	0
14:30	4.5	0	0	0
15:00	5.0	0	0	0
15:30	5.5	0	0	0
16:00	6.0	0	0	0
16:30	6.5	0	0	0
17:00	7.0	0	0	0
17:30	7.5	0	0	0
18:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MWR-2	**MW-17i**	**MW-52**
Nearest Extraction Well:		MWR-1R	MWR-1R	MWR-4
Approximate Distance:		48 ft	9 ft	50 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		35.37	37.81	33.04
14:00	4 hours	35.47	37.73	33.05
18:00	8 hours	35.50	37.77	33.07
Maximum Change:		-0.13	0.08	-0.03

Country Side 2
SCDHEC Site ID# 06742



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Property Line
- Buried Water Line
- Under Ground Telephone
- Fence
- Stream
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- SW-1 Location of Surface Water Sample Collection
- A — A' Geologic Cross Section (Refer to Figures 4 & 5)

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 07-1121
DATE June 6, 2007
FIGURE 3

C 123882

Crandall

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No. 17396	2. Page 1 of 1

3. Generator's Name and Mailing Address Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
(803) 808-2043

4. Generator's Phone ( )

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Crandall Corporation	SCD981864499	(803) 791-4800
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Crandall Corporation 100 Rich-Lex Drive Lexington, SC 29072	SCD981864499	(803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	2075	G
b.				
c.				
d. Community Quick Shop (11694) 125 gal. Cousars Superette (08897) 40 gal. Lebanon Quick Shop (15445) 80 gal. Cousars Superette (08897) 30 gal. Freindly Marks (A) (11693) 0 gal. Chester School bus Stop (02159) 150 gal. Constan Car wash (07871) 110 gal.				

D. Additional Descriptions for Materials Listed Above
United oil 126 (06097) 80 gal. Country Side 26 (06742) 140 gal.
Glovers Service Station (06994) 10 gal. Fmr. Ford Specialist (00487) 40 gal.
Fmr. Fast Fare (18131) 100 gal. Smiths Gulf Service (00466) 80 gal.
Handy Pantry (04732) 60 gal. Pitt Stop 23 (07837) 80 gal.
Country Side 2 H (06742) 100 gal. Charleston County (09784) 60 gal.

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Bay Creek (18662) 200 gal.
Service Call ID: GLB0117396 Beaufort patrol (01056) 100 gal.
Jacksonboro-Force (Webbs) (14403) 100 gal.
Minicks Texaco (07967) 15 gal. Randy auto parts (30730) 145 gal.
Emergency Response: Infotrac - 800-535-5053 Trants (02578) 155 gal.
Caller must ID Crandall as registrant Stonewall Jackson (5581) 75 gal.

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman (for Michael)	Troy Backman	01	23	02

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman	Troy Backman	01	23	02

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

FACILITY

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

January 17, 2008

RECEIVED
JAN 23 2008
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #30052
MECI Project Number 07-1320H

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on January 9, 2008 through January 10, 2008. The event was conducted on monitoring wells MW-7R and MW-54 to remove free phase petroleum product and reduce dissolved CoC concentrations. The event was conducted continuously for eight hours. Free phase petroleum product was detected in monitoring well MW-54 at a thickness of 0.17 feet prior to the AFVR event. Free phase petroleum product was not detected in MW-7R prior to the event. MECI was unable to extract from monitoring well MW-8 due to lid not opening. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 4.67 pounds or approximately 0.81 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.58 pounds per hour. Concentrations of off gas produced during the event were recorded from 267 parts per million by volume (PPM) to 968 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 14.0 to 15.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1H.

UST PROGRAM
DOCKETING # 13

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2H. Monitoring well locations are depicted on attached Figure 1.

A total of 100 gallons of liquid was removed from MW-7R and MW-54 during this event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Rorey E. Garnett
Staff Biologist

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1H
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320H
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-7R	01/09/08	22:00	0.50	15.0	320	760	68.40	0.26	0.13
MW-54	01/09/08	22:30	0.50	15.0	267	700	63.00	0.20	0.10
	01/09/08	23:00	0.50	15.0	310	670	60.30	0.22	0.11
	01/09/08	23:30	0.50	14.0	600	1140	102.60	0.74	0.37
	01/10/08	0:00	0.50	14.0	581	1090	98.10	0.68	0.34
	01/10/08	0:30	0.50	14.0	513	1190	107.10	0.66	0.33
	01/10/08	1:00	0.50	14.0	610	960	86.40	0.63	0.32
	01/10/08	1:30	0.50	14.0	560	1010	90.90	0.61	0.31
	01/10/08	2:00	0.50	14.0	628	930	83.70	0.63	0.32
	01/10/08	2:30	0.50	14.0	842	1050	94.50	0.95	0.48
	01/10/08	3:00	0.50	14.0	766	980	88.20	0.81	0.41
	01/10/08	3:30	0.50	14.0	811	920	82.80	0.81	0.40
	01/10/08	4:00	0.50	14.0	968	00	0.00	0.00	0.00
	01/10/08	4:30	0.50	14.0	732	920	82.80	0.73	0.36
	01/10/08	5:00	0.50	14.0	649	1020	91.80	0.71	0.36
	01/10/08	5:30	0.50	14.0	617	1030	92.70	0.69	0.34
	01/10/08	6:00	0.50	14.0	462	1060	95.40	0.53	
									TOTAL 4.67

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-7R	2"	45	***	37.26	***	***	35.68	***	-1.58
MW-54	2"	45	37.77	37.94	0.17	***	37.88	***	0.08

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-7R	10.00
Truck Operator:	R. Garnett	MW-54	30.00
Stack I.D. (feet)	0.33 feet		
Corrected depth to water before AFVR Event in MW-54 =			37.80

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	4.67	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.81	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	100	Gallons

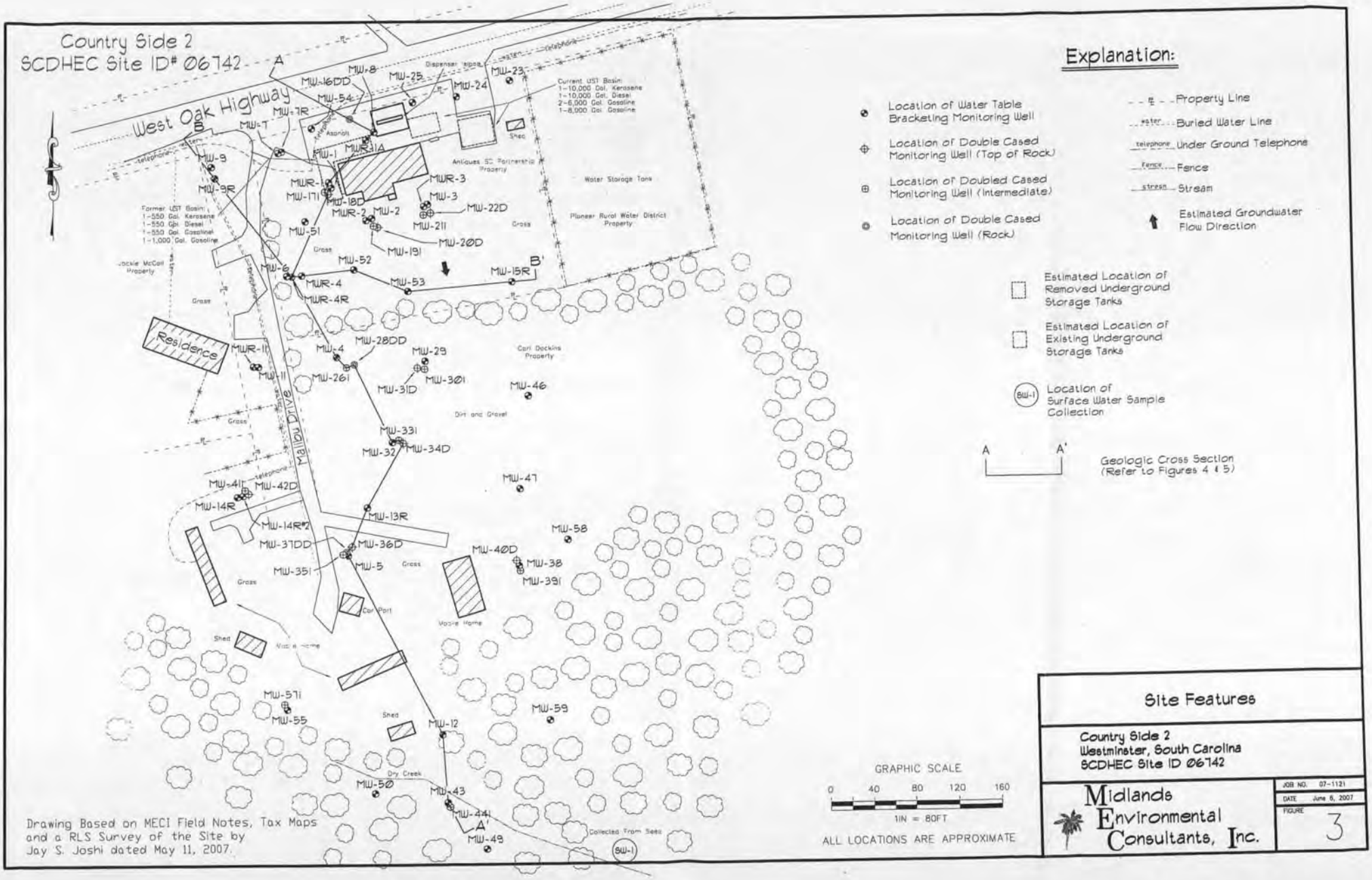
TABLE 2H
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1320H
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1	MWR-1A	MW-16DD
Nearest Extraction Well:		MW-7R	MW-54	MW-54
Approximate Distance:		60 ft	50 ft	39 ft
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
22:00	0.0	0	0	0
22:30	0.5	0	0	0
23:00	1.0	0	0	0
23:30	1.5	0	0	0
0:00	2.0	0	0	0
0:30	2.5	0	0	0
1:00	3.0	0	0	0
1:30	3.5	0	0	0
2:00	4.0	0	0	0
2:30	4.5	0	0	0
3:00	5.0	0	0	0
3:30	5.5	0	0	0
4:00	6.0	0	0	0
4:30	6.5	0	0	0
5:00	7.0	0	0	0
5:30	7.5	0	0	0
6:00	8.0	0	0	0
Maximum Change:		0	0	0

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1	MWR-1A	MW-16DD
Nearest Extraction Well:		MW-7R	MW-54	MW-54
Approximate Distance:		60 ft	50 ft	39 ft
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior toAFVR		29.34	38.49	38.63
2:00	4 hours	29.34	38.49	38.63
6:00	8 hours	29.34	38.49	38.63
Maximum Change:		0.00	0.00	0.00


Country Side 2
SCDHEC Site ID# 06742
West Oak Highway
Explanation:
Location of Water Table Bracketing Monitoring Well
Location of Double Cased Monitoring Well (Top of Rock)
Location of Doubled Cased Monitoring Well (Intermediate)
Location of Double Cased Monitoring Well (Rock)
Property Line
Buried Water Line
Under Ground Telephone
Fence
Stream
Estimated Groundwater Flow Direction
Estimated Location of Removed Underground Storage Tanks
Estimated Location of Existing Underground Storage Tanks
SW-1 Location of Surface Water Sample Collection
A A' Geologic Cross Section (Refer to Figures 4 & 5)
Current UST Basin:
1-10,000 Gal. Kerosene
1-10,000 Gal. Diesel
2-6,000 Gal. Gasoline
1-8,000 Gal. Gasoline
Former UST Basin:
1-550 Gal. Kerosene
1-550 Gal. Diesel
1-550 Gal. Gasoline
1-1,000 Gal. Gasoline
Antiques SC Partnership Property
Water Storage Tank
Pioneer Rural Water District Property
Jackie McCall Property
Carl Dockins Property
Residence
Mallow Drive
Dirt and Gravel
Car Port
Mobile Home
Shed
Dry Creek
Collected From Seep
Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.
GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT
ALL LOCATIONS ARE APPROXIMATE
Site Features
Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742
Midlands Environmental Consultants, Inc.
JOB NO. 07-1121
DATE June 6, 2007
FIGURE 3

C 123882

Crandall

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No. 17396	2. Page 1 of 1

3. Generator's Name and Mailing Address Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone (803) 808-2043

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Crandall Corporation	SCD981864499	(803) 791-4800
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Crandall Corporation 100 Rich-Lex Drive Lexington, SC 29072	SCD981864499	(803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	2075	G
b.				
c.				
d. Community Quick Shop (11694) 125 gal. Cousars Supere He (08897) 40 gal. Lebanon Quick Shop (15445) 80 gal. Cousars Supere He (08897) 30 gal. Friendly Marks (A) (11693) 0 gal. Chester Schoolbus Stop (02159) 150 gal. Constan Car Wash (07871) 110 gal.				

D. Additional Descriptions for Materials Listed Above
United Oil 126 (06097) 80 gal. Country Side 2G (06742) 140 gal.
Glovers Service Station (06994) 10 gal. Fmr. Ford Specialist (06487) 40 gal.
Fmr. Fast Fare (18131) 100 gal. Smiths Gulf Service (00466) 80 gal.
Handy Pantry (04732) 60 gal. Pitt Stop 23 (07837) 80 gal.
Country Side 2H (06742) 100 gal. Charleston County (09784) 60 gal.
Bay Creek (18662) 200 gal.
Beaufort Patrol (01056) 100 gal.
Jacksonboro-Force (Webbs) (14403) 100 gal.
Minicks Texaco (07967) 15 gal. Randy Auto Parts (30730) 145 gal.
Trants (02578) 155 gal.
Stonewall Jackson (5581) 75 gal.

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Service Call ID: GLB0117396
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman (for Michaud)	Troy Backman	01	23	08

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman	Troy Backman	01	23	02

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JUL 31 2008

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071

Re: Bid # IFB-34007-6/3/08-EMW; PO# 732429
Notice to Proceed

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct assessments at several facilities. The packets contain the necessary approval for work to begin. The facilities have been assigned Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order # 732429 on the appropriate invoices submitted for payment against the facilities. As specified in the referenced bid, **the completed invoice forms and associated reports (include contract certification number) are expected on or before the designated due date (see below).**

UST Permit#	Facility	County	Release #	Work Scope	Due Date*	CA #	Approved Amt
06742	Country Side 2	Oconee	1	Monitoring well installation	60 days	33122	$9,290.00
12847	Laurens CPW	Laurens	1	Monitoring well installation	60 days	33125	$2,022.00
06768	Former Horton's Grocery	Oconee	1	Monitoring well installation	60 days	33097	$1,880.00

*From receipt of letter

Midland's Environmental Consultants, Inc. will perform services at the sites on behalf of the site's UST owners; however, payments will be made from the SUPERB Account. The site's UST owners have no obligation for payment for this scope of work. **Please note, if there are any changes in the established cost agreement amounts (e.g., additional water supply wells sampled, additional well footage, etc.) contact the site's project manager for technical and/or financial approval. Failure to do so prior to submittal of invoice may result in delay of payment.**

The Bureau grants preapproval for transportation of drums of virgin petroleum contaminated soil and drums of groundwater from the referenced site to a permitted treatment facility. The contaminated soil and/or groundwater must be properly stored in labeled 55-gallon drums or equivalent containers. The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report. Please note, transportation of waste oil contaminated soil must receive preapproval from the Division of Waste Assessment & Emergency Response.

UST DOCKET / 4 tcl

Please provide this office with a schedule of drilling dates and coordinate all work with me before commencing work at the facility. If you have any questions or need further assistance, please contact me at (803) 896-6633.

Sincerely,

Cathleen Ridgley, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Monitoring Well Approvals (MWA)
Approved Cost Agreements (ACA)
Information Packets

cc: Cathleen Ridgley, UST Program (w/out enc)
Technical Files (w/ copy of MWA)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

Monitoring Well Approval

Approval is hereby granted to: **Midlands Environmental Consultants, Inc.**

On behalf of: **Mr. Neil Alexander**

Facility: **Country Side 2**
8050 West Oak Highway, Westminster

UST Permit #: **06742**

County: **Oconee**

This approval is for the installation of eight groundwater monitoring/extraction wells. The monitoring/extraction wells are to be installed in the approved locations in accordance with the South Carolina Well Standards, R.61-71, and applicable guidance documents.

Please note that R.61-71 requires the following:

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.

2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.

3. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted to the Department within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f

4. All analytical data and water levels obtained from each monitoring well shall be submitted to the Department within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.

padgetjp@dhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.

6. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.

7. Departmental approval is required prior to abandonment of all monitoring wells as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated April 26, 2002. A copy of this approval should be on the site during well installation.

Date of Issuance: 7/29/2008

Approval: UMW-21895

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Division of Assessment and Corrective Action
Bureau of Land and Waste Management

Approved Cost Agreement 33122

Facility: 06742 COUNTRY SIDE 2
PADGETJP
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B	PERSONNEL	1.0000	100.00	100.00
09 WELL INSTALLATION						
		F	4" ROCK CORING	360.0000	22.00	7,920.00
16 SUBSEQUENT SURVEY						
			SUBSEQUENT SURVEY	1.0000	50.00	50.00
17 DISPOSAL						
		A1	WASTEWATER - PURGING/SAMPLING	2.0000	10.00	20.00
		C	SOIL (TREATMENT/DISPOSAL)	24.0000	50.00	1,200.00
				Total Amount		9,290.00

Midlands Environmental Consultants, Inc.

September 5, 2008

RECEIVED
SEP 10 2008
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Northeastern SC Corrective Action Section
Division of Assessment and Corrective Action
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Monitoring Well Installation
Country Side 2
8050 West Oak Highway
Westminster, South Carolina
SCDHEC Site ID# 06742, CA # 33122
MECI Project Number 08-1787

Dear Mr. Padgett,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Assessment Activities for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Staff Scientist

William C. McClary, P.G.
Senior Geologist

UST DOCKET
15 tac

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

PROJECT INFORMATION

The subject site (Country Side 2) is located at 8050 West Oak Highway in Westminster, Oconee County, South Carolina (see Figure 1). The subject site is currently occupied by an active gasoline service station. The subject site currently maintains one 10,000 gallon kerosene, one 10,000 gallon diesel, two 6,000 gallon gasoline, and one 8,000 gallon gasoline underground storage tanks.

The above information is based on reports and correspondence obtained from SCDHEC files and MECI field notes.

MONITORING WELL INSTALLATION

From August 13 through 15, 2008, eight single cased, 4-inch diameter monitoring wells were installed at the subject site. These wells were installed by Geologic Exploration, of Statesville, North Carolina (S.C. Driller Certification: Mark Gettys #A 01086). These watertable bracketing, single cased, monitoring wells (MW-60 through MW-67) were installed using a truck mounted drilling rig employing 10.5-inch outer diameter hollow-stem augers to construct the borehole. Monitoring wells MW-60 through MW-67 were installed to a depth of 45.0 feet below ground surface and screened from 25.0 feet BGS to 45.0 feet BGS.

Drill cuttings were containerized and transported to Waste Management Palmetto Landfill Wellford, SC by MECI personnel. A total of 7.80 tons was disposed of in this manner. A disposal manifest for these soils is attached at the end of this report.

MECI personnel performed a subsequent survey on August 20, 2008 at the subject site utilizing a fiberglass tape, level and rod. The locations of monitoring wells MW-60 through MW-67 are depicted on Figure 2. Top of Casing (TOC) elevations for these new monitoring wells are presented on Figure 2.

Test Boring Records showing soil descriptions and monitoring well installation details are included in Appendix A. Following completion of the monitoring wells, the wells were gauged and developed by bailing until they were determined to be functioning properly and turbidity was reduced. The drummed purge water was treated using a potable activated carbon unit. A total of one (1) drum of

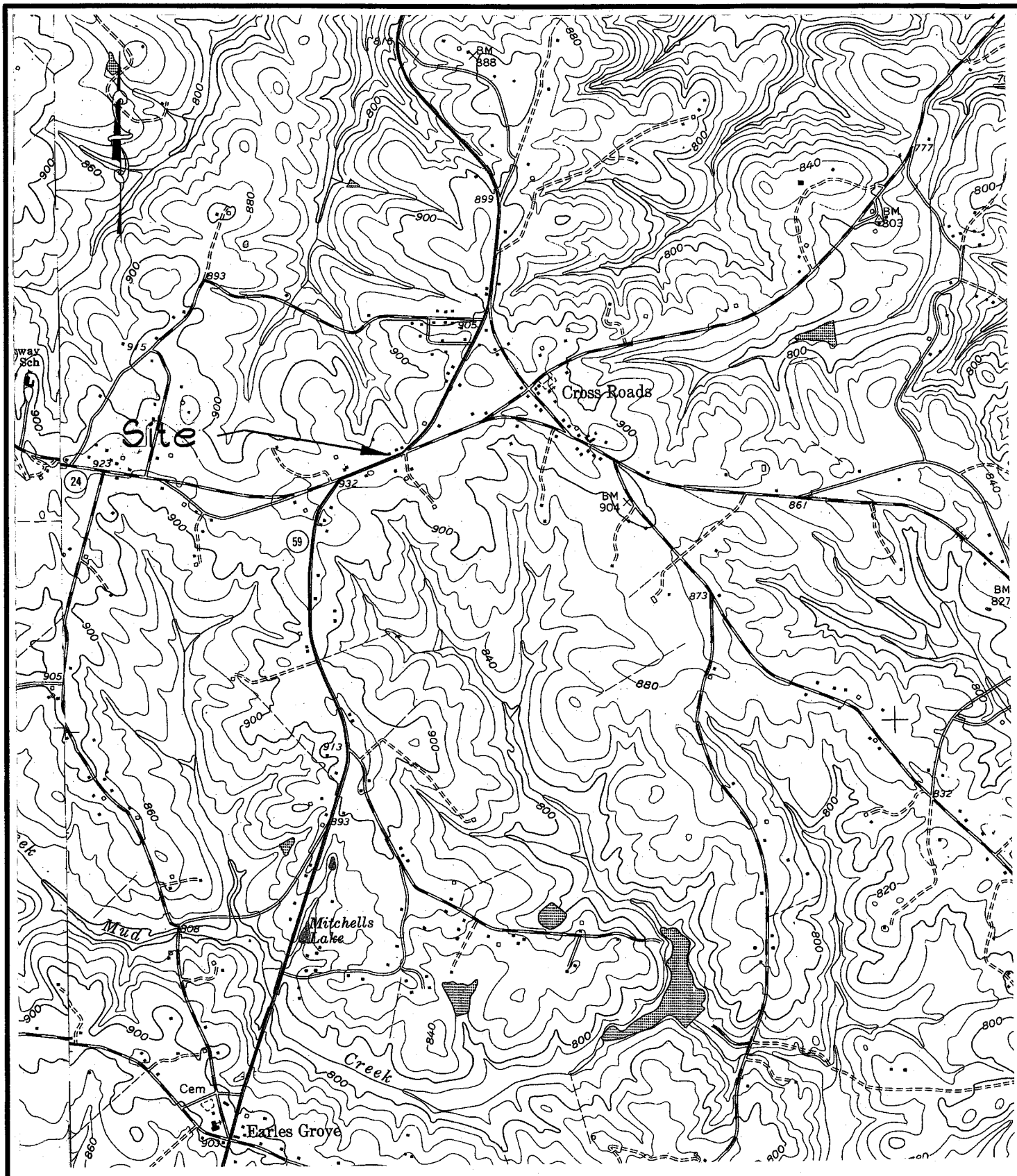
purge/development water was disposed of in this manner. A disposal manifest for the drummed purge water is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use by the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

-oOo-

FIGURES



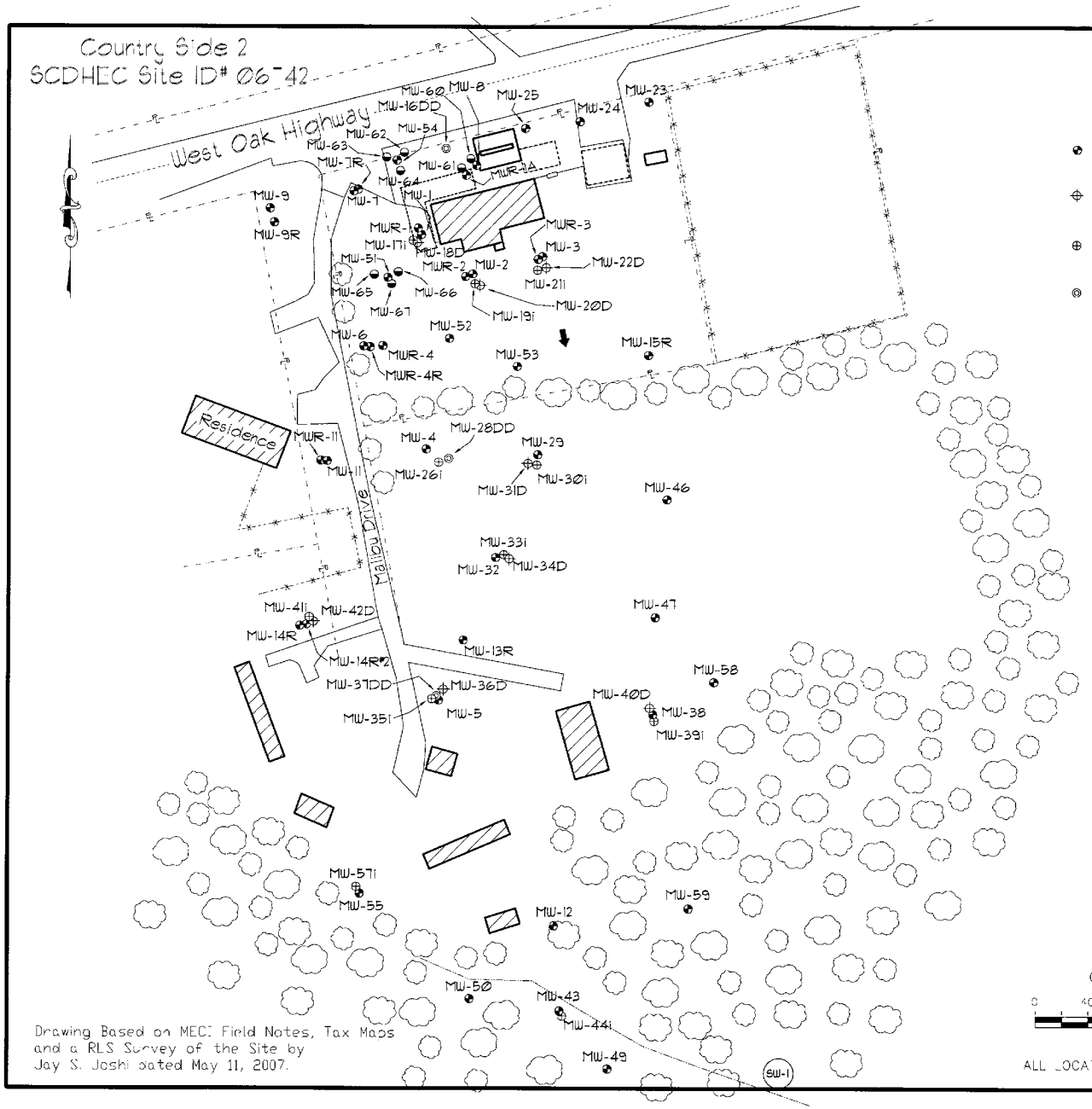
GRAPHIC SCALE

0 1000 2000 4000

1IN = 2000FT

Reference: Fair Play, South Carolina
Oakway, South Carolina
USGS 7.5 Min. Quad
Contour Interval = 10 Feet

Midlands Environmental Consultants, Inc.	Site Location
Country Side 2 Westminster, South Carolina SCDHEC Site ID# 06742	
Figure 1	MECI 08-1787



Drawing Based on MEC Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Double Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Moritoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.18	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE

0 40 80 120 160

1 IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

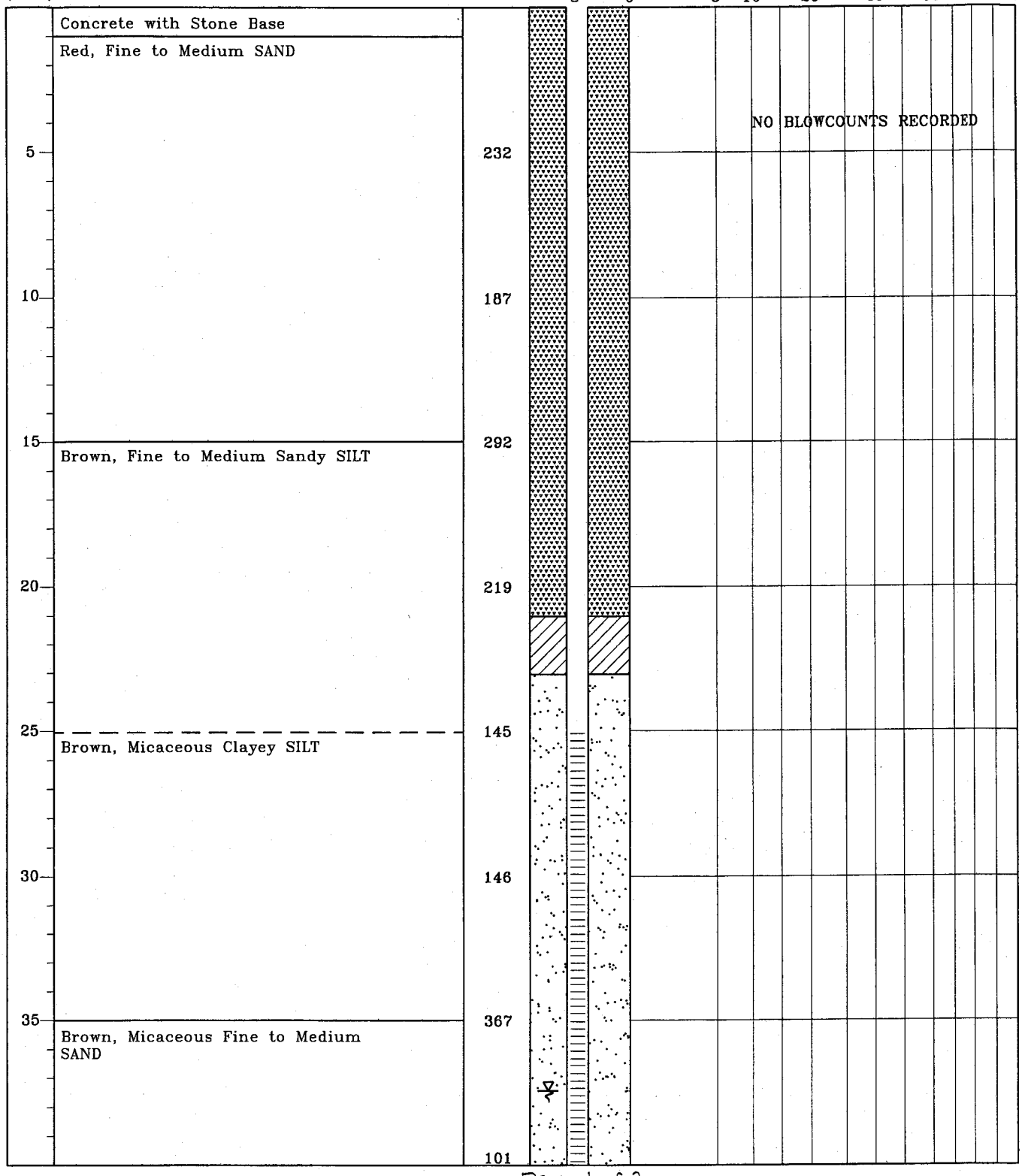
Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

APPENDIX A

TEST BORING AND MONITORING WELL INSTALLATION RECORDS



TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-60
Date Drilled:	8/15/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

Depth (Feet)	Description	PID PPM	Well Diagram
	Brown, Micaceous Clayey SILT		
45	Boring Terminated at 45.0 Feet. Monitoring Well Installed to 45.0 Feet. Free Phase Product Measured at 37.09 Feet Below Ground Surface. Groundwater Measured at 37.47 Feet Below Ground Surface on 8/20/2008.	103	
50			
55			
60			
65			
70			
75			

Penetration Blows Per Foot

0 5 10 20 40 60 80 100

NO BLOWCOUNTS RECORDED

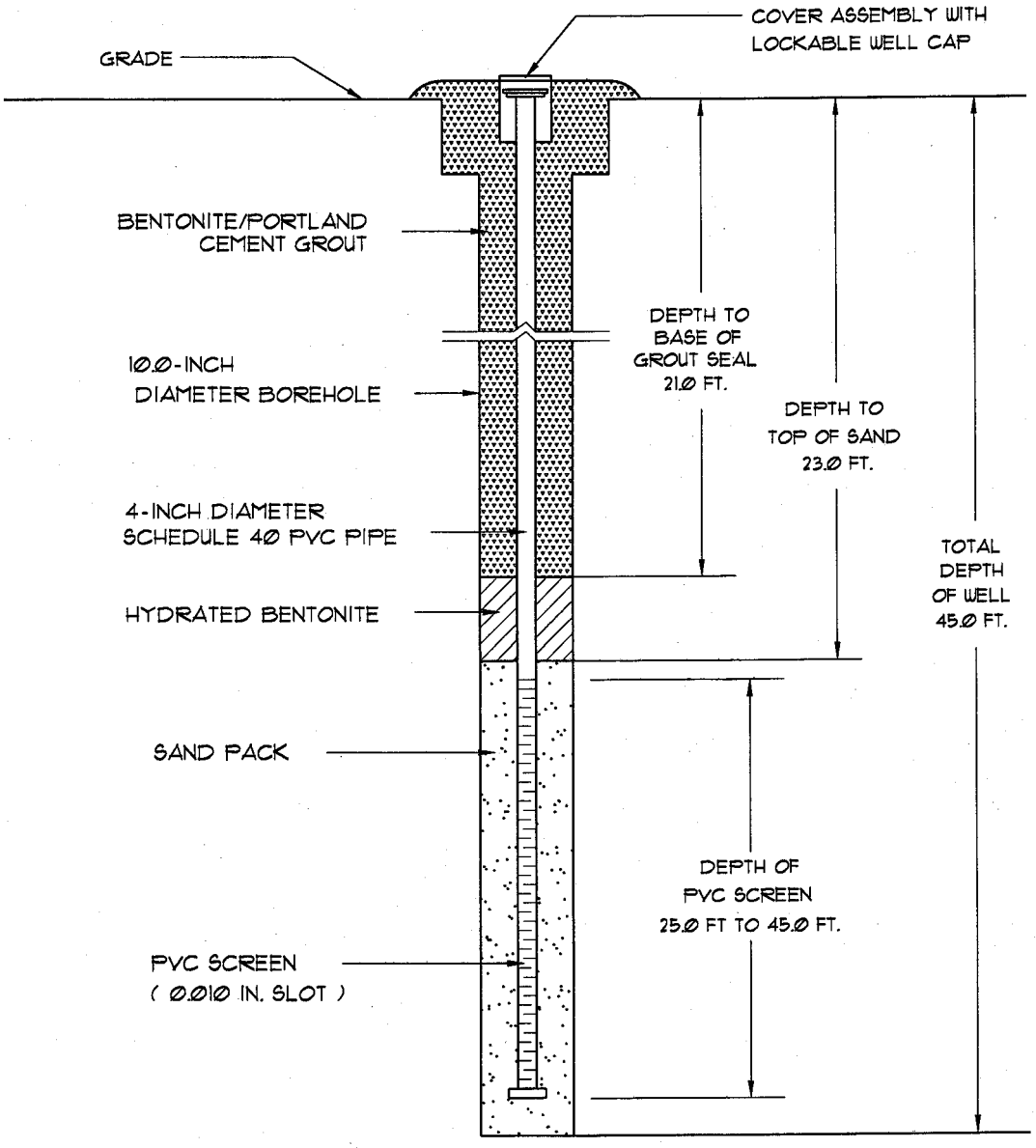
TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-60
Date Drilled:	8/15/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

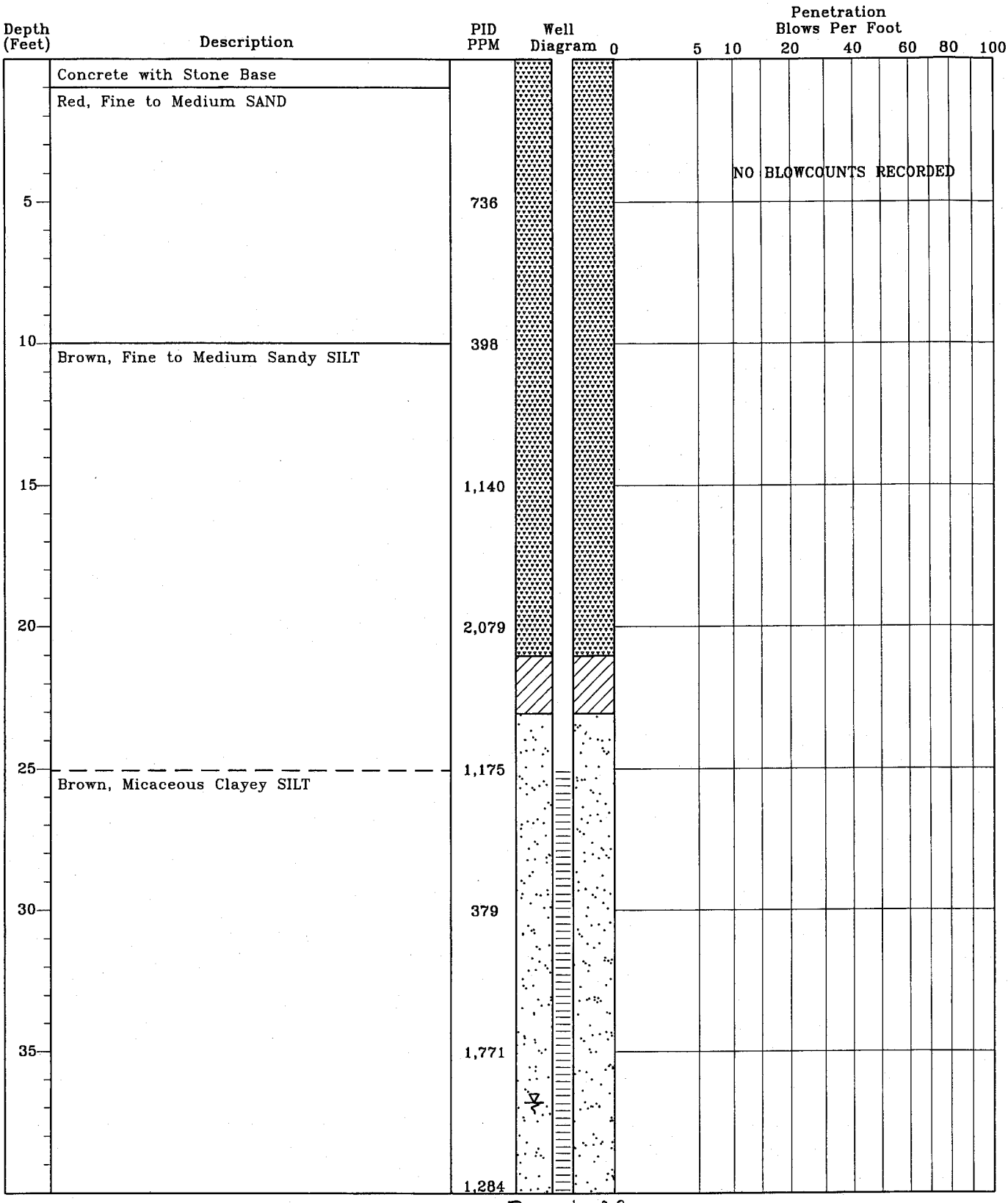
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminister, South Carolina
SCDHEC Site ID* 06742
MECI Project Number 08-1787



Well Number:	MW-60
Date Drilled:	8/15/08
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 1086
Logged By:	B. Kelly

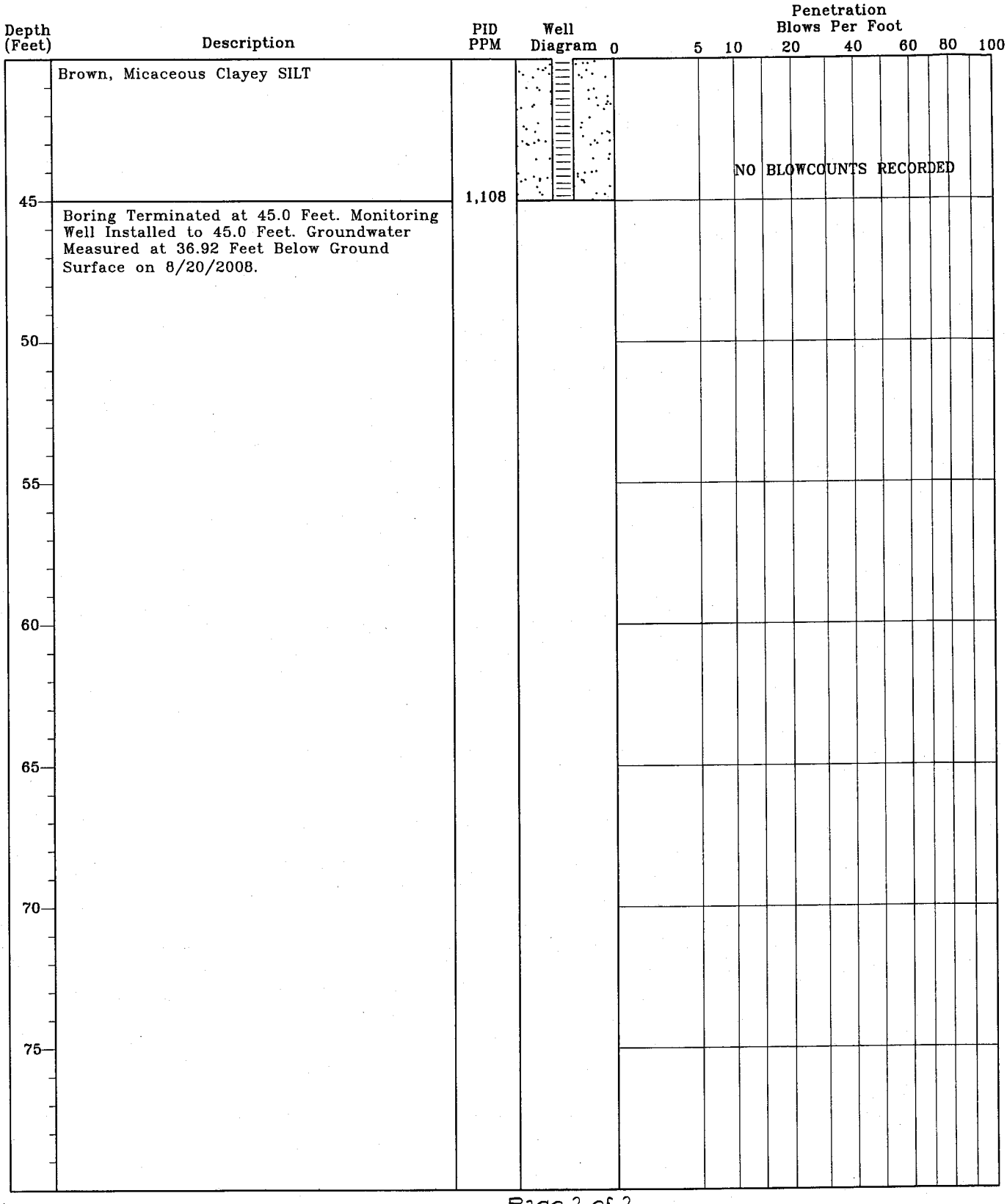
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-61
Date Drilled:	8/15/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



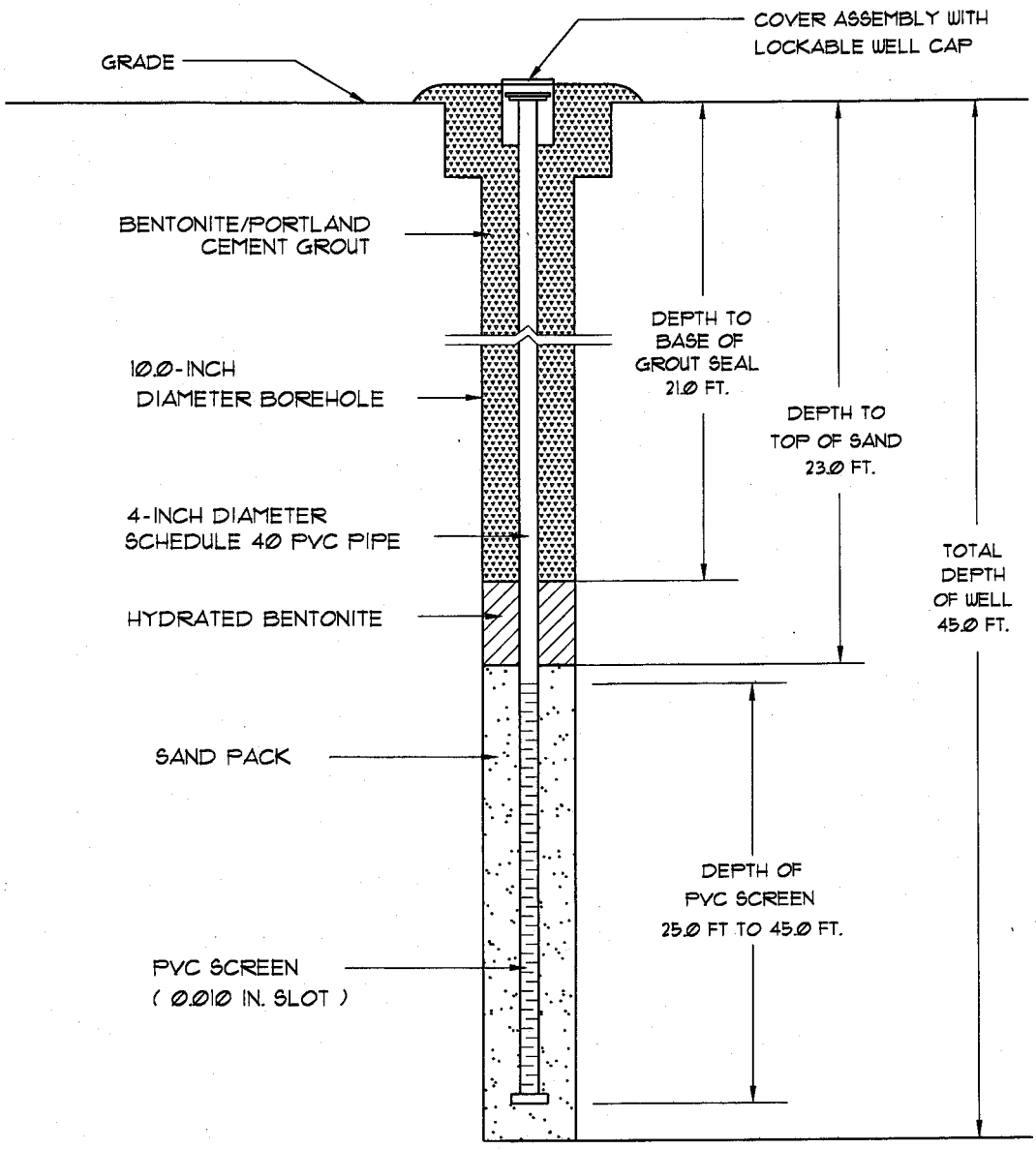
TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID* 06742
MECI Project Number 08-1787

Boring Number:	MW-61
Date Drilled:	8/15/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787



Well Number:	MW-61
Date Drilled:	8/15/08
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 1086
Logged By:	B. Kelly

Prepared By:
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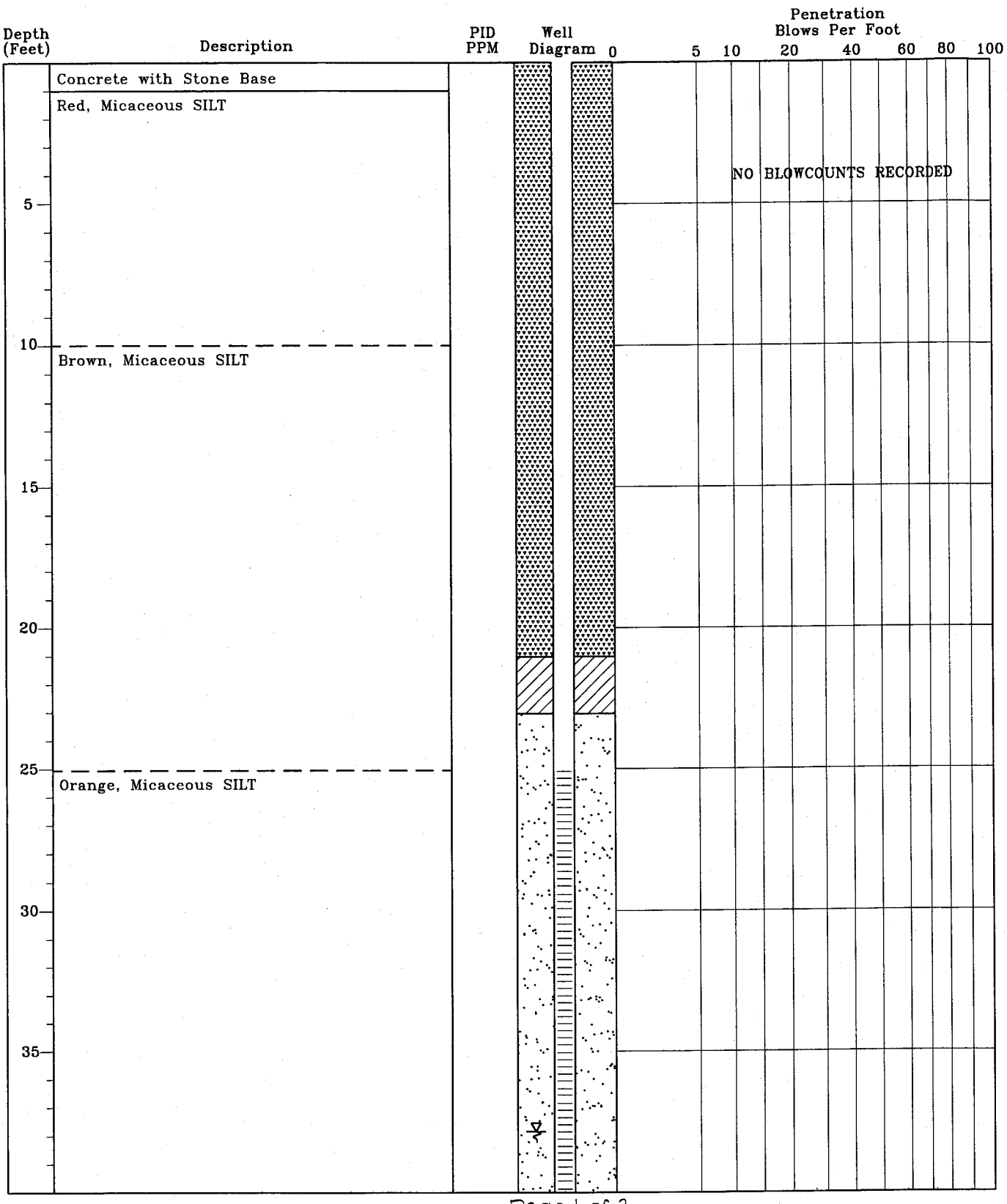
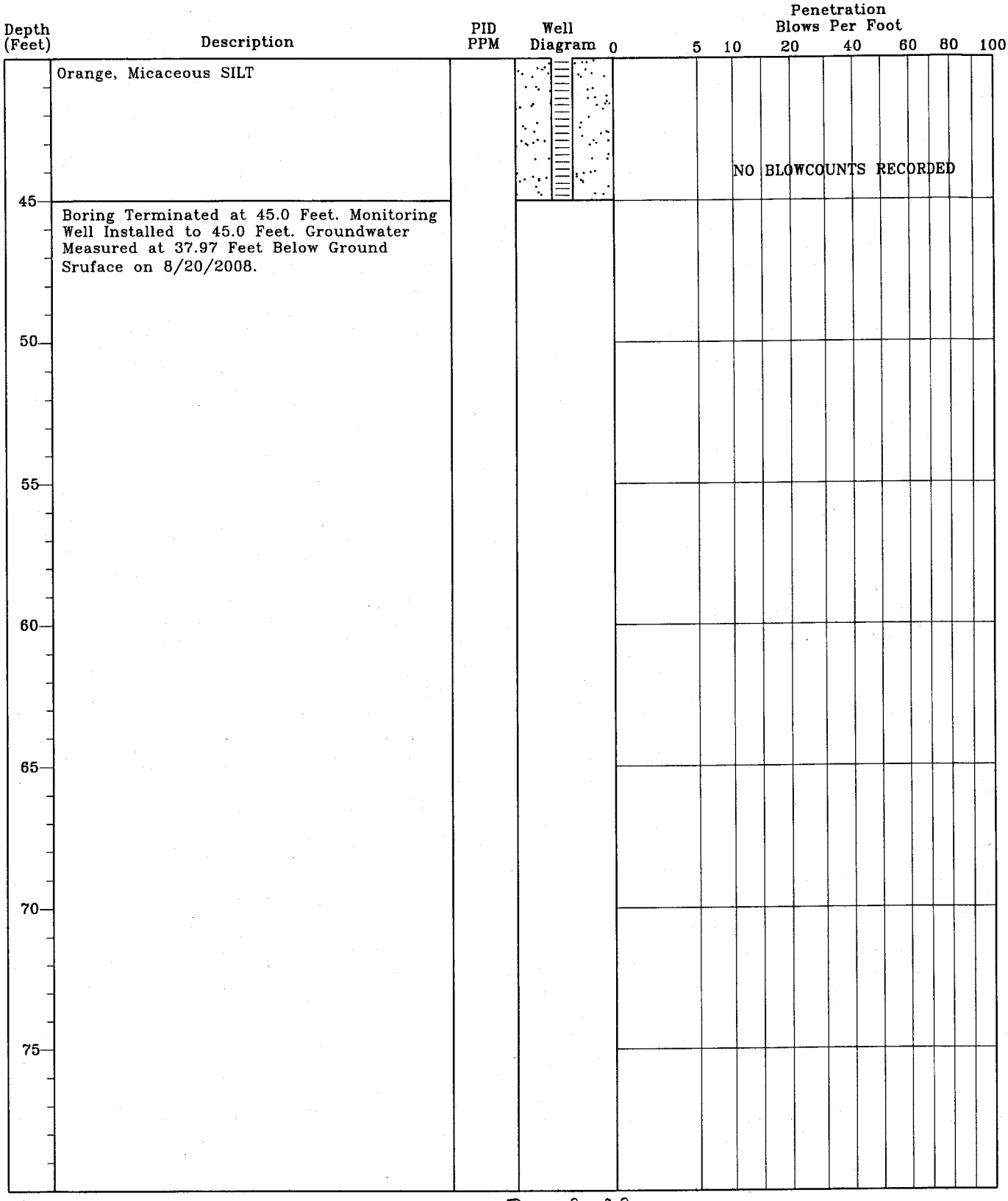
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-62
Date Drilled:	8/15/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



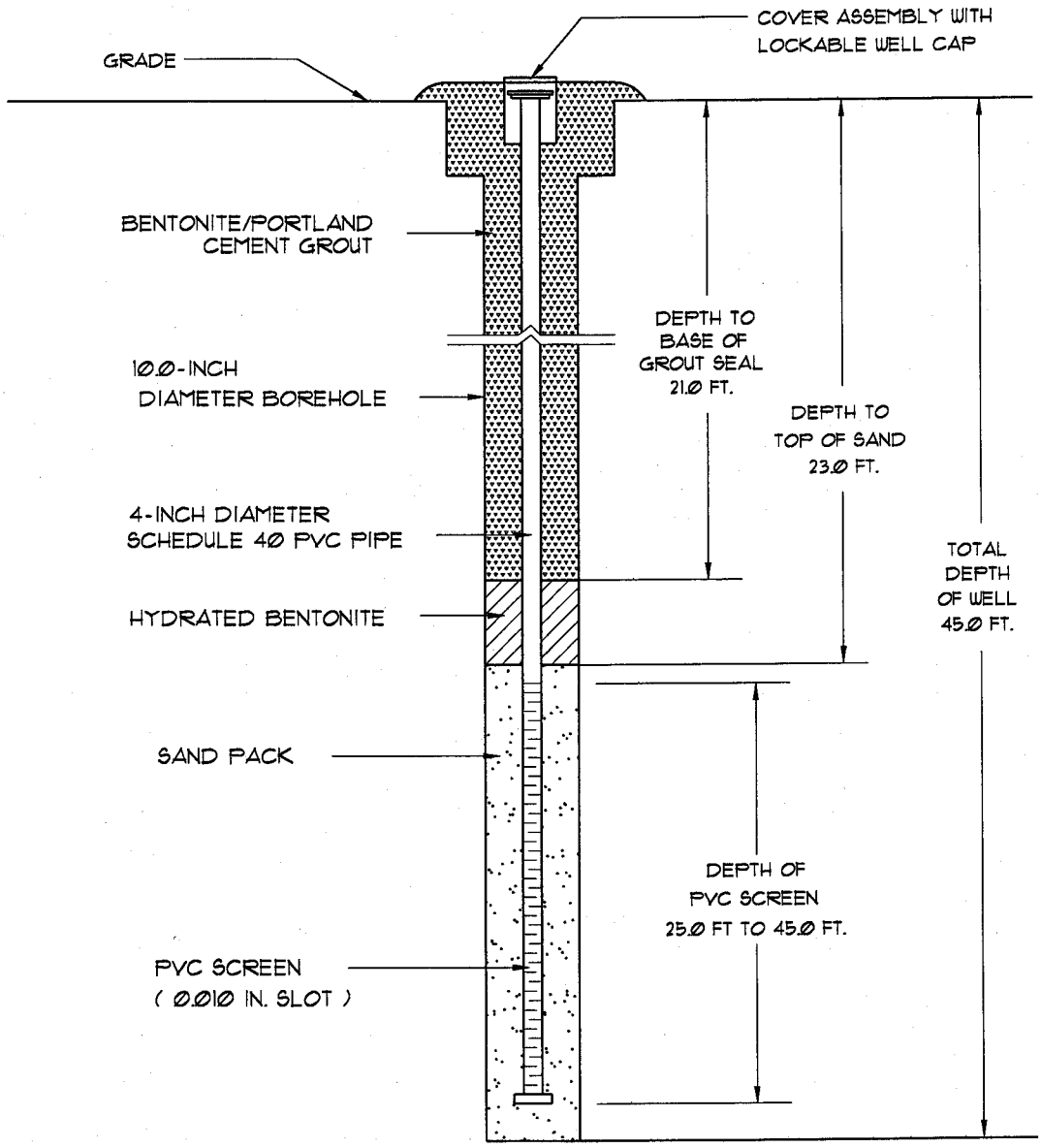
TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-62
Date Drilled:	8/15/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

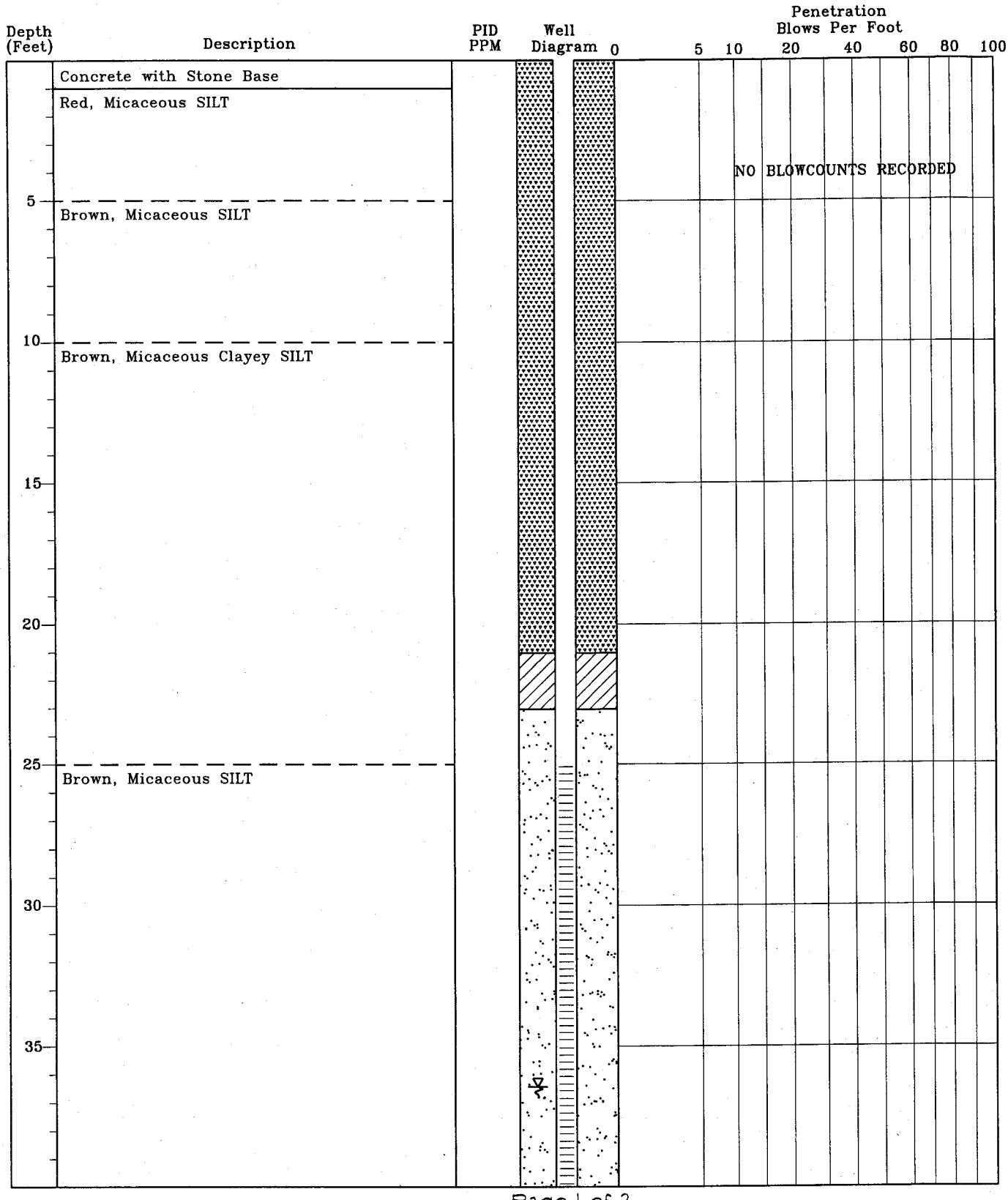
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787



Well Number:	MW-62
Date Drilled:	8/15/08
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 1086
Logged By:	B. Kelly

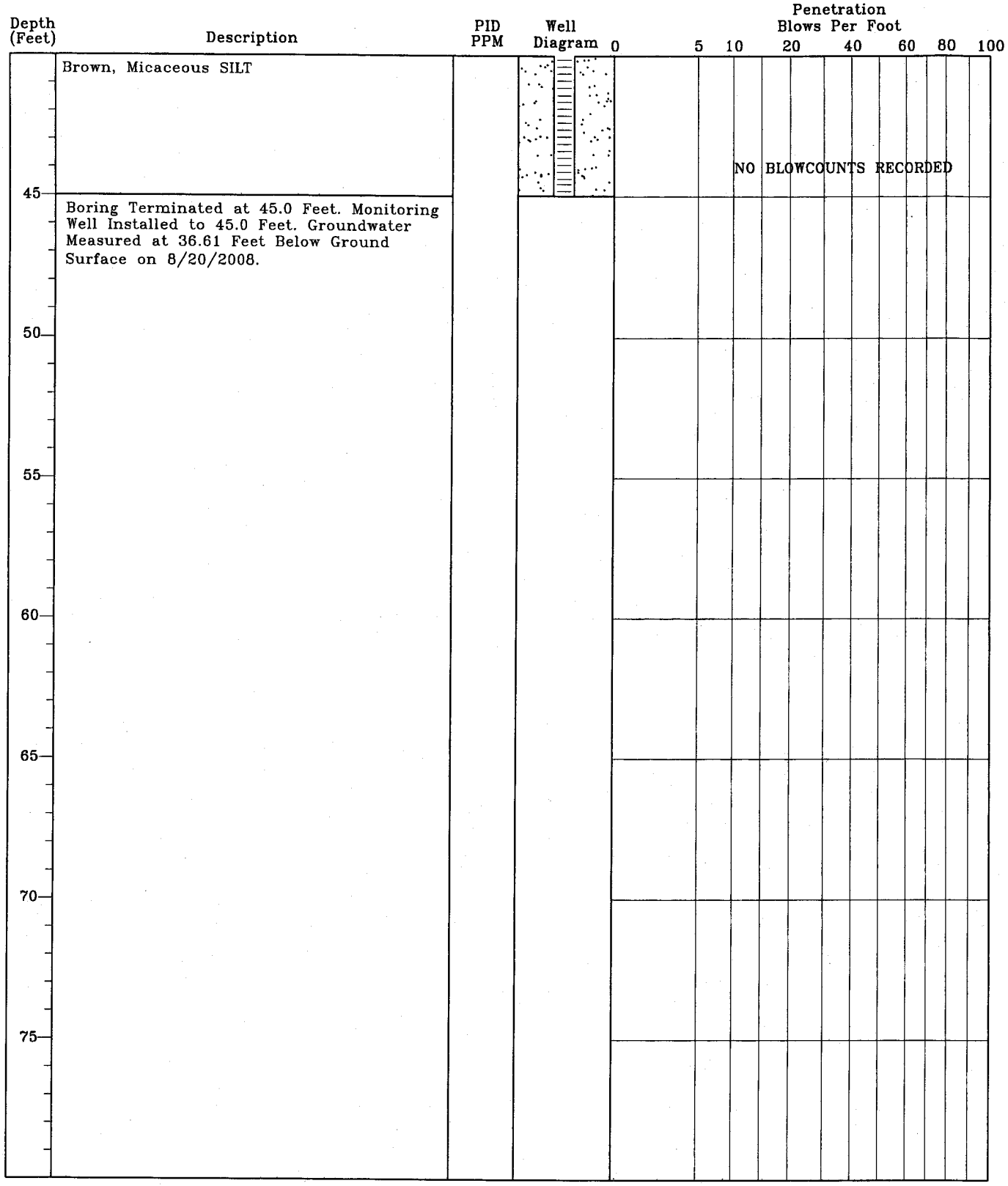
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-63
Date Drilled:	8/15/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



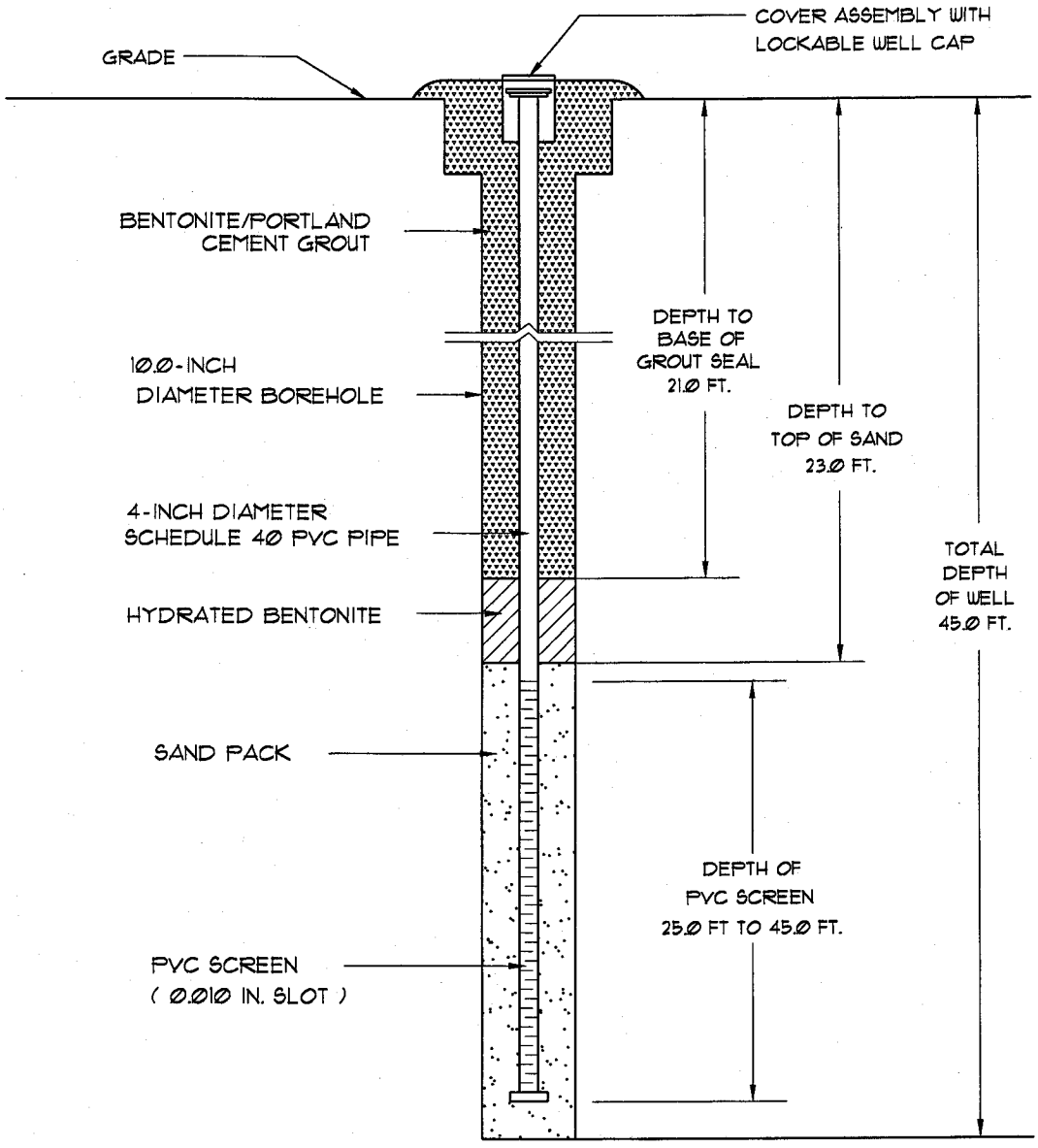
TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-63
Date Drilled:	8/15/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787



Well Number:	MW-63
Date Drilled:	8/15/08
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 1086
Logged By:	B. Kelly

Prepared By:
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235-B Dooley Road
Lexington, South Carolina 29073
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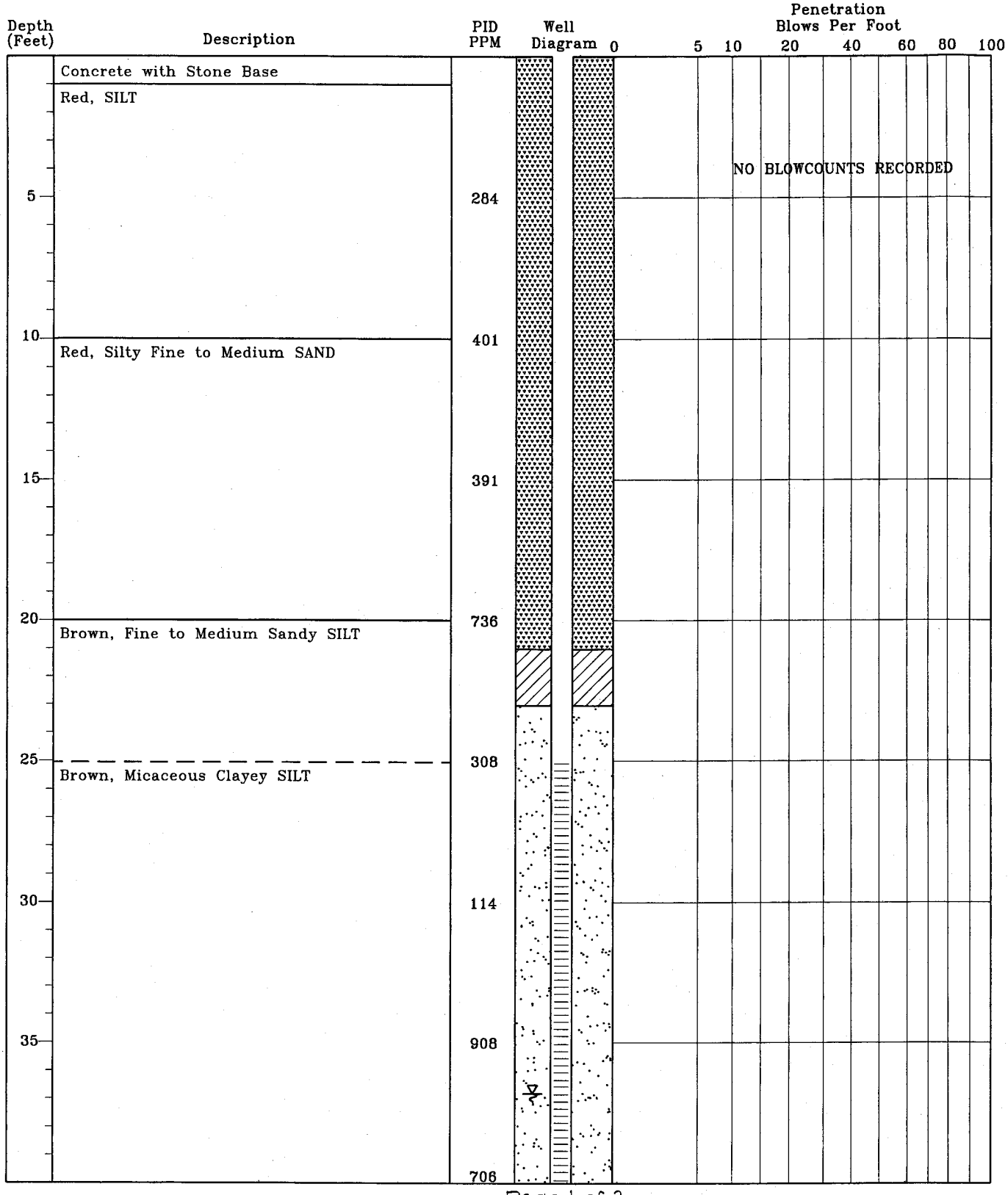


TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-64
Date Drilled:	8/13/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

Depth (Feet)	Description	PID PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Brown, Micaceous Clayey SILT			NO BLOWCOUNTS RECORDED
45	Boring Terminated at 45.0 Feet. Monitoring Well Installed to 45.0 Feet. Groundwater Measured at 36.90 Feet Below Ground Surface on 8/20/2008.	203		
50				
55				
60				
65				
70				
75				

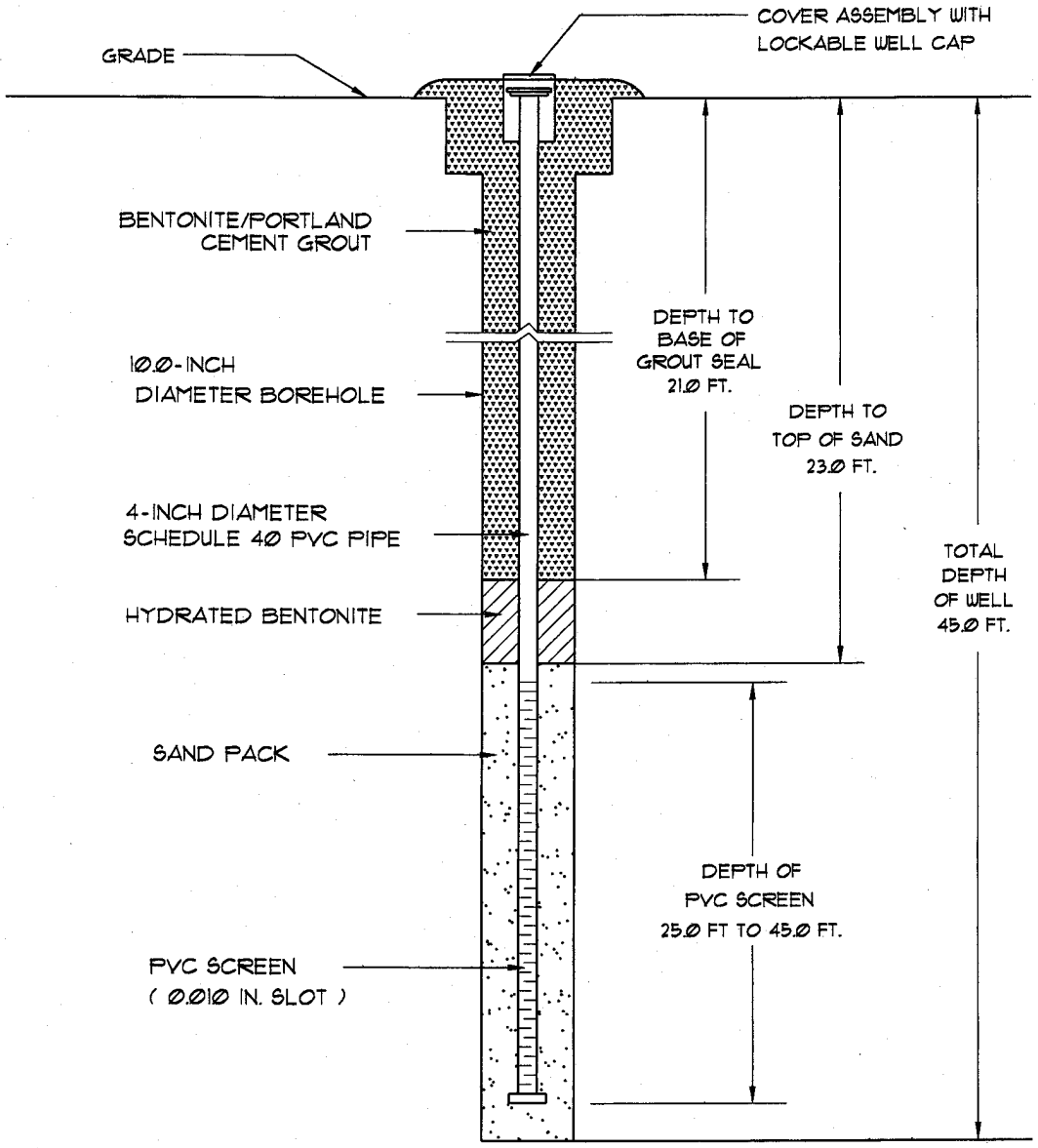
TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-64
Date Drilled:	8/13/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

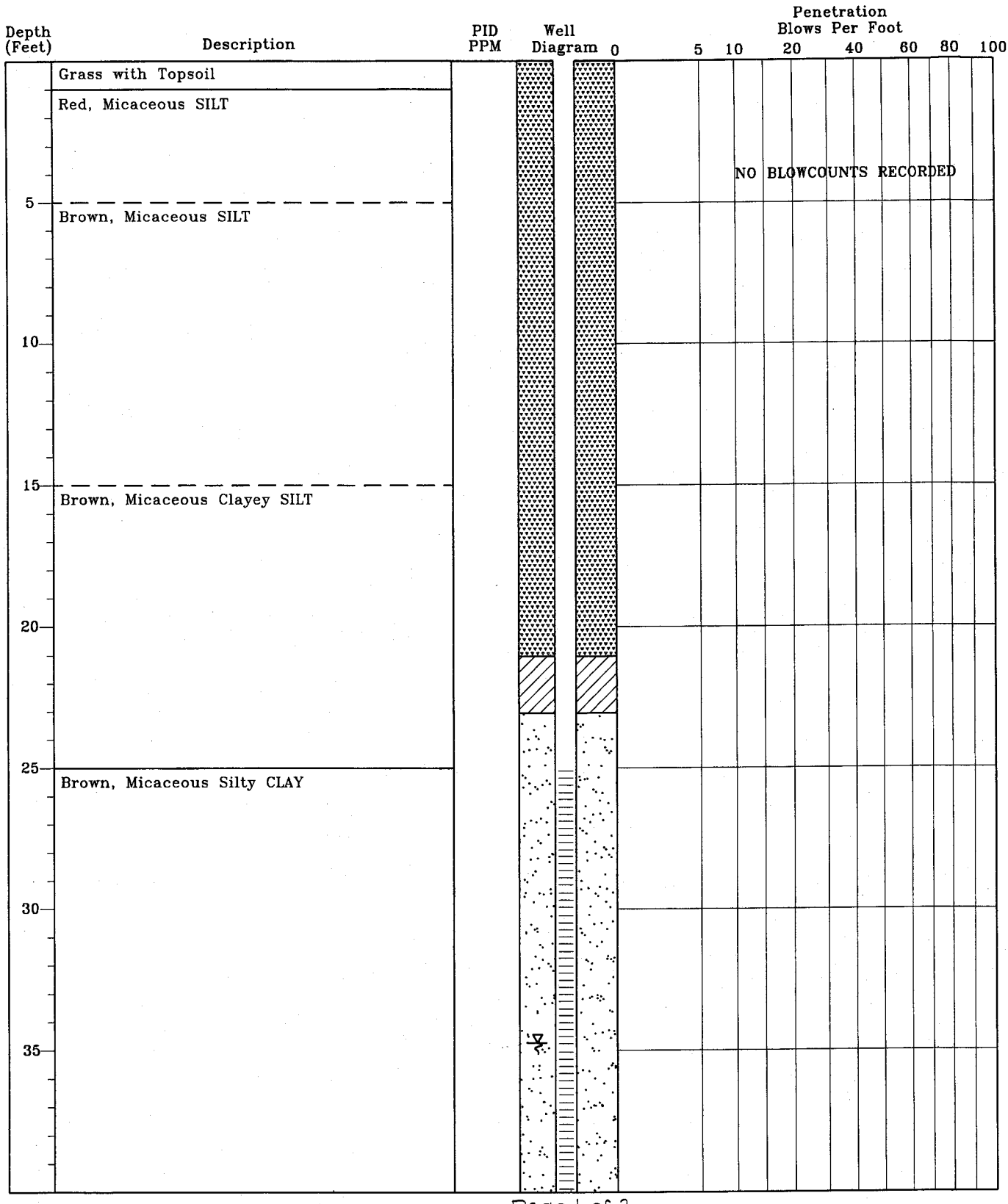
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787



Well Number:	MW-64
Date Drilled:	8/13/08
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 1086
Logged By:	B. Kelly

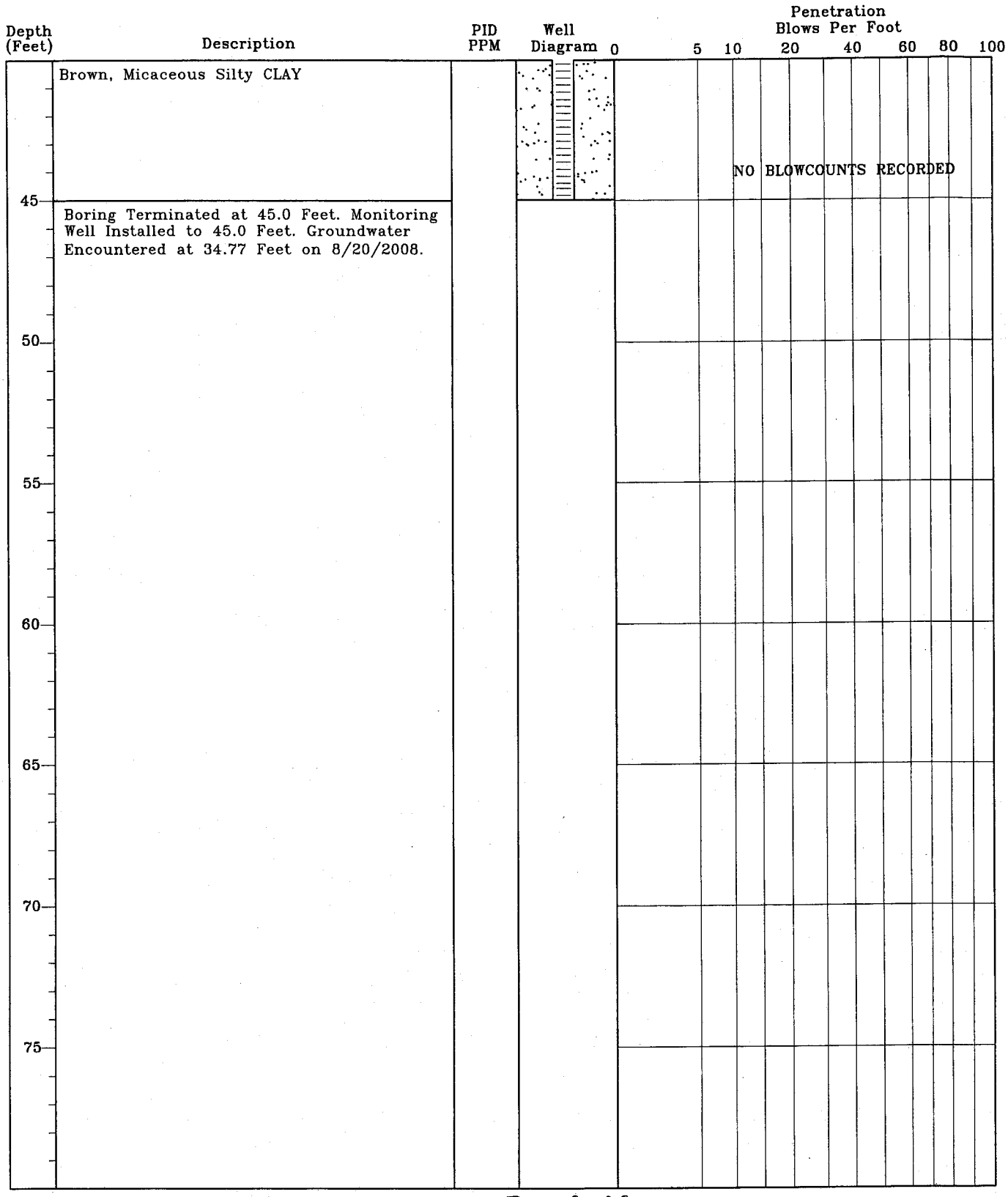
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-65
Date Drilled:	8/13/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



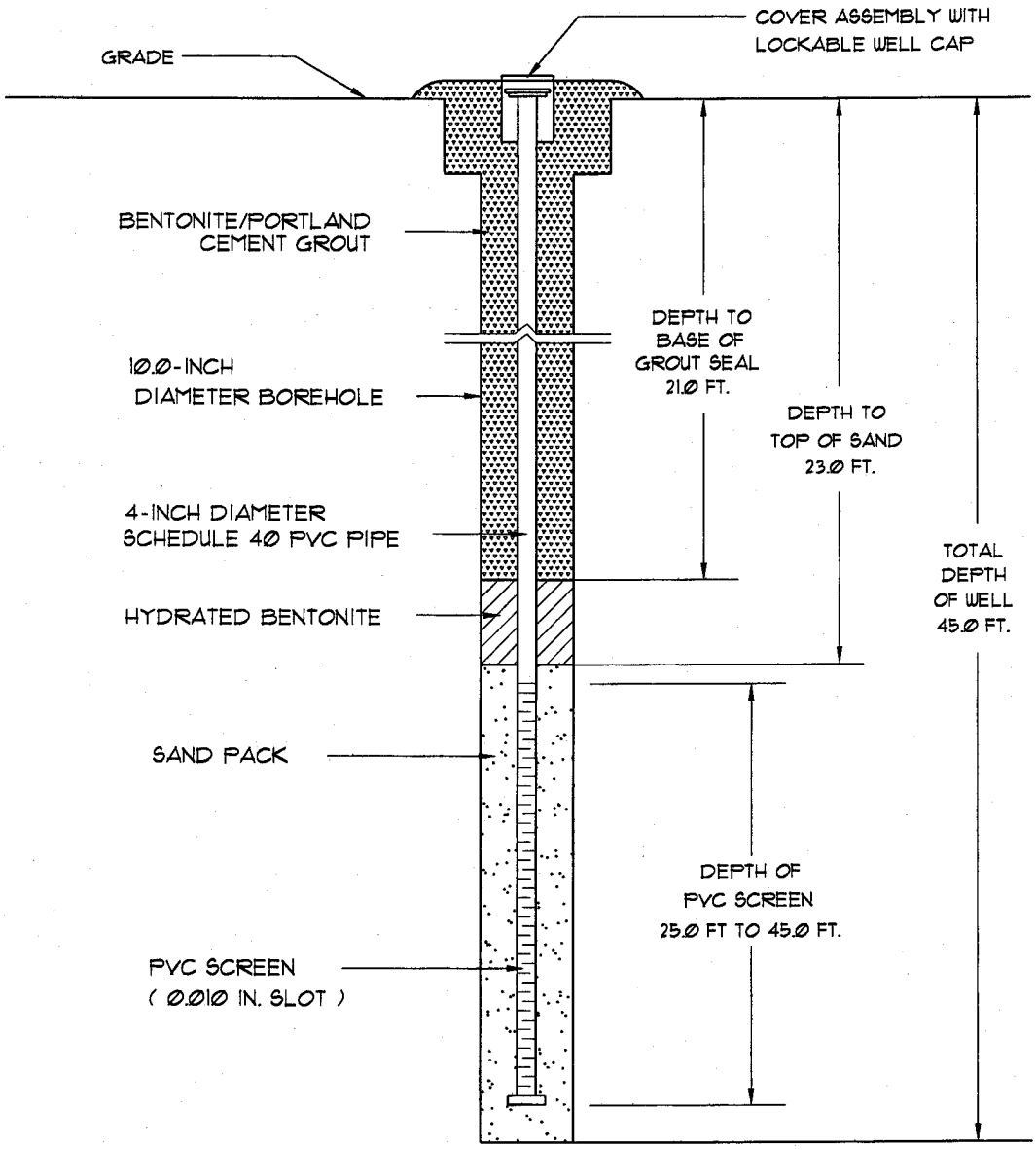
TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-65
Date Drilled:	8/13/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

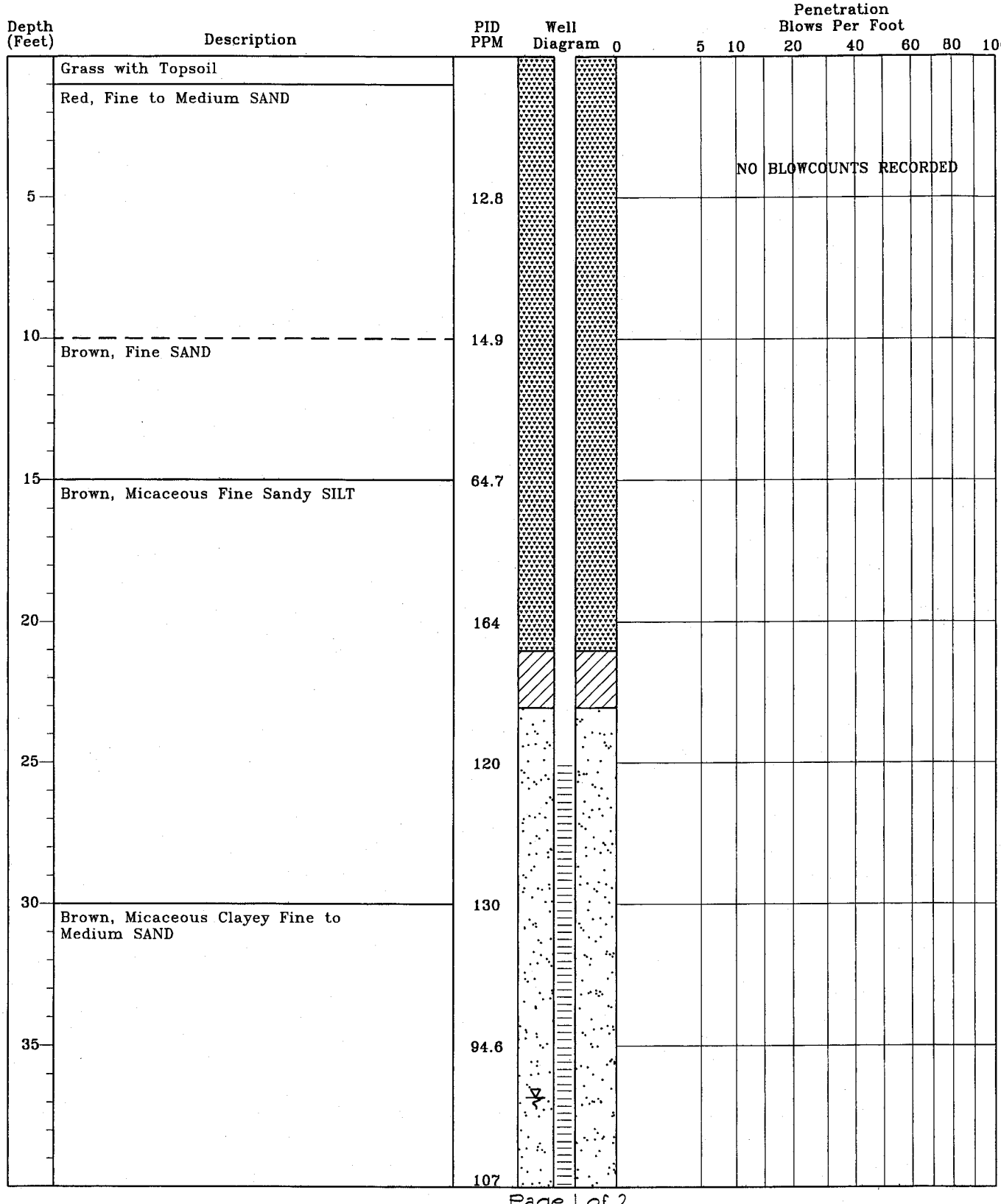
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminister, South Carolina
SCDHEC Site ID* 06742
MECI Project Number 08-1787



Well Number:	MW-65
Date Drilled:	8/13/08
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 1086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-66
Date Drilled:	8/13/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

Depth (Feet)	Description	PID PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Brown, Fine to Medium Sandy SILT			NO BLOWCOUNTS RECORDED
45		78.5		
	Boring Terminated at 45.0 Feet. Monitoring Well Installed to 45.0 Feet. Free Phase Petroleum Product encounted at 35.31 Feet. Groundwater Encountered at 35.38 Feet on 8/20/2008.			
50				
55				
60				
65				
70				
75				

TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-66
Date Drilled:	8/13/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
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235-B Dooley Road
Lexington, South Carolina 29073
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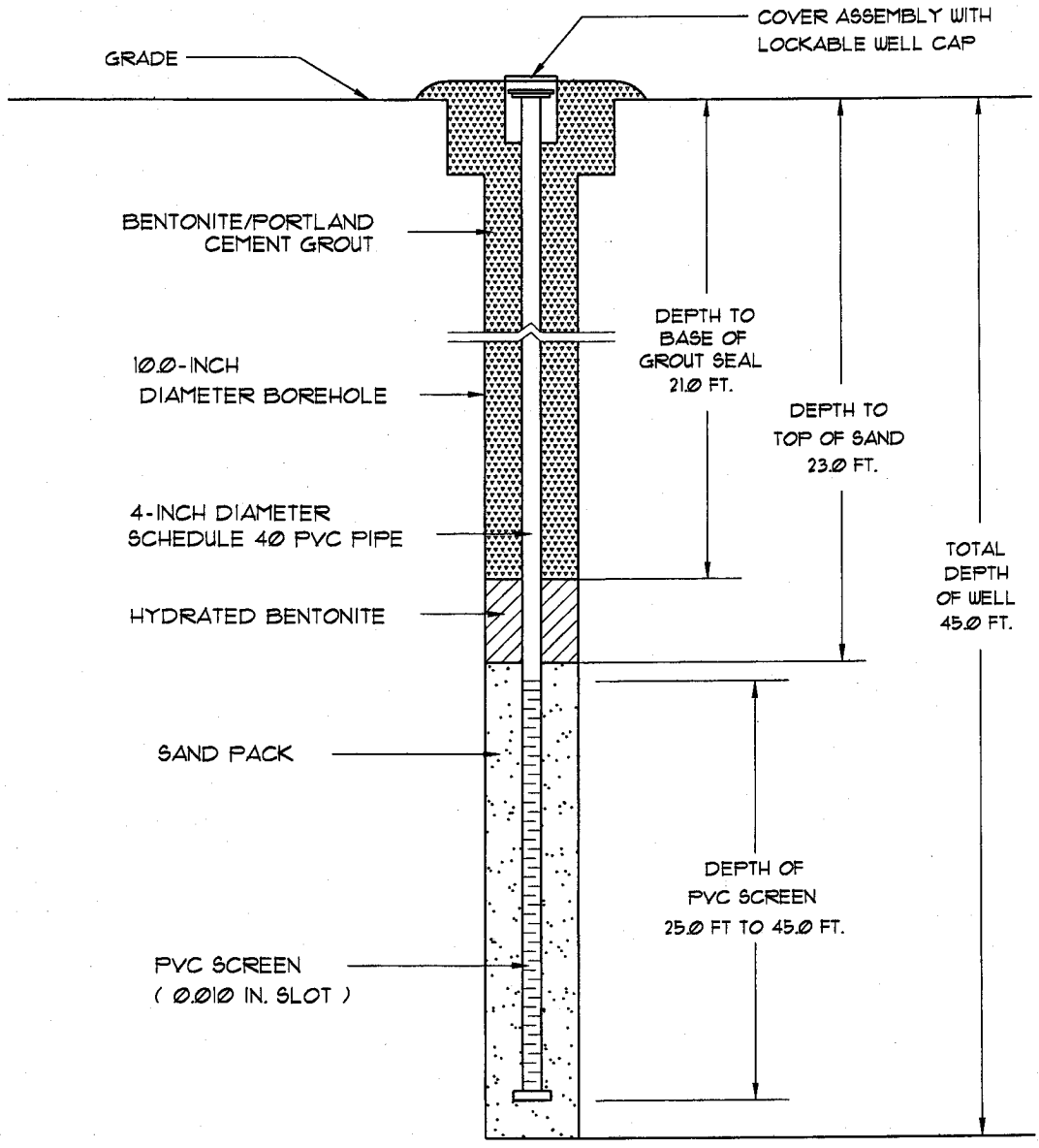
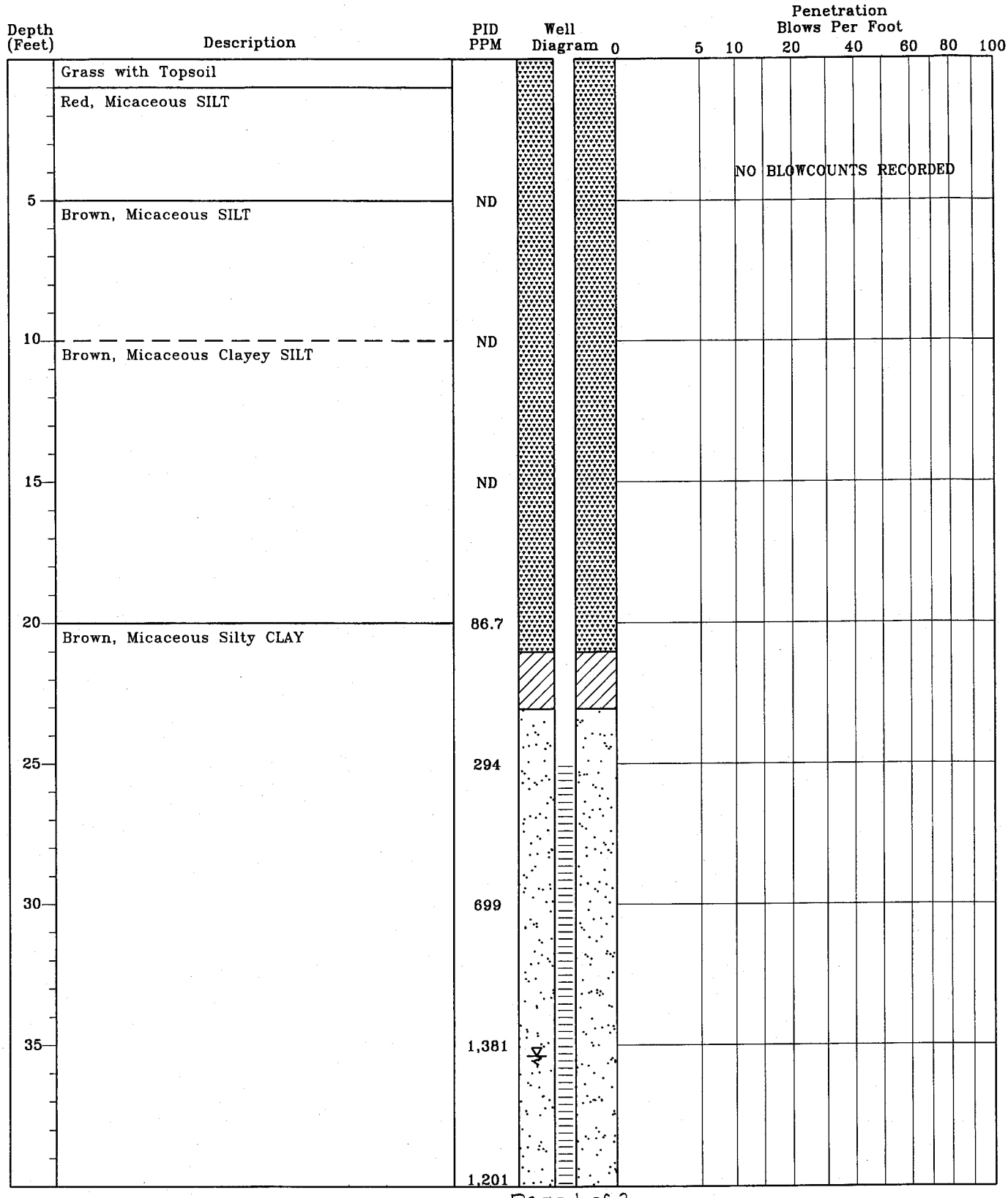
MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminister, South Carolina
SCDHEC Site ID* 06742
MECI Project Number 08-1787



Well Number:	MW-66
Date Drilled:	8/13/08
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. *: A 1086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-67
Date Drilled:	8/13/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

Depth (Feet)	Description	PID PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Brown, Micaceous Silty CLAY			NO BLOWCOUNTS RECORDED
45	Boring Terminated at 45.0 Feet. Monitoring Well Installed to 45.0 Feet. Groundwater Encountered at 35.38 Feet on 8/20/2008.	486		
50				
55				
60				
65				
70				
75				

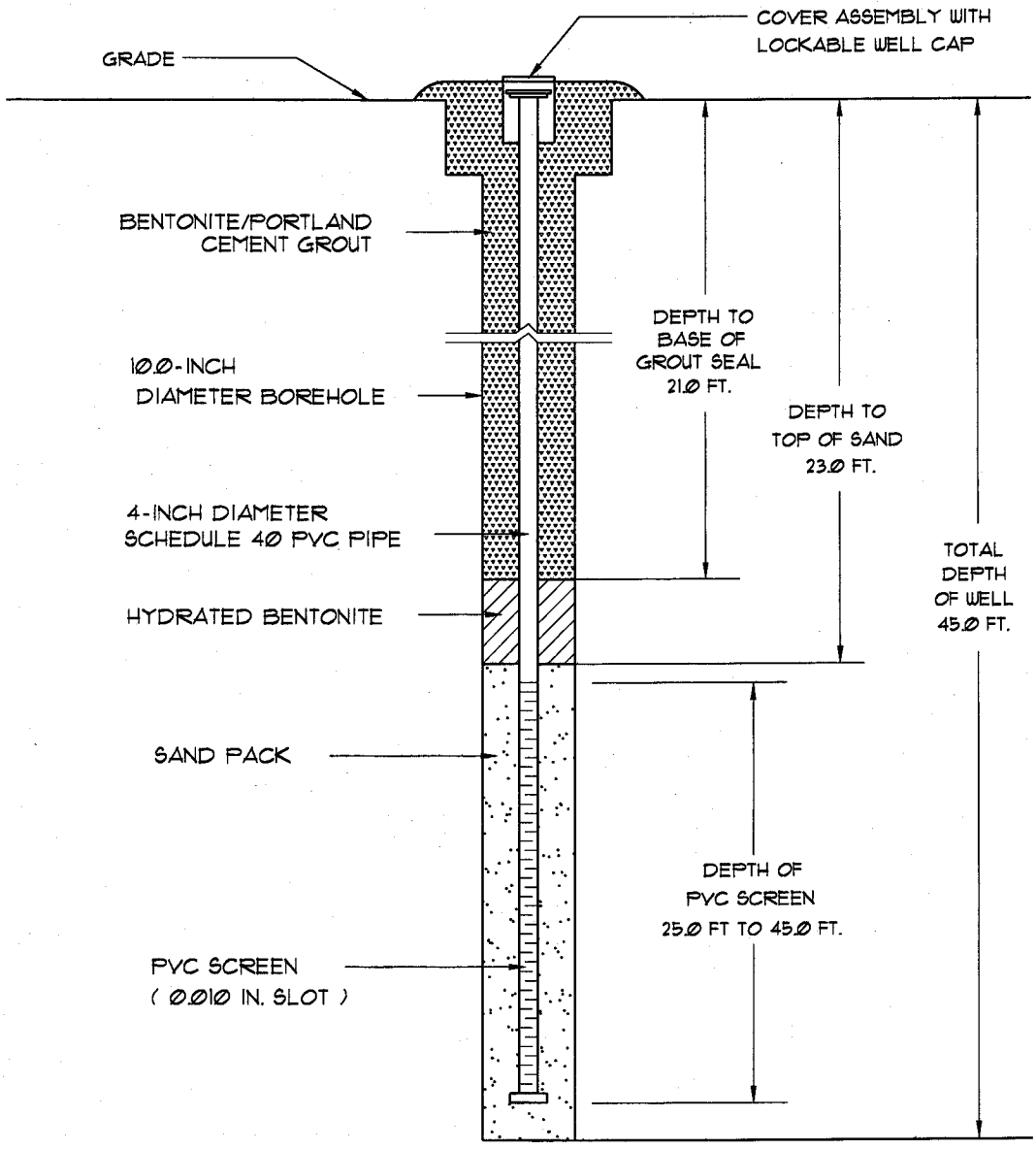
TEST BORING RECORD
Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787

Boring Number:	MW-67
Date Drilled:	8/13/08
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

MONITORING WELL INSTALLATION RECORD

Country Side 2
Westminister, South Carolina
SCDHEC Site ID# 06742
MECI Project Number 08-1787



Well Number:	MW-67
Date Drilled:	8/13/08
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 1086
Logged By:	B. Kelly

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: LAND II WILLIAM R. & ALLEY /ANTIQUES SC PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip: 29693
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED MICA SILT	10.0	10.0
BROWN MICA SILT	15.0	25.0
BROWN/RED MICA SILT	20.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: MW-60
BENTONITE SEAL FROM 21.0 TO 23.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 08/14/08
45.0 ft. Date Completed: 08/15/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 4 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
4.0 in. to 25.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 4 INCH
Slot/Gauge: .010 Length: 20.0 FEET
Set Between: 25.0 ft. and 45.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 35.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 23.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 21.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 08/28/08

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: LAND II WILLIAM R. & ALLEY /ANTIQUES SC PARTNERSHIP
(last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip: 29693
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED MICA SILT	10.0	10.0
BROWN MICA SILT	15.0	25.0
BROWN/RED MICA SILT	20.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: MW-61
BENTONITE SEAL FROM 21.0 TO 23.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 08/14/08
45.0 ft. Date Completed: 08/15/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 4 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
4.0 in. to 25.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 4 INCH
Slot/Gauge: .010 Length: 20.0 FEET
Set Between: 25.0 ft. and 45.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 35.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 23.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 21.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 08/28/08
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: LAND II WILLIAM R. & ALLEY /ANTIQUES SC PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip: 29693
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED MICA SILT	10.0	10.0
BROWN MICA SILT	15.0	25.0
ORANGE MICA SILT	20.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: MW-62
BENTONITE SEAL FROM 21.0 TO 23.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 08/14/08
45.0 ft. Date Completed: 08/15/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 4 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
4.0 in. to 25.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 4 INCH
Slot/Gauge: .010 Length: 20.0 FEET
Set Between: 25.0 ft. and 45.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 35.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 23.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 21.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date Installed: _____ Not Installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A B C D (circle one) ☑ ☐ ☐ ☐
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Mark K Gettys Date: 08/28/08
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: LAND II WILLIAM R. & ALLEY /ANTIQUES SC PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip: 29693
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED MICA SILT	5.0	5.0
BROWN MICA SILT	5.0	10.0
BROWN MICA CLAYEY SILT	15.0	25.0
BROWN MICA SILT	20.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: MW-63
BENTONITE SEAL FROM 21.0 TO 23.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 08/14/08 Date Completed: 08/15/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 4 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
4.0 in. to 25.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 4 INCH
Slot/Gauge: .010 Length: 20.0 FEET
Set Between: 25.0 ft. and 45.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 35.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 23.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 21.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Mark K Gettys Well Driller Date: 08/28/08

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: LAND II WILLIAM R. & ALLEY /ANTIQUES SC PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip: 29693
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED MICA SILT	5.0	5.0
BROWN MICA SILT	15.0	20.0
BROWN MICA CLAYEY SILT	5.0	25.0
BROWN MICA SILTY CLAY	20.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: MW-64
BENTONITE SEAL FROM 21.0 TO 23.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 08/13/08 Date Completed: 08/13/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 4 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
4.0 in. to 25.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 4 INCH
Slot/Gauge: .010 Length: 20.0 FEET
Set Between: 25.0 ft. and 45.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 35.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 23.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 21.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A B C D (circle one) ☑ ☐ ☐ ☐
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 08/28/08

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: LAND II WILLIAM R. & ALLEY /ANTIQUES SC PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip: 29693
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED MICA SILT	5.0	5.0
BROWN MICA SILT	10.0	15.0
BROWN MICA CLAYEY SILT	10.0	25.0
BROWN MICA SILTY CLAY	20.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: MW-65
BENTONITE SEAL FROM 21.0 TO 23.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 08/13/08 Date Completed: 08/13/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 4 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
4.0 in. to 25.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 4 INCH
Slot/Gauge: .010 Length: 20.0 FEET
Set Between: 25.0 ft. and 45.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 35.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 23.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 21.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Mark K Gettys Well Driller Date: 08/28/08

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: LAND II WILLIAM R. & ALLEY /ANTIQUES SC PARTNERSHIP (last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip: 29693
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED MICA SILT	6.0	6.0
BROWN MICA SILT	4.0	10.0
BROWN MICA CLAYEY SILT	15.0	25.0
BROWN SILTY CLAY	20.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: MW-66
BENTONITE SEAL FROM 21.0 TO 23.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 08/13/08 Date Completed: 08/13/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 4 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
4.0 in. to 25.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 4 INCH
Slot/Gauge: .010 Length: 20.0 FEET
Set Between: 25.0 ft. and 45.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 35.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 23.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 21.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A B C D (circle one) ☑ ☐ ☐ ☐
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Mark K Gettys Well Driller Date: 08/28/08

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: LAND II WILLIAM R. & ALLEY /ANTIQUES SC PARTNERSHIP
(last) (first)
Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER State: SC Zip: 29693
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** OCONEE
Name: COUNTRY SIDE #2
Street Address: 8050 WEST OAK HIGHWAY
City: WESTMINSTER Zip: 29693
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
RED MICA SILT	5.0	5.0
BROWN MICA SILT	5.0	10.0
BROWN MICA CLAYEY SILT	15.0	25.0
BROWN SILTY CLAY	20.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: MW-67
BENTONITE SEAL FROM 21.0 TO 23.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 08/13/08
45.0 ft. Date Completed: 08/13/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 4 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
4.0 in. to 25.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 4 INCH
Slot/Gauge: .010 Length: 20.0 FEET
Set Between: 25.0 ft. and 45.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 35.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 23.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 21.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Mark K Gettys Date: 08/28/08
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

WASTE DISPOSAL MANIFEST

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 452622

Customer Name MIDLANDS ENVIRONMENTAL CONSUL
Ticket Date 08/15/2008
Payment Type Credit Account
Hauling Ticket#
Route
State Waste Code
Manifest meci
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENV MIDL
Vehicle# 1
Container
Check#
Billing # 0001433
Gen EPA ID
Manual Ticket #

Volume

	Time	Scale	Operator
In	08/15/2008 12:56:24	Scale1	FRITZS
Out	08/15/2008 13:16:40	Scale2	FRITZS

Gross	18660 lb
Tare	10580 lb
Net	8080 lb
Tons	4.04

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	4.04	Tons	34.17		$138.05	LEXINGTON
2	FUEL-Fuel Surcharg	100		%	6.62		$9.59	LEXINGTON
3	HF-SPARTANBURG COU	100	4.04	Tons	1.00		$4.04	LEXINGTON
4	ENV-ENVIRONMENTAL	100		%	2.00		$2.76	LEXINGTON

Total Fees
Total Ticket $154.44

3/4 1/4
Country Side & Leo's

Signature

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. 452-622

NON-HAZARDOUS WASTE MANIFEST

82195

GENERATOR

Generator: MEC

Shipping Location
Street: 235-B Dooley Rd.

City: Lexington **State:** SC

County: Lexington

Phone: (803) 808-2043

Mailing Address
(Return completed manifest to:)
Street or P.O. Box:

City:

State: **Zip Code:**

Phone: ( )

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
Soil from UST Site Assessment	VA2718			
(Country Side 2 & Leo's)				
4.04				

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name (Print) **Signature** 8/15/08 **Delivery Date**

TRANSPORTER

Transporter Name

Address

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Driver Signature **Shipment Date**

Driver Name (Print) John Bryant

Truck Number 2

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

Driver Signature 8/15/08 **Delivery Date**

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North G West 31 Level 800

I hereby acknowledge receipt of the above described materials.

G.F. **Name of Authorized Agent (Print)** **Signature** 8-15-08 **Receipt Date**

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

PAL101

WHITE - ORIGINAL • YELLOW - TRANSPORTER RETAIN • PINK - LANDFILL RETAIN • GOLD - GENERATOR RETAIN

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. 452-412

NON-HAZARDOUS WASTE MANIFEST

87452

GENERATOR

Generator: MECI
Shipping Location
Street: 235 B Dooley Rd
City: Lexington State: SC
County: Lexington
Phone: (803) 808-2043

Mailing Address
(Return completed manifest to:)
Street or P.O. Box:
City:
State: Zip Code:
Phone: ( )

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
Soil from UST Countryside 2	VA2718			
3.54				

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Rorey Garnett — Rory Egan — 9/14/08
Generator Authorized Agent Name (Print) — Signature — Delivery Date

TRANSPORTER

Transporter Name John Bryant
Address 235 B Dooley Rd
Lexington, SC 29073

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Driver Signature — Shipment Date

Driver Name (Print)
Truck Number

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

Driver Signature — Delivery Date

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North G West 31 Level 800

I hereby acknowledge receipt of the above described materials.

GF — [signature] — 8-14-08
Name of Authorized Agent (Print) — Signature — Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

PAL101

WHITE - ORIGINAL • YELLOW - TRANSPORTER RETAIN • PINK - LANDFILL RETAIN • GOLD - GENERATOR RETAIN

WASTE MANAGEMENT

Palmetto Landfill
251 New Hope Road
Wellford, SC, 29385
Ph: (864) 439-8426

Original
Ticket# 452623

Customer Name MIDLANDS ENVIRONMENTAL CONSUL
Ticket Date 08/15/2008
Payment Type Credit Account
Hauling Ticket#
Route
State Waste Code
Manifest MECI
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENV MIDL
Vehicle# 2
Container
Check#
Billing # 0001433
Gen EPA ID
Manual Ticket #

Volume

	Time	Scale	Operator
In	08/15/2008 12:59:00	Scale1	FRITZS
Out	08/15/2008 13:17:49	Scale2	FRITZS

Gross	14520 lb
Tare	9620 lb
Net	4900 lb
Tons	2.45

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	WM-Cont Soil Snd-T	100	2.45	Tons	34.17		$83.72	LEXINGTON
2	FUEL-Fuel Surcharg	100		%	6.62		$5.82	LEXINGTON
3	HF-SPARTANBURG COU	100	2.45	Tons	1.00		$2.45	LEXINGTON
4	ENV-ENVIRONMENTAL	100		%	2.00		$1.67	LEXINGTON

Total Fees
Total Ticket $93.66

1/2 Country side + 1/2 Lco's

Signature Tony Egan

403WM

PALMETTO LANDFILL
A WASTE MANAGEMENT COMPANY

Gate Ticket No. 452623

NON-HAZARDOUS WASTE MANIFEST

82194

GENERATOR

Generator: Meci
Shipping Location
Street: 235 B Dooley Rd
City: Lexington State: SC
County: Lexington
Phone: (803) 808 2043

Mailing Address
(Return completed manifest to:)
Street or P.O. Box:
City:
State: Zip Code:
Phone: ( )

Description of Waste Materials	Profile Number	Total Quantity	Unit of Measure	Container Type
Soil from UST Site Assessment	VA 2718			
Country side 2				
Lois Gulf				
2.45				

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Rorey Garnett — Rory Egans — Delivery Date
Generator/Authorized Agent Name (Print) — Signature

TRANSPORTER

Transporter Name Rorey Garnett
Address 235 Dooley Rd
Lexington SC

I hereby acknowledge receipt of the above described materials for transport from the generator site listed above.

Rory Egans 02/15/08
Driver Signature — Shipment Date

Driver Name (Print)
Truck Number

I hereby acknowledge receipt of the above described materials:
were received from the generator site, and were transported without incident, to the destination as stated on this form.

Driver Signature — Delivery Date

DESTINATION

Site Name: Palmetto Landfill & Recycling Center **Phone Number:** (864) 439-8426 • **Fax:** 439-0097

Address: 251 New Hope Road, Wellford, South Carolina 29385

Disposal Location: North G West 31 Level 800

I hereby acknowledge receipt of the above described materials.

Name of Authorized Agent (Print) — Signature — 2-15-07 Receipt Date

NOTE: MANIFEST MUST BE FILLED OUT COMPLETELY BEFORE DISPOSAL

PAL101

WHITE - ORIGINAL • YELLOW - TRANSPORTER RETAIN • PINK - LANDFILL RETAIN • GOLD - GENERATOR RETAIN

Midlands
Environmental
Consultants, Inc.

September 5, 2008

Re: Treatment of Purge Water
Country Side 2
Westminster, South Carolina
SCDHEC Site ID Number 06742
MECI Project Number 08-1787

To Whom it May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The worst-case well analysis was obtained before usage of the Activated Carbon Unit. The worst-case well analysis shows only petroleum hydrocarbon constituents in the purge/bail water with minimal, background concentrations of lead. The purge/bail water was containerized on site before treatment for less than 30 days prior to treatment.

2. No free-product was detected in any of the purge water drums.

3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

One 55-gallon drum was treated on August 20, 2008 at the referenced site.

A total of one (1) 55-gallon drum was treated at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeffrey L. Coleman
Staff Scientist

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

SEP 2 4 2008

BRIAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071-0854

Re: Bid # IBF-30519-8/8/06-EMW; PO # 646282
Notice to Proceed

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct Aggressive Fluid Vapor Recovery (AFVR) event at several facilities. The packets contain the necessary approval for work to begin. You may commence with a site reconnaissance before the AFVR. If monitoring wells do not contain measurable free phase product, contact the UST project manager for further instructions. The facilities have been assigned Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order # 646282 on the appropriate invoices submitted for payment against the facilities. As specified in the referenced bid, **the completed invoice forms and associated reports (include contract certification number) are expected on or before the designated due date (see below).**

UST Permit #	Facility	County	Release #	Work Scope	Due Date*	CA #	Approved Amt.
00316	Allendale Maintenance Facility	Allendale	1	1 AFVR	60 days	33699	1,225.00
15590	Newberry County Airport	Newberry	1	2 AFVR	60 days	33673	2,375.00
06768	Horton's Grocery	Oconee	1	4 AFVR	60 days	33674	4,475.00
01869	By Rite Petroleum	Charleston	1	4 AFVR	60 days	33706	4,675.00
06742	Country Side 2	Oconee	1	6 AFVR	60 days	33718	6,975.00
01056	Beaufort Patrol Facility	Beaufort	1	4 AFVR	60 days	33719	4,675.00
12194	Null's Exxon	Richland	1	2 AFVR	60days	33612	2,225.00
08937	H Q Heath Self Serve	Sumter	1	1 AFVR	60days	33651	1,275.00

*From receipt of letter

UST DOCKET 16tech

Midland's Environmental Consultants, Inc. will perform services at the sites on behalf of the site's UST owners; however, payments will be made from the SUPERB Account. The site's UST owners have no obligation for payment for this scope of work. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the Department is obtained.

If for any reason there are changes in these cost agreements, any associated changes to this cost agreement must be pre-approved by this Department in order for Midlands Environmental Consultants to seek future cost compensation. Please contact the site's project manager for technical and/or financial approval.

Any item(s) not clearly or completely addressed in the report (disposal manifest for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account.

The Department grants pre-approval for transportation of free phase product and petroleum contaminated groundwater from the referenced site to a permitted treatment facility. The free product and contaminated groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included as an appendix to the report.

If you have any questions concerning this correspondence or need further assistance, please contact me by phone at (803) 896-6664, by fax at (803) 896-6245 or by email at milenkmp@dhec.sc.gov.

Sincerely,

Maia Milenkova

Maia Milenkova, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Approved Cost Agreements (ACA)
Information Packets
cc: Technical File (w/copy of ACA)

SCDHEC/UST/09/23/08/MPM

Approved Cost Agreement 33718

Facility: 06742 COUNTRY SIDE 2
PADGETJP
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		A	EQUIPMENT	6.0000	350.00	2,100.00
17 DISPOSAL						
		A2	WASTEWATER - PUMPING TEST	6,000.0000	0.10	600.00
23 EFR						
		A	8 HOUR EVENT	6.0000	600.00	3,600.00
		C	OFF GAS TREATMENT	6.0000	100.00	600.00
		D	SITE RECONNAISSANCE	1.0000	75.00	75.00
				Total Amount		6,975.00

Midlands
Environmental
Consultants, Inc.

October 9, 2008

RECEIVED
OCT 0 2008
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #33718
MECI Project Number 08-1937B

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on October 1, 2008. The event was conducted on MW-62, MW-63 and MW-64 to remove free phase petroleum product. Free phase petroleum product was detected in monitoring well MW- 62 at a thickness of 0.81 feet and MW-63 at a thickness of 0.03 feet and MW-64 at a thickness of 0.26 feet prior to the event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in the wells immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 8.34 pounds or approximately 1.44 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.04 pounds per hour. Concentrations of off gas produced during the event were recorded from 531 parts per million by volume (PPM) to 1588 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at 11.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1B.

UST DOCKET

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2B. Monitoring well locations are depicted on attached Figure 1.

A total of 50 gallons of liquid was removed from MW-62, MW-63 and MW-64 during this event. Free phase petroleum product was observed in the holding tank at the end of the event at a thickness of 0.05 feet. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

for William R. Owen
Staff Scientist

William C. McClary, P.G.
Senior Geologist

Attachments:

TABLE 1B
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1937B
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-62	10/01/08	9:30	0.50	11.0	1,572	1240	111.60	2.11	1.05
MW-63	10/01/08	10:00	0.50	11.0	1,588	1230	110.70	2.11	1.05
MW-64	10/01/08	10:30	0.50	11.0	687	1330	119.70	0.99	0.49
	10/01/08	11:00	0.50	11.0	582	1350	121.50	0.85	0.42
	10/01/08	11:30	0.50	11.0	575	1390	125.10	0.86	0.43
	10/01/08	12:00	0.50	11.0	569	1340	120.60	0.82	0.41
	10/01/08	12:30	0.50	11.0	555	1330	119.70	0.80	0.40
	10/01/08	13:00	0.50	11.0	561	1350	121.50	0.82	0.41
	10/01/08	13:30	0.50	11.0	576	1380	124.20	0.86	0.43
	10/01/08	14:00	0.50	11.0	572	1370	123.30	0.85	0.42
	10/01/08	14:30	0.50	11.0	565	1360	122.40	0.83	0.41
	10/01/08	15:00	0.50	11.0	568	1340	120.60	0.82	0.41
	10/01/08	15:30	0.50	11.0	559	1350	121.50	0.82	0.41
	10/01/08	16:00	0.50	11.0	569	1360	122.40	0.84	0.42
	10/01/08	16:30	0.50	11.0	555	1340	120.60	0.80	0.40
	10/01/08	17:00	0.50	11.0	531	1300	117.00	0.75	0.37
	10/01/08	17:30	0.50	11.0	542	1310	117.90	0.77	0.38
									TOTAL
									8.34

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-62	2"	25-45	37.73	38.54	0.81	***	37.91	***	0.06
MW-63	2"	25-45	37.52	37.55	0.03	***	37.62	***	0.10
MW-64	2"	25-45	37.78	38.04	0.26	***	37.86	***	0.04

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-62	39.00
Truck Operator:	J. Womack	MW-63	38.00
Stack I.D. (feet)	0.33 feet	MW-64	38.00

Corrected depth to water before AFVR Event in MW-62 =	37.85
Corrected depth to water before AFVR Event in MW-63 =	37.52
Corrected depth to water before AFVR Event in MW-64 =	37.82

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	8.34	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.44	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	50	Gallons

TABLE 2B
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1937B
SCDHEC SITE ID NUMBER 06742

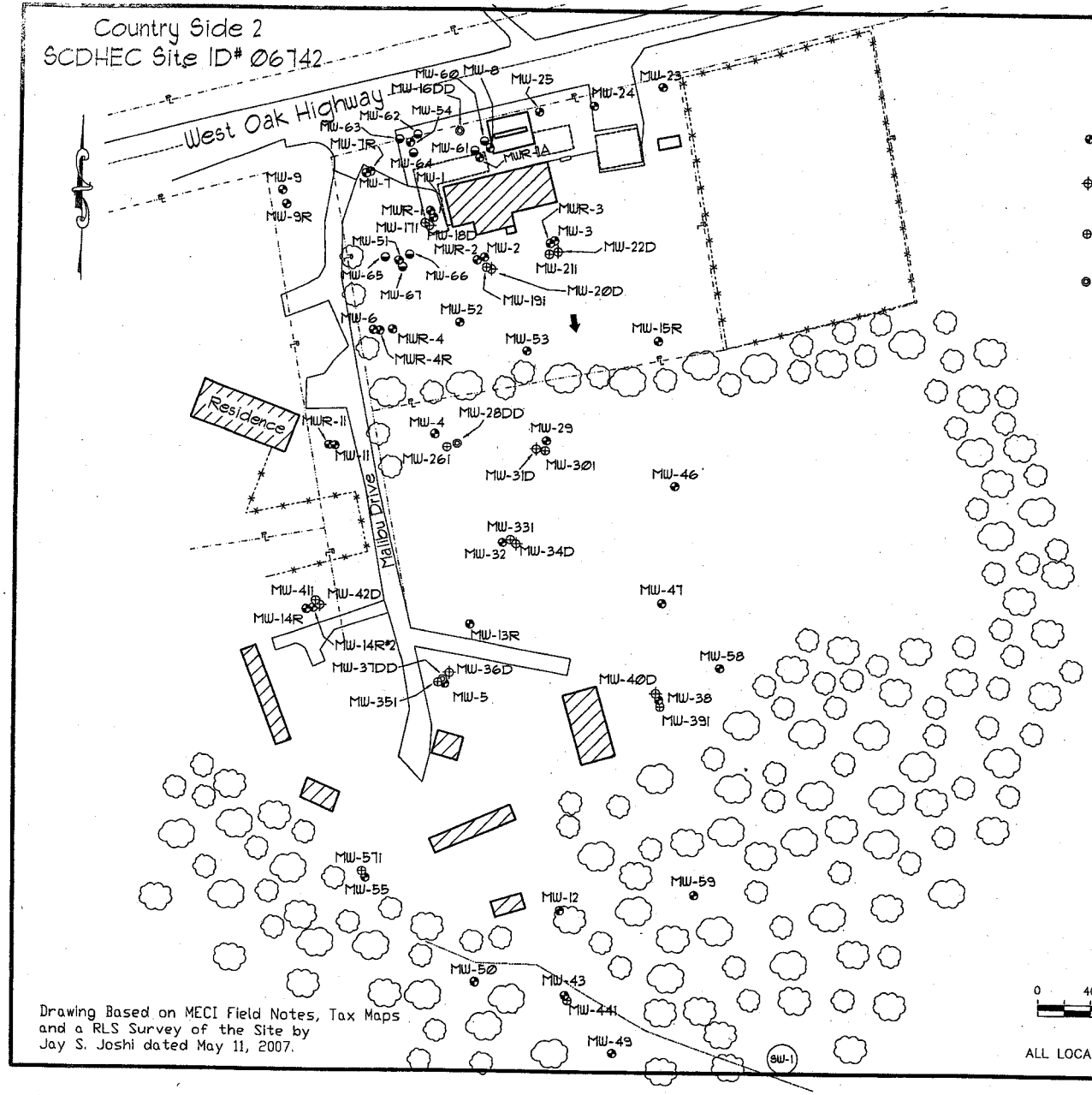
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1A	MW-7R	MW-16DD
Nearest Extraction Well:		MW-64	MW-64	MW-62
Approximate Distance:		50 ft	34 ft	32 ft
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
9:30	0.0	0	0	0
10:00	0.5	0	0	0
10:30	1.0	0	0	0
11:00	1.5	0	0	0
11:30	2.0	0	0	0
12:00	2.5	0	0	0
12:30	3.0	0	0	0
13:00	3.5	0	0	0
13:30	4.0	0	0	0
14:00	4.5	0	0	0
14:30	5.0	0	0	0
15:00	5.5	0	0	0
15:30	6.0	0	0	0
16:00	6.5	0	0	0
16:30	7.0	0	0	0
17:00	7.5	0	0	0
17:30	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1A	MW-7R	MW-16DD
Nearest Extraction Well:		MW-64	MW-64	MW-62
Approximate Distance:		50 ft	34 ft	32 ft
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior toAFVR		38.85	37.36	38.52
13:30	4 hours	38.88	37.46	38.54
17:30	8 hours	38.90	37.50	38.55
Maximum Change:		-0.05	-0.14	-0.03

Country Side 2
SCDHEC Site ID# 06742



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-Inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

Crandall

C 136076

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 29865 | 2. Page 1 of 1

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
(803) 808-2043
4. Generator's Phone ( )

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	02500	G
b.				
c.				
d. Macks camp-(01253)-300gals. Anderson Patrol(00769)30gals. Country C's-(09449)-130gals. Mary Morhead U(00091)30gals. SC 39 + Lee-(14561)-250gals. Jiffy Food A(00583)-40gals.				

D. Additional Descriptions for Materials Listed Above: Sonny's(08605)100gals. Nulls Exxon(12194)200gals. Country Side 2 A(06742) 40gals. Country Side 2 B(06742)50gals. Country Side 2 C(06742)55gals. S&J exxon(00825)30gals. Newberry Airport(15590)70gals.

E. Handling Codes for Wastes Listed Above

FIELD SERVICE

15. Special Handling Instructions and Additional Information: M+m C(10250)60gals. Service Call ID: GLB0129865 M+m D(10250)240gals. By Rite Petroleum(01869)210gals. Hilda A(18678)100gals. By rite Petro. B(01869)250gals. Frm. Food Specialist(00487)30gals. Hughes Well Drilling(00358)295gals.

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
John Bryant		10	08	00

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Chad Justice	Chad Justice	10	08	00

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

October 9, 2008

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

UNDERGROUND STORAGE
TANK PROGRAM

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #33718
MECI Project Number 08-1937C

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on October 2, 2008. The event was conducted on monitoring wells MW-65 and MW-67 to reduce dissolved COC concentrations and on MW-66 to remove free phase petroleum product. Free phase petroleum product was detected in monitoring well MW- 66 at a thickness of 0.28 feet prior to the event. Free phase petroleum product was not detected in monitoring wells MW-65 and MW-67 prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in the wells immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 15.20 pounds or approximately 2.63 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.90 pounds per hour. Concentrations of off gas produced during the event were recorded from 1,032 parts per million by volume (PPM) to 1,107 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 9.0 to 10.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1C.

UST DOCKET
18

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2C. Monitoring well locations are depicted on attached Figure 1.

A total of 155 gallons of liquid was removed from MW-65, MW-66, and MW-67 during this event. Free phase petroleum product was observed in the holding tank at the end of the event at a thickness of 0.20 feet. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

William R. Owen
Staff Scientist

William C. McClary, P.G.
Senior Geologist

Attachments:

TABLE 1C
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1937C
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-65	10/02/08	9:30	0.50	10.0	1,068	1150	103.50	1.33	0.66
MW-66	10/02/08	10:00	0.50	10.0	1,055	1150	103.50	1.31	0.66
MW-67	10/02/08	10:30	0.50	10.0	1,032	1270	114.30	1.42	0.71
	10/02/08	11:00	0.50	10.0	1,049	1380	124.20	1.56	0.78
	10/02/08	11:30	0.50	9.5	1,080	1530	137.70	1.78	0.89
	10/02/08	12:00	0.50	9.5	1,073	1580	142.20	1.83	0.92
	10/02/08	12:30	0.50	9.5	1,065	1750	157.50	2.01	1.01
	10/02/08	13:00	0.50	9.0	1,103	1630	146.70	1.94	0.97
	10/02/08	13:30	0.50	9.0	1,095	1690	152.10	2.00	1.00
	10/02/08	14:00	0.50	9.0	1,092	1700	153.00	2.00	1.00
	10/02/08	14:30	0.50	9.0	1,103	1710	153.90	2.04	1.02
	10/02/08	15:00	0.50	9.0	1,107	1720	154.80	2.06	1.03
	10/02/08	15:30	0.50	9.0	1,059	1590	143.10	1.82	0.91
	10/02/08	16:00	0.50	9.0	1,084	1570	141.30	1.84	0.92
	10/02/08	16:30	0.50	9.0	1,088	1550	139.50	1.82	0.91
	10/02/08	17:00	0.50	9.0	1,080	1560	140.40	1.82	0.91
	10/02/08	17:30	0.50	9.0	1,084	1550	139.50	1.81	0.91
									TOTAL 15.20

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-65	4"	25-45	***	35.79	***	***	35.80	***	0.01
MW-66	4"	25-45	36.32	36.60	0.28	***	36.50	***	-0.10
MW-67	4"	25-45	***	36.37	***	***	36.29	***	-0.08

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-12	36.00
Truck Operator:	J. Womack	MW-66	37.00
Stack I.D. (feet)	0.33 feet	MW-67	36.00
Corrected depth to water before AFVR Event in MW-66 =			36.36

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	15.20	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	2.63	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	155	Gallons

TABLE 2C
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1937C
SCDHEC SITE ID NUMBER 06742

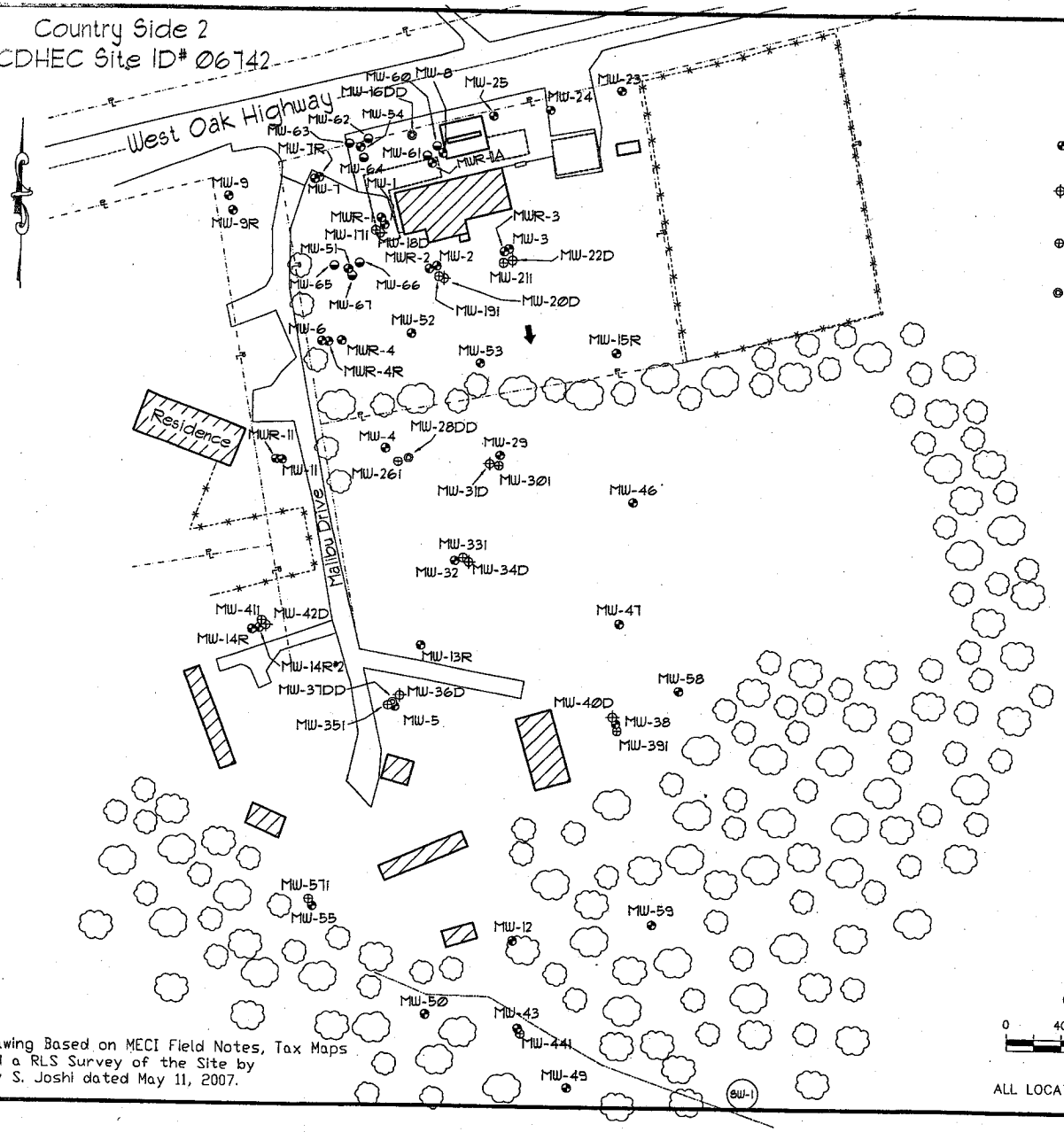
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-7R	**MW-17I**	**MW-51**
Nearest Extraction Well:		MW-65	MW-66	MW-67
Approximate Distance:		47 ft	17 ft	7 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
9:30	0.0	0	0	5.5
10:00	0.5	0	0	5.5
10:30	1.0	0	0	5.5
11:00	1.5	0	0	6.0
11:30	2.0	0	0	5.5
12:00	2.5	0	0	4.0
12:30	3.0	0	0	3.0
13:00	3.5	0	0	4.0
13:30	4.0	0	0	4.5
14:00	4.5	0	0	6.0
14:30	5.0	0	0	6.5
15:00	5.5	0	0	4.5
15:30	6.0	0	0	5.0
16:00	6.5	0	0	6.5
16:30	7.0	0	0	5.5
17:00	7.5	0	0	6.0
17:30	8.0	0	0	6.5
Maximum Change:		**0**	**0**	**3.5**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-7R	**MW-17I**	**MW-51**
Nearest Extraction Well:		MW-65	MW-66	MW-67
Approximate Distance:		47 ft	17 ft	7 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		37.42	37.66	38.55
13:30	4 hours	37.39	37.72	38.49
17:30	8 hours	37.39	37.71	38.39
Maximum Change:		0.03	-0.06	0.16

Country Side 2
SCDHEC Site ID# 06742



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

C 136076

Crandall

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No. 29865	2. Page 1 of 1

3. Generator's Name and Mailing Address Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803) 808-2043)

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Crandall Corporation	SCD981864499	(803) 791-4800
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Crandall Corporation 100 Rich-Lex Drive Lexington, SC 29072	SCD981864499	(803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	02500	G
b.				
c.				
d. • Macks camp (01253) - 300 gals. • Anderson Patrol (00769) 30 gals • Country C's (09449) - 130 gals • Mary Moorhead U (6009) 30 gals. • SC 39 + Lee - (14567) - 250 gals. • Jiffy Food A (00583) - 40 gals.				

D. Additional Descriptions for Materials Listed Above
• Sonnys (08605) 100 gals. • Country Side 2 C (06742) 155 gals.
• Nulls Exxon (12194) 200 gals • S+J exxon (00825) 30 gals.
• Country Side 2 A (06742) 40 gals.
• Country Side 2 B (06742) 50 gals. • Newberry Airport (15590) 70 gals.

FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
• M+M C (10250) 60 gals. • Hilda A (18678) 10 gals.
Service Call ID: GLB0129865 • By rite Petro. B (01869) 250 gals.
• M+M D (10250) 240 gals • Frm. Food Specialist (00487) 30 gals.
• By Rite Petroleum (A) (01869) 210 gals. • Hughes Well Drilling (00358) 295 gals.
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
X John Bryant	[signature]	10	08	08

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Chad Justice	Chad Justice	10	08	08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

FACILITY

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

October 9, 2008

RECEIVED
OCT 10 2008
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #33718
MECI Project Number 08-1937A

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

A site visit was conducted on September 26, 2008 at Country Side 2 to locate/gauge monitoring wells and to evaluate current site conditions. MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on September 30, 2008. The event was conducted on monitoring wells MW-1A to reduce dissolved COC concentrations and on MW-60 and MW-61 to remove free phase petroleum product. Free phase petroleum product was detected in monitoring well MW-60 at a thickness of 1.88 feet and in MW-61 at a thickness of 0.99 feet prior to the AFVR event. Free phase petroleum product was not detected in monitoring well MW-1A prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was detected in MW-60 at a thickness of 1.10 feet immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the wells were 5.24 pounds or approximately 0.90 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.66 pounds per hour. Concentrations of off gas produced during the event were recorded from 398 parts per million by volume (PPM) to 612 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at 11.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1A.

UST DOCKET

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

19 tech

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2A. Monitoring well locations are depicted on attached Figure 1.

A total of 40 gallons of liquid was removed from MW-1A, MW-60 and MW-61 during this event. Free phase petroleum product was observed in the holding tank at the end of the event at a thickness of 0.20 feet. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

for William R. Owen
Staff Scientist

William C. McClary, P.G.
Senior Geologist

Attachments:

TABLE 1A
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1937A
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-1A MW-60 MW-61	09/30/08	11:45	0.50	11.0	612	1180	106.20	0.78	0.39
	09/30/08	12:15	0.50	11.0	514	1310	117.90	0.73	0.36
	09/30/08	12:45	0.50	11.0	501	1320	118.80	0.71	0.36
	09/30/08	13:15	0.50	11.0	454	1390	125.10	0.68	0.34
	09/30/08	13:45	0.50	11.0	420	1320	118.80	0.60	0.30
	09/30/08	14:15	0.50	11.0	418	1290	116.10	0.58	0.29
	09/30/08	14:45	0.50	11.0	417	1230	110.70	0.55	0.28
	09/30/08	15:15	0.50	11.0	412	1280	115.20	0.57	0.28
	09/30/08	15:45	0.50	11.0	402	1330	119.70	0.58	0.29
	09/30/08	16:15	0.50	11.0	398	1350	121.50	0.58	0.29
	09/30/08	16:45	0.50	11.0	415	1360	122.40	0.61	0.30
	09/30/08	17:15	0.50	11.0	405	1390	125.10	0.61	0.30
	09/30/08	17:45	0.50	11.0	409	1310	117.90	0.58	0.29
	09/30/08	18:15	0.50	11.0	399	1280	115.20	0.55	0.28
	09/30/08	18:45	0.50	11.0	412	1350	121.50	0.60	0.30
	09/30/08	19:15	0.50	11.0	407	1330	119.70	0.58	0.29
	09/30/08	19:45	0.50	11.0	398	1340	120.60	0.58	0.29
									TOTAL **5.24**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-12	2"	30-45	***	38.84	***	***	38.88	***	0.04
MW-60	2"	25-45	37.66	39.54	1.88	37.95	39.05	1.10	1.11
MW-61	2"	25-45	37.81	38.80	0.99	***	37.62	***	-0.34

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-12	38.00
Truck Operator:	C. Baer	MW-60	40.00
Stack I.D. (feet)	0.33 feet	MW-61	39.00
Corrected depth to water before AFVR Event in MW-60 =			37.94
Corrected depth to water before AFVR Event in MW-61 =			37.96

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	5.24	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.90	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	40	Gallons

TABLE 2A
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1937A
SCDHEC SITE ID NUMBER 06742

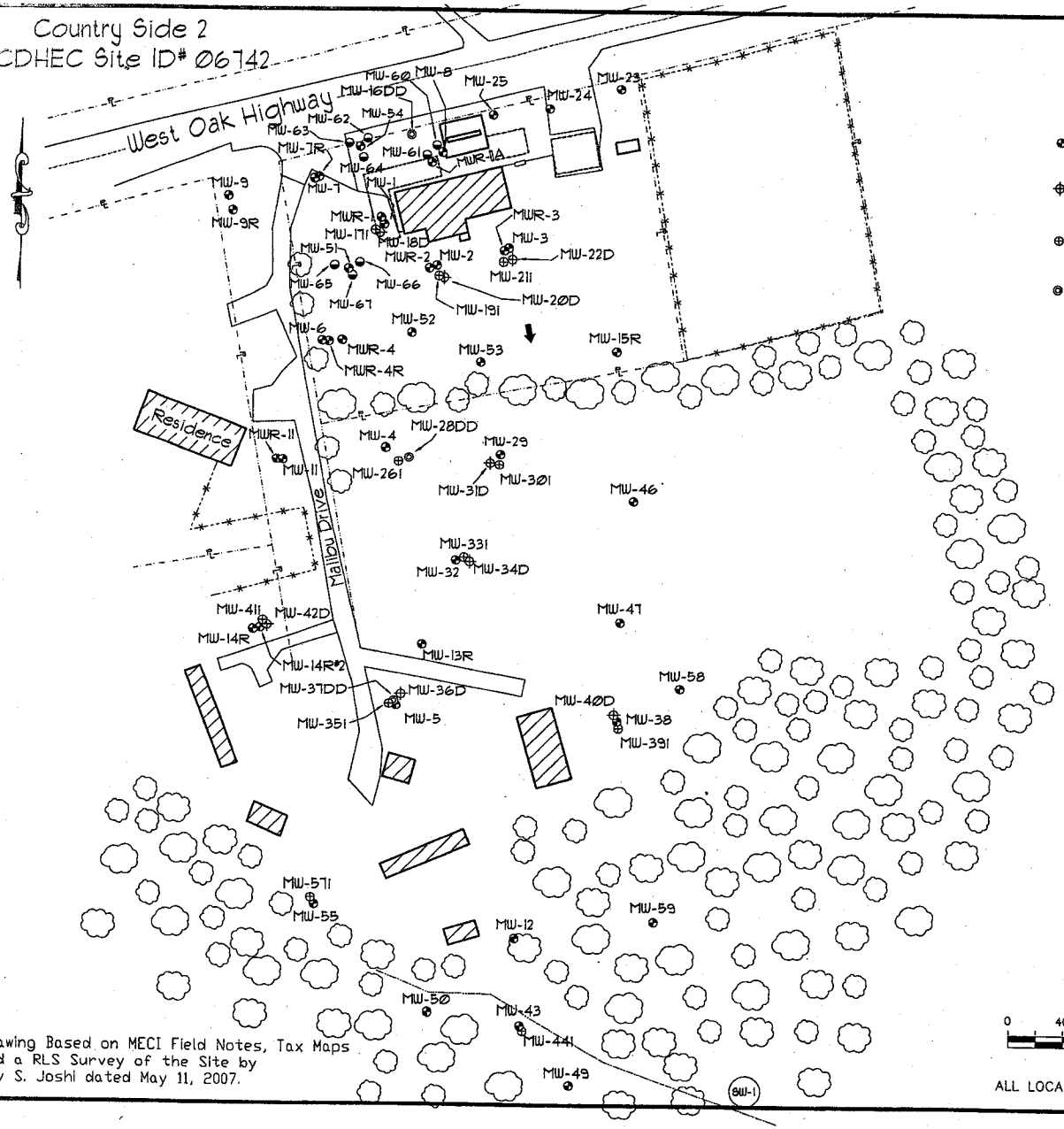
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-54	**MW-16DD**	**MW-25**
Nearest Extraction Well:		MW-61	MW-60	MW-60
Approximate Distance:		50 ft	20 ft	47 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
11:45	0.0	0	0	0
12:15	0.5	0	0	0
12:45	1.0	0	0	0
13:15	1.5	0	0	0
13:45	2.0	0	0	0
14:15	2.5	0	0	0
14:45	3.0	0	0	0
15:15	3.5	0	0	0
15:45	4.0	0	0	0
16:15	4.5	0	0	0
16:45	5.0	0	0	0
17:15	5.5	0	0	0
17:45	6.0	0	0	0
18:15	6.5	0	0	0
18:45	7.0	0	0	0
19:15	7.5	0	0	0
19:45	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-54	**MW-16DD**	**MW-25**
Nearest Extraction Well:		MW-61	MW-60	MW-60
Approximate Distance:		50 ft	20 ft	47 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		40.31	38.51	38.59
15:45	4 hours	40.30	38.51	38.58
19:45	8 hours	40.30	38.50	38.58
Maximum Change:		0.01	0.01	0.01

Country Side 2
SCDHEC Site ID# 06742



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

Crandall

C 136076

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 29865 | 2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
(803) 808-2043
4. Generator's Phone ( )

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	02500	G
b.				
c.				
d. Macks camp (01253) 300gals. Anderson Patrol (00769) 30gals. Country C's (09449) 130gals. Mary Morhead U (00091) 30gals. SC 39 + Lee (14567) 250gals. Jiffy Food A (00583) 40gals.				

D. Additional Descriptions for Materials Listed Above: Sonnys (08605) 100gals. Nulls Exxon (12194) 200gals. Country Side 2 A (06742) 40gals. Country Side 2 B (06742) 50gals. Country Side 2 C (06742) 150gals. S&J Exxon (00825) 30gals. Newberry Airport (15590) 70gals.

E. Handling Codes for Wastes Listed Above

FIELD SERVICE

15. Special Handling Instructions and Additional Information: M+m C (10250) 60gals. Service Call ID: GLB0129865. M+m D (10250) 240gals. By Rite Petroleum (01869) 210gals. Hilda A (18678) 100gals. By rite Petro. B (01869) 250gals. Frm. Food Specialist (00487) 30gals. Hughes Well Drilling (00358) 295gals.

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
John Bryant		10	08	02

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Chad Justice	Chad Justice	10	08	02

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JUN 15 2007

WILLIAM R LAND II
ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINISTER SC 29693-5534

Re: Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit # 06742
Report of Assessment Activities received June 11, 2007
Oconee County

Dear Mr. Land:

As you may be aware, the Underground Storage Tank (UST) Program directed Midlands Environmental Consultants, Incorporated to install additional monitoring wells plus sample the existing monitoring well network associated with release at the referenced facility. The most recent Assessment Report appears to have defined the extent of petroleum Chemicals of Concern (CoC) in the soil and groundwater. A copy of the report is enclosed for your information and files.

Based on these results, the UST Program will continue to direct Midlands Environmental Consultants to remove free phase product as we did in January and March of 2007. Costs for this latest scope of work and future free product recovery events will be paid from the State Underground Petroleum Environmental Response Bank (SUPERB) Account.

Thank you for your consideration. On all correspondence regarding this site, please reference UST permit number 06742. Please feel free to contact me at (803) 896-6669, fax me at (803) 896-6245 or e-mail me at shradeaa@ dhec.sc.gov if you have questions or need additional information.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Report of Assessment Activities by Midlands Environmental Consultants dated June 5, 2007

cc: Technical File (without enclosure)

UST PROGRAM
DOCKETING # 2

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

MR CARL DOCKINS
138 MALIBU DR
WESTMINISTER SC 29693-5114

MR STANLEY DOCKINS
132 MALIBU DR
WESTMINISTER SC 29693-5114

Re: Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit # 06742
Report of Assessment Activities received June 11, 2007
Oconee County

Dear Mr. Dockens:

As you may be aware, the Underground Storage Tank (UST) Program directed Midlands Environmental Consultants, Incorporated to install additional monitoring wells plus sample the existing monitoring well network associated with release at the referenced facility. The most recent Assessment Report appears to have defined the extent of petroleum Chemicals of Concern (CoC) in the soil and groundwater. A copy of the report is enclosed for your information and files.

Based on these results, the UST Program will continue to direct Midlands Environmental Consultants to remove free phase product as we did in January and March of 2007. Costs for this latest scope of work and future free product recovery events will be paid from the State Underground Petroleum Environmental Response Bank (SUPERB) Account.

Thank you for your consideration. On all correspondence regarding this site, please reference UST permit number 06742. Please feel free to contact me at (803) 896-6669, fax me at (803) 896-6245 or e-mail me at shradeaa@ dhec.sc.gov if you have questions or need additional information.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Report of Assessment Activities by Midlands Environmental Consultants dated June 5, 2007

cc: Technical File

Midlands
Environmental
Consultants, Inc.

November 13, 2008

RECEIVED
NOV 25 2008
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #33718
MECI Project Number 08-1937F

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on November 6, 2008. The event was conducted on monitoring wells MW-1A to reduce dissolved COC concentrations and on MW-60 and MW-61 to remove free phase petroleum product. Free phase petroleum product was detected in monitoring well MW-60 at a thickness of 2.92 feet and in MW-61 at a thickness of 0.33 feet prior to the AFVR event. Free phase petroleum product was not detected in monitoring well MW-1A prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was detected in MW-60 at a thickness of 0.89 feet immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the wells were 9.90 pounds or approximately 1.71equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.24 pounds per hour. Concentrations of off gas produced during the event were recorded from 841 parts per million by volume (PPM) to 930 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 13.0 to 16.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1F.

UST DOCKET
20 fcl

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2F. Monitoring well locations are depicted on attached Figure 1.

A total of 30 gallons of liquid was removed from MW-1A, MW-60 and MW-61 during this event. Free phase petroleum product was observed in the holding tank at the end of the event at a thickness of 0.20 feet. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Brandon T. Guiles
Staff Biologist

William C. McClary, P.G.
Senior Geologist

Attachments:

TABLE 1F
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1937F
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-1A	11/06/08	5:00	0.50	13.0	846	1470	132.30	1.34	0.67
MW-60	11/06/08	5:30	0.50	13.0	910	1500	135.00	1.47	0.74
MW-61	11/06/08	6:00	0.50	13.0	891	1450	130.50	1.40	0.70
	11/06/08	6:30	0.50	15.0	930	1320	118.80	1.33	0.66
	11/06/08	7:00	0.50	15.0	926	1250	112.50	1.25	0.63
	11/06/08	7:30	0.50	15.0	913	1290	116.10	1.27	0.64
	11/06/08	8:00	0.50	15.0	915	1280	115.20	1.26	0.63
	11/06/08	8:30	0.50	16.0	928	1060	95.40	1.06	0.53
	11/06/08	9:00	0.50	16.0	903	1080	97.20	1.05	0.53
	11/06/08	9:30	0.50	16.0	919	1090	98.10	1.08	0.54
	11/06/08	10:00	0.50	16.0	891	1080	97.20	1.04	0.52
	11/06/08	10:30	0.50	16.0	925	1100	99.00	1.10	0.55
	11/06/08	11:00	0.50	16.0	905	1150	103.50	1.12	0.56
	11/06/08	11:30	0.50	16.0	881	1090	98.10	1.04	0.52
	11/06/08	12:00	0.50	16.0	897	1090	98.10	1.06	0.53
	11/06/08	12:30	0.50	16.0	853	1100	99.00	1.01	0.51
	11/06/08	13:00	0.50	16.0	841	1000	90.00	0.91	0.45
									TOTAL **9.90**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-1A	2"	30-45	***	39.80	***	***	38.71	***	-1.09
MW-60	4"	25-45	38.40	41.32	2.92	34.13	35.02	0.89	-3.82
MW-61	4"	25-45	38.61	38.94	0.33	***	38.72	***	0.06

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-1A	40.00
Truck Operator:	J. Bryant	MW-60	42.00
Stack I.D. (feet)	0.33 feet	MW-61	40.00
Corrected depth to water before AFVR Event in MW-60 =			38.84
Corrected depth to water before AFVR Event in MW-61 =			38.66

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	9.90	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.71	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	30	Gallons

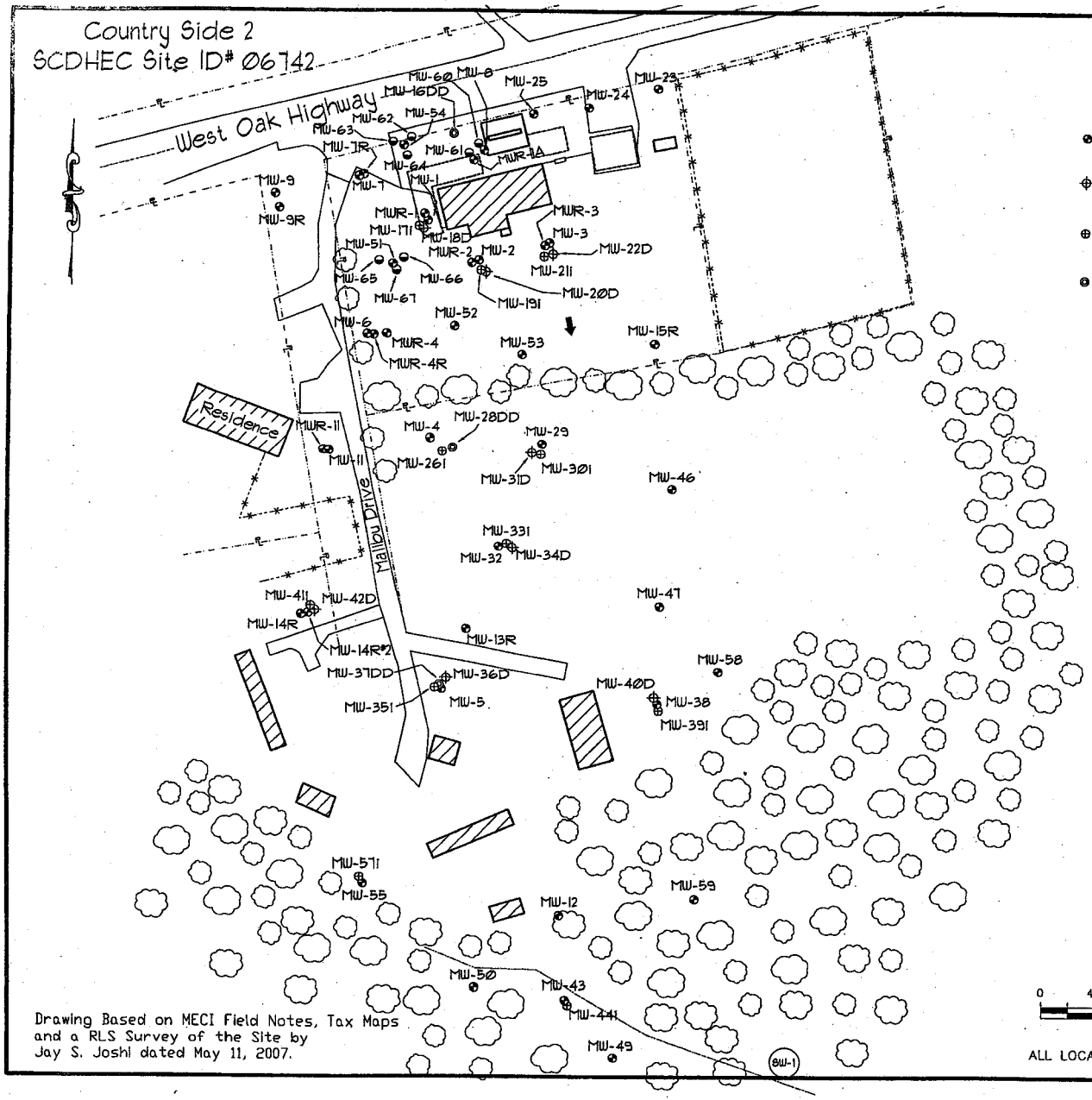
TABLE 2F
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1937F
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-62	**MW-64**	**MW-25**
Nearest Extraction Well:		MW-61	MW-61	MW-60
Approximate Distance:		45 ft	46 ft	47 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
5:00	0.0	0	0	0
5:30	0.5	0	0	0
6:00	1.0	0	0	0
6:30	1.5	0	0	0
7:00	2.0	0	0	0
7:30	2.5	0	0	0
8:00	3.0	0	0	0
8:30	3.5	0	0	0
9:00	4.0	0	0	0
9:30	4.5	0	0	0
10:00	5.0	0	0	0
10:30	5.5	0	0	0
11:00	6.0	0	0	0
11:30	6.5	0	0	0
12:00	7.0	0	0	0
12:30	7.5	0	0	0
13:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-62	**MW-64**	**MW-25**
Nearest Extraction Well:		MW-61	MW-61	MW-60
Approximate Distance:		45 ft	46 ft	47 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		38.37	39.04	37.68
9:00	4 hours	38.42	39.06	37.68
13:00	8 hours	38.45	39.09	37.68
Maximum Change:		-0.08	-0.05	0.00



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

C 139706

Crandall

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 01500

2. Page 1 of 1

3. Generator's Name and Mailing Address Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
(803) 808-2043

4. Generator's Phone ( )

5. Transporter 1 Company Name: Crandall Corporation

6. US EPA ID Number: SCD981864499

A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number: SCD981864499

C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	2,840	G
b.				
c. Country Side 2-D-06742-100gals. • Country Side 2-E-06742-20gals. • Country Side 2-F-06742-30gals. • Former Ford-C-00487-30gals. • Newberry Airport-B-15590-80gals • Unknown Ust-B-18678-30gals • Minicks-B-07967-70gals • Pelzers GAS B-00480-145gals				
d. • Community Quick B-11694-100gals. • Bay Creek-18662-150gals • Lathan Oil A-08869-325gals • Lathan Oil B-08869-150gals. • Beufort Mait B-01056-150gals • Bi-Rite C-01869-100gals.				

D. Additional Descriptions for Materials Listed Above
• Bi-rite-D-01869-100gals. • Mary Moorehead-B-16009-30gals. • Mary Moorehead-C-16009-0gals.
• Rockland Parking lot-15475-70gals
• Hortons-C-06768-200gals
• Hortons-D-06768-60gals.

FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
• Richland Co. landfill-11808-30gals.
• Hughes Well drilling-06358-250gals. • Regal Petroleum A-19426-80gals.
Service Call ID: GLB0131888
• Friendly Marks-A-11693-50gals. • Nilson Van & Storage B-07442-420gals.
• Simpsonville Short Stop-12036-70gals
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
X [signature]	X [signature]	11	21	08

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Chad Justice	Chad Justice	11	21	08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

FACILITY

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

November 13, 2008

RECEIVED
NOV 2 5 2008
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #33718
MECI Project Number 08-1937E

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on November 4, 2008. The event was conducted on MW-62, MW-63 and MW-64 to remove free phase petroleum product. Free phase petroleum product was detected in monitoring well MW- 62 at a thickness of 2.90 feet and MW-63 at a thickness of 0.70 feet and MW-64 at a thickness of 4.25 feet prior to the event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was detected in the monitoring well MW-64 at a thickness of 2.04 feet immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 16.00 pounds or approximately 2.76 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 2.00 pounds per hour. Concentrations of off gas produced during the event were recorded from 816 parts per million by volume (PPM) to 3,417 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 14.0 to 15.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1E.

UST DOCKET 21 tech

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2E. Monitoring well locations are depicted on attached Figure 1.

A total of 20 gallons of liquid was removed from MW-62, MW-63 and MW-64 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

for Brandon T. Guiles
Staff Biologist

for William C. McClary, P.G.
Senior Geologist

Attachments:

TABLE 1E
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1937E
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-62	11/04/08	9:00	0.50	15.0	3,357	1130	101.70	4.10	2.05
MW-63	11/04/08	9:30	0.50	15.0	3,379	1150	103.50	4.20	2.10
MW-64	11/04/08	10:00	0.50	14.0	3,417	1130	101.70	4.17	2.09
	11/04/08	10:30	0.50	14.0	1,893	1090	98.10	2.23	1.11
	11/04/08	11:00	0.50	14.0	1,398	1190	107.10	1.80	0.90
	11/04/08	11:30	0.50	14.0	1,394	1180	106.20	1.78	0.89
	11/04/08	12:00	0.50	14.0	1,317	1120	100.80	1.59	0.80
	11/04/08	12:30	0.50	14.0	1,230	1050	94.50	1.39	0.70
	11/04/08	13:00	0.50	14.0	1,133	1120	100.80	1.37	0.69
	11/04/08	13:30	0.50	14.0	1,066	1180	106.20	1.36	0.68
	11/04/08	14:00	0.50	14.0	993	1240	111.60	1.33	0.66
	11/04/08	14:30	0.50	14.0	945	1300	117.00	1.33	0.66
	11/04/08	15:00	0.50	14.0	916	1260	113.40	1.25	0.62
	11/04/08	15:30	0.50	14.0	873	1230	110.70	1.16	0.58
	11/04/08	16:00	0.50	14.0	836	1120	100.80	1.01	0.51
	11/04/08	16:30	0.50	14.0	825	1100	99.00	0.98	0.49
	11/04/08	17:00	0.50	14.0	816	1090	98.10	0.96	0.48
									TOTAL **16.00**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-62	4"	25-45	38.13	41.03	2.90	***	40.61	***	2.04
MW-63	4"	25-45	38.23	38.93	0.70	***	38.42	***	0.09
MW-64	4"	25-45	37.74	41.99	4.25	38.81	40.85	2.04	2.47

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-62	41.00
Truck Operator:	J. Womack	MW-63	39.00
Stack I.D. (feet)	0.33 feet	MW-64	42.00

Corrected depth to water before AFVR Event in MW-62 =	38.57
Corrected depth to water before AFVR Event in MW-63 =	38.34
Corrected depth to water before AFVR Event in MW-64 =	38.38

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	16.00	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	2.76	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	20	Gallons

TABLE 2E
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1937E
SCDHEC SITE ID NUMBER 06742

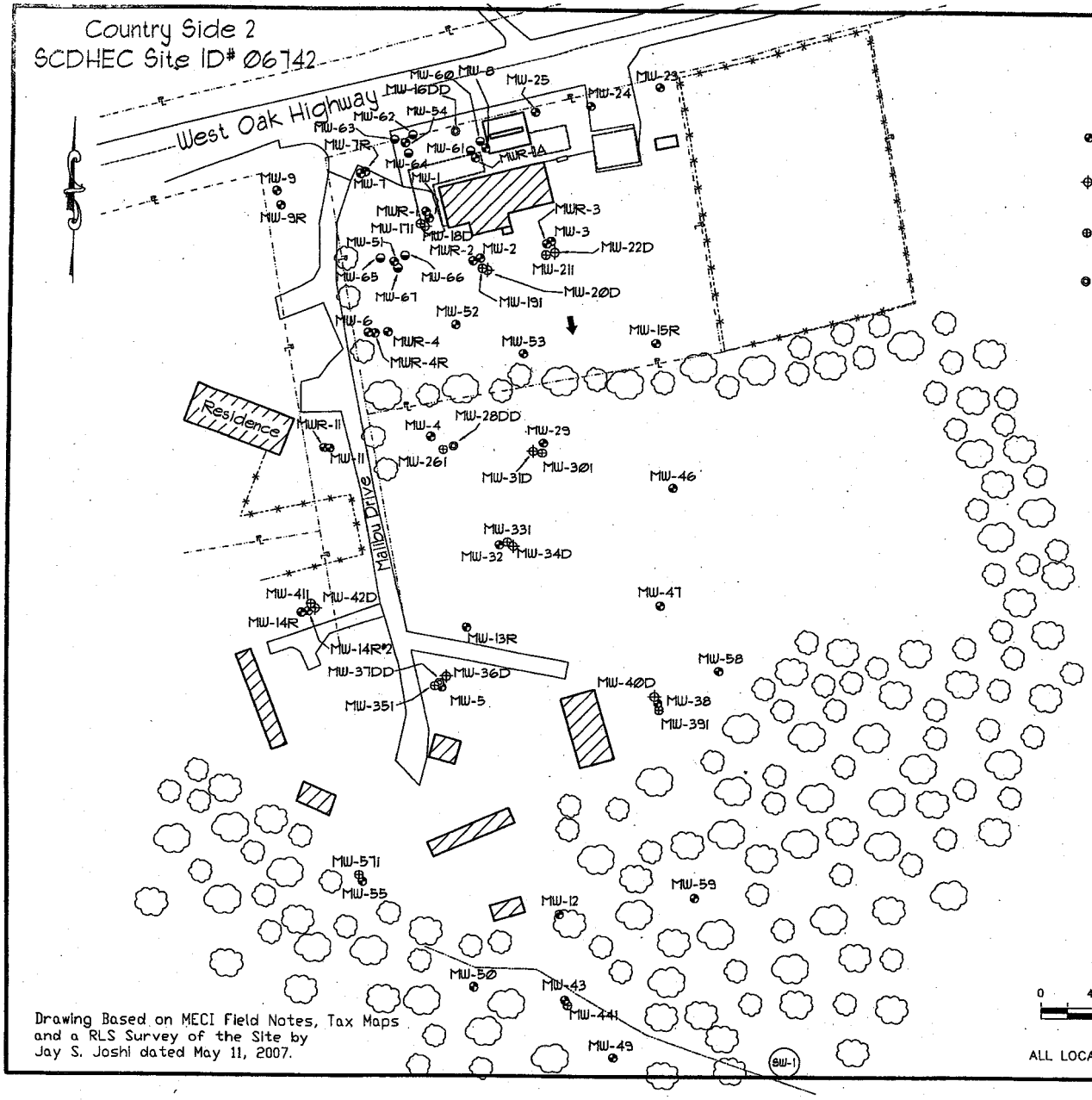
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-54	**MW-7R**	**MW-16DD**
Nearest Extraction Well:		MW-64	MW-64	MW-62
Approximate Distance:		8 ft	34 ft	32 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
9:00	0.0	0	0	0
9:30	0.5	0	0	1.0
10:00	1.0	0	0	1.0
10:30	1.5	0	0	1.0
11:00	2.0	0	0	1.0
11:30	2.5	0	0	1.0
12:00	3.0	0	0	1.0
12:30	3.5	0	0	1.0
13:00	4.0	0	0	1.0
13:30	4.5	0	0	1.0
14:00	5.0	0	0	1.0
14:30	5.5	0	0	1.4
15:00	6.0	0	0	1.4
15:30	6.5	0	0	1.4
16:00	7.0	0	0	1.4
16:30	7.5	0	0	1.4
17:00	8.0	0	0	1.2
Maximum Change:		**0**	**0**	**1.4**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-54	**MW-7R**	**MW-16DD**
Nearest Extraction Well:		MW-64	MW-64	MW-62
Approximate Distance:		8 ft	34 ft	32 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		41.63	39.16	41.63
13:00	4 hours	38.34	39.38	41.64
17:00	8 hours	38.35	39.44	41.64
Maximum Change:		3.28	-0.28	-0.01

Country Side 2
SCDHEC Site ID# 06742



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.82	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

C 139706

Crandall

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 01660

2. Page 1 of 1

3. Generator's Name and Mailing Address Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
(803) 808-2043

4. Generator's Phone ( )

5. Transporter 1 Company Name Crandall Corporation

6. US EPA ID Number SCD981864499

A. Transporter's Phone (803) 791-4800

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number SCD981864499

C. Facility's Phone (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	2,840	G
b.				
c. •Country Side 2-D-06742-100gals. •Country Side 2-E-06742-20gals. •Country Side 2-F-06742-30gals. •Former Ford-C-00487-30gals. •Newberry Airport-B-15590-80gals •Unknown Ust-B-18678-30gals •Minicks-B-07967-70gals •Pelzers GAS B-00480-145gals				
d. •Community Quick B-11694-100gals. •Bay Creek-18662-150gals •Lathan Oil A-08869-325gals •Lathan Oil B-08869-150gals. •Beufort Mait B-01056-150gals •Bi-Rite C-01869-100gals.				

D. Additional Descriptions for Materials Listed Above
•Bi-Rite-D-01869-100gals. •Mary Moorehead-B-16009-30gals •Mary Moorehead-C-16009-0gals.
•Rockland Parking lot-15475-70gals
•Hortons-C-06768-200gals
•Hortons-D-06768-60gals.

FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
•Hughes Well drilling-06358-250gals. •Richland Co. landfill-11808-30gals.
Service Call ID: GLB0131888
•Regal Petroleum A-19426-80 gals.
•Friendly Marks-A-11693-50gals. •Nilson Van & Storage B-07442-420gals.
•Simpsonville Short Stop-12036-70gals
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
X [signature]	X [signature]	1	21	08

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Chad Justice	Chad Justice	1	21	08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

FACILITY

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

November 13, 2008

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #33718
MECI Project Number 08-1937D

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on November 3, 2008. The event was conducted on monitoring wells MW-65 to reduce dissolved COC concentrations and on MW-66 and MW-67 to remove free phase petroleum product. Free phase petroleum product was detected in monitoring wells MW- 66 at a thickness of 0.05 feet and in MW-67 at a thickness of 0.32 feet prior to the event. Free phase petroleum product was not detected in monitoring well MW-65 prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was detected in monitoring well MW-67 at a thickness of 0.02 feet immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 16.86 pounds or approximately 2.91 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 2.11 pounds per hour. Concentrations of off gas produced during the event were recorded from 924 parts per million by volume (PPM) to 1,383 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 10.0 to 11.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1D.

UST

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Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2D. Monitoring well locations are depicted on attached Figure 1.

A total of 100 gallons of liquid was removed from MW-65, MW-66, and MW-67 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

for Brandon T. Guiles
Staff Biologist

for William C. McClary, P.G.
Senior Geologist

Attachments:

TABLE 1D
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1937D
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-65	11/03/08	9:30	0.50	10.0	933	1570	141.30	1.58	0.79
MW-66	11/03/08	10:00	0.50	11.0	930	1580	142.20	1.59	0.79
MW-67	11/03/08	10:30	0.50	11.0	924	1580	142.20	1.58	0.79
	11/03/08	11:00	0.50	11.0	1,383	1650	148.50	2.46	1.23
	11/03/08	11:30	0.50	11.0	1,387	1680	151.20	2.52	1.26
	11/03/08	12:00	0.50	11.0	1,323	1690	152.10	2.41	1.21
	11/03/08	12:30	0.50	11.0	1,329	1700	153.00	2.44	1.22
	11/03/08	13:00	0.50	11.0	1,314	1410	126.90	2.00	1.00
	11/03/08	13:30	0.50	11.0	1,307	1280	115.20	1.81	0.90
	11/03/08	14:00	0.50	11.0	1,299	1380	124.20	1.94	0.97
	11/03/08	14:30	0.50	11.0	1,296	1450	130.50	2.03	1.01
	11/03/08	15:00	0.50	11.0	1,262	1440	129.60	1.96	0.98
	11/03/08	15:30	0.50	11.0	1,187	1450	130.50	1.86	0.93
	11/03/08	16:00	0.50	11.0	1,218	1430	128.70	1.88	0.94
	11/03/08	16:30	0.50	11.0	1,258	1410	126.90	1.92	0.96
	11/03/08	17:00	0.50	11.0	1,221	1420	127.80	1.87	0.94
	11/03/08	17:30	0.50	11.0	1,234	1410	126.90	1.88	0.94
									TOTAL 16.86

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-65	4"	25-45	***	36.53	***	***	36.51	***	-0.02
MW-66	4"	25-45	37.15	37.20	0.05	***	37.22	***	0.06
MW-67	4"	25-45	37.06	37.38	0.32	37.35	37.37	0.02	0.26

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-65	36.00
Truck Operator:	J. Womack	MW-66	37.50
Stack I.D. (feet)	0.33 feet	MW-67	37.50
Corrected depth to water before AFVR Event in MW-66 =			37.16
Corrected depth to water before AFVR Event in MW-67 =			37.11

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	16.86	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	2.91	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	100	Gallons

TABLE 2D
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1937D
SCDHEC SITE ID NUMBER 06742

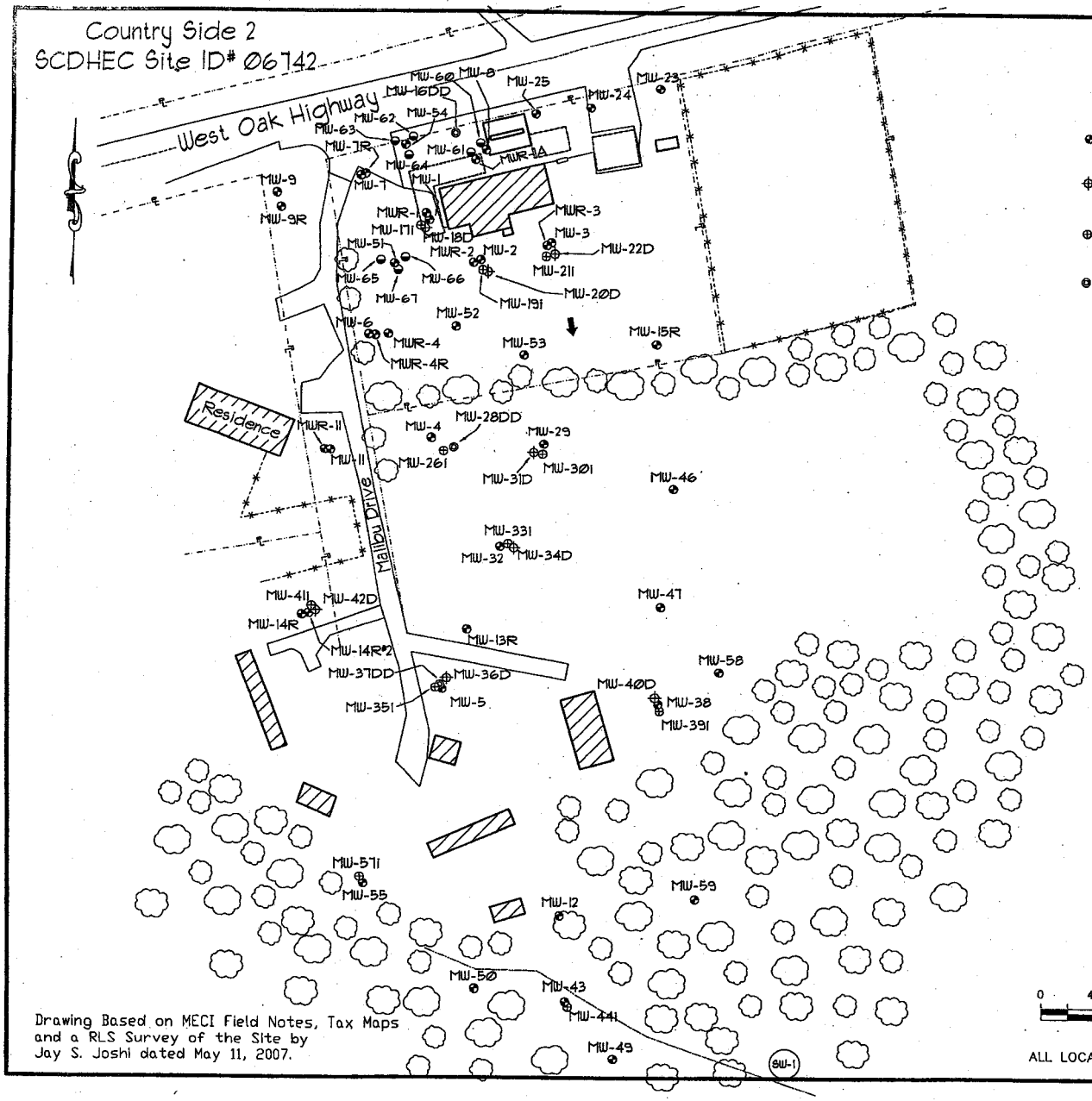
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-7R	MW-17I	MW-51
Nearest Extraction Well:		MW-65	MW-66	MW-67
Approximate Distance:		47 ft	17 ft	7 ft
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
9:30	0.0	0	0	0.0
10:00	0.5	0	0	2.0
10:30	1.0	0	0	2.0
11:00	1.5	0	0	2.0
11:30	2.0	0	0	2.0
12:00	2.5	0	0	2.5
12:30	3.0	0	0	2.6
13:00	3.5	0	0	2.8
13:30	4.0	0	0	3.0
14:00	4.5	0	0	3.0
14:30	5.0	0	0	3.0
15:00	5.5	0	0	2.9
15:30	6.0	0	0	3.0
16:00	6.5	0	0	3.0
16:30	7.0	0	0	3.0
17:00	7.5	0	0	3.0
17:30	8.0	0	0	3.0
Maximum Change:		**0**	**0**	**3.0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-7R	MW-17I	MW-51
Nearest Extraction Well:		MW-65	MW-66	MW-67
Approximate Distance:		47 ft	17 ft	7 ft
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior toAFVR		38.28	38.48	38.75
13:30	4 hours	38.27	38.49	39.09
17:30	8 hours	38.29	38.50	39.11
Maximum Change:		-0.01	-0.01	-0.36

Country Side 2
SCDHEC Site ID# 06742



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1767
DATE September 2, 2008
FIGURE 2

Crandall

C 139706

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 21695 | 2. Page 1 of 1

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
(803) 808-2043

4. Generator's Phone ( )

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072 | 10. US EPA ID Number: SCD981864499 | C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01.	TT	2,840.	G
b.				
c. Country Side Z-D-06742-100gals. • Country Side Z-E-06742-200gals. • Country Side Z-F-06742-300gals. • Farmar Ford-C-00487-300gals. • Newberry Airport-B-15590-800gals • Unknown UST-B-18678-300gals • Minicks-B-07967-700gals • Pelzers GAS B-00180-745gals				
d. • Community Quick B11694-100gals. • Bay Creek-18662-150gals • Lathan Oil A-08869-325gals • Lathan Oil B-08869-150gals. • Beufort Mait B-01056-150gals • Bi-Rite C-01869-100gals.				

D. Additional Descriptions for Materials Listed Above
• Bi-rite-D-01869-100gals. • Mary Moorehead-B-16009-300gals • Mary Moorehead-C-16009-80gals.
• Rockland Parking lot-15475-70gals
• Hortons-C-06768-200gals
• Hortons-D-06768-60gals.

FIELD SERVICE

Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
• Richland Co. Landfill-11808-300gals.
• Hughes Well drilling-06358-250gals. • Regal Petroleum A-19426-80 gals.
Service Call ID: GLB0131888
• Friendly Marks-A-11693-50gals. • Wilson Van & Storage B-07442-480gals.
• Simpsonville Short Stop-12036-70gals
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
X	X	1	21	08

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Chad Justice	Chad Justice	1	21	08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

DEC 16 2008

BRIAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071-0854

Re: Bid # IBF-30519-8/8/06-EMW; PO # 646282
Notice to Proceed

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct Aggressive Fluid Vapor Recovery (AFVR) event at several facilities. The packets contain the necessary approval for work to begin. You may commence with a site reconnaissance before the AFVR. If monitoring wells do not contain measurable free phase product, contact the UST project manager for further instructions. The facilities have been assigned Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order # 646282 on the appropriate invoices submitted for payment against the facilities. As specified in the referenced bid, **the completed invoice forms and associated reports (include contract certification number) are expected on or before the designated due date (see below).**

UST Permit #	Facility	County	Release #	Work Scope	Due Date*	CA #	Approved Amt
03144	Ridgeway Section Shed	Fairfield	1	1 AFVR	60days	34599	1,270.00
12342	R & S Grocery	Darlington	1	1 AFVR	60days	34612	1,270.00
06742	Country Side 2	Oconee	1	6 AFVR	60days	34645	6,725.00
15590	Newberry County Airport	Newberry	1	2 AFVR	60days	34648	2,325.00
01869	By Rite Petroleum	Charleston	1	2 AFVR	60days	34650	2,325.00
06768	Horton's Grocery	Oconee	1	4 AFVR	60days	34652	4,575.00

*From receipt of letter

Midland's Environmental Consultants, Inc. will perform services at the sites on behalf of the site's UST owners; however, payments will be made from the SUPERB Account. The site's UST owners have no obligation for payment for this scope of work. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the Department is obtained.

UST DOCKET

23 Feb

If for any reason there are changes in these cost agreements, any associated changes to this cost agreement must be pre-approved by this Department in order for Midlands Environmental Consultants to seek future cost compensation. Please contact the site's project manager for technical and/or financial approval.

Any item(s) not clearly or completely addressed in the report (disposal manifest for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account.

The Department grants pre-approval for transportation of free phase product and petroleum contaminated groundwater from the referenced site to a permitted treatment facility. The free product and contaminated groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included as an appendix to the report.

If you have any questions concerning this correspondence or need further assistance, please contact me by phone at (803) 896-6664, by fax at (803) 896-6245 or by email at milenkmp@dhec.sc.gov.

Sincerely,

Maia Milenkova, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Approved Cost Agreements (ACA)
Information Packets

cc: Technical File (w/copy of ACA)

SCDHEC/UST/12/09/08/MPM

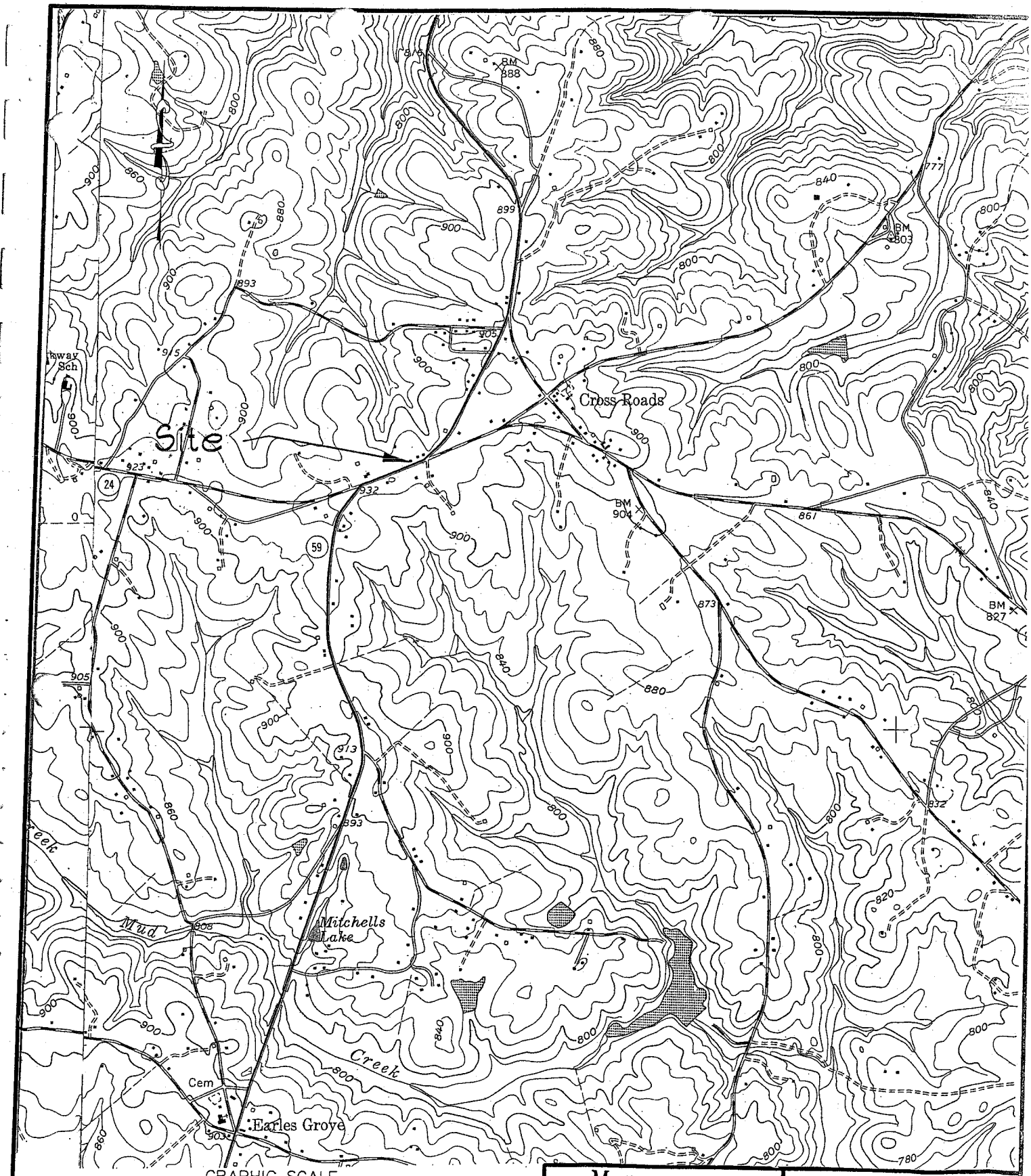
Approved Cost Agreement 34645

Facility: 06742 COUNTRY SIDE 2

PADGETJP

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		A	EQUIPMENT	6.0000	375.00	2,250.00
17 DISPOSAL						
		A2	WASTEWATER - PUMPING TEST	2,000.0000	0.10	200.00
23 EFR						
		A	8 HOUR EVENT	6.0000	600.00	3,600.00
		C	OFF GAS TREATMENT	6.0000	100.00	600.00
		D	SITE RECONNAISSANCE	1.0000	75.00	75.00
				Total Amount		6,725.00



Reference: Fair Play, South Carolina
Oakway, South Carolina
USGS 7.5 Min. Quad
Contour Interval = 10 Feet

Midlands Environmental Consultants, Inc.

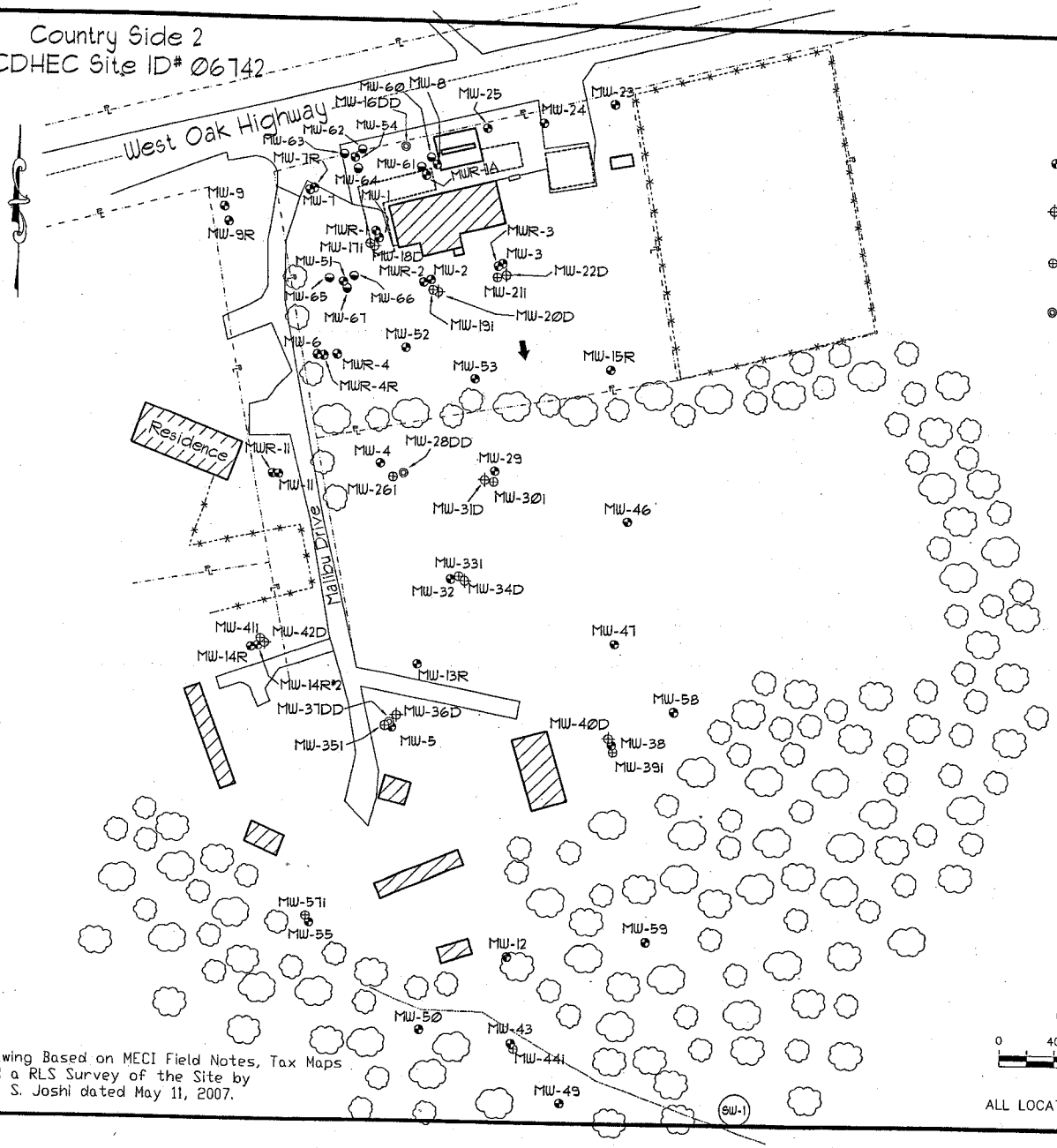
Site Location

Country Side 2
Westminster, South Carolina
SCDHEC Site ID# 06742

Figure 1

MECI 07-121

Country Side 2
SCDHEC Site ID# 06742



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

Midlands
Environmental
Consultants, Inc.

January 15, 2009

RECEIVED
JAN 21 2009
UNDERGROUND STORAGE TANK PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID #06742; CA #34645
MECI Project Number 08-2081B

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on January 7, 2009. The event was conducted on monitoring wells MW-62, MW-63 and MW-64 to remove free phase petroleum product from. Free phase petroleum product was detected in monitoring wells MW-62 at a thickness of 4.31 feet, MW-63 at a thickness of 1.36 feet, and MW-64 at a thickness of 4.45 feet prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in monitoring well MW-63 however it was detected in monitoring wells MW-62 at a thickness of 0.90 feet and in MW-64 at a thickness of 2.23 feet immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 3.70 pounds or approximately 0.64 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.46 pounds per hour. Concentrations of off gas produced during the event were recorded from 218 parts per million by volume (PPM) to 763 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 14.0 to 17.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1B.

UST DOCKET
24 tech

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2B. Monitoring well locations are depicted on attached Figure 1.

A total of 40 gallons of liquid was removed from MW-62, MW-63 and MW-64 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

William R. Owen
Staff Biologist

Jeff L. Coleman
Project Sceintist

Attachments:

TABLE 1B
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-2081B
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-62	01/07/09	8:15	0.50	14.0	763	1280	115.20	1.05	0.53
MW-63	01/07/09	8:45	0.50	14.0	318	1240	111.60	0.43	0.21
MW-64	01/07/09	9:15	0.50	15.0	332	1190	107.10	0.43	0.21
	01/07/09	9:45	0.50	15.0	298	1180	106.20	0.38	0.19
	01/07/09	10:15	0.50	15.0	321	1170	105.30	0.41	0.20
	01/07/09	10:45	0.50	15.0	301	1150	103.50	0.37	0.19
	01/07/09	11:15	0.50	15.0	220	1130	101.70	0.27	0.13
	01/07/09	11:45	0.50	15.0	219	1100	99.00	0.26	0.13
	01/07/09	12:15	0.50	15.0	218	1110	99.90	0.26	0.13
	01/07/09	12:45	0.50	17.0	318	1250	112.50	0.43	0.21
	01/07/09	13:15	0.50	17.0	363	1190	107.10	0.47	0.23
	01/07/09	13:45	0.50	17.0	336	1230	110.70	0.45	0.22
	01/07/09	14:15	0.50	17.0	341	1210	108.90	0.45	0.22
	01/07/09	14:45	0.50	17.0	331	1200	108.00	0.43	0.21
	01/07/09	15:15	0.50	17.0	326	1270	114.30	0.45	0.22
	01/07/09	15:45	0.50	17.0	319	1210	108.90	0.42	0.21
	01/07/09	16:15	0.50	17.0	361	1190	107.10	0.46	0.23
									TOTAL **3.70**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-62	4"	25-45	38.70	43.01	4.31	39.01	39.91	0.90	0.56
MW-63	4"	25-45	38.55	39.91	1.36	***	40.12	***	1.37
MW-64	4"	25-45	38.96	43.41	4.45	39.00	41.23	2.23	1.60

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-62	44.00
Truck Operator:	J. Bryant	MW-63	40.00
Stack I.D. (feet)	0.33 feet	MW-64	44.00

Corrected depth to water before AFVR Event in MW-62 =	39.35
Corrected depth to water before AFVR Event in MW-63 =	38.75
Corrected depth to water before AFVR Event in MW-64 =	39.63

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	3.70	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.64	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	40	Gallons

TABLE 2B
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-2081B
SCDHEC SITE ID NUMBER 06742

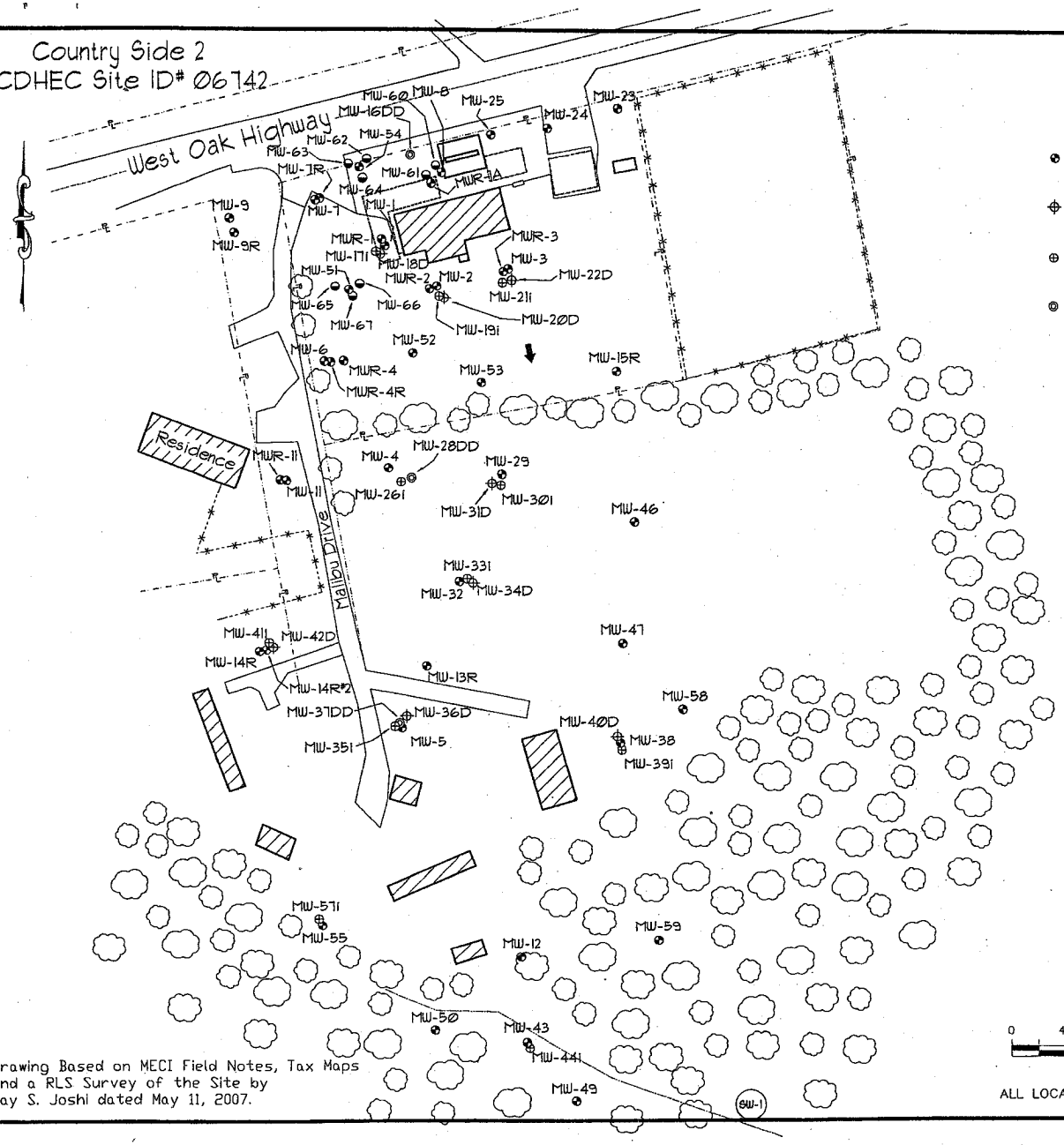
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-17i	**MW-16DD**	**MW-7R**
Nearest Extraction Well:		MW-64	MW-62	MW-64
Approximate Distance:		53 ft	32 ft	34 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
8:15	0.0	0	0	0
8:45	0.5	0	0	0
9:15	1.0	0	0	0
9:45	1.5	0	0	0
10:15	2.0	0	0	0
10:45	2.5	0	0	0
11:15	3.0	0	0	0
11:45	3.5	0	0	0
12:15	4.0	0	0	0
12:45	4.5	0	0	0
13:15	5.0	0	0	0
13:45	5.5	0	0	0
14:15	6.0	0	0	0
14:45	6.5	0	0	0
15:15	7.0	0	0	0
15:45	7.5	0	0	0
16:15	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-17i	**MW-16DD**	**MW-7R**
Nearest Extraction Well:		MW-64	MW-62	MW-64
Approximate Distance:		53 ft	32 ft	34 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		39.34	39.41	37.54
12:15	4 hours	39.35	39.43	37.56
16:15	8 hours	39.35	39.47	37.56
Maximum Change:		-0.01	-0.06	-0.02

Country Side 2
SCDHEC Site ID# 06742



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-inch Diameter Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Estimated Location of Removed Underground Storage Tanks
- Location of Doubled Cased Monitoring Well (Intermediate)
- Estimated Location of Existing Underground Storage Tanks
- Location of Double Cased Monitoring Well (Rock)

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

C 149822

Crandall

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No. 33390	2. Page 1 of 1

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803) 808-2043

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Crandall Corporation	SCD981864499	(803) 791-4800
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Crandall Corporation 100 Rich-Lex Drive Lexington, SC 29072	SCD981864499	(803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	2295	G
b.				
c. •Bucks Grocery-05410-150gals •Southern gas-03913-20gals. •Brown Bros-04145-100gals •Frm. Ford Specialist-00487-5gals. •Mary Moorehead-16009-5gals. •Pelzer Gas Mart-00480-200gals.				
d. •Friendly marks-11693-50gals. •Frm. Oakland Ave-19192-25gals. •Phillips rental-19328-80gals. •Burton's BP-12299-0gals. •Minicks-07967-75gals. •Pitt Stop 23-07837-80gals.				

D. Additional Descriptions for Materials Listed Above
•York Co. School-09164-40gals. •Richland Co. P.W.-11805-315gals. •Macks Camp-01253-40gals. •Hortons-06768-50gals. •Bay Creek Villas-18663-200gals. •Hortons-06768-50gals. •Country Side 2A-06742-0gals. •Newberry Airport-15590-40gals. •Country Side 2B-06742-40gals.

E. Handling Codes for Wastes Listed Above

FIELD SERVICE

15. Special Handling Instructions and Additional Information
•Country side 2C-06742-0gals. •Am Flag-12897-150gals. •York Co. School-09164-40gals. •Whitaker Property-14301-175gals •Weathers Service C-03073-125gals. •Weathers Service D-03073-10gals. •Durhams Grocery-006699-30gals.
Service Call ID: GLB0133390
•Hughes Well-00358-50gals.
•By rite-01869-150gals.
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
		11	16	08

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Chad Justice	Chad Justice	11	16	08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

January 15, 2009

RECEIVED
JAN 21 2009
UNDERGROUND STORAGE TANK PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #34645
MECI Project Number 08-2081C

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on January 8, 2009. The event was conducted on monitoring wells MW-60 and MW-61 to remove free phase petroleum product in MW-60 and to reduce dissolved COC concentrations in MW-61. Free phase petroleum product was detected in monitoring well MW-60 at a thickness of 4.30 feet prior to the AFVR event. Free phase petroleum product was not detected in monitoring well MW-61 prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was detected in well MW-60 at a thickness of 4.29 feet immediately following the event. Free phase petroleum product was not detected in well MW-61 immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 12.42 pounds or approximately 2.15 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.55 pounds per hour. Concentrations of off gas produced during the event were recorded from 1,013 parts per million by volume (PPM) to 1,831 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 14.0 to 15.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1C.

UST DOCKET
25 tech

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2C. Monitoring well locations are depicted on attached Figure 1.

No liquid was removed from MW-60 and MW-61 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

William R. Owen
Staff Biologist

Jeff L. Coleman
Project Scientist

Attachments:

TABLE 1C
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-2081C
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-60	01/08/09	10:30	0.50	15.0	1,831	1130	101.70	2.23	1.12
MW-61	01/08/09	11:00	0.50	15.0	1,337	1120	100.80	1.62	0.81
	01/08/09	11:30	0.50	14.0	1,241	1210	108.90	1.62	0.81
	01/08/09	12:00	0.50	14.0	1,073	1290	116.10	1.49	0.75
	01/08/09	12:30	0.50	14.5	1,075	1230	110.70	1.43	0.71
	01/08/09	13:00	0.50	14.5	1,071	1180	106.20	1.36	0.68
	01/08/09	13:30	0.50	14.5	1,097	1210	108.90	1.43	0.72
	01/08/09	14:00	0.50	14.5	1,078	1220	109.80	1.42	0.71
	01/08/09	14:30	0.50	14.5	1,049	1240	111.60	1.40	0.70
	01/08/09	15:00	0.50	14.5	1,036	1290	116.10	1.44	0.72
	01/08/09	15:30	0.50	14.5	1,027	1320	118.80	1.46	0.73
	01/08/09	16:00	0.50	14.5	1,019	1290	116.10	1.42	0.71
	01/08/09	16:30	0.50	14.5	1,013	1260	113.40	1.38	0.69
	01/08/09	17:00	0.50	14.5	1,019	1180	106.20	1.30	0.65
	01/08/09	17:30	0.50	14.5	1,024	1110	99.90	1.23	0.61
	01/08/09	18:00	0.50	14.5	1,027	1140	102.60	1.26	0.63
	01/08/09	18:30	0.50	14.5	1,053	1160	104.40	1.32	0.66
									TOTAL **12.42**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-60	4"	25-45	38.70	43.00	4.30	38.68	42.97	4.29	3.63
MW-61	4"	25-45	***	39.60	***	***	38.90	***	-0.70

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-60	43.00
Truck Operator:	J. Womack	MW-61	30.00
Stack I.D. (feet)	0.33 feet		
Corrected depth to water before AFVR Event in MW-60 =			39.35

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	12.42	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	2.15	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	0	Gallons

TABLE 2C
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-2081C
SCDHEC SITE ID NUMBER 06742

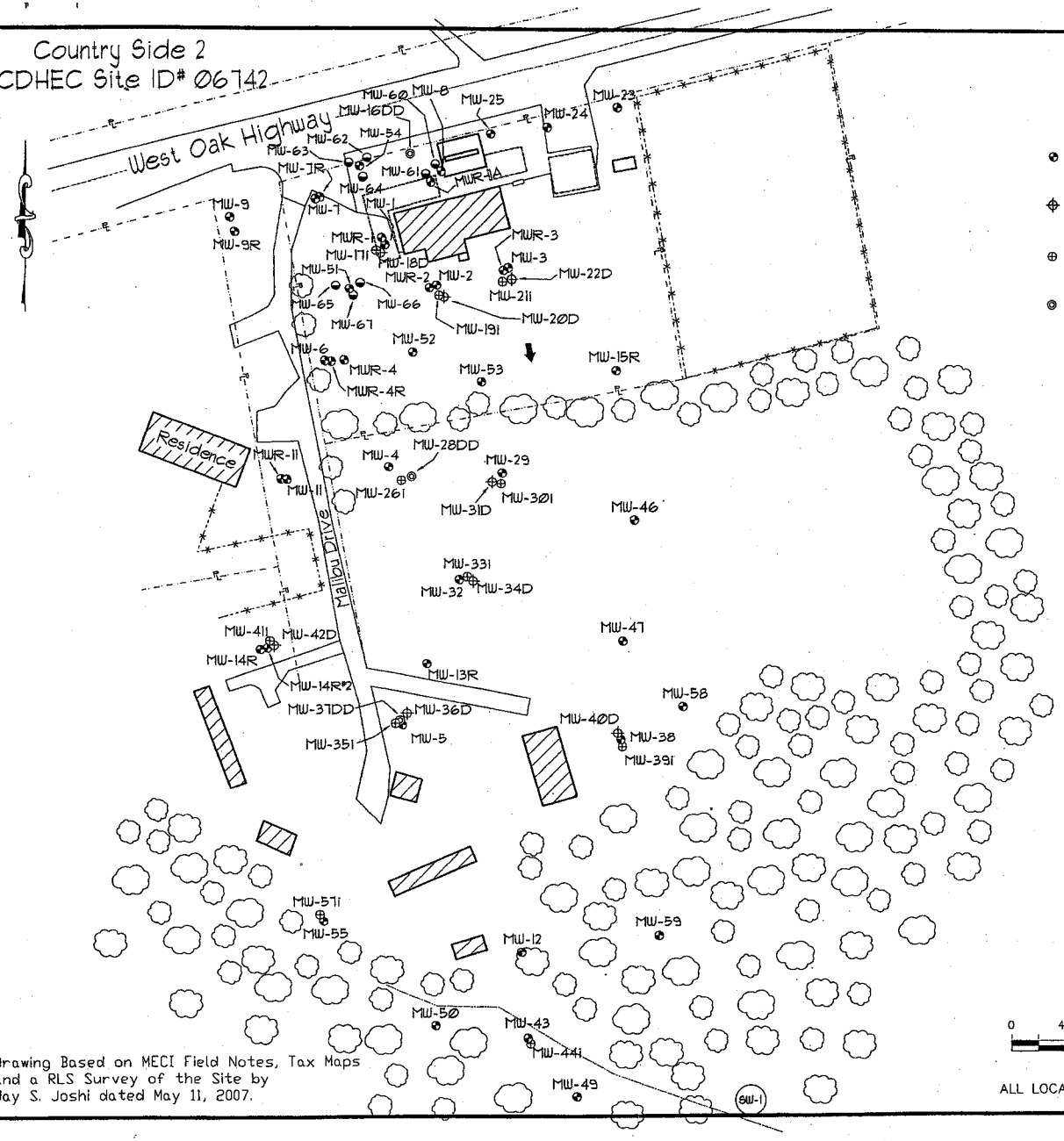
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1A	**MW-8**	**MW-16DD**
Nearest Extraction Well:		MW-61	MW-60	MW-61
Approximate Distance:		7 ft	7 ft	19 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
10:30	0.0	0	1.5	0
11:00	0.5	0	1.5	0
11:30	1.0	0	1.5	0
12:00	1.5	0	1.5	0
12:30	2.0	0	1.5	0
13:00	2.5	0	1.5	0
13:30	3.0	0	1.5	0
14:00	3.5	0	1.5	0
14:30	4.0	0	1.5	0
15:00	4.5	0	1.5	0
15:30	5.0	0	1.5	0
16:00	5.5	0	1.5	0
16:30	6.0	0	1.5	0
17:00	6.5	0	1.5	0
17:30	7.0	0	1.5	0
18:00	7.5	0	1.5	0
18:30	8.0	0	1.5	0
Maximum Change:		**0**	**1.5**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1A	**MW-8**	**MW-16DD**
Nearest Extraction Well:		MW-61	MW-60	MW-61
Approximate Distance:		7 ft	7 ft	19 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		40.60	40.31	39.93
14:30	4 hours	40.68	40.45	40.20
18:30	8 hours	40.70	40.45	40.25
Maximum Change:		-0.10	-0.14	-0.27

Country Side 2
SCDHEC Site ID# 06742



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

Crandall

C 149822

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 33390 | 2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation
6. US EPA ID Number: SCD981864499
A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name
8. US EPA ID Number
B. Transporter's Phone

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	2295	G
b.				
c. •Bucks Grocery-05410-150gals •Southern gas-03913-20gals. •Braun Bros-04145-100gals •frm. Ford Specialist-00487-5gals. •Mary Moorehead-16009-5gals. •Pelzer Gas Mart-00480-200gals.				
d. •Friendly Marks-11693-50gals. •frm. Oakland Five-19192-25gals. •Phillips rental-19328-80gals. •Burton's BP-12299-0gals. •Minicks-07967-75gals. •Pitt Stop 23-07837-80gals.				

D. Additional Descriptions for Materials Listed Above
•York Co. School-09164-40gals. •Richland Co. P.W.-11805-315gals.
•Hortons-06768-50gals. •Macks Camp-01253-40gals.
•Hortons-06768-50gals. •Bay Creek Villas-18683-200gals.
•Newberry Airport-15590-40gals. •Country Side #A-06744-40gals.

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
•Country Side #C-06742-0gals.
Service Call ID: GLB0133390
•Hughes Well-08358-50gals.
•Bi Rite-01869-150gals.
•Am Flag-12897-150gals.
•York Co. School-09164-40gals.
•Whitaker Property-14301-175gals
•Weathers Service C-03073-125gals.
•Weathers Service D-03073-10gals.
•Durhams Grocery-00699-30gals.
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Chad Justice	Chad Justice	04	16	09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

January 15, 2009

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

RECEIVED
JAN 21 2009
UNDERGROUND STORAGE
TANK PROGRAM

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #34645
MECI Project Number 08-2081A

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on January 6, 2009. The event was conducted on monitoring wells MW-66 and MW-67 to remove free phase petroleum product. Free phase petroleum product was detected in monitoring wells MW-66 at a thickness of 0.05 feet and in MW-67 at a thickness of 0.41 feet prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in the wells immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 9.16 pounds or approximately 1.58 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.15 pounds per hour. Concentrations of off gas produced during the event were recorded from 810 parts per million by volume (PPM) to 1,068 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 10.0 to 15.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1A.

UST DOCKET
26 tech

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2A. Monitoring well locations are depicted on attached Figure 1.

No liquid was removed from MW-66 and MW-67 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

John W. Womble for

William R. Owen
Staff Biologist

Jeff L. Coleman
Project Scientist

Attachments:

TABLE 1A
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-2081A
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-66	01/06/09	10:15	0.50	10.0	957	1150	103.50	1.19	0.59
MW-67	01/06/09	10:45	0.50	11.0	1,050	1250	112.50	1.42	0.71
	01/06/09	11:15	0.50	11.0	1,068	1210	108.90	1.40	0.70
	01/06/09	11:45	0.50	11.0	931	1180	106.20	1.19	0.59
	01/06/09	12:15	0.50	11.0	951	1150	103.50	1.18	0.59
	01/06/09	12:45	0.50	12.0	891	1080	97.20	1.04	0.52
	01/06/09	13:15	0.50	12.0	876	1130	101.70	1.07	0.53
	01/06/09	13:45	0.50	12.0	855	1150	103.50	1.06	0.53
	01/06/09	14:15	0.50	12.0	861	1130	101.70	1.05	0.53
	01/06/09	14:45	0.50	15.0	857	1100	99.00	1.02	0.51
	01/06/09	15:15	0.50	15.0	841	1010	90.90	0.92	0.46
	01/06/09	15:45	0.50	12.0	830	1030	92.70	0.92	0.46
	01/06/09	16:15	0.50	12.0	819	1020	91.80	0.90	0.45
	01/06/09	16:45	0.50	12.0	823	1110	99.90	0.99	0.49
	01/06/09	17:15	0.50	12.0	791	1100	99.00	0.94	0.47
	01/06/09	17:45	0.50	12.0	819	1150	103.50	1.02	0.51
	01/06/09	18:15	0.50	12.0	810	1170	105.30	1.02	0.51
									TOTAL
									9.16

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-66	4"	25-45	37.85	37.90	0.05	***	36.41	***	-1.45
MW-67	4"	25-45	37.90	38.31	0.41	***	37.18	***	-0.78

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-66	38.00
Truck Operator:	J. Bryant	MW-67	40.00
Stack I.D. (feet)	0.33 feet		
Corrected depth to water before AFVR Event in MW-66 =			37.86
Corrected depth to water before AFVR Event in MW-67 =			37.96

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	9.16	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.58	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	0	Gallons

TABLE 2A
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-2081A
SCDHEC SITE ID NUMBER 06742

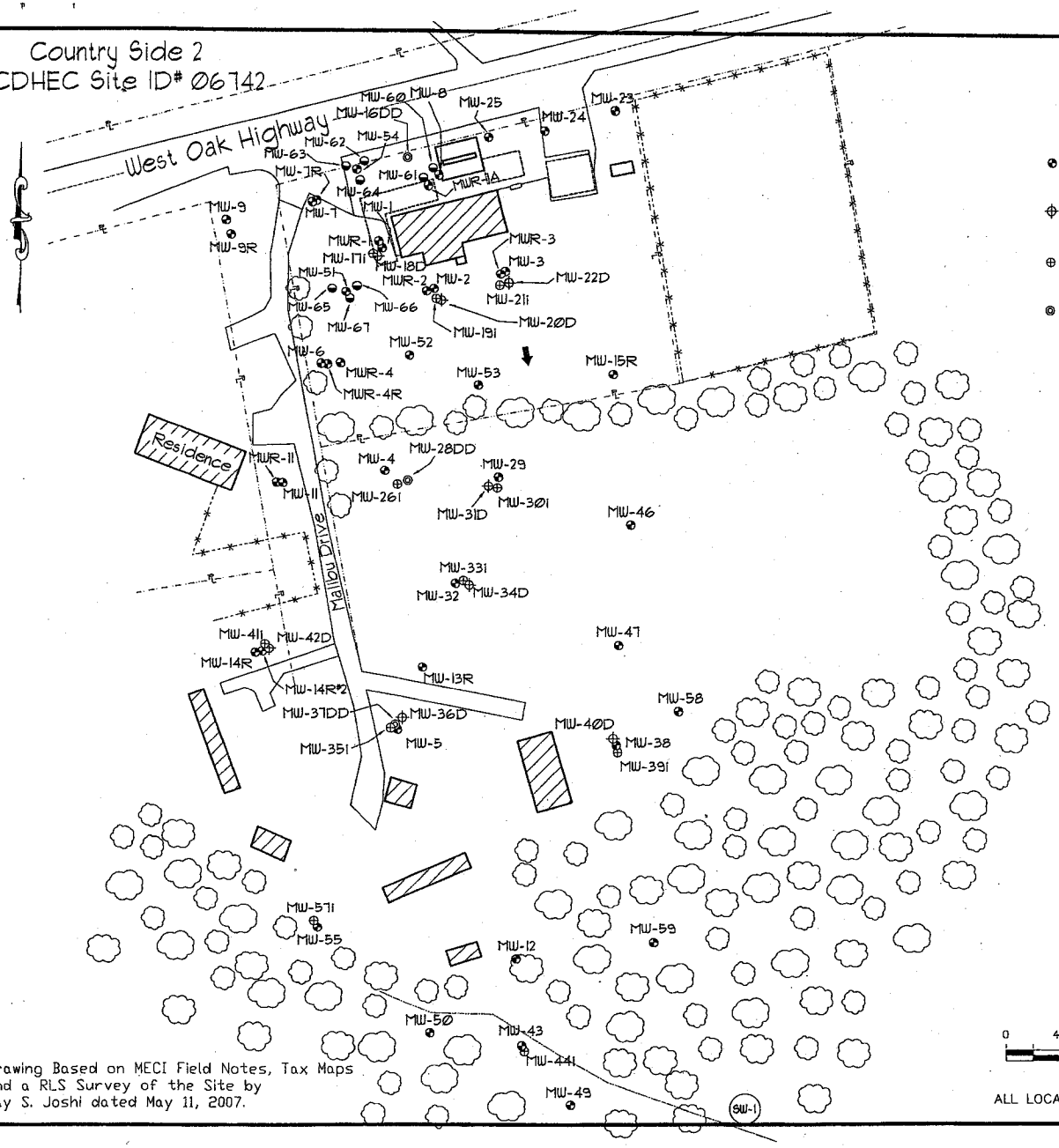
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-51	**MW-65**	**MW-17i**
Nearest Extraction Well:		MW-67	MW-67	MW-66
Approximate Distance:		6 ft	14 ft	26 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
10:15	0.0	0	0	0
10:45	0.5	0	0	0
11:15	1.0	0	0	0
11:45	1.5	0	0	0
12:15	2.0	0	0	0
12:45	2.5	0	0	0
13:15	3.0	0	0	0
13:45	3.5	0	0	0
14:15	4.0	0	0	0
14:45	4.5	0	0	0
15:15	5.0	0	0	0
15:45	5.5	0	0	0
16:15	6.0	0	0	0
16:45	6.5	0	0	0
17:15	7.0	0	0	0
17:45	7.5	0	0	0
18:15	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-51	**MW-65**	**MW-17i**
Nearest Extraction Well:		MW-67	MW-67	MW-66
Approximate Distance:		6 ft	14 ft	26 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		38.10	37.86	39.89
14:15	4 hours	38.35	37.94	39.91
18:15	8 hours	38.38	37.98	39.89
Maximum Change:		-0.28	-0.12	-0.02

Country Side 2
SCDHEC Site ID# 06742



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.81
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

C 149822

Crandall

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No. 33390	2. Page 1 of 1

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803) 808-2043

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Crandall Corporation	SCD981864499	(803) 791-4800
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Crandall Corporation 100 Rich-Lex Drive Lexington, SC 29072	SCD981864499	(803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	2295	G
b.				
c. •Bucks Grocery-05410-150gals •Southern gas-03913-20gals. •Brown Bros-04145-100gals •Frm. Ford Specialist-00487-5gals. •Mary Moorehead-16009-5gals. •Pelzer Gas Mart-00480-200gals.				
d. •Friendly Marks-11693-50gals. •Frm. Oakland Ave-19192-25gals. •Phillips rental-19328-80gals. •Burton's BP-12299-0gals. •Minicks-07967-75gals. •Pitt Stop 23-07837-80gals.				

D. Additional Descriptions for Materials Listed Above
•York Co. School-09164-40gals. •Richland Co. P.W.-11805-315gals. •Macks Camp-01253-40gals. •Hortons-06768-50gals. •Bay Creek Villas-18663-200gals. •Hortons-06768-50gals. •Country Side 2A-06742-0gals. •Newberry Airport-15590-40gals. •Country Side 2B-06742-40gals.

E. Handling Codes for Wastes Listed Above

FIELD SERVICE

15. Special Handling Instructions and Additional Information
•Country Side 2C-06742-0gals. •Am Flag-12897-150gals. •York Co. School-09164-40gals. •Whitaker Property-14301-175gals •Weathers Service C-03073-125gals. •Weathers Service D-03073-10gals. •Durhams Grocery-006699-30gals.
Service Call ID: GLB0133390
•Hughes Well-00358-50gals.
•By rite-01869-150gals.
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
		01	16	08

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Chad Justice	Chad Justice	01	16	08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

February 18, 2009

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

UST
FEB 2 4 2009
PROGRAM

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #34645
MECI Project Number 08-2081F

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on February 10-11, 2009. The event was conducted on monitoring wells MW-66 and MW-67 to remove free phase petroleum product. Free phase petroleum product was detected in monitoring wells MW-66 at a thickness of 0.03 feet and MW-67 at a thickness of 0.74 feet prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in the wells immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 40.55 pounds or approximately 7.01 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 5.07 pounds per hour. Concentrations of off gas produced during the event were recorded from 1,268 parts per million by volume (PPM) to 3,841 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 15.0 to 16.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1F.

UST
DOCKET
27fea

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2F. Monitoring well locations are depicted on attached Figure 1.

A total of 100 gallons were removed from MW-66 and MW-67 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. Free phase petroleum product was observed in the sight tube at a thickness of 0.04 feet during the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

John W. Womack
Staff Biologist

Jeff L. Coleman
Project Scientist

Attachments:

TABLE 1F
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-2081F
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-66	02/10/09	19:00	0.50	15.0	3,841	2710	243.90	11.24	5.62
MW-67	02/10/09	19:30	0.50	16.0	2,936	2660	239.40	8.43	4.22
	02/10/09	20:00	0.50	16.0	2,313	2600	234.00	6.49	3.25
	02/10/09	20:30	0.50	16.0	1,962	2590	233.10	5.49	2.74
	02/10/09	21:00	0.50	16.0	1,726	2590	233.10	4.83	2.41
	02/10/09	21:30	0.50	16.0	1,450	2570	231.30	4.02	2.01
	02/10/09	22:00	0.50	16.0	1,419	2560	230.40	3.92	1.96
	02/10/09	22:30	0.50	16.0	1,391	2570	231.30	3.86	1.93
	02/10/09	23:00	0.50	16.0	1,383	2570	231.30	3.84	1.92
	02/10/09	23:30	0.50	16.0	1,371	2560	230.40	3.79	1.90
	02/11/09	0:00	0.50	16.0	1,357	2540	228.60	3.72	1.86
	02/11/09	0:30	0.50	16.0	1,332	2540	228.60	3.65	1.83
	02/11/09	1:00	0.50	16.0	1,321	2530	227.70	3.61	1.80
	02/11/09	1:30	0.50	16.0	1,311	2530	227.70	3.58	1.79
	02/11/09	2:00	0.50	16.0	1,286	2560	230.40	3.56	1.78
	02/11/09	2:30	0.50	16.0	1,274	2570	231.30	3.54	1.77
	02/11/09	3:00	0.50	16.0	1,268	2570	231.30	3.52	1.76
									TOTAL **40.55**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-66	4"	25-45	38.22	38.25	0.03	***	38.20	***	-0.02
MW-67	4"	25-45	37.98	38.72	0.74	***	38.46	***	0.37

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-66	39.00
Truck Operator:	W. Owen	MW-67	39.50
Stack I.D. (feet)	0.33 feet		
Corrected depth to water before AFVR Event in MW-66 =			38.22
Corrected depth to water before AFVR Event in MW-67 =			38.09

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	40.55	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	7.01	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	100	Gallons

TABLE 2F
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-2081F
SCDHEC SITE ID NUMBER 06742

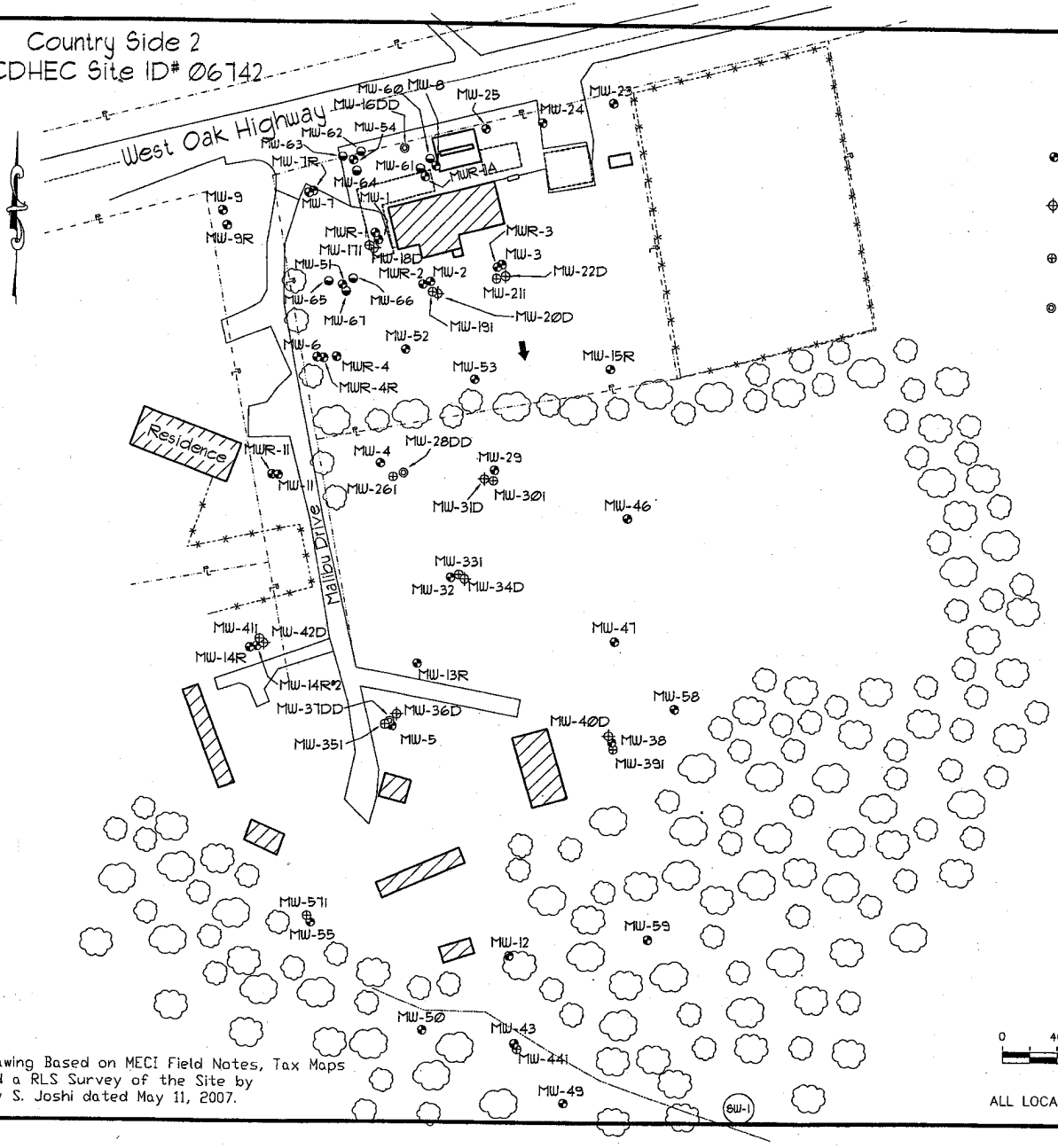
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-17i	**MW-18D**	**MW-65**
Nearest Extraction Well:		MW-66	MW-66	MW-67
Approximate Distance:		26 ft	25 ft	14 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
19:00	0.0	0	0	0
19:30	0.5	0	0	0
20:00	1.0	0	0	0
20:30	1.5	0	0	0
21:00	2.0	0	0	0
21:30	2.5	0	0	0
22:00	3.0	0	0	0
22:30	3.5	0	0	0
23:00	4.0	0	0	0
23:30	4.5	0	0	0
0:00	5.0	0	0	0
0:30	5.5	0	0	0
1:00	6.0	0	0	0
1:30	6.5	0	0	0
2:00	7.0	0	0	0
2:30	7.5	0	0	0
3:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-17i	**MW-18D**	**MW-65**
Nearest Extraction Well:		MW-66	MW-66	MW-67
Approximate Distance:		26 ft	25 ft	14 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		39.56	39.59	37.61
23:00	4 hours	39.60	39.63	37.85
3:00	8 hours	39.61	39.64	37.94
Maximum Change:		-0.05	-0.05	-0.33

Country Side 2
SCDHEC Site ID# 06742



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

C 146618

Crandall

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 95715

2. Page 1 of 1

3. Generator's Name and Mailing Address Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803) 808-2043)

5. Transporter 1 Company Name: Crandall Corporation

6. US EPA ID Number: SCD981864499

A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number: SCD981864499

C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	2000	G
b.				
c.				
d. • Summers Store-03198-40gals • Island Car wash-00990-215gals • Hortons Grocery-06768-120 gals. • Bay Creek-18662-150gals • Horton's Grocery-06768-90gals • Newtons-03723-10gals.				

D. Additional Descriptions for Materials Listed Above
• Royal Petroleum-19426-80gals
• Nilson V+S-07442-620gals.
• Country Side 2-06742-15gals
• Country Side 2-06742-40gals.
• Country Side 2-06742-100 gals.
• Willis Grocery-08308-50gals
• Bi-Rite-18740-250gals.

FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
• Hughes Well-00358-200gals
Service Call ID: GLB0135715
• Leo's Gulf-04339-90gals
• Burnetts-15724-140gals.
• Durhams-06699-165gals.
• Fmn. Ford-00487-35gals.
• Whitaker-14301-190gals.

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: X CLARK BAER
Signature: X [signature]
Month 02 Day 19 Year 09

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Curtis Smith
Signature: [signature]
Month 02 Day 19 Year 09

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.
Printed/Typed Name
Signature
Month Day Year

GENERATOR

TRANSPORTER

FACILITY

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

February 18, 2009

UST
FEB 2 4 2009
PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID #06742; CA #34645
MECI Project Number 08-2081E

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on February 10, 2009. The event was conducted on monitoring wells MW-62, MW-63 and MW-64 to remove free phase petroleum product from. Free phase petroleum product was detected in monitoring wells MW-62 at a thickness of 4.33 feet, MW-63 at a thickness of 4.56 feet, and MW-64 at a thickness of 5.24 feet prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in monitoring well MW-64; however, it was detected in monitoring wells MW-62 at a thickness of 3.39 feet and MW-63 at a thickness of 1.95 feet immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 58.44 pounds or approximately 10.09 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 7.31 pounds per hour. Concentrations of off gas produced during the event were recorded from 2,307 parts per million by volume (PPM) to 3,509 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 14.0 to 17.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1E.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

UST
DOCKET
28 feet

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2E. Monitoring well locations are depicted on attached Figure 1.

A total of 40 gallons of liquid was removed from MW-62, MW-63 and MW-64 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. Free phase petroleum product was observed in the sight tube at a thickness of 0.42 feet during the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

John W. Womack
Staff Biologist

Jeff L. Coleman
Project Sceintist

Attachments:

TABLE 1E
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-2081E
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-62	02/10/09	8:50	0.50	15.0	3,509	2610	234.90	9.89	4.95
MW-63	02/10/09	9:20	0.50	14.0	3,485	2700	243.00	10.16	5.08
MW-64	02/10/09	9:50	0.50	14.0	3,479	2750	247.50	10.33	5.17
	02/10/09	10:20	0.50	14.0	2,351	2730	245.70	6.93	3.47
	02/10/09	10:50	0.50	17.0	3,159	2200	198.00	7.51	3.75
	02/10/09	11:20	0.50	17.0	2,978	2200	198.00	7.08	3.54
	02/10/09	11:50	0.50	17.0	2,796	2190	197.10	6.61	3.31
	02/10/09	12:20	0.50	17.0	2,712	2200	198.00	6.44	3.22
	02/10/09	12:50	0.50	17.0	2,627	2220	199.80	6.30	3.15
	02/10/09	13:20	0.50	17.0	2,555	2220	199.80	6.13	3.06
	02/10/09	13:50	0.50	17.0	2,482	2220	199.80	5.95	2.98
	02/10/09	14:20	0.50	17.0	2,454	2190	197.10	5.80	2.90
	02/10/09	14:50	0.50	17.0	2,421	2170	195.30	5.67	2.84
	02/10/09	15:20	0.50	17.0	2,389	2180	196.20	5.62	2.81
	02/10/09	15:50	0.50	17.0	2,355	2190	197.10	5.57	2.79
	02/10/09	16:20	0.50	17.0	2,319	2180	196.20	5.46	2.73
	02/10/09	16:50	0.50	17.0	2,307	2170	195.30	5.41	2.70
									TOTAL **58.44**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-62	4"	25-45	39.00	43.33	4.33	38.85	42.24	3.39	2.59
MW-63	4"	25-45	38.60	43.16	4.56	39.05	41.00	1.95	1.72
MW-64	4"	25-45	38.36	43.60	5.24	***	42.15	***	3.00

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-62	44.00
Truck Operator:	J. Womack	MW-63	43.50
Stack I.D. (feet)	0.33 feet	MW-64	44.00

Corrected depth to water before AFVR Event in MW-62 =	39.65
Corrected depth to water before AFVR Event in MW-63 =	39.28
Corrected depth to water before AFVR Event in MW-64 =	39.15

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	58.44	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	10.09	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	40	Gallons

TABLE 2E
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-2081E
SCDHEC SITE ID NUMBER 06742

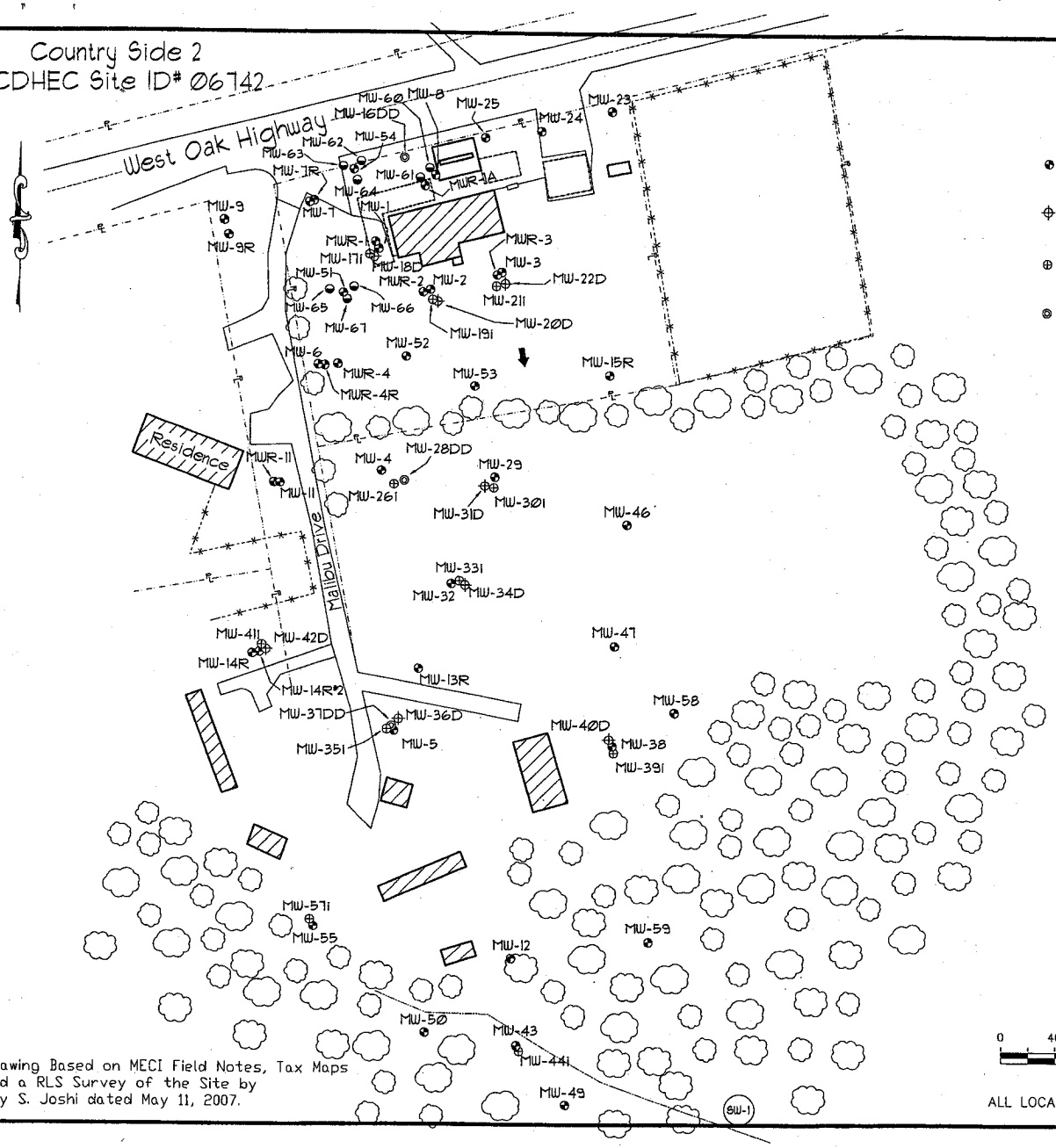
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-7R	**MW-16DD**	**MW-54**
Nearest Extraction Well:		MW-64	MW-62	MW-63
Approximate Distance:		34 ft	32 ft	8 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
8:50	0.0	0	0	0
9:20	0.5	0	0	0
9:50	1.0	0	0	0
10:20	1.5	0	0	0
10:50	2.0	0	0	0
11:20	2.5	0	0	0
11:50	3.0	0	0	0
12:20	3.5	0	0	0
12:50	4.0	0	0	0
13:20	4.5	0	0	0
13:50	5.0	0	0	0
14:20	5.5	0	0	0
14:50	6.0	0	0	0
15:20	6.5	0	0	0
15:50	7.0	0	0	0
16:20	7.5	0	0	0
16:50	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-7R	**MW-16DD**	**MW-54**
Nearest Extraction Well:		MW-64	MW-62	MW-63
Approximate Distance:		34 ft	32 ft	8 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		39.45	40.60	43.26
12:50	4 hours	39.50	40.59	43.25
16:50	8 hours	39.50	40.54	43.24
Maximum Change:		-0.05	0.06	0.02

Country Side 2
SCDHEC Site ID# 06742



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

Crandall

C 146618

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 35715 | 2. Page 1 of 1

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
(803) 808-2042
4. Generator's Phone ( )

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	200.0	G
b.				
c.				
d. • Summers Store-03198-40gals • Island Car wash-00990-215gals • Hortons Grocery-06768-120gals. • Bay Creek-18062-150gals • Horton's Grocery-06768-90gals • Newtons-03723-10gals.				

D. Additional Descriptions for Materials Listed Above
• Royal Petroleum-19426-80gals • Country Side 2-06742-100 gals. • Nilson H+S-07442-620gals. • Willis Grocery-08308-50gals • Country Side 2-06742-15gals • Country Side 2-06742-40gals. • Bi-Rite-18740-250gals.

E. Handling Codes for Wastes Listed Above

FIELD SERVICE

15. Special Handling Instructions and Additional Information
• Hughes Well-00358-200gals • Durhams-06699-165gals.
Service Call ID: GLB0136715
• Leo's Quik-04339-90gals • Fmn, Ford-00487-35gals.
• Burnetts-15724-140gals. • Whitaker-14301-190gals.
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
X CLARK BAER	X	02	19	09

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Curtis Smith		02	19	09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
		.	.	.

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
		.	.	.

GENERATOR TRANSPORTER FACILITY

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

February 18, 2009

UST
FEB 2 4 2009
PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #34645
MECI Project Number 08-2081D

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on February 9, 2009. The event was conducted on monitoring wells MW-60, to remove free phase petroleum product and on MW-61 to reduce dissolved COC concentrations. Free phase petroleum product was detected in monitoring well MW-60 at a thickness of 4.55 feet prior to the AFVR event. Free phase petroleum product was not detected in monitoring well MW-61 prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was detected in well MW-60 at a thickness of 0.02 feet immediately following the event. Free phase petroleum product was not detected in well MW-61 immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 34.55 pounds or approximately 5.97 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 4.32 pounds per hour. Concentrations of off gas produced during the event were recorded from 1,000 parts per million by volume (PPM) to 1,796 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 12.5 to 17.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1D.

UST
DOCKET
29tech

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2D. Monitoring well locations are depicted on attached Figure 1.

A total of 15 gallons were removed from MW-60 and MW-61 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

John W. Womack
Staff Biologist

Jeff L. Coleman
Project Scientist

Attachments:

TABLE 1D
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-2081D
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-60	02/09/09	9:40	0.50	13.5	1,796	3090	278.10	5.99	3.00
MW-61	02/09/09	10:10	0.50	13.5	1,785	3030	272.70	5.84	2.92
	02/09/09	10:40	0.50	13.0	1,584	3010	270.90	5.15	2.57
	02/09/09	11:10	0.50	13.0	1,383	3050	274.50	4.56	2.28
	02/09/09	11:40	0.50	13.0	1,182	3030	272.70	3.87	1.93
	02/09/09	12:10	0.50	17.0	1,404	2880	259.20	4.37	2.18
	02/09/09	12:40	0.50	15.0	1,361	3060	275.40	4.50	2.25
	02/09/09	13:10	0.50	13.0	1,300	3120	280.80	4.38	2.19
	02/09/09	13:40	0.50	13.0	1,294	3110	279.90	4.35	2.17
	02/09/09	14:10	0.50	13.0	1,281	3110	279.90	4.30	2.15
	02/09/09	14:40	0.50	12.5	1,270	3100	279.00	4.25	2.13
	02/09/09	15:10	0.50	15.0	1,000	2690	242.10	2.91	1.45
	02/09/09	15:40	0.50	15.0	1,009	2680	241.20	2.92	1.46
	02/09/09	16:10	0.50	15.0	1,020	2670	240.30	2.94	1.47
	02/09/09	16:40	0.50	15.0	1,024	2660	239.40	2.94	1.47
	02/09/09	17:10	0.50	15.0	1,027	2630	236.70	2.92	1.46
	02/09/09	17:40	0.50	15.0	1,031	2630	236.70	2.93	1.46
									TOTAL **34.55**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-60	4"	25-45	39.10	43.65	4.55	42.85	42.87	0.02	3.09
MW-61	4"	25-45	***	39.65	***	***	38.36	***	-1.29

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-60	44.00
Truck Operator:	J. Womack	MW-61	26.00
Stack I.D. (feet)	0.33 feet		

Corrected depth to water before AFVR Event in MW-60 = 39.78

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	34.55	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	5.97	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	15	Gallons

TABLE 2D
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 08-2081D
SCDHEC SITE ID NUMBER 06742

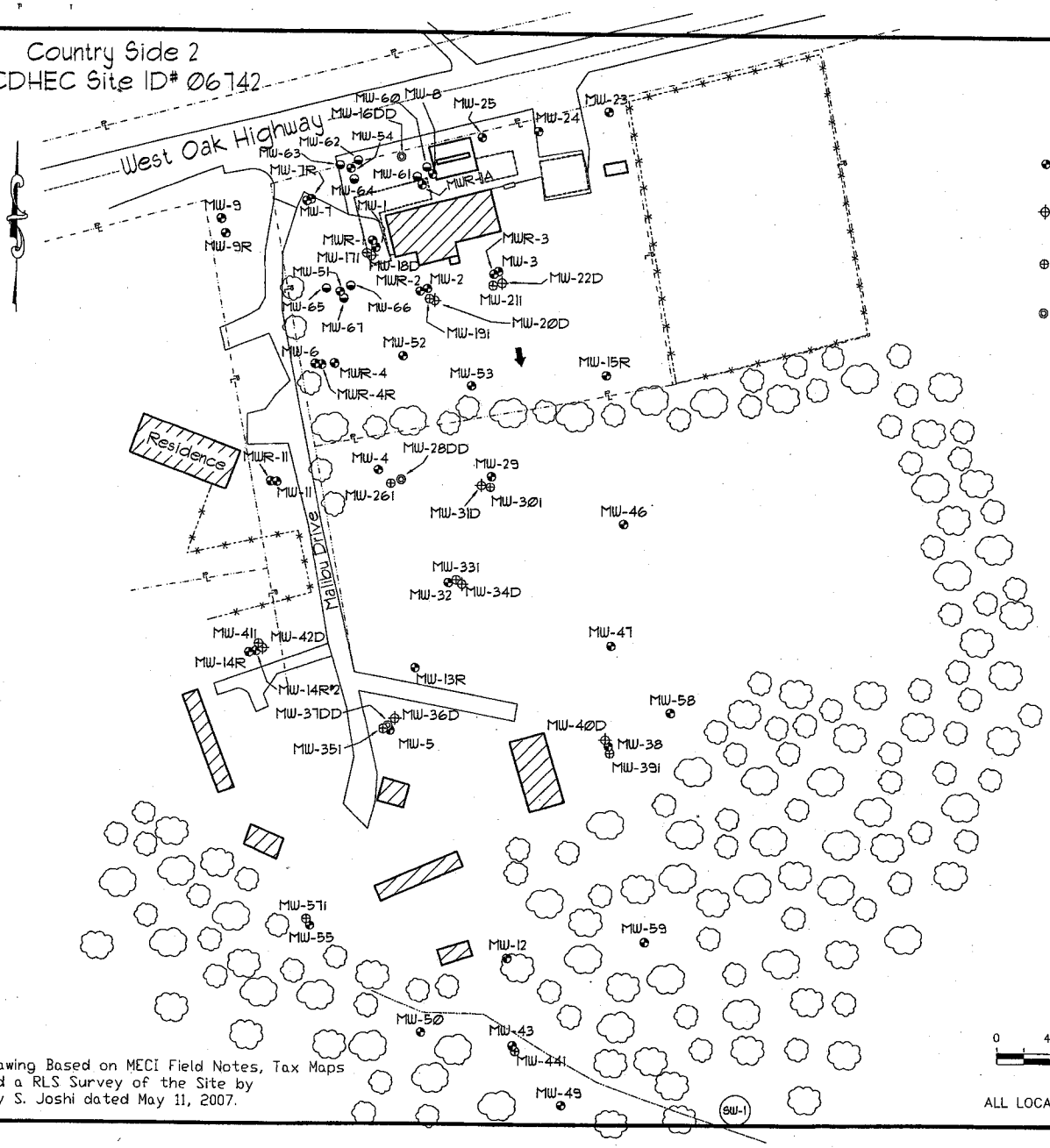
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1A	**MW-8**	**MW-16DD**
Nearest Extraction Well:		MW-61	MW-60	MW-61
Approximate Distance:		7 ft	7 ft	19 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
9:40	0.0	0	0.0	0
10:10	0.5	0	0.0	0
10:40	1.0	0	0.0	0
11:10	1.5	0	0.0	0
11:40	2.0	0	0.0	0
12:10	2.5	0	0.0	0
12:40	3.0	0	4.0	0
13:10	3.5	0	5.0	0
13:40	4.0	0	6.5	0
14:10	4.5	0	8.0	0
14:40	5.0	0	9.0	0
15:10	5.5	0	9.0	0
15:40	6.0	0	9.5	0
16:10	6.5	0	9.5	0
16:40	7.0	0	9.5	0
17:10	7.5	0	9.5	0
17:40	8.0	0	9.5	0
Maximum Change:		**0**	**9.5**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1A	**MW-8**	**MW-16DD**
Nearest Extraction Well:		MW-61	MW-60	MW-61
Approximate Distance:		7 ft	7 ft	19 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		40.91	40.64	40.11
13:40	4 hours	40.92	40.75	40.40
17:40	8 hours	41.07	41.00	40.69
Maximum Change:		-0.16	-0.36	-0.58

Country Side 2
SCDHEC Site ID# 06742



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-inch Diameter Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Estimated Location of Removed Underground Storage Tanks
- Location of Doubled Cased Monitoring Well (Intermediate)
- Estimated Location of Existing Underground Storage Tanks
- Location of Double Cased Monitoring Well (Rock)

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

Crandall

C 146618

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 95715 | 2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
(803) 808-2043
4. Generator's Phone ( )

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	2000	G
b.				
c.				
d. • Summers Store-03198-40gals • Island Car Wash-00990-215gals • Horton's Grocery-06768-120gals. • Bay Creek-18062-150gals • Horton's Grocery-06768-90gals • Newtons-03723-10gals.				

D. Additional Descriptions for Materials Listed Above
• Royal Petroleum-19436-30gals • Country Side 2-06742-100gals • Willis Grocery-08308-50gals
• Nilson R+S-07442-620gals.
• Country Side 2-06742-15gals
• Country Side 2-06742-40gals. • Bi-Rite-18740-250gals.

E. Handling Codes for Wastes Listed Above

FIELD SERVICE

15. Special Handling Instructions and Additional Information
• Hughes Well-00358-200gals • Durhams-06699-165gals.
Service Call ID: GLB0135715 • Fmn, Ford-00487-35gals.
• Leo's Gulf-04339-90gals • Whitaker-14301-190gals.
• Burnetto-15724-140gals.
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
X CLARK BAER	X	02	19	09

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Curtis Smith		02	19	09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

NOV 17 2009

BRIAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071-0854

Re: Bid # IBF-36815-8/27/09-EMW; PO # 782295
Notice to Proceed

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct Free Product (FP) recovery using Aggressive Fluid Vapor Recovery (AFVR) or passive skimmers at several facilities. The packets contain the necessary approval for work to begin. You may commence with a site reconnaissance before the AFVR and/or passive skimmers installation. If monitoring wells do not contain measurable free phase product, contact the UST project manager for further instructions. The facilities have been assigned Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order # 782295 on the appropriate invoices submitted for payment against the facilities. As specified in the referenced bid, the completed invoice forms and associated reports (include contract certification number) are expected on or before the designated due date (see below).

UST Permit #	Facility	County	Releas	Work Scope	Due Date*	CA #	Approved Amt.
04581	Danahue Grocery	Spartanburg	1	1 AFVR	60 days	37524	1,325.00
06926	Quick Pantry 12	Orangeburg	1	3 AFVR	60 days	37611	3,315.00
06742	Former Crossroads Grocery	Oconee	1	6 AFVR	60 days	35630	6,465.00

*From receipt of letter

UST DOCKET 20T

Midland's Environmental Consultants, Inc. will perform services at the sites on behalf of the site's UST owners; however, payments will be made from the SUPERB Account. The site's UST owners have no obligation for payment for this scope of work. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the Department is obtained.

If for any reason there are changes in these cost agreements, any associated changes to this cost agreement must be pre-approved by this Department in order for Midlands Environmental Consultants to seek future cost compensation. Please contact the site's project manager for technical and/or financial approval. Any item(s) not clearly or completely addressed in the report (disposal manifest for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account.

The Department grants pre-approval for transportation of free phase product and petroleum contaminated groundwater from the referenced site to a permitted treatment facility. The free product and contaminated groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included as an appendix to the report.

If you have any questions concerning this correspondence or need further assistance, please contact me by phone at (803) 896-6664, by fax at (803) 896-6245 or by email at milenkmp@dhec.sc.gov.

Sincerely,

Maia Milenkova

Maia Milenkova, Hydrogeologist
Assessment Section
UST Management Division
Bureau of Land and Waste Management

enc.: Approved Cost Agreements (ACA)
Information Packets
cc: Technical File (w/copy of ACA)

SCDHEC/UST/11/13/09/MPM

Approved Cost Agreement 35630

Facility: 06742 COUNTRY SIDE 2

PADGETJP

PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		A EQUIPMENT	6.0000	350.00	2,100.00
17 DISPOSAL					
		A2 WASTEWATER - PUMPING TEST	6,000.0000	0.10	600.00
23 EFR					
		A 8 HOUR EVENT	6.0000	600.00	3,600.00
		C OFF GAS TREATMENT	6.0000	15.00	90.00
		D SITE RECONNAISSANCE	1.0000	75.00	75.00
				Total Amount	6,465.00

Midlands
Environmental
Consultants, Inc.

December 2, 2009

UST
DEC 0 4 2009
PROGRAM

Mr. Joel Padgett, P.G., Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

3Tech
UST
DOCKET

Subject: Aggressive Fluid Vapor Recovery Report
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID # 06742; CA # 35630
MECI Project Number 09-2552B
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Crossroads Grocery on December 1, 2009. The event was conducted on monitoring wells MW-62, MW-63, and MW-64 to remove free phase petroleum product. Free phase petroleum product was detected in MW-62 at a thickness of 3.03 feet, in MW-63 at a thickness of 2.77 feet, and in MW-64 at a thickness of 2.89 feet prior to the AFVR event. The event was continuously conducted for eight hours on MW-66 and MW-67 by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum was detected in the monitoring well MW-62 at a thickness of 0.70, in MW-63 at a thickness of 1.30 feet, and in MW-64 at a thickness of 2.80 feet immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the wells was 18.24 pounds or approximately 3.15 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 2.28 pounds per hour. Concentrations of off gas produced during the event were recorded from 483 parts per million by volume (PPM) to 960 PPM. Measurements were obtained from vapors prior to entering off gas treatment.

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Telephone: (803) 808-2043 • fax: (803) 808-2048

Vacuum readings were recorded at a range of 10.0 to 16.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1B.

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2B. Monitoring well locations are depicted on attached Figure.

No liquid was removed from MW-51, MW-65, MW-66, and MW-67 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Chris G. Lashley
Field Technician

Jeff L. Coleman
Project Scientist

Attachments:

TABLE 1B
AFVR MONITORING DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2552B
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-62	12/01/09	8:45	0.50	10.0	483	3380	304.20	1.76	0.88
MW-63	12/01/09	9:15	0.50	10.0	960	3420	307.80	3.55	1.77
MW-64	12/01/09	9:45	0.50	10.0	722	3260	293.40	2.54	1.27
	12/01/09	10:15	0.50	10.0	733	3150	283.50	2.49	1.25
	12/01/09	10:45	0.50	10.0	736	3320	298.80	2.64	1.32
	12/01/09	11:15	0.50	10.0	748	3450	310.50	2.79	1.39
	12/01/09	11:45	0.50	13.0	715	2970	267.30	2.29	1.15
	12/01/09	12:15	0.50	13.0	671	2730	245.70	1.98	0.99
	12/01/09	12:45	0.50	12.0	634	2690	242.10	1.84	0.92
	12/01/09	13:15	0.50	12.0	617	2540	228.60	1.69	0.85
	12/01/09	13:45	0.50	16.0	534	1640	147.60	0.95	0.47
	12/01/09	14:15	0.50	10.0	644	2900	261.00	2.02	1.01
	12/01/09	14:45	0.50	10.0	627	2810	252.90	1.90	0.95
	12/01/09	15:15	0.50	10.0	614	2870	258.30	1.90	0.95
	12/01/09	15:45	0.50	10.0	616	2890	260.10	1.92	0.96
	12/01/09	16:15	0.50	10.0	652	2960	266.40	2.08	1.04
	12/01/09	16:45	0.50	10.0	676	2920	262.80	2.13	1.07
									TOTAL **18.24**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-62	4"	25-45	35.82	38.85	3.03	34.90	35.60	0.70	-0.67
MW-63	4"	25-45	35.42	38.19	2.77	35.40	36.70	1.30	-1.49
MW-64	4"	25-45	35.75	38.64	2.89	35.70	38.50	2.80	-0.14

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-62	40.00
Truck Operator:	C. Lashley	MW-63	40.00
Stack I.D. (feet)	0.33 feet	MW-64	40.00

Corrected depth to water before AFVR event in MW-62 =	36.27
Corrected depth to water before AFVR event in MW-63 =	35.84
Corrected depth to water before AFVR event in MW-64 =	36.18

Recovery / Disposal Information

Hydro carbons Removed (vapor):	18.24	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	3.15	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	0	Gallons

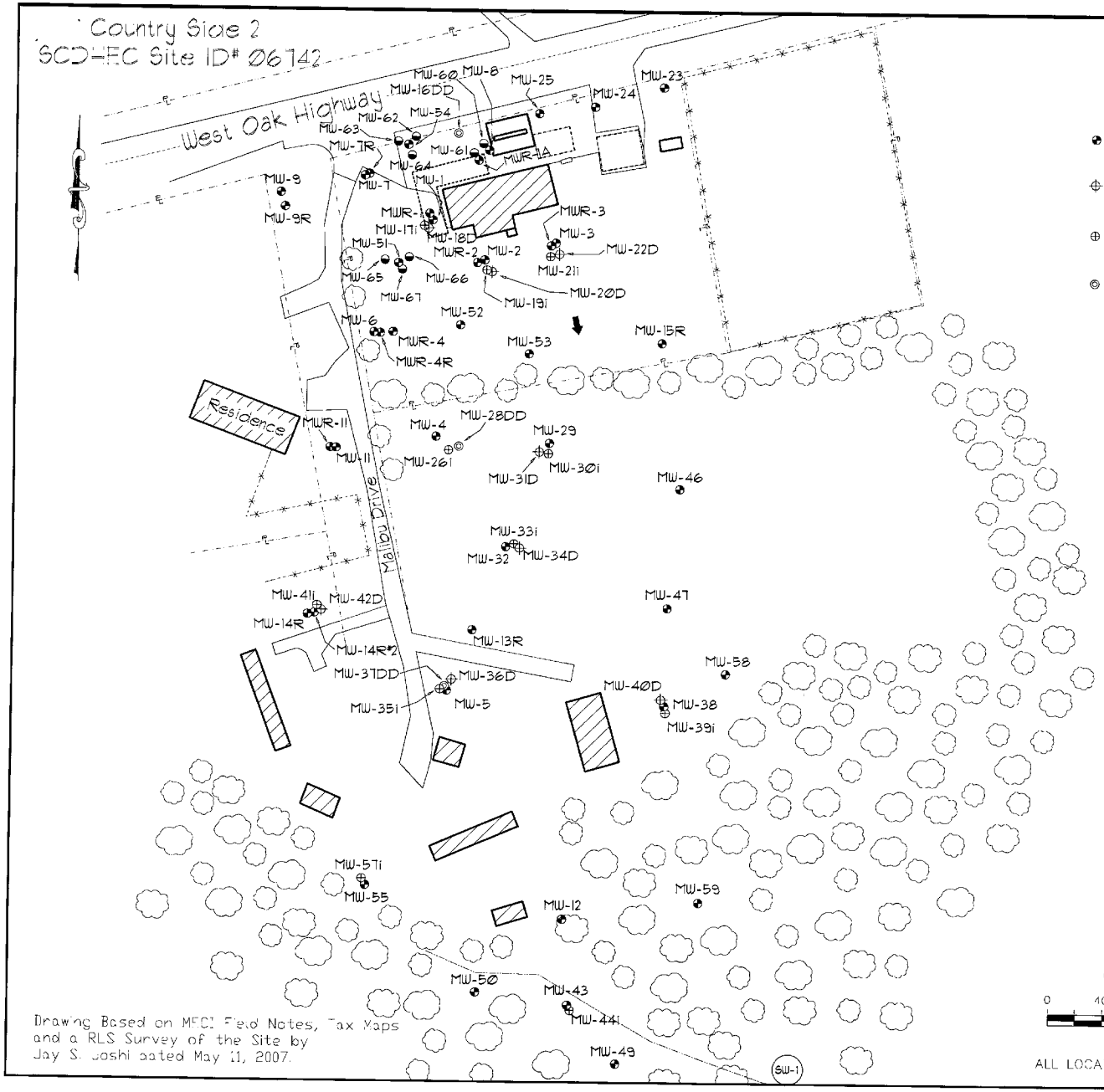
TABLE 2B
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
FORMER CROSSROADS GROCERY
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2552B
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1	**MW-7R**	**MW-54**
Nearest Extraction Well:		MW-64	MW-63	MW-63
Approximate Distance:		50 ft	35 ft	8 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
8:45	0.0	0	0	0
9:15	0.5	0	0	0
9:45	1.0	0	0	0
10:15	1.5	0	0	0
10:45	2.0	0	0	0
11:15	2.5	0	0	0
11:45	3.0	0	0	0
12:15	3.5	0	0	0
12:45	4.0	0	0	0
13:15	4.5	0	0	0
13:45	5.0	0	0	0
14:15	5.5	0	0	0
14:45	6.0	0	0	0
15:15	6.5	0	0	0
15:45	7.0	0	0	0
16:15	7.5	0	0	0
16:45	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1	**MW-7R**	**MW-54**
Nearest Extraction Well:		MW-64	MW-63	MW-63
Approximate Distance:		50 ft	35 ft	8 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		36.65	35.70	36.00
12:45	4 hours	36.59	35.75	35.61
16:45	8 hours	36.60	35.76	35.61
Maximum Change:		0.06	-0.06	0.39



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-inch Diameter Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Estimated Location of Removed Underground Storage Tanks
- Location of Doubled Cased Monitoring Well (Intermediate)
- Estimated Location of Existing Underground Storage Tanks
- Location of Double Cased Monitoring Well (Rock)

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	98.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.18	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-65 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

C 100026

Crandall

Please print or type

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. SC	Manifest Document No. 47553	2. Page 1 of 1

3. Generator's Name and Mailing Address
1144 Two Knotch Rd Midlands Environmental
Lexington SC 29073

4. Generator's Phone (803) 808-2043

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Crandall Corporation	SCD 981864499	(803) 791-4800
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Crandall Corporation 100 Rich Lexdrive Lexington SC 29072	SCD 981864499	(803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non-Hazardous, Non-Regulated Waste Water	001	TT	2120	
b. Coopers Store - 16023 → 60 Gallons (11/16) Sanders Deepwell - 02940 - 150 Gallons (11/17) Newberry Maintenance (A, B, and C) - 06456 A:0 B:125 C:250 (11-16 → 11-18)				
c. SCDOT Marion - 04175 - 220 Gallons - 11/18 Pantry 3242 - 05419 - 120 Gallons - 11/19 Refrigeration Services - 19337 - 125				
Mt. Carmel (A and B) - 06404 - 140 → A B:140 (11/23-11/24) Former Ford Specialist - 00487 - 50 (11/24) Mary Moorehead - 16009 - 0 (11/24)				
D. Additional Descriptions for Materials Listed Above McCoy Oil - 19002 - 200 (11/25) Sweatman Grocery - 17292 - 200 (11/30) Randy's Auto Part - 11671 - 140 (11/31) Former Crossroads (A and B) - 06742 A:200 B:0 (11/30 → 12/1)				

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
GLD0147553

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
T. Backman (for Midlands Env)	[signature]	12	02	09

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman	[signature]	12	02	09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

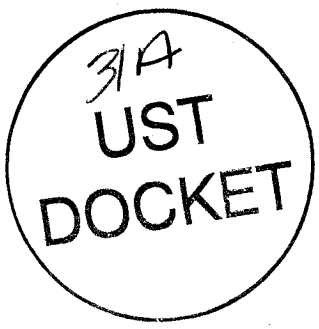
FACILITY

GENERATOR COPY

Midlands Environmental Consultants, Inc.

December 2, 2009

Mr. Joel Padgett, P.G., Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201



Subject: Aggressive Fluid Vapor Recovery Report
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID # 06742; CA # 35630
MECI Project Number 09-2552A
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

On November 25, 2009, MECI personnel conducted a site visit at the Former Crossroads Grocery to locate/gauge monitoring wells and to evaluate current site conditions. MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Crossroads Grocery on November 30, 2009. The event was conducted on monitoring wells MW-51, MW-65, MW-66, and MW-67 to remove free phase petroleum product. Free phase petroleum product was detected in MW-51 at a thickness of 0.99 feet, in MW-65 at a thickness of 1.85 feet, in MW-66 at a thickness of 0.08 feet, and in MW-67 at a thickness of 2.55 feet prior to the AFVR event. The event was continuously conducted for eight hours on MW-66 and MW-67 by MECI personnel utilizing a vacuum extraction unit. Additionally, the event was conducted for four hours on MW-51 and four hours on MW-65 to maximize free product recovery. Free phase petroleum product was not detected in the wells MW-51, MW-65, and MW-66 immediately following the event. Free phase petroleum was detected in the monitoring well MW-67 at a thickness of 1.25 feet immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the wells was 37.02 pounds or approximately 6.39

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equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 4.63 pounds per hour. Concentrations of off gas produced during the event were recorded from 928 parts per million by volume (PPM) to 1,935 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 8.0 to 13.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1A.

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2A. Monitoring well locations are depicted on attached Figure.

A total of 200 gallons of liquid was removed from MW-51, MW-65, MW-66, and MW-67 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Chris G. Lashley
Field Technician

Jeff L. Coleman
Project Scientist

Attachments:

TABLE 1A
AFVR MONITORING DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2552A
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
*MW-51	11/30/09	9:00	0.50	8.0	1,935	3,580	322.20	7.48	3.74
MW-66	11/30/09	9:30	0.50	8.0	1,886	3,480	313.20	7.09	3.54
MW-67	11/30/09	10:00	0.50	9.0	1,737	3,650	328.50	6.85	3.42
	11/30/09	10:30	0.50	9.0	1,687	3,460	311.40	6.30	3.15
	11/30/09	11:00	0.50	9.0	1,028	3,550	319.50	3.94	1.97
	11/30/09	11:30	0.50	9.0	961	3,460	311.40	3.59	1.80
	11/30/09	12:00	0.50	9.0	928	3,450	310.50	3.46	1.73
	11/30/09	12:30	0.50	13.0	1,237	2,870	258.30	3.83	1.92
*MW-65	11/30/09	13:00	0.50	13.0	1,125	2,690	242.10	3.27	1.63
MW-66	11/30/09	13:30	0.50	13.0	1,580	2,600	234.00	4.44	2.22
MW-67	11/30/09	14:00	0.50	13.0	1,231	2,320	208.80	3.08	1.54
	11/30/09	14:30	0.50	13.0	1,173	2,480	223.20	3.14	1.57
	11/30/09	15:00	0.50	13.0	1,134	2,550	229.50	3.12	1.56
	11/30/09	15:30	0.50	10.0	1,107	2,980	268.20	3.56	1.78
	11/30/09	16:00	0.50	10.0	1,088	3,130	281.70	3.68	1.84
	11/30/09	16:30	0.50	10.0	1,045	3,230	290.70	3.65	1.82
	11/30/09	17:00	0.50	10.0	1,048	3,140	282.60	3.55	1.78
									TOTAL
									37.02

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-51	2"	30-45'	34.21	35.20	0.99	***	35.32	***	0.96
MW-65	4"	25-45'	34.05	35.90	1.85	***	34.50	***	0.17
MW-66	4"	25-45'	35.25	35.33	0.08	***	33.30	***	-1.96
MW-67	4"	25-45'	33.85	36.40	2.55	34.35	35.60	1.25	1.37

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-51	35.00
Truck Operator:	C. Lashley	MW-65	35.00
Stack I.D. (feet)	0.33 feet	MW-66	36.00
		MW-67	37.00

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	37.02	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	6.39	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	200	Gallons

Corrected depth to water before AFVR Event in MW-51=	34.36
Corrected depth to water before AFVR Event in MW-65=	34.33
Corrected depth to water before AFVR Event in MW-66=	35.26
Corrected depth to water before AFVR Event in MW-67=	34.23

*=Due to the presence of free phase petroleum product in MW-51 and MW-65, MECI personnel extracted from MW-51 from 9:00 to 13:00 and from MW-65 from 13:00 to 17:00 to maximize free product recovery.

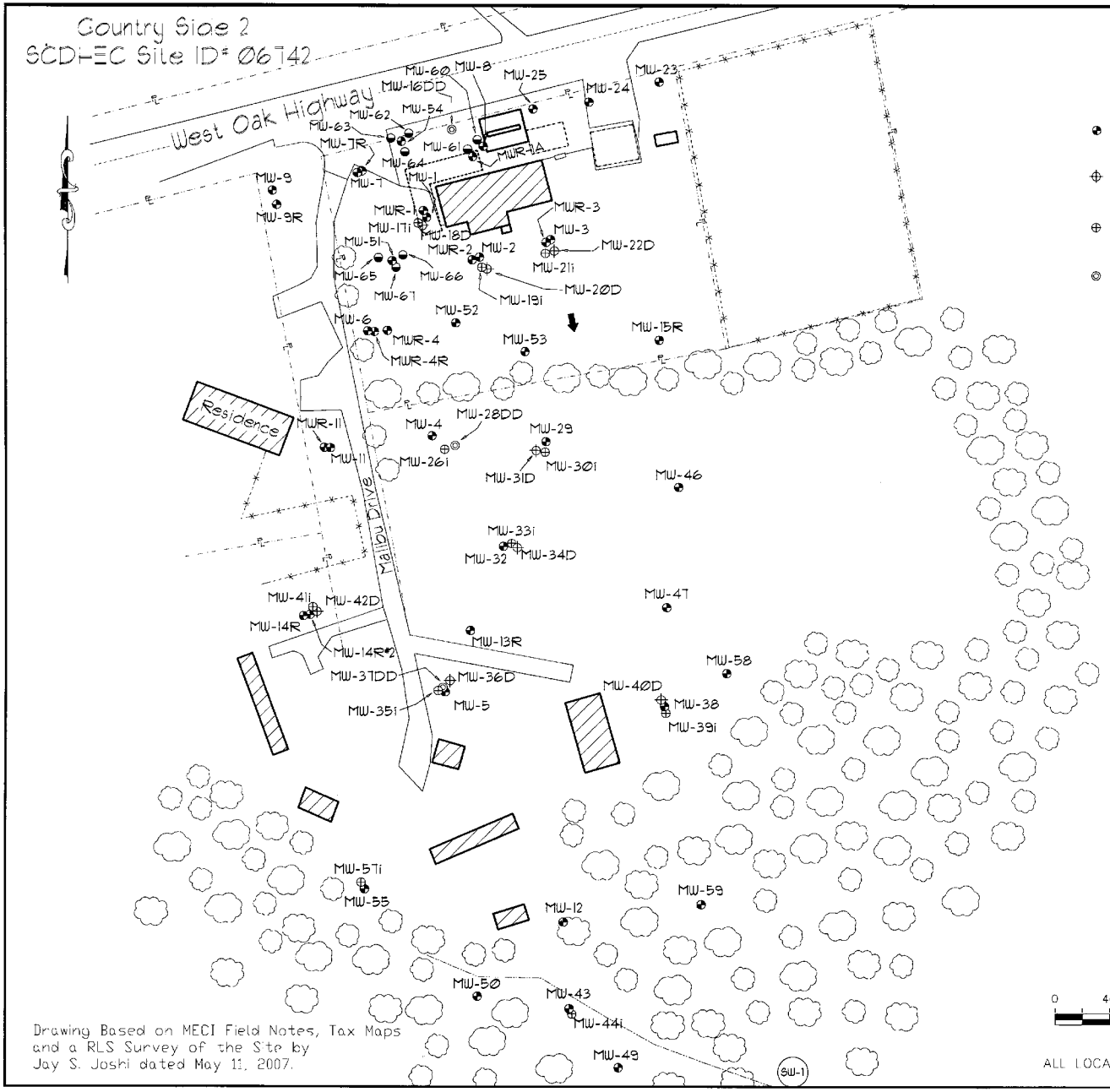
TABLE 2A
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
FORMER CROSSROADS GROCERY
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2552A
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:			
		MW-7R	**MW-17i**	**MW-65**	**MW-51**
Nearest Extraction Well:		MW-65	MW-66	MW-51	MW-67
Approximate Distance:		70 ft	32 ft	8 ft	6 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**			
9:00	0.0	0	0	0	N/A
9:30	0.5	0	0	0	N/A
10:00	1.0	0	0	0	N/A
10:30	1.5	0	0	0	N/A
11:00	2.0	0	0	0	N/A
11:30	2.5	0	0	0	N/A
12:00	3.0	0	0	0	N/A
12:30	3.5	0	0	0	N/A
13:00	4.0	0	0	0	N/A
13:30	4.5	0	0	N/A	0
14:00	5.0	0	0	N/A	0
14:30	5.5	0	0	N/A	0
15:00	6.0	0	0	N/A	0
15:30	6.5	0	0	N/A	0
16:00	7.0	0	0	N/A	0
16:30	7.5	0	0	N/A	0
17:00	8.0	0	0	N/A	0
Maximum Change:		**0**	**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:			
		MW-7R	**MW-17i**	**MW-65**	**MW-51**
Nearest Extraction Well:		MW-65	MW-66	MW-51	MW-67
Approximate Distance:		70 ft	32 ft	8 ft	6 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**			
Prior toAFVR		35.65	36.18	33.42	N/A
13:00	4 hours	35.56	36.00	34.05	35.32
17:00	8 hours	35.65	36.02	N/A	35.60
Maximum Change:		0.09	0.18	-0.63	-0.28



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

C 100026

Crandall

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: SC
Manifest Document No.: 47553
2. Page 1 of 1

3. Generator's Name and Mailing Address
1144 Two Knotch Rd Midlands Environmental
Lexington SC 29073

4. Generator's Phone (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation
6. US EPA ID Number: SCD 981864499
A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name:
8. US EPA ID Number:
B. Transporter's Phone:

9. Designated Facility Name and Site Address
Crandall Corporation
100 Rich Lexdrive
Lexington SC 29072
10. US EPA ID Number: SCD 981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non-Hazardous, Non-Regulated Waste Water	001	TT	2120	
b. Coopers Store-16023→60 Gallons (11/16) Sanders Deepwell-02940-150 Gallons (11/17) Newberry Maintenance (A, B, and C)-06456 A:0 B:125 C:250 (11-16→11-18) SCDOT Marion-04175-220 Gallons-11/18 Pantry 3242-05419-120 Gallons-11/19 Refrigeration Services-19337-125 Mt. Carmel (A and B)-06404-140→A B:140 (11/23-11/24) Former Ford Specialist-00487-50 (11/24) Mary Moorehead-16009-0 (11/24) McCoy Oil-19002-200 (11/25) Sweatman Grocery-17292-200 (11/30) Randy's Auto Part-11671-140 (11/31) Former Crossroads (A and B)-06742 A:200 B:0 (11/30→12/1)				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
GLD0147553

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
T. Backman (for Midlands Env.)	Troy Backman	12	02	09

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman	Troy Backman	12	02	09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

FACILITY

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

December 9, 2009

Mr. Joel Padgett, P.G., Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

UST
DEC 15 2009
PROGRAM

UST
DOCKET
32Tenn

Subject: Aggressive Fluid Vapor Recovery Report
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID # 06742; CA # 35630
MECI Project Number 09-2552C
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Crossroads Grocery on December 3, 2009. The event was conducted on monitoring well MW-60 to remove free phase petroleum product. Free phase petroleum product was detected in MW-60 at a thickness of 3.00 feet prior to the AFVR event. The event was continuously conducted for eight hours on MW-60 by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum was detected in the monitoring well MW-60 at a thickness of 2.26 feet immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the wells was 12.56 pounds or approximately 2.17 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.57 pounds per hour. Concentrations of off gas produced during the event were recorded from 271 parts per million by volume (PPM) to 2,215 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 10.0 to 19.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1C.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2C. Monitoring well locations are depicted on attached Figure.

There was no liquid removed from monitoring well MW-60 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Staff Biologist

Jeff L. Coleman
Project Scientist

Attachments:

TABLE 1C
AFVR MONITORING DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2552C
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-60	12/03/09	9:30	0.50	10.0	655	3180	286.20	2.25	1.12
	12/03/09	10:00	0.50	10.0	671	3170	285.30	2.30	1.15
	12/03/09	10:30	0.50	10.0	644	3180	286.20	2.21	1.11
	12/03/09	11:00	0.50	10.0	636	3150	283.50	2.16	1.08
	12/03/09	11:30	0.50	12.0	295	2860	257.40	0.91	0.46
	12/03/09	12:00	0.50	12.0	282	2880	259.20	0.88	0.44
	12/03/09	12:30	0.50	15.0	297	2340	210.60	0.75	0.38
	12/03/09	13:00	0.50	15.0	312	2360	212.40	0.80	0.40
	12/03/09	13:30	0.50	15.0	296	2360	212.40	0.75	0.38
	12/03/09	14:00	0.50	15.0	289	2360	212.40	0.74	0.37
	12/03/09	14:30	0.50	15.0	278	2340	210.60	0.70	0.35
	12/03/09	15:00	0.50	15.0	275	2360	212.40	0.70	0.35
	12/03/09	15:30	0.50	15.0	271	2360	212.40	0.69	0.35
	12/03/09	16:00	0.50	19.0	899	1360	122.40	1.32	0.66
	12/03/09	16:30	0.50	19.0	959	1370	123.30	1.42	0.71
	12/03/09	17:00	0.50	19.0	2,098	1400	126.00	3.17	1.59
	12/03/09	17:30	0.50	19.0	2,215	1410	126.90	3.37	1.69
									TOTAL 12.56

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-60	4"	25-45	35.96	38.96	3.00	35.50	37.76	2.26	1.35

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-60	39.50
Truck Operator:	B. Owen		
Stack I.D. (feet)	0.33 feet		
Corrected depth to water before AFVR event in MW-60 =			36.41

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	12.56	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	2.17	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	0	Gallons

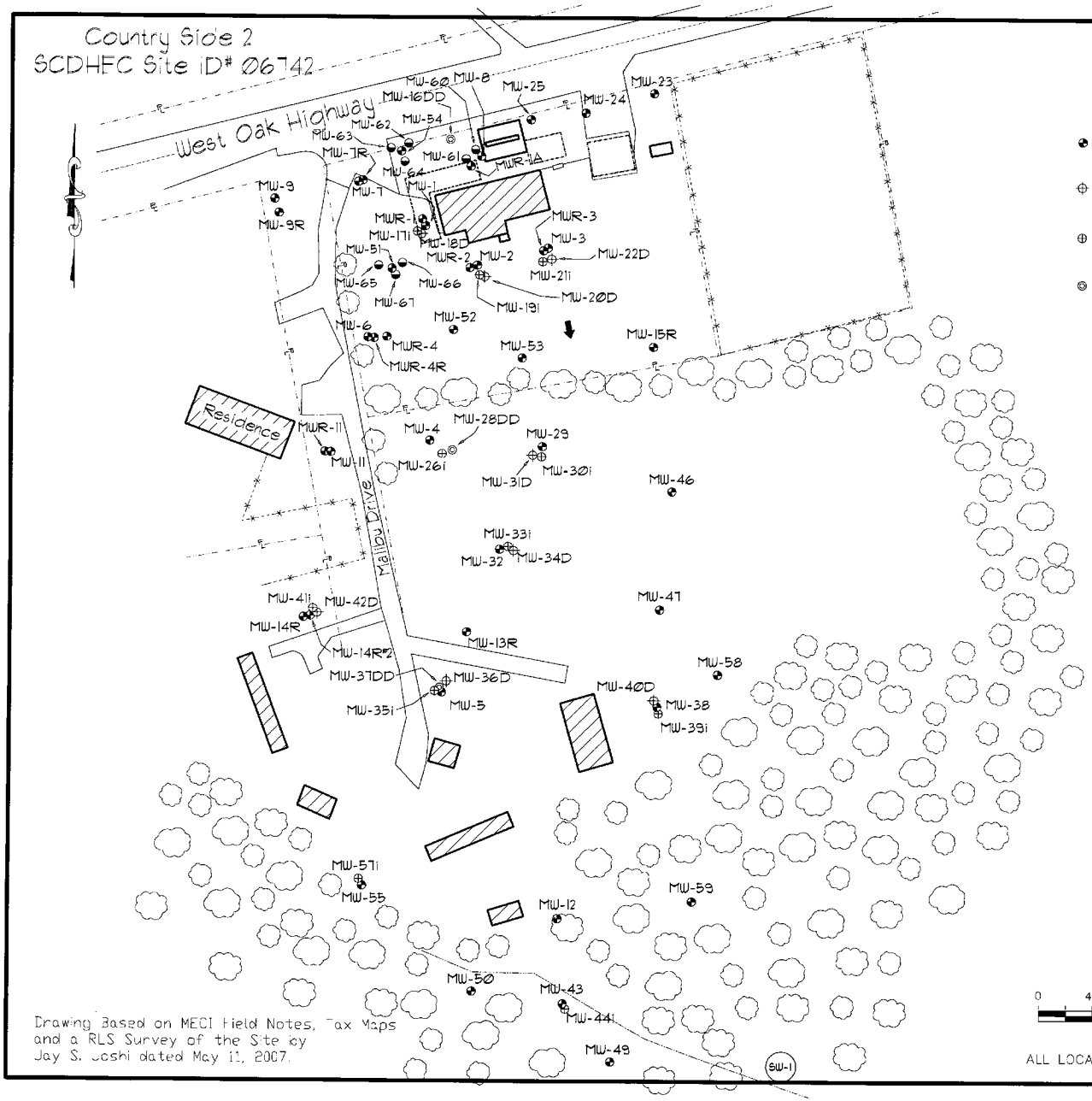
TABLE 2C
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
FORMER CROSSROADS GROCERY
WESTMINISTER, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2552C
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MWR-1A	**MW-8**	**MW-16DD**
Nearest Extraction Well:		MW-60	MW-60	MW-60
Approximate Distance:		13 ft	6 ft	20 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
9:30	0.0	0	0	0
10:00	0.5	0	0	0
10:30	1.0	0	0	0
11:00	1.5	0	0	0
11:30	2.0	0	0	0
12:00	2.5	0	0	0
12:30	3.0	0	0	0
13:00	3.5	0	0	0
13:30	4.0	0	0	0
14:00	4.5	0	0	0
14:30	5.0	0	0	0
15:00	5.5	0	0	0
15:30	6.0	0	0	0
16:00	6.5	0	0	0
16:30	7.0	0	0	0
17:00	7.5	0	0	0
17:30	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MWR-1A	**MW-8**	**MW-16DD**
Nearest Extraction Well:		MW-60	MW-60	MW-60
Approximate Distance:		13 ft	6 ft	20 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior to AFVR		37.05	37.03	36.15
13:30	4 hours	37.05	36.81	36.66
17:30	8 hours	37.11	36.92	36.75
Maximum Change:		-0.06	0.22	-0.60



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

C 144284

Crandall

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 48041 | 2. Page 1 of 1

3. Generator's Name and Mailing Address
Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number: SCD981864499 | C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water				G

Site:	UST #:	Gallons:	Site:	UST #:	Gallons:
b. Hilda Garage:	00849	150	Neighborhood	00822	180
Midway Service:	13046	100	former Crossroads	06742	8
~~Langston Automotive:~~	~~09676~~	40	Mack's Camp	01053	170
c. Former Fast Fare-A:	18131	150	Newtons	03723	110
Former Fast Fare-B:	18181	150	Constans	07871	75
Community Quick Shop:	11684	300	Constans	07871	75
Mart Holt:	19782	145			
Ben Hilman:	0626	150			

D. Additional Descriptions for Materials Listed Above			E. Handling Codes for Wastes Listed Above
Donahue Grocery:	04581	200	
Verte County School:	09164	100	
Sander Deep well:	02940	80	
Coopers B:	16023	70	

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0148041

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
T. Backman (for Midlands Envr.)		12	14	09

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
T. Backman		12	14	09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

UNDERGROUND STORAGE TANK (UST)
OWNER/OPERATOR LEAD INFORMATION SHEET

UST
JAN 07 2010
PROGRAM

1. CONTRACTOR OF CHOICE

06742

As the UST Owner/Operator of UST Permit # 6742, I would like to use the contractor or person(s) listed below and request that they represent me for:

☐ Current Work Scope Only
☑ All future assessment scopes **

Name of Contractor/Person(s) BUNNELL-LAMMONS ENGINEERING

Address 6004 PONDERS COURT
GREENVILLE, SC
29615

Telephone Number (864) 288-1265

Note: After September 20, 1997, rehabilitation activities must be performed by a SC Certified Site Rehabilitation Contractor.

*Indicate if the person listed is your own employee

**** If you would like the contractor to perform all future assessment activities at this and/or other UST sites that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.**

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above?
____ Yes _✓_ No (please initial)

Financial Relationship: A connection or association through a material interest of sources of income, which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancé.

3. PAYMENT

You can pay the contractor and, upon the submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment, be compensated from the SUPERB Account, or have payment issued directly from the SUPERB Account to the contractor. (Check one)

____ I request that payment be made to me after I have paid the contractor.

_✓_ I request that payment be made directly to the contractor.

(Note: all costs must receive prior financial approval from the Department regardless of payment option.)

Underground Storage Tank Owner/Operator Signature [signature]

Date Jan. 5, 2010

UST
DOCKET
33 Fee

Midlands
Environmental
Consultants, Inc.

February 05, 2010

Mr. Joel P. Padgett, P.G., Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #35630
MECI Project Number 09-2552D

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Former Crossroads Grocery on February 02, 2010. The event was conducted on monitoring wells MW-60 and MW-1A to reduce dissolved COC concentrations and to remove free phase petroleum product. Free phase petroleum product was detected in monitoring well MW-60 and MW-1A prior to the AFVR event at a thickness of 0.72 feet and 0.01 feet prior to the event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was detected in MW-60 at a thickness of 0.06 feet immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 16.33 pounds or approximately 2.82 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 2.04 pounds per hour. Concentrations of off gas produced during the event were recorded from 749 parts per million by volume (PPM) to 1,212 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 10.0 to 12.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1D.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2D. Monitoring well locations are depicted on attached Figure 1.

A total of 50 gallons of liquid was removed from MW-60 and MW-1A during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Brian Owen
Field Technician

Jeff Coleman
Project Scientist

Attachments:

TABLE 1D
AFVR MONITORING DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2552D
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-60	02/02/10	11:00	0.50	10.0	936	1910	171.90	1.93	0.97
MW-1A	02/02/10	11:30	0.50	10.0	1168	1930	173.70	2.43	1.22
	02/02/10	12:00	0.50	10.0	1180	1940	174.60	2.47	1.24
	02/02/10	12:30	0.50	10.0	1058	2030	182.70	2.32	1.16
	02/02/10	13:00	0.50	10.0	976	2040	183.60	2.15	1.08
	02/02/10	13:30	0.50	11.0	1212	1930	173.70	2.53	1.26
	02/02/10	14:00	0.50	11.0	1199	1910	171.90	2.47	1.24
	02/02/10	14:30	0.50	11.0	1068	1810	162.90	2.09	1.04
	02/02/10	15:00	0.50	11.0	972	1800	162.00	1.89	0.94
	02/02/10	15:30	0.50	12.0	844	1740	156.60	1.59	0.79
	02/02/10	16:00	0.50	12.0	791	1760	158.40	1.50	0.75
	02/02/10	16:30	0.50	12.0	805	1730	155.70	1.50	0.75
	02/02/10	17:00	0.50	12.0	822	1740	156.60	1.54	0.77
	02/02/10	17:30	0.50	12.0	863	1740	156.60	1.62	0.81
	02/02/10	18:00	0.50	12.0	902	1740	156.60	1.70	0.85
	02/02/10	18:30	0.50	12.0	802	1750	157.50	1.52	0.76
	02/02/10	19:00	0.50	12.0	749	1740	156.60	1.41	0.70
									TOTAL
									16.33

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-60	2"	25-45	32.92	33.64	0.72	33.94	34.00	0.06	0.97
MW-1A	4"	65-70	33.36	33.37	0.01	***	33.53	***	0.16

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-60	34.50
Truck Operator:	B. Owen	MW-1A	34.00
Stack I.D. (feet)	0.33 feet		
Corrected depth to water before AFVR Event vent in MW-60			33.03

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	16.33	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	2.82	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	50	Gallons

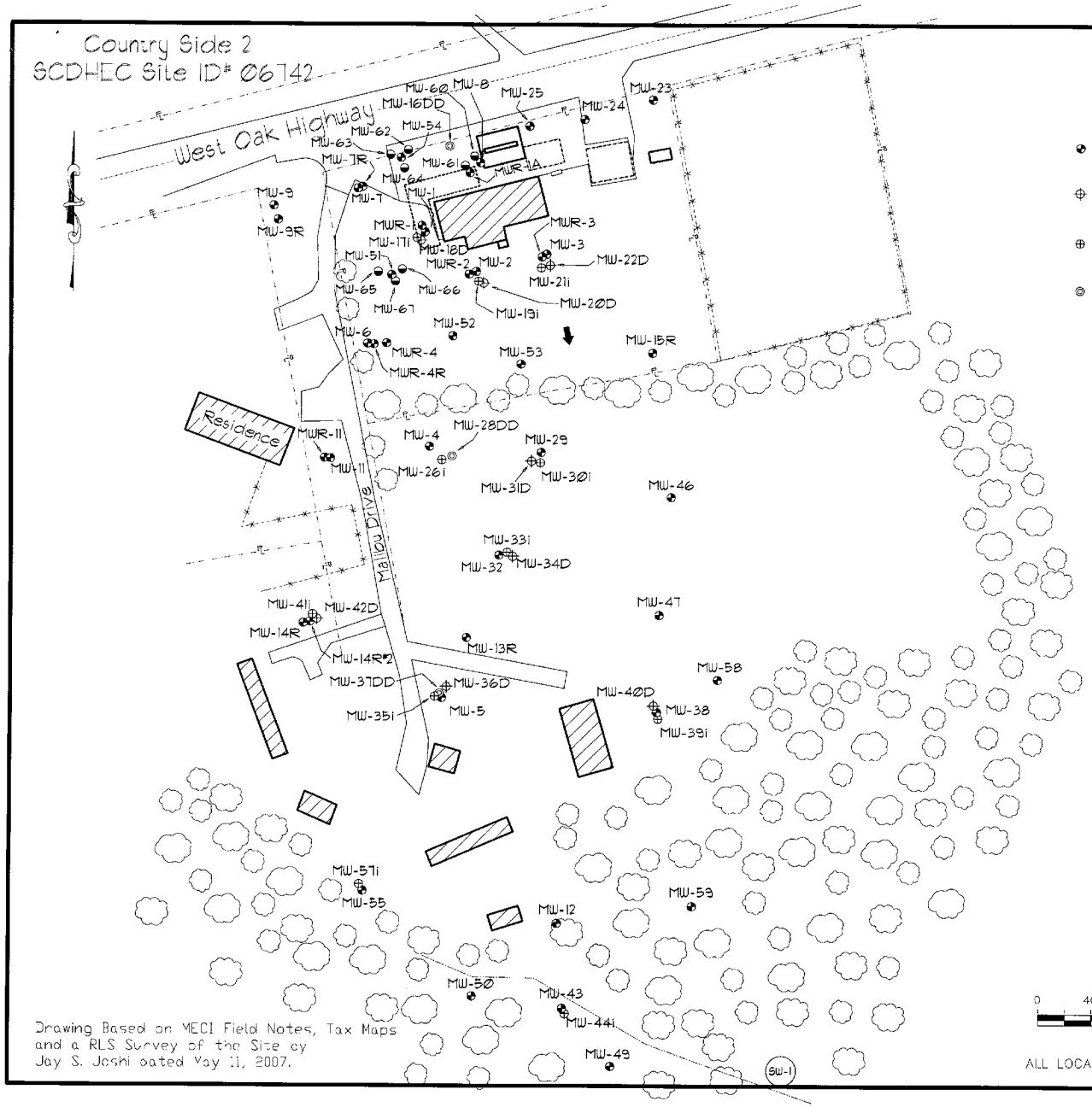
TABLE 2D
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2552D
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-8	**MW-25**	**MW-16DD**
Nearest Extraction Well:		MW-60	MW-60	MW-60
Approximate Distance:		8 ft	48 ft	20 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
11:00	0.0	0	0	0
11:30	0.5	0	0	0
12:00	1.0	0	0	0
12:30	1.5	0	0	0
13:00	2.0	0	0	0
13:30	2.5	0	0	0
14:00	3.0	0	0	0
14:30	3.5	0	0	0
15:00	4.0	0	0	0
15:30	4.5	0	0	0
16:00	5.0	0	0	0
16:30	5.5	0	0	0
17:00	6.0	0	0	0
17:30	6.5	0	0	0
18:00	7.0	0	0	0
18:30	7.5	0	0	0
19:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-8	**MW-25**	**MW-16DD**
Nearest Extraction Well:		MW-60	MW-60	MW-60
Approximate Distance:		8 ft	48 ft	20 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		33.25	33.37	32.94
15:00	4 hours	33.37	33.39	33.10
19:00	8 hours	33.51	33.46	33.16
Maximum Change:		-0.26	-0.09	-0.22



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	98.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.17	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

Crandall

C 157287

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of
	50150	1

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803) 808-2043

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Crandall Corporation	SCD981864499	(803) 791-4800
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone

9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Crandall Corporation 100 Rich-Lex Drive Lexington, SC 29072	SCD981864499	(803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	2555	G

McCoy Oil: 19002 - 275 Gal.
Marilyn's Gas Station: 17630 - 275 Gal.
Service Station: 00179 → 90 Gal.
Mary Moorheads: 16009 → 135 Gal
Dr. Tire A: 16428 → 150 Cal.
Dr. Tire B: 16428 → 100 Cal.
SCDOT Newberry → 10492 → 175 Gal.
Pantry 3235: 02872 → 150 Cal.
Mary Holt: 18782 → 140 Gal.
UST Unknown: 18678 → 100 Gal.
Dr. Tire C: 16428 → 175 Gal.
Dr. Tire D: 16428 → 125 Gal.
Mack's Camp: 02153 → 140 Gal.
A-1 Service: 01173 → 150 Gal.
Former Crossroads A: 06742 → 50 Gal.
Former Crossroads B: 06742 → 110 Gal.
Former Crossroads C: 06742 → 140 Gal.
Copeland's Service: 05694 → 75 Gal.

D. Additional Descriptions for Materials Listed Above: FIELD SERVICE

E. Handling Codes for Wastes Listed Above:

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0150150

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
X Brandon Kelly		02	05	10

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman		02	05	10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

GENERATOR TRANSPORTER FACILITY

Midlands
Environmental
Consultants, Inc.

February 05, 2010

UST
FEB 0 8 2010
PROGRAM

Mr. Joel P. Padgett, P.G., Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

UST
DOCKET
3leteeh

Subject: Aggressive Fluid Vapor Recovery Report
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #35630
MECI Project Number 09-2552E

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Former Crossroads Grocery on February 03, 2010. The event was conducted on monitoring wells MW-62, MW-63 and MW-64 to reduce dissolved COC concentrations and to remove free phase petroleum product. Free phase petroleum product was detected in monitoring well MW-62 at a thickness of 1.12 feet, MW-63 at a thickness of 1.70 feet and MW-64 at a thickness of 2.41 feet prior to the event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in monitoring wells immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 14.45 pounds or approximately 2.50 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.81 pounds per hour. Concentrations of off gas produced during the event were recorded from 244 parts per million by volume (PPM) to 2,722 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 8.0 to 12.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1E.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2E. Monitoring well locations are depicted on attached Figure 1.

A total of 110 gallons of liquid was removed from MW-62, MW-63 and MW-64 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Brian Owen
Field Technician

Jeff Coleman for
Project Scientist

Attachments:

TABLE 1E
AFVR MONITORING DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2552E
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-62	02/03/10	8:00	0.50	12.0	1068	1610	144.90	1.86	0.93
MW-63	02/03/10	8:30	0.50	12.0	1624	1670	150.30	2.93	1.46
MW-64	02/03/10	9:00	0.50	12.0	2722	1680	151.20	4.94	2.47
	02/03/10	9:30	0.50	12.0	1012	1790	161.10	1.96	0.98
	02/03/10	10:00	0.50	12.0	883	1800	162.00	1.72	0.86
	02/03/10	10:30	0.50	12.0	755	1800	162.00	1.47	0.73
	02/03/10	11:00	0.50	12.0	678	1790	161.10	1.31	0.66
	02/03/10	11:30	0.50	12.0	654	1800	162.00	1.27	0.64
	02/03/10	12:00	0.50	12.0	645	1800	162.00	1.25	0.63
	02/03/10	12:30	0.50	10.0	776	2320	208.80	1.94	0.97
	02/03/10	13:00	0.50	10.0	925	2320	208.80	2.32	1.16
	02/03/10	13:30	0.50	8.0	415	2300	207.00	1.03	0.52
	02/03/10	14:00	0.50	8.0	244	2310	207.90	0.61	0.30
	02/03/10	14:30	0.50	10.0	505	1990	179.10	1.09	0.54
	02/03/10	15:00	0.50	10.0	537	2000	180.00	1.16	0.58
	02/03/10	15:30	0.50	10.0	521	1840	165.60	1.04	0.52
	02/03/10	16:00	0.50	10.0	509	1840	165.60	1.01	0.51
									TOTAL 14.45

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-62	4"	25-45	32.47	33.59	1.12	***	32.12	***	-1.47
MW-63	4"	25-45	31.82	33.52	1.70	***	32.30	***	-1.22
MW-64	4"	25-45	32.06	34.47	2.41	***	32.85	***	-1.62

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-62	34.50
Truck Operator:	B. Owen	MW-63	34.50
Stack I.D. (feet)	0.33 feet	MW-64	35.00

Corrected depth to water before AFVR Event vent in MW-62	32.64
Corrected depth to water before AFVR Event vent in MW-63	32.08
Corrected depth to water before AFVR Event vent in MW-64	32.42

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	14.45	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	2.50	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	110	Gallons

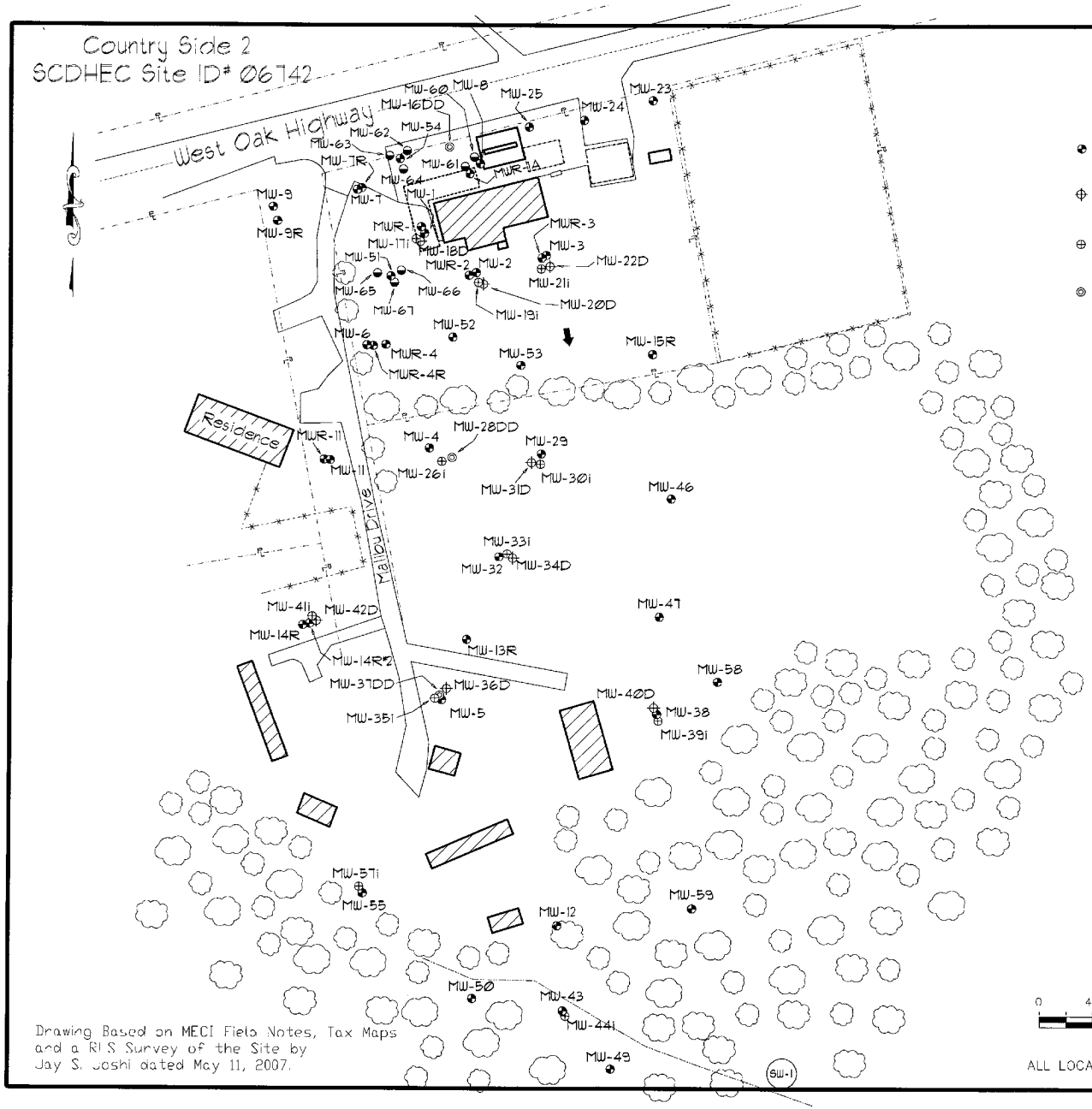
TABLE 2E
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2552E
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1	**MW-16DD**	**MW-7R**
Nearest Extraction Well:		MW-64	MW-62	MW-63
Approximate Distance:		52 ft	32 ft	32 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
8:00	0.0	0	0	0
8:30	0.5	0	0	0
9:00	1.0	0	0	0
9:30	1.5	0	0	0
10:00	2.0	0	0	0
10:30	2.5	0	0	0
11:00	3.0	0	0	0
11:30	3.5	0	0	0
12:00	4.0	0	0	0
12:30	4.5	0	0	0
13:00	5.0	0	0	0
13:30	5.5	0	0	0
14:00	6.0	0	0	0
14:30	6.5	0	0	0
15:00	7.0	0	0	0
15:30	7.5	0	0	0
16:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1	**MW-16DD**	**MW-7R**
Nearest Extraction Well:		MW-64	MW-62	MW-63
Approximate Distance:		52 ft	32 ft	32 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		32.80	33.11	31.36
12:00	4 hours	32.80	33.17	31.40
16:00	8 hours	32.74	33.11	31.33
Maximum Change:		0.06	0.06	-0.07



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	98.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

C 157287

Crandall

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.:
Manifest Document No.: 50150
2. Page 1 of 1

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ( ): (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation
6. US EPA ID Number: SCD981864499
A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name:
8. US EPA ID Number:
B. Transporter's Phone:

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water McCoy Oil: 19002 → 275 Gal. Dr. Tire C: 16428 → 175 Gal. Marilyn's Gas Station: 17630 → 275 Gal. Dr. Tire D: 16428 → 125 Gal. Service Station: 00479 → 90 Gal. Mack's Camp: 02153 → 140 Gal. Mary Moorehead's: 16009 → 135 Gal A-1 Service: 01173 → 150 Gal. Dr. Tire A: 16428 → 150 Gal. Former Crossroads A: 06742 → 50 Gal. Dr. Tire B: 16428 → 100 Gal. Former Crossroads B: 06742 → 110 Gal. SCDOT Newberry → 10492 → 175 Gal. Former Crossroads C: 06742 → 140 Gal. Pantry 3235: 02872 → 150 Gal. Copeland's Service: 05694 → 75 Gal. Mary Holt: 18782 → 140 Gal. UST Unknown: 18678 → 100 Gal.	001	TT	2555	G

D. Additional Descriptions for Materials Listed Above
FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Service Call ID: GLB0150150

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
X Brandon Kelly		02	05	10

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman	Troy Backman	02	05	10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

12-BLC-M5

Midlands
Environmental
Consultants, Inc.

February 05, 2010

Mr. Joel P. Padgett, P.G., Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #35630
MECI Project Number 09-2552F

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Former Crossroads Grocery on February 4, 2010. The event was conducted on monitoring wells MW-51, MW-66 and MW-67 to reduce dissolved COC concentrations and to remove free phase petroleum product. Free phase petroleum product was detected in monitoring well MW-51 at a thickness of 0.50 feet, in MW-66 at a thickness of 0.03 feet and in MW-67 at a thickness of 0.16 feet prior to the event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was detected in monitoring well MW-51 at a thickness of 0.04 feet immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 10.48 pounds or approximately 1.81 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.31 pounds per hour. Concentrations of off gas produced during the event were recorded from 204 parts per million by volume (PPM) to 1,100 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 10.0 to 12.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1F.

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2F. Monitoring well locations are depicted on attached Figure 1.

A total of 140 gallons of liquid was removed from MW-51, MW-66 and MW-67 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Brian J.Owen
Field Technician

Brendon P. Kelly
Project Scientist

Attachments:

TABLE 1F
AFVR MONITORING DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2552F
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-51	02/04/10	7:30	0.50	12.0	872	1,940	174.60	1.83	0.91
MW-66	02/04/10	8:00	0.50	12.0	988	1,950	175.50	2.08	1.04
MW-67	02/04/10	8:30	0.50	12.0	1,100	1,980	178.20	2.35	1.18
	02/04/10	9:00	0.50	10.0	931	2,100	189.00	2.11	1.06
	02/04/10	9:30	0.50	10.0	859	2,120	190.80	1.97	0.98
	02/04/10	10:00	0.50	10.0	650	2,070	186.30	1.45	0.73
	02/04/10	10:30	0.50	10.0	495	2,080	187.20	1.11	0.56
	02/04/10	11:00	0.50	10.0	489	2,090	188.10	1.10	0.55
	02/04/10	11:30	0.50	10.0	481	2,100	189.00	1.09	0.55
	02/04/10	12:00	0.50	10.0	361	1,990	179.10	0.78	0.39
	02/04/10	12:30	0.50	10.0	204	2,000	180.00	0.44	0.22
	02/04/10	13:00	0.50	10.0	282	1,970	177.30	0.60	0.30
	02/04/10	13:30	0.50	10.0	388	1,990	179.10	0.83	0.42
	02/04/10	14:00	0.50	10.0	381	1,980	178.20	0.81	0.41
	02/04/10	14:30	0.50	10.0	378	1,990	179.10	0.81	0.41
	02/04/10	15:00	0.50	10.0	364	1,990	179.10	0.78	0.39
	02/04/10	15:30	0.50	10.0	373	1,990	179.10	0.80	0.40
									TOTAL 10.48

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-51	2"	30-45	30.71	31.21	0.50	30.73	30.77	0.04	-0.44
MW-66	4"	25-45	30.60	30.63	0.03	***	30.55	***	-0.08
MW-67	4"	25-45	30.54	30.70	0.16	***	30.43	***	-0.27

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-51	32.00
Truck Operator:	B. Owen	MW-66	31.50
Stack I.D. (feet)	0.33 feet	MW-67	31.50

Corrected depth to water before AFVR Event in MW-51 =	30.79
Corrected depth to water before AFVR Event in MW-66 =	30.60
Corrected depth to water before AFVR Event in MW-67 =	30.56

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	10.48	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.81	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	140	Gallons

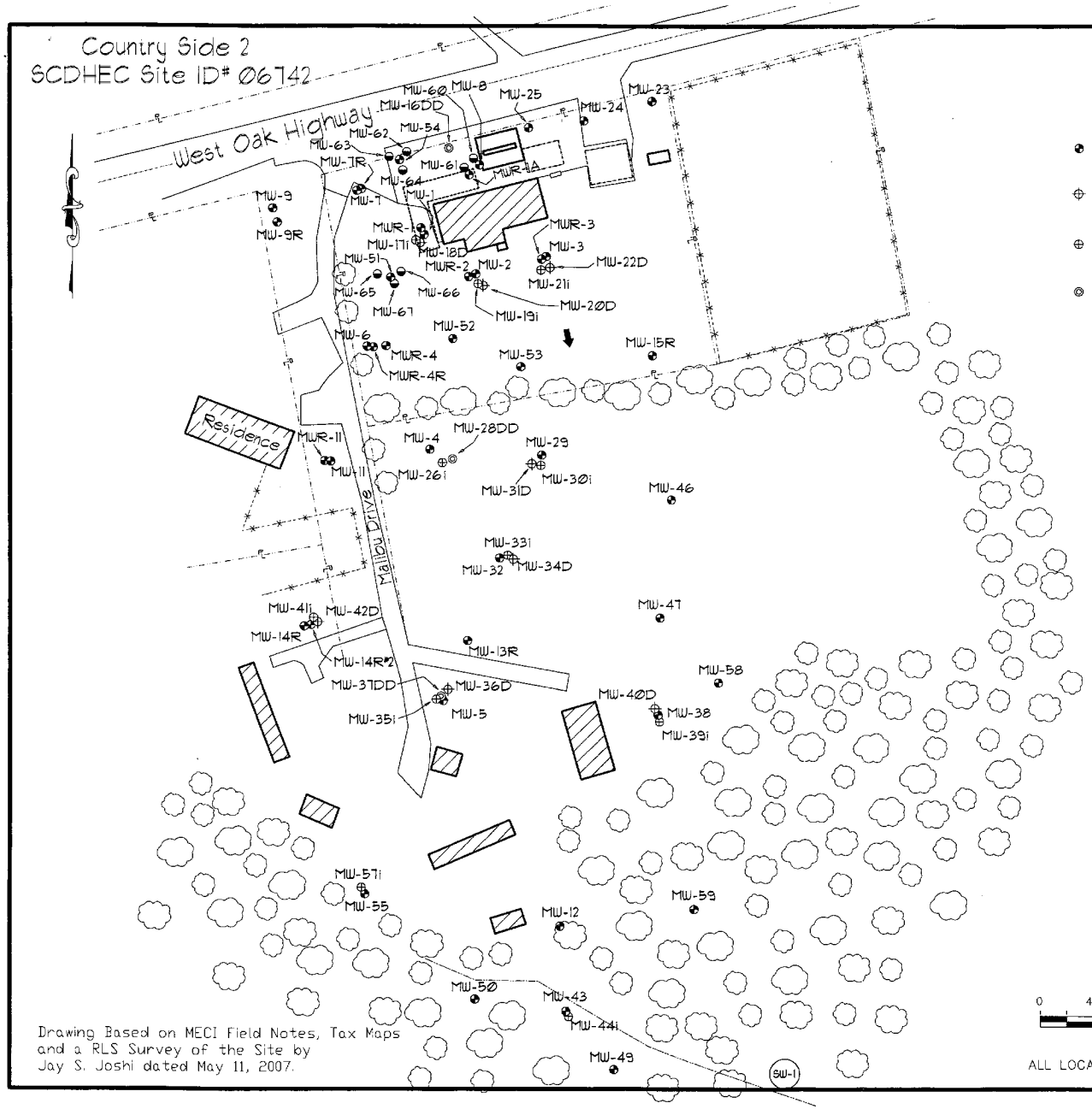
TABLE 2F
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2552F
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-65	**MW-7**	**MW-17i**
Nearest Extraction Well:		MW-51	MW-66	MW-66
Approximate Distance:		12 ft	72 ft	28 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
7:30	0.0	0	0	0
8:00	0.5	0	0	0
8:30	1.0	0	0	0
9:00	1.5	0	0	0
9:30	2.0	0	0	0
10:00	2.5	0	0	0
10:30	3.0	0	0	0
11:00	3.5	0	0	0
11:30	4.0	0	0	0
12:00	4.5	0	0	0
12:30	5.0	0	0	0
13:00	5.5	0	0	0
13:30	6.0	0	0	0
14:00	6.5	0	0	0
14:30	7.0	0	0	0
15:00	7.5	0	0	0
15:30	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-65	**MW-7**	**MW-17i**
Nearest Extraction Well:		MW-51	MW-66	MW-66
Approximate Distance:		12 ft	72 ft	28 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		30.00	31.43	32.10
11:30	4 hours	30.08	31.49	32.09
15:30	8 hours	29.96	31.30	32.00
Maximum Change:		0.12	0.19	0.10



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.87
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

GRAPHIC SCALE

0 40 80 120 160

1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

C 157287

Crandall

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 50150 | 2. Page 1 of 1

3. Generator's Name and Mailing Address
Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation
6. US EPA ID Number: SCD981864499
A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name
8. US EPA ID Number
B. Transporter's Phone

9. Designated Facility Name and Site Address
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water McCoy Oil: 19002-275 Gal. Dr. Tire C: 16428 → 175 Gal. Marilyn's Gas Station: 17630-275 Gal. Dr. Tire D: 16428 → 125 Gal. Service Station: 00474 → 90 Gal. Mack's Camp: 02153 → 140 Gal. Mary Moorehoads: 16009 → 135 Gal A-1 Service: 01173 → 150 Gal. Dr. Tire A: 16428 → 150 Gal. Former Crossroads A: 06742 → 50 Gal. Dr. Tire B: 16428 → 100 Gal. Former Crossroads B: 06742 → 110 Gal. SCDOT Newberry → 10492 → 175 Gal. Former Crossroads C: 06742 → 140 Gal. Pantry 3235: 02872 → 150 Gal. Copeland's Service: 05694 → 75 Gal. Mary Holt: 18782 → 140 Gal. UST Unknown: 18678 → 100 Gal.	001	TT	2555	G

D. Additional Descriptions for Materials Listed Above
FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Service Call ID: GLB0150150

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
X Brandon Kelly		02	05	10

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman		02	05	10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR TRANSPORTER FACILITY

GENERATOR COPY

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

MAR 04 2010

38tech

UST DOCKET

MR NEIL ALEXANDER
C/O ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINSTER SC 29693-5534

Re: Aggressive fluid and vapor recovery (AFVR) directive
Former Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; Cost Agreement #38329
Release reported Janaury 11, 1993
Oconee County

Dear Mr. Alexander:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (SCDHEC) recognizes your commitment to continue work at this site using Bunnell-Lammons Engineering, Inc. as your contractor. The next scope of work is to continue aggressive fluid and vapor recovery (AFVR) events to remove residual free-phase product and reduce concentrations of chemicals of concern (CoC). Please have your contractor conduct one event on monitoring/recovery wells MW-1A, MW-60, and MW-61, one event on monitoring/recovery wells MW-62, MW-63, and MW-64, and one event on monitoring/recovery wells MW-65, MW-66, and MW-67. Off-gas treatment will be necessary.

Cost Agreement #38329 has been approved in the amount shown on the enclosed cost agreement form for the AFVR events. AFVR activities may proceed immediately upon receipt of this letter. The report submitted at the completion of the events should include the following items:

- A narrative portion documenting each AFVR event noting site conditions, the name of the AFVR contractor, field personnel, date, time the AFVR event started and ended, ambient air temperature, and general weather conditions.
- A brief description of the completed work scope and any relevant descriptions pertaining to the data tables.
- A table summarizing the airflow (in CFM) and volatile air emissions concentrations collected from the stack of the truck every thirty minutes through the duration of each event or for one eight-hour period per day for each extended event. The table shall also document which well(s) were being recovered from during that time interval.
- A table summarizing magnehelic gauge measurements on a thirty-minute time interval through the duration of each event or for one eight-hour period per day for each extended event. The gauges must be installed on the extraction well(s) and immediately surrounding wells.

- The total volume of water recovered in gallons.
- The total volume of free-phase product recovered in gallons (typically measured with a product/water interface device inserted into the top of the tanker at the completion of each event and then converted to an approximate volume).
- The total weight of petroleum removed as vapor in pounds. This is calculated based on the airflow rate and the concentration of vapor.
- A table documenting the free-product thickness in each well before and after each AFVR event.
- A scaled base map depicting the location of the extraction wells and the surrounding wells equipped with magnehelic gauges.

The drop tube or "stinger" should be installed six inches below the free-phase product or at the top of the well screen if free-phase product is not present. The tube may be installed deeper only if the extraction well exhibits slow recovery (repeatedly goes dry) or if it is necessary to establish a steeper hydraulic gradient to enhance product migration towards the extraction well. The overall goal is to maximize the recovery of free-phase product and petroleum vapors in the capillary fringe and minimize the recovery of groundwater.

Bunnell-Lammons can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Please note that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina-Certified Underground Storage Tank Site Rehabilitation Contractor.

An AFVR report and invoice are due within 90 days from the date of this letter. Interim invoices may not be submitted for this scope of work. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Department is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the Department for the cost to be paid. SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Division grants pre-approval for transportation of up to 5,000 gallons of free-phase product and petroleum-contaminated groundwater from the referenced facility to a permitted treatment facility. The product and groundwater must be properly stored in labeled containers and must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report.

On all correspondence concerning this facility, please reference UST Permit #06742. If there are any questions concerning this project, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
06742.10

enc: Approved cost agreement form

cc: Bunnell-Lammons Engineering, Inc., 6004 Ponders Court, Greenville, SC 29615-4601 (w/enc)
Technical file (w/enc)

Approved Cost Agreement 38329

Facility: 06742 COUNTRY SIDE 2
PADGETJP
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		A EQUIPMENT	3.0000	575.00	1,725.00
		B PERSONNEL	3.0000	290.00	870.00
17 DISPOSAL					
		A2 WASTEWATER - PUMPING TEST	3,000.0000	0.60	1,800.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	14,235.00	2,135.25
23 EFR					
		A 8 HOUR EVENT	3.0000	3,000.00	9,000.00
		C OFF GAS TREATMENT	24.0000	35.00	840.00
			Total Amount		16,370.25

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF MULTIPLE AGGRESSIVE FLUID VAPOR RECOVERY EVENTS

Former Crossroads Grocery
8050 West Oak Highway
Westminster, South Carolina
UST Permit #06742; Cost Agreement #38329

Prepared For

Mr. Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693-5534

Prepared By

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, South Carolina 29615

July 14, 2010

BLE Project Number J10-6940-01

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

July 14, 2010

South Carolina Department of Health and Environmental Control
Underground Storage Tank Program
Bureau of Land and Waste Management
2600 Bull St.
Columbia, SC 29201-1708

Attention: Mr. Joel Padgett, P.G.,
Hydrogeologist

Subject: **Report of Multiple Aggressive Fluid Vapor Recovery Events**
Former Crossroads Grocery
8050 West Oak Highway, Westminster, SC
Oconee County
UST Permit #06742; CA #38329
BLE Project No. J10-6940-01

Dear Mr. Padgett:

On behalf of Mr. Neil Alexander of the Former Crossroads Grocery, Bunnell-Lammons Engineering, Inc. (BLE) has completed three aggressive fluid vapor recovery events (AFVRs) at the subject site. This scope of work was performed in response to South Carolina Department of Health and Environmental Control's (SCDHEC) letter, dated March 4, 2010. The results of our activities are provided herein. Please feel free to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina No. 2395

Thomas L. Lammons, P.G
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Neil Alexander, 8050 West Oak Highway, Westminster, SC 29693-5534

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

PROJECT INFORMATION

The subject property is located at 8050 West Oak Highway in Westminster, South Carolina (Figure 1). The site currently operates as Country Side 2, which is an automobile fueling station and convenience store. We understand that five underground storage tanks (USTs) and associated piping and fueling dispensers were removed from the site in June 1990: (2) 1,000-gallon gasoline, (1) 550-gallon gasoline, (1) 550-gallon diesel, and (1) 550-gallon kerosene. Five new USTs, (1) 10,000-gallon off-road diesel, (1) 10,000-gallon kerosene, (1) 8,000-gallon "regular" gasoline, (1) 6,000-gallon "plus" gasoline, and (1) 6,000-gallon diesel, and associated equipment were installed in their place. In association with the UST removal activities, a release of petroleum contaminants to the subsurface was reported by Midlands Environmental in January 1993. Various environmental assessments have been conducted at the site by other consultants since 1993, including the installation of seventy-two groundwater monitoring wells to assess the horizontal and vertical extent of petroleum hydrocarbons in the water table aquifer. Petroleum free-product recovery has been conducted via numerous aggressive fluid vapor recovery (AFVR) events. BLE also understands that the site was previously in active corrective action utilizing a form of injection technology. Several injection wells are still present on the property.

In a directive dated March 4, 2010, SCDHEC required additional AFVR events at the site, to remove residual free-phase product and to reduce concentrations of dissolved chemicals of concern (CoCs). This directive for multiple AFVR events required recovery from wells MW-1A, MW-60, and MW-61 (event 1), MW-62, MW-63, and MW-64 (event 2), and MW-65, MW-66, and MW-67 (event 3).

BLE performed the tasks required by SCDHEC during three AFVR events, which are documented in this report.

AGGRESSIVE FLUID VAPOR RECOVERY EVENT #1 – MAY 28, 2010

On May 28, 2010, the first 8-hour AFVR event was conducted in monitoring wells MW-65, MW-66, and MW-67. A geologist from BLE was on site for observation and monitoring. The AFVR event was performed by Caro-Vac of Mauldin, South Carolina (Caro-Vac). Prior to initiating the

event, BLE personnel gauged the monitoring wells using a Solinst® Interface Meter Model 122. Approximately 0.06, 0.01 feet, and 0.06 feet of petroleum free-product was measured in MW-65, MW-66, and MW-67, respectively (Figure 2). Additionally, the initial depth to free-product/groundwater in adjacent monitoring wells MWR-1 and MW-51 were measured (feet below top of PVC casing (btoc)) and recorded on Table 1.

The AFVR event was initiated at 1030 and concluded at 1830. The general weather conditions observed during this period of time were clear; winds varied between 5 and 10 mph with an ambient temperature between 80º and 90º Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of approximately 22 inches of mercury was applied to MW-65, MW-66, and MW-67. In addition to collecting vacuum readings, the depth to water (feet btoc) was measured every 30 minutes in MWR-1 and MW-51, to evaluate drawdown. Gauging data observed during the event is shown in Table 1.

Due to the close proximity of the site to a populated area, volatile air emissions were treated on-site by Caro-Vac personnel utilizing a vapor exhaust chiller and a granulated activated carbon (GAC) unit. Influent and effluent vapor concentrations were measured every 30 minutes throughout the event using a MiniRAE® 2000 Photo Ionization Detector (PID). The observed vapor concentrations are shown in Table 1.

At the completion of the AFVR event, a total volume of 1,635 gallons of petroleum impacted groundwater was determined to have been recovered from the site. No free-phase product was measured in the holding tanks at the end of the AFVR event. Please note that petroleum product losses may occur through emulsification with the groundwater and volatilization during the AFVR event. Additionally, the liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix A.

A total of approximately 1.02 pounds of gasoline vapor which is equivalent to approximately 0.16 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 1A.

The AFVR wells were gauged immediately following the conclusion of the event and 0.01 feet of free-product was observed in MW-66. Free-phase product was not detected in MW-65 or MW-67. Total water level changes for this event are shown in Table 1.

AGGRESSIVE FLUID VAPOR RECOVERY EVENT #2 – JUNE 1, 2010

On June 1, 2010, the second 8-hour AFVR event was conducted in monitoring wells MW-62, MW-63, and MW-64. A geologist from BLE was on site for observation and monitoring and the AFVR event was performed by Caro-Vac. Prior to initiating the event, BLE personnel gauged the monitoring wells using a Solinst® Interface Meter Model 122. Approximately 0.02 feet of petroleum free-product was measured in MW-64 (Figure 2). Free-product was not detected in MW-62 or MW-63. Additionally, the initial depth to free-product/groundwater in adjacent source area wells MW-7, MW-7R, and MW-54 was measured (feet btoc) and recorded on Table 2.

The AFVR event was initiated at 0945 and concluded at 1745. The general weather conditions observed during this period of time were cloudy; winds varied between 5 and 10 mph with an ambient temperature between 75º and 80º Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of approximately 24 inches of mercury was applied to MW-62, MW-63, and MW-64. In addition to collecting vacuum readings, the depth to free-product/groundwater (feet btoc) was measured every 30 minutes in MW-7, MW-7R, and MW-54 to evaluate drawdown. Gauging data observed during the event is shown in Table 2.

Due to the close proximity of the site to a populated area, volatile air emissions were treated on-site by Caro-Vac personnel utilizing a vapor exhaust chiller and a GAC unit. Influent and effluent vapor concentrations were measured every 30 minutes throughout the event using a MiniRAE® 2000 PID. The observed vapor concentrations are shown in Table 2.

At the completion of the AFVR event, a total volume of 1,635 gallons of petroleum impacted groundwater was determined to have been recovered from the site. No free-phase product was measured in the holding tanks at the end of the AFVR event. Please note that petroleum product losses may occur through emulsification with the groundwater and volatilization during the AFVR

event. Additionally, the liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix A.

A total of approximately 0.51 pounds of gasoline vapor which is equivalent to approximately 0.08 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 2A.

The AFVR monitoring wells were gauged immediately following the conclusion of the event and 0.01 feet and 0.02 feet of free-phase product was observed in MW-62 and MW-64, respectively. No free-phase product was observed in MW-63. Total free-product/water level changes for this event are shown in Table 2.

AGGRESSIVE FLUID VAPOR RECOVERY EVENT #3 – JUNE 2, 2010

On June 2, 2010, the third 8-hour AFVR event was conducted in monitoring wells MWR-1A, MW-60, and MW-61. A geologist from BLE was on site for observation and monitoring and the AFVR event was performed by Caro-Vac. Prior to initiating the event, BLE personnel gauged 0.01 feet of free-phase petroleum product in MWR-1A, 1.68 feet of free-product in MW-60, and 0.03 feet of free-product in MW-61 (Figure 2). Additionally, the initial depth to free-product/groundwater in adjacent source area wells (feet btoc) MW-8 and an unknown monitoring well (MW-X) were measured and recorded on Table 3.

The AFVR event was initiated at 1030 and concluded at 1830. The general weather conditions observed during this period of time were mostly cloudy; winds varied between 5 and 10 mph with an ambient temperature between 70º and 85º Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of approximately 23 inches of mercury was applied to MWR-1A, MW-60, and MW-61. In addition to collecting vacuum readings, the depth to free-product/groundwater (feet btoc) was measured every 30 minutes in wells MW-8 and MW-X to evaluate drawdown. Gauging data observed during the event is shown in Table 3.

Due to the close proximity of the site to a residential area, volatile air emissions were treated on-site by Caro-Vac personnel utilizing a vapor exhaust chiller and a GAC unit. Influent and effluent vapor concentrations were measured every 30 minutes throughout the event using a MiniRAE® 2000 PID. The observed vapor concentrations are shown in Table 3.

At the completion of the AFVR event, a total volume of 1,150 gallons of petroleum impacted groundwater was determined to have been recovered from the site. No free-phase product was measured in the holding tanks at the end of the AFVR event. Please note that petroleum product losses may occur through emulsification with the groundwater and volatilization during the AFVR event. Additionally, the liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix A.

A total of approximately 1.34 pounds of gasoline vapor which is equivalent to approximately 0.22 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 3A.

The AFVR monitoring wells were gauged immediately following the conclusion of the event and no free-phase product was observed. Total free-product/water level changes for this event are shown in Table 3.

RECOMMENDATIONS

On June 17, 2010, BLE personnel mobilized to the site to measure free-product levels in MWR-1A, MWR-1, MW-8, MW-51, MW-54, MW-60 through MW-67, and MW-X. The results of our findings are shown on Table 4.

The AFVR events have been successful at reducing free-product thicknesses in the monitoring wells; however, free-product is still present in monitoring wells MWR-1A, MWR-1, MW-8, MW-51, MW-54, MW-60, MW-62, MW-64, MW-66, and MW-67. Therefore, we recommend an additional series of multiple 8-hour AFVR events be conducted to 1) remove residual free-phase product from

the area around the extraction points, 2) remove petroleum hydrocarbon vapors from the unsaturated zone, and 3) remove petroleum impacted groundwater (mass) from the subsurface.
We recommend performing additional AFVRs in well clusters consisting of the following:

- Cluster 1 - MWR-1A, MW-8, and MW-60;
- Cluster 2 - MW-54, MW-62, and MW-64;
- Cluster 3 - MWR-1 and MW-66;
- Cluster 4 - MW-51 and MW-67.

The AFVR events should be performed in each well cluster, on consecutive days. Approximately 30 days after the fourth AFVR event, we recommend remobilizing to the site to perform one additional AFVR event in the "worst case" well cluster. Free-product levels will be gauged from the well clusters approximately 15 days after the fifth AFVR event to evaluate progress. This data will be presented in our of findings

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Mr. Neil Alexander. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

TABLES

TABLE 1

AFVR Gauging Data (MW-65, MW-66, and MW-67 - May 28, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #38329
BLE Project Number J10-6940-01

	Monitoring Well Gauging Data								Air Emmissions	
	Vacuum (in.of Hg)			Depth to Free-Product / Groundwater (feet BTOC)					Influent (ppm)	Effluent (ppm)
Time	MW-65	MW-66	MW-67	MW-51	MWR-1	MW-65	MW-66	MW-67		
10:30	20.0	22.0	20.0	27.80 / 27.91	29.56 / 29.65	27.55 / 27.61	27.39 / 28.40	26.95 / 27.01	381	17.0
11:00	20.0	22.0	20.0	28.62 / 29.87	30.12 / 32.15	AFVR EVENT	AFVR EVENT	AFVR EVENT	308	16.0
11:30	20.0	22.0	20.0	29.73 / 29.81	30.48 / 33.12				227	15.0
12:00	20.0	22.0	20.0	29.99 / 30.87	30.55 / 33.20				206	14.0
12:30	20.0	22.0	20.0	30.24 / 31.27	30.13 / 31.51				175	14.0
13:00	20.0	22.0	20.0	30.50 / 32.40	29.97 / 30.76				147	14.0
13:30	20.0	22.0	20.0	30.74 / 32.72	29.76 / 29.86				115	14.0
14:00	20.0	22.0	20.0	30.94 / 32.89	29.77 / 29.86				102	14.0
14:30	20.0	22.0	20.0	31.11 / 33.09	29.78 / 29.87				83	13.0
15:00	20.0	22.0	20.0	31.37 / 33.24	29.78 / 29.87				85	13.0
15:30	20.0	22.0	20.0	31.46 / 33.42	29.80 / 29.88				87	13.0
16:00	20.0	22.0	20.0	31.66 / 33.57	29.82 / 29.90				90	13.0
16:30	20.0	22.0	20.0	31.82 / 33.75	29.84 / 29.92				92	13.0
17:00	20.0	22.0	20.0	32.01 / 33.98	29.85 / 29.93				96	13.0
17:30	20.0	22.0	20.0	32.17 / 34.11	29.86 / 29.96				98	13.0
18:00	20.0	22.0	20.0	32.38 / 34.30	29.89 / 29.97				95	13.0
18:30	20.0	22.0	20.0	32.55 / 34.48	29.91 / 29.99	29.78	30.20 / 30.21	31.01	92	13.0

NOTES:

AFVR event performed on May 28, 2010

Vapor concentrations measured using a portable MiniRAE® 2000
Photo-Ionization Detector (PID).

0.06 feet (MW-65), 0.01 feet (MW-66), and 0.06 feet (MW-67) of free-product was detected prior to AFVR

inches of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

TABLE 1A

AFVR Emissions Field Data - May 28, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #38329
BLE Project Number J10-6940-01

WELL ID #: MW-65, MW-66, and MW-67																
AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS							
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
5/28/2010	1030	22	2,537	3	136	67.5	381	00:00	88.56	474.63	1,898.53	4	947.30	5.91E-05	0.31	0.36	0.06
5/28/2010	1100	22	2,525	3	136	63.4	308	00:30	88.14	383.69	1,534.77	4	765.79	4.78E-05	0.25	0.29	0.05
5/28/2010	1130	22	2,516	3	174	59.3	227	01:00	82.56	282.79	1,131.15	4	564.40	3.52E-05	0.17	0.20	0.03
5/28/2010	1200	22	2,508	3	174	44.2	206	01:30	82.30	256.63	1,026.50	4	512.19	3.20E-05	0.16	0.18	0.03
5/28/2010	1230	22	2,497	3	180	40.6	175	02:00	81.17	218.01	872.03	4	435.11	2.72E-05	0.13	0.15	0.02
5/28/2010	1300	22	2,491	3	180	35.8	147	02:30	80.98	183.13	732.51	4	365.49	2.28E-05	0.11	0.13	0.02
5/28/2010	1330	22	2,483	3	180	29.4	115	03:00	80.72	143.26	573.05	4	285.93	1.79E-05	0.09	0.10	0.02
5/28/2010	1400	22	2,473	3	180	28.2	102	03:30	80.39	127.07	508.27	4	253.61	1.58E-05	0.08	0.09	0.01
5/28/2010	1430	22	2,462	3	180	27.3	83	04:00	80.03	103.40	413.59	4	206.37	1.29E-05	0.06	0.07	0.01
5/28/2010	1500	22	2,455	3	180	25.5	85	04:30	79.81	105.89	423.56	4	211.34	1.32E-05	0.06	0.07	0.01
5/28/2010	1530	22	2,443	3	180	25.1	87	05:00	79.42	108.38	433.52	4	216.31	1.35E-05	0.06	0.07	0.01
5/28/2010	1600	22	2,436	3	180	24.3	90	05:30	79.19	112.12	448.47	4	223.77	1.40E-05	0.07	0.08	0.01
5/28/2010	1630	22	2,423	3	180	23.5	92	06:00	78.77	114.61	458.44	4	228.74	1.43E-05	0.07	0.08	0.01
5/28/2010	1700	22	2,413	3	180	24.7	96	06:30	78.44	119.59	478.37	4	238.69	1.49E-05	0.07	0.08	0.01
5/28/2010	1730	22	2,404	3	180	25.2	98	07:00	78.15	122.08	488.34	4	243.66	1.52E-05	0.07	0.08	0.01
5/28/2010	1800	22	2,396	3	180	24.1	95	07:30	77.89	118.35	473.39	4	236.20	1.47E-05	0.07	0.08	0.01
5/28/2010	1830	22	2,387	3	180	23.6	92	08:00	77.60	114.61	458.44	4	228.74	1.43E-05	0.07	0.08	0.01
Average Values		22	2,462	3	174	34.8	146		80.83	181.66	726.64	4	362.57	2.26E-05	0.11	0.13	0.02
B_{ws}	0.197	B_{wsw}	0.119														

Total Pounds of Carbon Recovered as Emissions: 0.88

Total Pounds of Gasoline Recovered as Emissions: 1.02

Total Gallons of Gasoline Recovered as Emissions: 0.16

NOTES:

AFVR event performed on May 28, 2010
Vacuum applied to monitoring wells MW-65, MW-66, and MW-67
0.06 feet (MW-65), 0.01 feet (MW-66), and 0.06 feet (MW-67) of free-product was detected prior to AFVR
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wsw} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By: IAI
Checked By: TZS

TABLE 2

AFVR Gauging Data (MW-62, MW-63, and MW-64) - June 1, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #38329
BLE Project Number J10-6940-01

	Monitoring Well Gauging Data									Air Emmissions	
	Vacuum (in.of Hg)			Depth to Free-Product / Groundwater (feet BTOC)						Influent (ppm)	Effluent (ppm)
Time	MW-62	MW-63	MW-64	MW-7R	MW-7	MW-54	MW-62	MW-63	MW-64		
9:45	24	24	23	28.20	28.62	29.20 / 30.32	29.32	28.88	29.28 / 29.30	246	17
10:15	24	24	23	28.26	28.74	30.64 / 32.04	AFVR EVENT	AFVR EVENT	AFVR EVENT	209	16
10:45	24	24	23	28.32	28.81	31.52 / 33.00				136	15
11:15	24	24	23	28.37	28.92	32.29 / 33.61				127	14
11:45	24	24	23	28.40	28.97	32.81 / 34.21				83	13
12:15	24	24	23	28.45	29.03	33.00 / 34.41				81	13
12:45	24	24	23	28.48	29.08	33.33 / 34.69				77	13
13:15	24	24	23	28.49	29.12	33.52 / 34.88				72	13
13:45	24	24	23	28.51	29.14	33.68 / 34.99				68	13
14:15	24	24	23	28.54	29.17	33.70 / 34.94				66	13
14:45	24	24	23	28.56	29.20	33.72 / 34.88				64	13
15:15	24	24	23	28.59	29.23	33.75 / 34.87				62	13
15:45	24	24	23	28.61	29.26	33.76 / 34.84				59	12
16:15	24	24	23	28.63	29.29	33.85 / 34.98				56	12
16:45	24	24	23	28.65	29.31	33.96 / 35.07				54	12
17:15	24	24	23	28.67	29.34	34.07 / 35.08				52	12
17:45	24	24	23	28.71	29.36	34.06 / 35.10	32.85 / 32.86	31.58	32.26 / 32.28	50	12

NOTES:
AFVR event performed on June 1, 2010
Vapor concentrations measured using a portable MiniRAE® 2000
Photo-Ionization Detector (PID).
0.02 feet of free-product was detected in MW-64 prior to AFVR.
in. of Hg - inches of mercury
BTOC - below top of casing
ppm - parts per million

TABLE 2A

AFVR Emissions Field Data - June 1, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #38329
BLE Project Number J10-6940-01

WELL ID #: MW-62, MW-63, and MW-64

AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS								
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
6/1/2010	0945	24	1,667	3	140	91.3	246	00:00	43.96	403.00	1,612.00	4	804.33	5.02E-05	0.13	0.15	0.02
6/1/2010	1015	24	1,711	3	140	88.2	209	00:30	45.12	342.39	1,369.54	4	683.35	4.27E-05	0.12	0.13	0.02
6/1/2010	1045	24	1,755	3	160	86.5	136	01:00	44.78	222.80	891.19	4	444.67	2.78E-05	0.07	0.09	0.01
6/1/2010	1115	24	1,789	3	160	83.2	127	01:30	45.65	208.05	832.21	4	415.24	2.59E-05	0.07	0.08	0.01
6/1/2010	1145	24	1,845	3	168	81.6	83	02:00	46.48	135.97	543.89	4	271.38	1.69E-05	0.05	0.05	0.01
6/1/2010	1215	24	1,877	3	168	78.5	81	02:30	47.29	132.70	530.78	4	264.84	1.65E-05	0.05	0.05	0.01
6/1/2010	1245	24	1,889	3	170	76.2	77	03:00	47.44	126.14	504.57	4	251.76	1.57E-05	0.04	0.05	0.01
6/1/2010	1315	24	1,911	3	170	74.2	72	03:30	47.99	117.95	471.80	4	235.41	1.47E-05	0.04	0.05	0.01
6/1/2010	1345	24	1,934	3	170	73.5	68	04:00	48.57	111.40	445.59	4	222.33	1.39E-05	0.04	0.05	0.01
6/1/2010	1415	24	1,962	3	170	71.2	66	04:30	49.27	108.12	432.49	4	215.79	1.35E-05	0.04	0.05	0.01
6/1/2010	1445	24	1,987	3	170	68.4	64	05:00	49.90	104.85	419.38	4	209.26	1.31E-05	0.04	0.05	0.01
6/1/2010	1515	24	2,013	3	170	66.3	62	05:30	50.55	101.57	406.28	4	202.72	1.27E-05	0.04	0.04	0.01
6/1/2010	1545	24	2,032	3	170	66.8	59	06:00	51.03	96.65	386.62	4	192.91	1.20E-05	0.04	0.04	0.01
6/1/2010	1615	24	2,065	3	170	63.1	56	06:30	51.86	91.74	366.96	4	183.10	1.14E-05	0.04	0.04	0.01
6/1/2010	1645	24	2,089	3	170	60.7	54	07:00	52.46	88.46	353.85	4	176.56	1.10E-05	0.03	0.04	0.01
6/1/2010	1715	24	2,134	3	170	57.3	52	07:30	53.59	85.19	340.75	4	170.02	1.06E-05	0.03	0.04	0.01
6/1/2010	1745	24	2,156	3	170	54.6	50	08:00	54.14	81.91	327.64	4	163.48	1.02E-05	0.03	0.04	0.01
Average Values		24	1,930	3	165	73.0	92		48.83	150.52	602.09	4	300.42	1.88E-05	0.05	0.06	0.01
B_{ws}	0.390	B_{wsw}	0.235														

Total Pounds of Carbon Recovered as Emissions: 0.44

Total Pounds of Gasoline Recovered as Emissions: 0.51

Total Gallons of Gasoline Recovered as Emissions: 0.08

NOTES:

AFVR event performed on June 1, 2010
Vacuum applied to monitoring wells MW-62, MW-63, and MW-64.
0.02 feet of free-product was detected in MW-64 prior to AFVR. Free product was not detected in wells MW-63 and MW-64.
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wsw} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By: IAI
Checked By: TZS

TABLE 3

AFVR Gauging Data (MWR-1A, MW-60, and MW-61) - June 2, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #38329
BLE Project Number J10-6940-01

	Monitoring Well Gauging Data								Air Emmissions	
	Vacuum (in.of Hg)			Depth to Free-Product / Groundwater (feet BTOC)					Influent (ppm)	Effluent (ppm)
Time	MWR-1A	MW-60	MW-61	MWR-1A	MW-8	MW-X	MW-60	MW-61		
10:30	23	23	23	30.03 / 30.13	30.14 / 30.18	30.36	29.40 / 31.08	29.45 / 29.48	773	17
11:00	23	23	23	AFVR EVENT	30.30 / 30.88	30.46	AFVR EVENT	AFVR EVENT	552	16
11:30	23	23	23		31.44 / 31.47	30.58			365	16
12:00	23	23	23		31.75 / 31.76	30.64			342	16
12:30	23	22	23		32.05 / 32.07	30.69			314	15
13:00	23	22	23		32.14 / 32.15	30.70			289	14
13:30	23	22	23		32.18 / 32.19	30.70			256	13
14:00	23	22	23		32.24 / 32.25	30.72			218	13
14:30	23	22	23		32.32 / 32.34	30.73			207	13
15:00	23	22	23		32.43 / 32.44	30.74			194	12
15:30	23	22	23		32.48	30.75			183	12
16:00	23	22	23		32.55	30.76			178	12
16:30	23	22	23		32.68	30.79			174	12
17:00	23	22	23		32.70	30.79			171	12
17:30	23	22	23		32.72	30.79			167	12
18:00	23	22	23		32.73	30.79			164	12
18:30	23	22	23	34.57	32.75	30.79	33.92	27.95 / 28.55	163	12

NOTES:

AFVR event performed on June 2, 2010

Vapor concentrations measured using a portable MiniRAE® 2000
Photo-Ionization Detector (PID).

0.10 feet (MWR-1A), 1.68 feet (MW-60), and 0.03 feet (MW-61) of free-product was detected prior to AFVR event.

in. of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

TABLE 3A

AFVR Emissions Field Data - June 2, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #38329
BLE Project Number J10-6940-01

WELL ID #: MW-1A, MW-60, and MW-61																
AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS							
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
6/2/2010	1030	23	2,214	3	136	84.4	183	00:00	70.90	248.50	994.01	4	495.97	3.10E-05	0.13	0.15	0.02
6/2/2010	1100	23	2,243	3	162	68.2	208	00:30	68.83	282.45	1,129.80	4	563.73	3.52E-05	0.15	0.17	0.03
6/2/2010	1130	23	2,262	3	164	57.3	243	01:00	69.19	329.98	1,319.91	4	658.58	4.11E-05	0.17	0.20	0.03
6/2/2010	1200	23	2,284	3	164	55.1	233	01:30	69.86	316.40	1,265.59	4	631.48	3.94E-05	0.17	0.19	0.03
6/2/2010	1230	23	2,299	3	164	53.6	253	02:00	70.32	343.56	1,374.23	4	685.69	4.28E-05	0.18	0.21	0.03
6/2/2010	1300	23	2,234	3	174	51.4	266	02:30	67.25	361.21	1,444.84	4	720.92	4.50E-05	0.18	0.21	0.03
6/2/2010	1330	23	2,257	3	178	49.4	296	03:00	67.52	401.95	1,607.79	4	802.23	5.01E-05	0.20	0.23	0.04
6/2/2010	1400	23	2,272	3	180	47.6	257	03:30	67.76	348.99	1,395.96	4	696.53	4.35E-05	0.18	0.20	0.03
6/2/2010	1430	23	2,293	3	180	45.2	226	04:00	68.38	306.89	1,227.57	4	612.51	3.82E-05	0.16	0.18	0.03
6/2/2010	1500	23	2,317	3	180	44.2	198	04:30	69.10	268.87	1,075.48	4	536.62	3.35E-05	0.14	0.16	0.03
6/2/2010	1530	23	2,339	3	180	42.5	172	05:00	69.76	233.56	934.26	4	466.16	2.91E-05	0.12	0.14	0.02
6/2/2010	1600	23	2,362	3	174	41.3	164	05:30	71.11	222.70	890.80	4	444.48	2.77E-05	0.12	0.14	0.02
6/2/2010	1630	23	2,384	3	170	39.6	157	06:00	72.23	213.20	852.78	4	425.51	2.66E-05	0.12	0.13	0.02
6/2/2010	1700	23	2,411	3	170	37.6	149	06:30	73.04	202.33	809.33	4	403.82	2.52E-05	0.11	0.13	0.02
6/2/2010	1730	23	2,432	3	170	35.4	144	07:00	73.68	195.54	782.17	4	390.27	2.44E-05	0.11	0.12	0.02
6/2/2010	1800	23	2,456	3	170	34.1	148	07:30	74.41	200.97	803.90	4	401.11	2.50E-05	0.11	0.13	0.02
6/2/2010	1830	23	2,477	3	170	32.7	151	08:00	75.04	205.05	820.19	4	409.24	2.55E-05	0.12	0.13	0.02
Average Values		23	2,326	3	170	48.2	203		70.49	275.42	1,101.68	4	549.70	3.43E-05	0.15	0.17	0.03
B_{ws}	0.264	B_{wsw}	0.159														

Total Pounds of Carbon Recovered as Emissions: 1.16

Total Pounds of Gasoline Recovered as Emissions: 1.34

Total Gallons of Gasoline Recovered as Emissions: 0.22

NOTES:

AFVR event performed on June 2, 2010
Vacuum applied to monitoring wells MW-1A, MW-60, and MW-61.
0.10 feet (MWR-1A), 1.68 feet (MW-60), and 0.03 feet (MW-61) of free-product was detected prior to AFVR event.
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wsw} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By: IAI
Checked By: TZS

TABLE 4

Monitoring Well Gauging Data - June 17, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #38329
BLE Project Number J10-6940-01

	Monitoring Well Gauging Data													
Well ID	**MWR-1A**	**MWR-1**	**MW-8**	**MW-51**	**MW-54**	**MW-60**	**MW-61**	**MW-62**	**MW-63**	**MW-64**	**MW-65**	**MW-66**	**MW-67**	**MW-X**
Depth to Free-Product/Groundwater (ft)	30.10 / 30.15	29.90 / 29.95	30.20 / 30.21	28.05 / 28.68	29.56 / 29.65	29.77 / 29.80	30.48	29.44 / 29.50	29.09	29.41 / 29.51	27.30	27.88 / 27.89	27.90 / 28.04	30.37
Free-Product Thickness (ft)	**0.05**	**0.05**	**0.01**	**0.63**	**0.09**	**0.03**	None	**0.06**	None	**0.10**	None	**0.01**	**0.14**	None

Prepared By: TJB
Checked By: IAI

FIGURES

APPENDICES

APPENDIX A

WASTE TRANSPORTATION AND DISPOSAL RECORDS

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 389

2. Page 1 of 1

3. Generator's Name and Mailing Address
Former Crossroads Grocery
8050 W. Oak Hwy
Westminster, SC
c/o Caro-Vac AFVR Services, LLC
P.O. Box 996
Mauldin, SC 29662

4. Generator's Phone

5. Transporter 1 Company Name
Caro-Vac AFVR Services, LLC

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone 864-967-9744

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 South Main Street
Mauldin, SC 29662

10. US EPA ID Number
SCR000762468

E. State Facility's ID

F. Facility's Phone 864-962-9953

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Impacted Water, Profile # 6229			1,635	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

SCDHEC Site ID # 06742

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Bradley A. Morris (Agent for Gen.) Signature: Bradley A. Morris Date: Month 6 Day 1 Year 10

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Bradley A. Morris Signature: Bradley A. Morris Date: Month 6 Day 1 Year 10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
VLS

Printed/Typed Name: Brian Tripp Signature: Brian Tripp Date: Month 6 Day 1 Year 10

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 390

2. Page 1 of 1

3. Generator's Name and Mailing Address
Former Crossroads Grocery
8050 W. OAK HWY
Westminster, SC

c/o Caro-Vac AFVR Services, LLC
P. O. Box 996
Mauldin, SC 29662

4. Generator's Phone

5. Transporter 1 Company Name
Caro-Vac AFVR Services, LLC

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone 864-967-9744

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 South Main Street
Mauldin, SC 29662

10. US EPA ID Number
SCR000762468

E. State Facility's ID

F. Facility's Phone 864-962-9953

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Impacted Water, Profile # 6229			1,635	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

SCDHEC Site ID # 06742

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Bradley A. Morris (Agent for Gen.)
Signature: Bradley A. Morris
Date: Month 6 Day 2 Year 10

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Bradley A. Morris
Signature: Bradley A. Morris
Date: Month 6 Day 2 Year 10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
VLS

Printed/Typed Name: Brian Tripp
Signature: Brian Tripp
Date: Month 6 Day 2 Year 10

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 391

2. Page 1 of 1

3. Generator's Name and Mailing Address
Former Crossroads Grocery
8050 W. OAK Hwy
Westminster, SC

c/o Caro-Vac AFVR Services, LLC
P. O. Box 996
Mauldin, SC 29662

4. Generator's Phone

5. Transporter 1 Company Name
Caro-Vac AFVR Services, LLC

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone 864-967-9744

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 South Main Street
Mauldin, SC 29662

10. US EPA ID Number
SCR000762468

E. State Facility's ID

F. Facility's Phone 864-962-9953

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Impacted Water, Profile # 6229			1,150	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

SCDHEC Site ID # 06742

GENERATOR

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Bradley A. Morris (Agent for Gen.)
Signature: Bradley A. Morris
Date: Month 6 Day 3 Year 10

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Bradley A. Morris
Signature: Bradley A. Morris
Date: Month 6 Day 3 Year 10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name
Signature
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

VLS

Printed/Typed Name
Signature
Date: Month 6 Day 13 Year 10

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

SEP 14 2010

40 tech
UST
DOCKET

MR NEIL ALEXANDER
C/O ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINSTER SC 29693-5534

Re: Aggressive fluid and vapor recovery (AFVR) directive
Former Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; Cost Agreement #39531
Release reported January 11, 1993
Oconee County

Dear Mr. Alexander:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (SCDHEC) recognizes your commitment to continue work at this site using Bunnell-Lammons Engineering, Inc. as your contractor. The next scope of work is to continue aggressive fluid and vapor recovery (AFVR) events to remove residual free-phase product and reduce concentrations of chemicals of concern (CoC). Please have your contractor conduct one event on monitoring/recovery well cluster MW-1A, MW-8, and MW-60, one event on monitoring/recovery well cluster MW-54, MW-62, and MW-64, one event on monitoring/recovery well cluster MWR-1 and MW-66, and one event on monitoring/recovery well cluster MW-51 and MW-67. The events may be conducted on consecutive days. Off-gas treatment will be necessary.

Cost Agreement #39531 has been approved in the amount shown on the enclosed cost agreement form for the AFVR events. AFVR activities may proceed immediately upon receipt of this letter. The report submitted at the completion of the events should include the following items:

- A narrative portion documenting each AFVR event noting site conditions, the name of the AFVR contractor, field personnel, date, time the AFVR event started and ended, ambient air temperature, and general weather conditions.
- A brief description of the completed work scope and any relevant descriptions pertaining to the data tables.
- A table summarizing the airflow (in CFM) and volatile air emissions concentrations collected from the stack of the truck every thirty minutes through the duration of each event or for one eight-hour period per day for each extended event. The table shall also document which well(s) were being recovered from during that time interval.
- A table summarizing magnehelic gauge measurements on a thirty-minute time interval through the duration of each event or for one eight-hour period per day for each extended event. The gauges must be installed on the extraction well(s) and immediately surrounding wells.

- The total volume of water recovered in gallons.
- The total volume of free-phase product recovered in gallons (typically measured with a product/water interface device inserted into the top of the tanker at the completion of each event and then converted to an approximate volume).
- The total weight of petroleum removed as vapor in pounds. This is calculated based on the airflow rate and the concentration of vapor.
- A table documenting the free-product thickness in each well before and after each AFVR event.
- A scaled base map depicting the location of the extraction wells and the surrounding wells equipped with magnehelic gauges.

The drop tube or "stinger" should initially be installed six inches below the free-phase product or installed at the water table interface if free-phase product is not present. After the first two hours of the AFVR event, the depth of the stinger should be adjusted to obtain the highest petroleum vapor recovery. The depth should be periodically readjusted throughout the event to maintain maximum vapor recovery. Groundwater recovery should not exceed four gallons per minute at any time during the event. The overall goal is to maximize the recovery of free-phase product and petroleum vapors in the capillary fringe and minimize the recovery of groundwater.

Bunnell-Lammons can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Please note that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina-Certified Underground Storage Tank Site Rehabilitation Contractor.

An AFVR report and invoice are due within 90 days from the date of this letter. Interim invoices may not be submitted for this scope of work. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Department is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the Department for the cost to be paid. SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Division grants pre-approval for transportation of up to 5,000 gallons of free-phase product and petroleum-contaminated groundwater from the referenced facility to a permitted treatment facility. The product and groundwater must be properly stored in labeled containers and must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report.

On all correspondence concerning this facility, please reference UST Permit #06742. If there are any questions concerning this project, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
06742.11

enc: Approved cost agreement form

cc: Bunnell-Lammons Engineering, Inc., 6004 Ponders Court, Greenville, SC 29615-4601 (w/enc)
Technical file (w/enc)

Approved Cost Agreement 39531

Facility: 06742 COUNTRY SIDE 2
PADGETJP
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		A EQUIPMENT	4.0000	575.00	2,300.00
		B PERSONNEL	4.0000	290.00	1,160.00
17 DISPOSAL					
		A2 WASTEWATER - PUMPING TEST	8,000.0000	0.60	4,800.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	21,380.00	3,207.00
23 EFR					
		A 8 HOUR EVENT	4.0000	3,000.00	12,000.00
		C OFF GAS TREATMENT	32.0000	35.00	1,120.00
			Total Amount		24,587.00

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF MULTIPLE AGGRESSIVE FLUID VAPOR RECOVERY EVENTS

Former Crossroads Grocery
8050 West Oak Highway
Westminster, South Carolina
UST Permit #06742; Cost Agreement #39531

Prepared For

Mr. Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693-5534

Prepared By

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, South Carolina 29615
SCDHEC Certified Contractor No. UCC-10

November 5, 2010

BLE Project Number J10-6940-02

HI Tech

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

November 5, 2010

South Carolina Department of Health and Environmental Control
Underground Storage Tank Program
Bureau of Land and Waste Management
2600 Bull St.
Columbia, SC 29201-1708

Attention: Mr. Joel Padgett, P.G.,
Hydrogeologist

Subject: **Report of Multiple Aggressive Fluid Vapor Recovery Events**
Former Crossroads Grocery
8050 West Oak Highway, Westminster, SC
Oconee County
UST Permit #06742; CA #39531
BLE Project No. J10-6940-02

Dear Mr. Padgett:

On behalf of Mr. Neil Alexander of the Former Crossroads Grocery, Bunnell-Lammons Engineering, Inc. (BLE) has completed four aggressive fluid vapor recovery events (AFVRs) at the subject site. This scope of work was performed in response to South Carolina Department of Health and Environmental Control's (SCDHEC) directive, dated September 14, 2010. The results of our activities are provided herein. Please feel free to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina No. 2395

Thomas L. Lammons, P.G
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Neil Alexander, 8050 West Oak Highway, Westminster, SC 29693-5534

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

PROJECT INFORMATION

The subject property is located at 8050 West Oak Highway in Westminster, South Carolina (Figure 1). The site currently operates as Country Side 2, which is an active automobile fueling station and convenience store. We understand that five underground storage tanks (USTs) and associated piping and fueling dispensers were removed from the site in June 1990: (2) 1,000-gallon gasoline, (1) 550-gallon gasoline, (1) 550-gallon diesel, and (1) 550-gallon kerosene. Five new USTs, (1) 10,000-gallon off-road diesel, (1) 10,000-gallon kerosene, (1) 8,000-gallon "regular" gasoline, (1) 6,000-gallon "plus" gasoline, and (1) 6,000-gallon diesel, and associated equipment were installed in their place. In association with the UST removal activities, a release of petroleum contaminants to the subsurface was reported in January 1993. Various environmental assessments have been conducted at the site by other consultants since 1993, including the installation of seventy-two groundwater monitoring wells to assess the horizontal and vertical extent of petroleum hydrocarbons in the water table aquifer. Additionally, petroleum free-product recovery has been conducted via numerous aggressive fluid vapor recovery (AFVR) events. BLE also understands that the site was previously in active corrective action utilizing a form of injection technology. Several injection wells are still present on the property.

In a directive dated September 14, 2010, SCDHEC required additional AFVR events be performed at the site, to remove residual free-phase product and to reduce concentrations of dissolved chemicals of concern (CoCs). AFVR events were to be conducted on monitoring wells in clusters: MWR-1A, MW-8, MW-60 (cluster 1), MW-54, MW-62, and MW-64 (cluster 2), MWR-1 and MW-66 (cluster 3), and MW-51 and MW-67 (cluster 4). The results of the AFVR events are documented in this report.

AGGRESSIVE FLUID VAPOR RECOVERY EVENT #1 – SEPTEMBER 22, 2010

On September 22, 2010, the first 8-hour AFVR event was conducted in monitoring wells MW-51 and MW-67. The AFVR event was performed by Landprobe Drilling Services of Greenville, South Carolina (Landprobe) and a geologist from BLE was on site for observation and monitoring. Prior to initiating the event, BLE personnel gauged the monitoring wells using a Solinst® Interface Meter

Model 122. Approximately 1.67 feet (MW-51) and 0.82 feet (MW-67) of petroleum free-product was detected in the wells prior to initiating the AFVR (Figure 2). Additionally, the initial depth to free-product/groundwater in adjacent monitoring wells MWR-1, MW-65, and MW-66 were measured (feet below top of PVC casing (btoc)) and recorded on Table 1.

The AFVR event was initiated at 0930 and concluded at 1730. The general weather conditions observed during this period of time were clear; winds varied between 2 and 13 mph with an ambient temperature between 72° and 93° Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum ranging from 20 to 22 inches of mercury was applied to MW-51 and MW-67. In addition to collecting vacuum readings, the depth to water (feet btoc) was measured every 30 minutes in MWR-1, MW-65, and MW-66, to evaluate drawdown. Gauging data observed during the event is shown in Table 1.

Due to the close proximity of the site to a populated area, volatile air emissions were treated on-site by Landprobe personnel utilizing a granulated activated carbon (GAC) unit. Influent and effluent vapor concentrations were measured every 30 minutes throughout the event using a MiniRAE® 2000 Photo Ionization Detector (PID). The observed vapor concentrations are shown in Table 1.

At the completion of the AFVR event, a total volume of 1,249 gallons of petroleum impacted groundwater was determined to have been recovered from the site. No free-phase product was measured in the holding tanks at the end of the AFVR event. Petroleum product losses may occur through emulsification with the groundwater and volatilization during the AFVR event. Additionally, the liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix A.

A total of approximately 4.40 pounds of gasoline vapor which is equivalent to approximately 0.70 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 1A.

The AFVR wells were gauged immediately following the conclusion of the event and 0.01 feet of free-product was observed in MW-67. Free-phase product was not detected in MW-51. Total free-product/water level changes for this event are shown in Table 1.

AGGRESSIVE FLUID VAPOR RECOVERY EVENT #2 – SEPTEMBER 23, 2010

On September 23, 2010, the second 8-hour AFVR event was conducted in monitoring wells MWR-1 and MW-66. The AFVR event was performed by Landprobe and a geologist from BLE was on site for observation and monitoring. Approximately 0.04 feet (MWR-1 and MW-66) of free-product was detected in each well prior to initiating the AFVR event (Figure 2). Additionally, the initial depth to free-product/groundwater in adjacent source area wells MW-1, MW-17, and MW-51 were measured (feet btoc) and recorded on Table 2.

The AFVR event was initiated at 1100 and concluded at 1900. The general weather conditions observed during this period of time were cloudy to overcast; winds varied between 1 and 9 mph with an ambient temperature between 70° and 93° Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum ranging from 20 to 24 inches of mercury was applied to MWR-1 and MW-66. In addition to collecting vacuum readings, the depth to free-product/groundwater (feet btoc) was measured every 30 minutes in MW-1, MW-17, and MW-51 to evaluate drawdown. Gauging data observed during the event is shown in Table 2.

Due to the close proximity of the site to a populated area, volatile air emissions were treated on-site by Landprobe personnel utilizing a GAC unit. Influent and effluent vapor concentrations were measured every 30 minutes throughout the event using a MiniRAE® 2000 PID. The observed vapor concentrations are shown in Table 2.

At the completion of the AFVR event, a total volume of 662 gallons of petroleum impacted groundwater was determined to have been recovered from the site. No free-phase product was measured in the holding tanks at the end of the AFVR event. Petroleum product losses may occur through emulsification with the groundwater and volatilization during the AFVR event. Additionally, the liquids may not have had sufficient time to separate in order to obtain an accurate

free-product thickness. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix A.

A total of approximately 6.39 pounds of gasoline vapor which is equivalent to approximately 1.02 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 2A.

The AFVR monitoring wells were gauged immediately following the conclusion of the event and 0.01 feet of free-phase product was observed in monitoring wells MWR-1 and MW-66. Total free-product/water level changes for this event are shown in Table 2.

AGGRESSIVE FLUID VAPOR RECOVERY EVENT #3 – SEPTEMBER 24, 2010

On September 24, 2010, the third 8-hour AFVR event was conducted in monitoring wells MW-54, MW-62, and MW-64. The AFVR event was performed by Landprobe and a geologist from BLE was on site for observation and monitoring. Approximately 0.69 feet (MW-54), 0.02 feet (MW-62), and 0.24 feet (MW-64) of free-product was detected in the wells prior to initiating the AFVR event (Figure 2). Additionally, the initial depth to free-product/groundwater in adjacent source area wells MW-7, MW-7R, and MW-63 were measured (feet btoc) and recorded on Table 3.

The AFVR event was initiated at 1030 and concluded at 1830. The general weather conditions observed during this period of time were mostly cloudy with scattered showers; winds varied between 2 and 9 mph with an ambient temperature between 80° and 81° Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum ranging from 20 to 22.5 inches of mercury was applied to MW-54, MW-62, and MW-64. In addition to collecting vacuum readings, the depth to free-product/groundwater (feet btoc) was measured every 30 minutes in wells MW-7, MW-7R and MW-63 to evaluate drawdown. Gauging data observed during the event is shown in Table 3.

Due to the close proximity of the site to populated area, volatile air emissions were treated on-site by Landprobe personnel utilizing a GAC unit. Influent and effluent vapor concentrations were

measured every 30 minutes throughout the event using a MiniRAE® 2000 PID. The observed vapor concentrations are shown in Table 3.

At the completion of the AFVR event, a total volume of 1,236 gallons of petroleum impacted groundwater was determined to have been recovered from the site. No free-phase product was measured in the holding tanks at the end of the AFVR event. Petroleum product losses may occur through emulsification with the groundwater and volatilization during the AFVR event. Additionally, the liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix A.

A total of approximately 2.61 pounds of gasoline vapor which is equivalent to approximately 0.42 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 3A.

The AFVR monitoring wells were gauged immediately following the conclusion of the event and 0.01 feet of free-phase product was observed in MW-54, MW-62, and MW-64. Total free-product/water level changes for this event are shown in Table 3.

AGGRESSIVE FLUID VAPOR RECOVERY EVENT #4 – SEPTEMBER 27, 2010

On September 27, 2010, the fourth 8-hour AFVR event was conducted in monitoring wells MW-MWR-1A, MW-8, MW-60, and MW-61. The AFVR event was performed by Landprobe and a geologist from BLE was on site for observation and monitoring. Approximately 0.09 feet (MWR-1A), 0.20 feet (MW-8), and 0.30 feet (MW-60) of free-product was detected in the monitoring wells prior to conducting the AFVR event (Figure 2). Monitoring well MW-61 was dry prior to initiating the AFVR event. Additionally, the initial depth to free-product/groundwater in adjacent source area well MW-1(feet btoc) was measured and recorded on Table 4.

The AFVR event was initiated at 1130 and concluded at 1930. The general weather conditions observed during this period of time were mostly overcast with scattered showers, winds varied

between 6 and 31 mph with an ambient temperature between 59° and 75° Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum ranging from 19 to 20.5 inches of mercury was applied to MWR-1A, MW-8, MW-60, and MW-61. In addition to collecting vacuum readings, the depth to free-product/groundwater (feet btoc) was measured every 30 minutes in well MW-1 to evaluate drawdown. Gauging data observed during the event is shown in Table 4.

Due to the close proximity of the site to a populated area, volatile air emissions were treated on-site by Landprobe personnel utilizing a GAC unit. Influent and effluent vapor concentrations were measured every 30 minutes throughout the event using a MiniRAE® 2000 PID. The observed vapor concentrations are shown in Table 4.

At the completion of the AFVR event, a total volume of 1,043 gallons of petroleum impacted groundwater was determined to have been recovered from the site. No free-phase product was measured in the holding tanks at the end of the AFVR event. Petroleum product losses may occur through emulsification with the groundwater and volatilization during the AFVR event. Additionally, the liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix A.

A total of approximately 4.94 pounds of gasoline vapor which is equivalent to approximately 0.79 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 4A.

The AFVR monitoring wells were gauged immediately following the conclusion of the event and 0.07 feet of free-phase product was observed in MW-8, 0.01 feet of free-phase product was observed in MW-60, and 0.56 feet of free-phase product was observed in MW-61. Total free-product/water level changes for this event are shown in Table 4.

RECOMMENDATIONS

On October 11, 2010, BLE personnel mobilized to the site to measure free-product levels in MWR-1A, MWR-1, MW-7, MW-8, MW-51, MW-54, and MW-60 through MW-67. The results of our findings are shown on Table 5.

The AFVR events have been successful at reducing free-product thicknesses in the monitoring wells; however, free-product is still present in MW-7, MW-8, MW-51, MW-54, and MW-60 through MW-67. In an effort to fully define the extent of the free-product plume and to provide maximum coverage for free-product recovery, we recommend the installation of three additional recovery wells (MW-68, MW-69, and MW-70) to serve as supplemental AFVR extraction points. The wells should be installed at the midpoints of the existing well clusters to evaluate free-product thicknesses in these areas (Figure 3). Additionally, the wells should be installed with 20-foot (minimum) well screens to provide maximum vapor removal from the vadose zone. After installation of the new wells, we recommend a series of five additional 8-hour AFVR events be conducted to 1) remove residual free-phase product from the area around the extraction points, 2) remove petroleum hydrocarbon vapors from the unsaturated zone, and 3) remove petroleum impacted groundwater from the subsurface. We recommend performing additional AFVRs in the following well combinations:

- MWR-1A, MW-8, and MW-60;
- MW-61 and MW-68 (proposed);
- MW-54, MW-62, and MW-64;
- MWR-1, MW-68 (proposed), and MW-69 (proposed);
- MW-51, MW-66, and MW-67.

The AFVR events should be performed in each well group, on consecutive days. Free-product levels will be gauged approximately 15 days after the fifth AFVR event to evaluate progress. This data will be presented in our findings.

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Mr. Neil Alexander. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

TABLES

TABLE 1

AFVR Gauging Data MW-51 and MW-67 - September 22, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #39531
BLE Project Number J10-6940-02

	Monitoring Well Gauging Data							Air Emissions	
	Vacuum (in. of Hg)		Depth to Free-Product / Groundwater (feet BTOC)					Influent (ppm)	Effluent (ppm)
Time	MW-51	MW-67	MWR-1	MW-51	MW-65	MW-66	MW-67		
0930	20 0	20 0	32 35/32 41	30 26/31 93	29 78/29.85	30 37/30 42	30 23/31 05	819	33
1000	22.0	22 0	32 39/32 44		30 74/30.81	31.45/31 50		957	37
1030	22.0	22 0	32 42/32 47		31 70/31.76	32 53/32 58		941	22
1100	20.0	20 0	32 45/32 51		31 96/32.02	32 77/32 92		579	59
1130	22 0	21 5	32 48/32 54		32 22/32 28	33 00/33 26		586	44
1200	22 0	21 5	32 49/32 56		32 31/32 37	33 23/33 39		698	32
1230	22 0	21 5	32 50/32 57		32 39/32 45	33 45/33 51		521	28
1300	22 0	21 5	32 51/32 59		32 47/32 53	33 54/33 63		719	40
1330	22 0	21 5	32 52/32 61		32 54/32 61	33 63/33 75		779	20
1400	22 0	21 5	32 53/32 61		32 60/32 66	33 70/33 83		904	36
1430	22 0	21 5	32 54/32 60		32 65/32 71	33 76/33 91		721	61
1500	22 0	21 5	32 56/32 61		32 68/32 75	33 80/33 96		735	23
1530	22 0	21 5	32 57/32 62		32 71/32 79	33 84/34 01		899	49
1600	22 0	21 5	32 58/32 63		32 75/32 83	33 88/34 06		1,033	47
1630	22 0	21 5	32 58/32 64		32 79/32 86	33 91/34 11		989	63
1700	22 0	21 5	32 59/32 65		32 82/32 90	33 94/34 14		800	75
1730	22 0	21 5	32 60/32 65	ND/34 1	32 85/32 94	33 97/34 17	33 56/33 57	956	56
	Initial Free Product (feet)		**0.06**	**1.67**	**0.07**	**0.05**	**0.82**		
	Final Free Product (feet)		**0.05**	**0.00**	**0.09**	**0.20**	**0.01**		

AFVR EVENT

AFVR EVENT

NOTES:

AFVR event performed on September 22, 2010

Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID)

0 06 feet (MWR-1), 1 67 feet (MW-51), 0 07 (MW-65), 0 05 (MW-66), and 0.82 feet (MW-67) of free-product was detected prior to initiating the AFVR event

in of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

ND - Not Detected

Prepared By IAI
Checked By TZS

TABLE 1A

AFVR Emissions Field Data - Septembeer 22, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #39531
BLE Project Number J10-6940-02

WELL ID #: MW-51 and MW-67

AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS								
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
9/22/2010	0930	23.5	1,579	3	95.7	87.3	819	00:00	67.05	899.53	3,598.10	4	1,795.31	1.12E-04	0.45	0.52	0.08
9/22/2010	1000	23.5	1,482	3	38.0	88.4	957	00:30	70.23	1,051.09	4,204.38	4	2,097.82	1.31E-04	0.55	0.64	0.10
9/22/2010	1030	24.0	1,735	3	42.5	94.6	941	01:00	81.48	1,033.52	4,134.08	4	2,062.75	1.29E-04	0.63	0.73	0.12
9/22/2010	1100	22.0	2,476	3	110.3	85.7	579	01:30	102.45	635.93	2,543.71	4	1,269.21	7.92E-05	0.49	0.56	0.09
9/22/2010	1130	25.5	1,482	3	118.7	92.0	586	02:00	60.43	643.62	2,574.47	4	1,284.56	8.02E-05	0.29	0.34	0.05
9/22/2010	1200	25.5	2,262	3	110.1	94.0	698	02:30	93.63	766.63	3,066.51	4	1,530.07	9.55E-05	0.54	0.62	0.10
9/22/2010	1230	25.5	1,462	3	121.8	90.5	521	03:00	59.30	572.23	2,288.90	4	1,142.07	7.13E-05	0.25	0.29	0.05
9/22/2010	1300	25.5	1,170	3	119.4	93.3	719	03:30	47.65	789.69	3,158.77	4	1,576.11	9.84E-05	0.28	0.33	0.05
9/22/2010	1330	25.5	1,618	3	123.9	89.2	779	04:00	65.39	855.59	3,422.37	4	1,707.63	1.07E-04	0.42	0.48	0.08
9/22/2010	1400	25.5	1,541	3	124.3	88.1	904	04:30	62.24	992.88	3,971.53	4	1,981.64	1.24E-04	0.46	0.53	0.09
9/22/2010	1430	25.5	1,482	3	124.7	89.4	721	05:00	59.81	791.89	3,167.56	4	1,580.49	9.87E-05	0.35	0.41	0.07
9/22/2010	1500	25.5	2,321	3	121.6	93.1	735	05:30	94.17	807.27	3,229.07	4	1,611.18	1.01E-04	0.57	0.66	0.11
9/22/2010	1530	25.5	1,443	3	123.6	90.7	899	06:00	58.35	987.39	3,949.57	4	1,970.68	1.23E-04	0.43	0.50	0.08
9/22/2010	1600	25.5	1,638	3	122.3	91.9	1,033	06:30	66.38	1,134.57	4,538.27	4	2,264.42	1.41E-04	0.56	0.65	0.10
9/22/2010	1630	25.5	1,853	3	121.8	91.1	989	07:00	75.16	1,086.24	4,344.96	4	2,167.97	1.35E-04	0.61	0.71	0.11
9/22/2010	1700	25.5	2,262	3	120.3	92.7	800	07:30	91.98	878.66	3,514.63	4	1,753.66	1.09E-04	0.60	0.70	0.11
9/22/2010	1730	25.5	1,716	3	120.3	92.1	956	08:00	69.78	1,050.00	4,199.98	4	2,095.63	1.31E-04	0.55	0.63	0.10
Average Values		25.0	1,737	3	109.4	90.8	802		72.09	880.98	3,523.93	4	1758.31	1.10E-04	0.47	0.55	0.09
B_{ws}	0.090	B_{wm}	0.054														

Total Pounds of Carbon Recovered as Emissions: 3.80

Total Pounds of Gasoline Recovered as Emissions: 4.40

Total Gallons of Gasoline Recovered as Emissions: 0.70

NOTES:

AFVR event performed on September 22, 2010
Vacuum applied to monitoring wells MW-51 and MW-67
0 06 feet (MWR-1), 01 67 feet (MW-51), 0 07 (MW-65), 0 05 (MW-66), and 0 82 feet (MW-67) of free-product were detected prior to initiating the AFVR event
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID)
in of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration
PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wm} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By IAI
Checked By TZS

TABLE 2

AFVR Gauging Data (MW-1R and MW-66) - September 23, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #39531
BLE Project Number J10-6940-02

	Monitoring Well Gauging Data							Air Emissions	
	Vacuum (in. of Hg)		Depth to Free-Product / Groundwater (feet BTOC)					Influent (ppm)	Effluent (ppm)
Time	MWR-1	MW-66	MW-1	MWR-1	MW-17	MW-51	MW-66		
1100	20 0	21 5	29.64	32.47/32.51	31 82	30.93/30 97	30 65/30 69	968	25
1130	20 5	21 5	29.64	AFVR EVENT	32 16	31.21/31 25	AFVR EVENT	995	19
1200	22 0	22 0	29.64		32 50	31.48/31 53		945	37
1230	22.0	22 0	29.64		32 62	31.57/31.61		933	13
1300	22 0	21.5	29.67		32.74	31.65/31.69		903	19
1330	22 0	22 0	29.69		32 78	31.68/31.71		1,019	45
1400	22 0	22.0	29.68		32.81	31.70/31 72		912	40
1430	22 0	22 0	29.66		32 83	31.71/31 74		887	38
1500	23 0	23 0	29.66		32 85	31.72/31 76		878	38
1530	23.0	23 0	29.66		32.87	31.75/31 79		939	36
1600	23.0	23 0	Dry		32 89	31.78/31 81		1,039	37
1630	24.0	24 0	Dry		32 90	31.80/31 83		874	23
1700	24 0	24 0	Dry		32 90	31.81/31 85		872	39
1730	24 0	24 0	Dry		32 90	31.83/31 85		947	28
1800	24 0	24 0	Dry		32 90	31.84/31 86		840	33
1830	24 0	24 0	Dry		32 91	31.86/31 87		1,049	74
1900	24 0	24 0	29.67	35 86/35 87	32.92	31.87/31 88	31 92/31.93	944	35
	Initial Free Product (feet)		**0.00**	**0.04**	**0.00**	**0.04**	**0.04**		
	Final Free Product (feet)		**0.00**	**0.01**	**0.00**	**0.01**	**0.01**		

NOTES:

AFVR event performed on September 23, 2010

Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID)

0 04 feet (MWR-1), 0 04 feet (MW-51), 0 04 feet (MW-66), and 0 01 feet (MW-67) of free-product was detected prior to initiating the AFVR event

in of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

Prepared By. IAI
Checked By TZS

TABLE 2A

AFVR Emissions Field Data - September 23, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #39531
BLE Project Number J10-6940-02

WELL ID #: MWR-1 and MW-66

AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS								
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
9/23/2010	1100	24.5	1,930	3	90.5	88.3	968	00:00	80.32	1,095.08	4,380.31	4	2,185.61	1.36E-04	0.66	0.76	0.12
9/23/2010	1130	25.0	1,716	3	104.1	91.4	995	00:30	69.69	1,125.62	4,502.49	4	2,246.57	1.40E-04	0.59	0.68	0.11
9/23/2010	1200	25.0	2,457	3	115.3	91.7	945	01:00	97.85	1,069.06	4,276.23	4	2,133.68	1.33E-04	0.78	0.91	0.14
9/23/2010	1230	25.0	2,165	3	119.1	92.5	933	01:30	85.65	1,055.48	4,221.93	4	2,106.58	1.32E-04	0.68	0.78	0.13
9/23/2010	1300	25.0	2,671	3	120.3	92.7	903	02:00	105.45	1,021.54	4,086.18	4	2,038.85	1.27E-04	0.81	0.93	0.15
9/23/2010	1330	25.0	2,653	3	121.1	91.2	1,019	02:30	104.60	1,152.77	4,611.09	4	2,300.76	1.44E-04	0.90	1.04	0.17
9/23/2010	1400	25.0	2,340	3	120.0	94.1	912	03:00	92.43	1,031.73	4,126.90	4	2,059.17	1.29E-04	0.71	0.83	0.13
9/23/2010	1430	25.0	2,125	3	120.5	92.1	887	03:30	83.87	1,003.44	4,013.78	4	2,002.72	1.25E-04	0.63	0.73	0.12
9/23/2010	1500	25.0	2,204	3	120.9	92.3	878	04:00	86.92	993.26	3,973.05	4	1,982.40	1.24E-04	0.65	0.75	0.12
9/23/2010	1530	25.5	2,087	3	121.2	92.9	939	04:30	82.27	1,062.27	4,249.08	4	2,120.13	1.32E-04	0.65	0.76	0.12
9/23/2010	1600	25.5	2,106	3	121.6	93.4	1,039	05:00	82.96	1,175.40	4,701.59	4	2,345.91	1.46E-04	0.73	0.84	0.13
9/23/2010	1630	25.5	2,457	3	118.7	94.4	874	05:30	97.27	988.74	3,954.95	4	1,973.37	1.23E-04	0.72	0.83	0.13
9/23/2010	1700	25.5	1,970	3	118.5	94.3	872	06:00	78.02	986.47	3,945.90	4	1,968.85	1.23E-04	0.58	0.67	0.11
9/23/2010	1730	25.5	1,696	3	119.4	94.1	947	06:30	67.06	1,071.32	4,285.28	4	2,138.19	1.33E-04	0.54	0.62	0.10
9/23/2010	1800	25.5	2,476	3	118.4	93.8	840	07:00	98.07	950.27	3,801.10	4	1,896.60	1.18E-04	0.70	0.81	0.13
9/23/2010	1830	25.5	2,008	3	117.6	92.4	1,049	07:30	79.65	1,186.71	4,746.84	4	2,368.49	1.48E-04	0.71	0.82	0.13
9/23/2010	1900	25.5	2,204	3	116.2	94.4	944	08:00	87.63	1,067.93	4,271.71	4	2,131.42	1.33E-04	0.70	0.81	0.13
Average Values		25.2	2,192	3	116.7	92.7	938		87.04	1,061.01	4,244.02	4	2117.60	1.32E-04	0.69	0.80	0.13
B_{ws}	0.116	B_{wm}	0.07														

Total Pounds of Carbon Recovered as Emissions: 5.52

Total Pounds of Gasoline Recovered as Emissions: 6.39

Total Gallons of Gasoline Recovered as Emissions: 1.02

NOTES:

AFVR event performed on September 23, 2010
Vacuum applied to monitoring wells MWR-1 and MW-66
0 04 feet (MWR-1), 0 04 feet (MW-51), 0 04 feet (MW-66), and 0 01 feet (MW-67)of free-product were detected in prior to initiating the AFVR event
Vapor concentrations measured using a portable MiniRAE* 2000 Photo-Ionization Detector (PID)
in of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wm} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By IA1
Checked By TZS

TABLE 3

AFVR Gauging Data (MW-54, MW-62, and MW-64) - September 24, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #39531
BLE Project Number J10-6940-02

	Monitoring Well Gauging Data										Air Emissions	
	Vacuum (in.of Hg)			Depth to Free-Product / Groundwater (feet BTOC)							Influent (ppm)	Effluent (ppm)
Time	MW-54	MW-62	MW-64	MWR-1	MW-7	MW-7R	MW-54	MW-62	MW-63	MW-64		
1030	21.0	21.5	21 0	32.52/32 53	30.93/30.95	31 36	31.96/32 65	31.99/32 01	31 60/31.61	31 89/32.13	262	80
1100	21.5	21.5	22.5	32.59/32.60	30.96/30.98	31 45			32 69/32.70		413	41
1130	20.5	20.5	20.5	32.66/32 67	30.98/31.00	31 53			33 78/33.79		290	58
1200	20.5	20.5	20.5	32.62/32.63	31 02/31.04	31 58			33 98/33.99		288	57
1230	20.5	20.5	20.5	32.58/32 59	31.05/31.07	31 63			34 17/34.18		287	60
1300	20.5	20.5	20.5	32 59/32 60	31 08/31 11	31 68			34.29/34.31		285	50
1330	20.5	20.5	20.5	32 60/32 61	31 11/31.14	31 72			34 40/34.44		280	48
1400	20.5	20.5	20.5	32 60/32.61	31 15/31.17	31 76			34 48/34 53		275	50
1430	20.5	20.5	21.0	32 60/32 61	31.18/31 20	31.80			34 56/34 62		275	57
1500	20.5	20.5	20.0	32 61/32.62	31 20/31 22	31.82			34.58/34 64		281	63
1530	20.5	20.5	20.0	32.62/32.63	31.21/31.23	31.84			34 59/34.66		282	64
1600	20.5	20.5	20.0	32.62/32.63	31 23/31.25	31.86			34.61/34.68		277	61
1630	20 5	20.5	20.0	32.62/32.63	31 24/31 27	31.88			34.62/34 70		275	58
1700	20.5	20 5	20 0	32 63/32.64	31 26/31 29	31 91			34.65/34 73		279	69
1730	20 5	20 5	20.0	32.63/32.64	31.28/31 30	31 93			34.67/34 76		282	74
1800	20 5	20 5	20.0	32 64/32.65	31 30/31 32	31 95			34.69/34 78		282	64
1830	20 5	20.5	20.0	32 64/32.65	31 31/31 33	31 96	36 30/36.31	35.84/35.85	34.71/34.80	34 81/34.82	283	80
	Initial Free Product (feet)			**0.01**	**0.02**	**0.00**	**0.69**	**0.02**	**0.01**	**0.24**		
	Final Free Product (feet)			**0.01**	**0.02**	**0.00**	**0.01**	**0.01**	**0.09**	**0.01**		

AFVR EVENT (MW-54) | AFVR EVENT (MW-62) | AFVR EVENT (MW-64)

NOTES:

AFVR event performed on September 24, 2010

Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID)

0 01 feet (MWR-1), 0 02 feet (MW-7), 0 69 feet (MW-54). 0 02 feet (MW-62), 0 01 feet (MW-63),and 0 24 feet (MW-64) of free-product was detected prior to AFVR event

in of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

Prepared By: IAI
Checked By TZS

TABLE 3A

AFVR Emissions Field Data - September 24, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #39531
BLE Project Number J10-6940-02

WELL ID #: MW-54, MW-62, and MW-64

AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS								
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
9/24/2010	1030	23.5	2,613	3	90.6	90.6	262	00:00	111.17	289.87	1,159.49	4	578.54	3.61E-05	0.24	0.28	0.04
9/24/2010	1100	24.0	2,867	3	109.7	94.9	413	00:30	117.89	456.93	1,827.74	4	911.97	5.69E-05	0.40	0.47	0.07
9/24/2010	1130	23.0	2,708	3	112.2	93.1	290	01:00	110.87	320.85	1,283.40	4	640.37	4.00E-05	0.27	0.31	0.05
9/24/2010	1200	23.0	3,257	3	112.4	93.0	288	01:30	133.30	318.64	1,274.55	4	635.95	3.97E-05	0.32	0.37	0.06
9/24/2010	1230	23.0	3,042	3	112.2	92.8	287	02:00	124.54	317.53	1,270.12	4	633.74	3.96E-05	0.30	0.34	0.05
9/24/2010	1300	23.0	2,848	3	112.2	92.7	285	02:30	116.60	315.32	1,261.27	4	629.33	3.93E-05	0.27	0.32	0.05
9/24/2010	1330	23.0	2,945	3	113.5	91.9	280	03:00	120.30	309.79	1,239.15	4	618.29	3.86E-05	0.28	0.32	0.05
9/24/2010	1400	23.0	3,042	3	114.2	91.1	275	03:30	124.11	304.25	1,217.02	4	607.24	3.79E-05	0.28	0.33	0.05
9/24/2010	1430	23.0	2,653	3	114.8	91.3	275	04:00	108.12	304.25	1,217.02	4	607.24	3.79E-05	0.25	0.28	0.05
9/24/2010	1500	23.0	2,496	3	114.0	89.8	281	04:30	101.87	310.89	1,243.57	4	620.49	3.87E-05	0.24	0.27	0.04
9/24/2010	1530	23.0	2,905	3	114.2	88.9	282	05:00	118.52	312.00	1,248.00	4	622.70	3.89E-05	0.28	0.32	0.05
9/24/2010	1600	22.5	2,965	3	113.5	91.3	277	05:30	121.11	306.47	1,225.87	4	611.66	3.82E-05	0.28	0.32	0.05
9/24/2010	1630	22.5	2,340	3	113.0	91.3	275	06:00	95.67	304.25	1,217.02	4	607.24	3.79E-05	0.22	0.25	0.04
9/24/2010	1700	22.5	2,750	3	113.0	91.2	279	06:30	112.43	308.68	1,234.72	4	616.08	3.85E-05	0.26	0.30	0.05
9/24/2010	1730	22.5	3,140	3	112.1	90.7	282	07:00	128.58	312.00	1,248.00	4	622.70	3.89E-05	0.30	0.35	0.06
9/24/2010	1800	22.5	3,354	3	111.3	91.5	282	07:30	137.53	312.00	1,248.00	4	622.70	3.89E-05	0.32	0.37	0.06
9/24/2010	1830	22.5	3,159	3	108.8	93.5	283	08:00	130.10	313.11	1,252.42	4	624.91	3.90E-05	0.30	0.35	0.06
Average Values		22.9	2,887	3	111.3	91.7	288		118.39	318.64	1,274.55	4	635.95	3.97E-05	0.28	0.33	0.05
B_{ws}	0.096	B_{wm}	0.058														

Total Pounds of Carbon Recovered as Emissions: 2.26
Total Pounds of Gasoline Recovered as Emissions: 2.61
Total Gallons of Gasoline Recovered as Emissions: 0.42

NOTES:
AFVR event performed on September 24, 2010
Vacuum applied to monitoring wells MW-54, MW-6, and MW-64
0 01 feet (MWR-1), 0 02 feet (MW-7), 0 69 feet (MW-54), 0 02 feet (MW-62), 0 01 feet (MW-63), and 0 24 feet (MW-64) of free-product was detected prior to initiating the AFVR event
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID)
in of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wm} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By IAI
Checked By TZS

TABLE 4

AFVR Gauging Data (MW-1A, MW-8, MW-60, and MW-61) - September 27, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #39531
BLE Project Number J10-6940-02

	Monitoring Well Gauging Data									Air Emissions	
	Vacuum (in. of Hg)				Depth to Free-Product / Groundwater (feet BTOC)					Influent (ppm)	Effluent (ppm)
Time	MW-1A	MW-8	MW-60	MW-61	MW-1	MWR-1A	MW-8	MW-60	MW-61		
11 30	20.0	20.0	20.5	20.0	29.66	32 47/32.56	32.63/32.83	32 12/32.42	Dry	435	83
12:00	20.0	20 0	20.5	19.5	29.66	AFVR EVENT	AFVR EVENT	AFVR EVENT	AFVR EVENT	472	56
12 30	20.0	20.0	20 0	19.0	29 66					613	40
13:00	20.0	20.0	20 0	19 5	29.66					585	80
13:30	20.0	20 0	20 0	19 5	29 66					516	24
14:00	20.0	20 0	20 0	19 5	29.66					265	65
14.30	20 0	20 0	20 0	19 5	29.66					619	27
15 00	20 0	20 0	20 0	19 5	29.66					512	24
15 30	20 0	20 0	20.0	19 5	29 66					500	87
16 00	20 0	20.0	20.0	19 5	29.66					603	40
16 30	20 0	20.0	20.0	19 5	29.66					643	58
17 00	20 0	20 0	20 0	19.5	29.66					589	53
17 30	20 0	20.0	20.0	19.5	29 66					693	53
18:00	20.0	20.0	20.0	19.0	29.66					488	57
18:30	20 0	20.0	20 0	19.0	29 66					614	87
19:00	20 0	20 0	20 0	19.0	29 66					658	68
19:30	20 0	20 0	20.0	19.0	29 66	ND/36.25	35.30/35.37	35.25/35.26	30.81/31 37	682	46
	Initial Free Product (feet)				**0.00**	**0.09**	**0.20**	**0.30**	**Dry**		
	Final Free Product (feet)				**0.00**	**0.00**	**0.07**	**0.01**	**0.56**		

NOTES:
AFVR event performed on September 27, 2010
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID)
0 09 feet (MWR-1A), 0 20 feet (MW-8), and 0 30 feet (MW-60) of free-product was detected prior to initiating the AFVR event
in of Hg - inches of mercury
BTOC - below top of casing
ppm - parts per million
ND - Not Detected

Prepared By: IAI
Checked By TZS

TABLE 4A

AFVR Emissions Field Data September 27, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cort Agreement #39531
BLE Project Number J10-6940-02

WELL ID #: MWR-1A, MW-8, MW-60, and MW-61

AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS							
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
9/27/2010	1130	23.5	2,145	3	68.1	87.7	435	00:00	98.64	464.25	1,856.98	4	926.56	5.78E-05	0.34	0.40	0.06
9/27/2010	1200	23.0	3,101	3	81.6	94.6	472	00:30	139.05	503.73	2,014.93	4	1,005.37	6.28E-05	0.52	0.61	0.10
9/27/2010	1230	22.5	2,633	3	96.2	95.1	613	01:00	114.96	654.21	2,616.85	4	1,305.71	8.15E-05	0.56	0.65	0.10
9/27/2010	1300	22.5	2,887	3	95.9	95.6	585	01:30	126.12	624.33	2,497.32	4	1,246.07	7.78E-05	0.59	0.68	0.11
9/27/2010	1330	22.5	3,296	3	99.1	96.2	516	02:00	143.17	550.69	2,202.76	4	1,099.09	6.86E-05	0.59	0.68	0.11
9/27/2010	1400	22.5	2,555	3	103.6	95.7	265	02:30	110.09	282.82	1,131.26	4	564.46	3.52E-05	0.23	0.27	0.04
9/27/2010	1430	22.5	2,750	3	104.7	95.5	619	03:00	118.27	660.62	2,642.46	4	1,318.49	8.23E-05	0.58	0.68	0.11
9/27/2010	1500	22.5	3,042	3	106.7	95.4	512	03:30	130.36	546.42	2,185.69	4	1,090.57	6.81E-05	0.53	0.62	0.10
9/27/2010	1530	22.5	2,750	3	104.9	90.9	500	04:00	118.22	533.62	2,134.46	4	1,065.01	6.65E-05	0.47	0.55	0.09
9/27/2010	1600	22.5	2,828	3	103.1	96.7	603	04:30	121.97	643.54	2,574.16	4	1,284.41	8.02E-05	0.59	0.68	0.11
9/27/2010	1630	22.5	2,692	3	102.7	96.1	643	05:00	116.18	686.23	2,744.92	4	1,369.61	8.55E-05	0.60	0.69	0.11
9/27/2010	1700	22.5	2,555	3	94.6	96.3	589	05:30	111.88	628.60	2,514.40	4	1,254.59	7.83E-05	0.53	0.61	0.10
9/27/2010	1730	22.5	2,457	3	93.3	96.6	693	06:00	107.84	739.59	2,958.36	4	1,476.11	9.22E-05	0.60	0.69	0.11
9/27/2010	1800	22.5	2,848	3	100.7	96.0	488	06:30	123.35	520.81	2,083.23	4	1,039.45	6.49E-05	0.48	0.56	0.09
9/27/2010	1830	22.5	2,633	3	97.8	96.4	614	07:00	114.64	655.28	2,621.12	4	1,307.84	8.16E-05	0.56	0.65	0.10
9/27/2010	1900	22.5	2,808	3	97.3	96.4	658	07:30	122.36	702.24	2,808.95	4	1,401.56	8.75E-05	0.64	0.74	0.12
9/27/2010	1930	22.5	2,770	3	95.7	97.1	682	08:00	121.06	727.85	2,911.41	4	1,452.68	9.07E-05	0.66	0.76	0.12
Average Values		22.6	2,750	3	96.8	95.2	558		119.89	595.58	2,382.31	4	1188.68	7.42E-05	0.53	0.62	0.10
B_{ws}	0.063	B_{wm}	0.038														

Total Pounds of Carbon Recovered as Emissions: **4.27**

Total Pounds of Gasoline Recovered as Emissions: **4.94**

Total Gallons of Gasoline Recovered as Emissions: **0.79**

NOTES:

AFVR event performed on September 27, 2010
Vacuum applied to monitoring wells MW-1A, MW-8, MW-60, and MW-61
0 09 feet (MWR-1A), 0 20 feet (MW-8), and 0 30 feet (MW-60) of free-product was detected prior to AFVR event
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID)
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wm} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By IAI
Checked By TZS

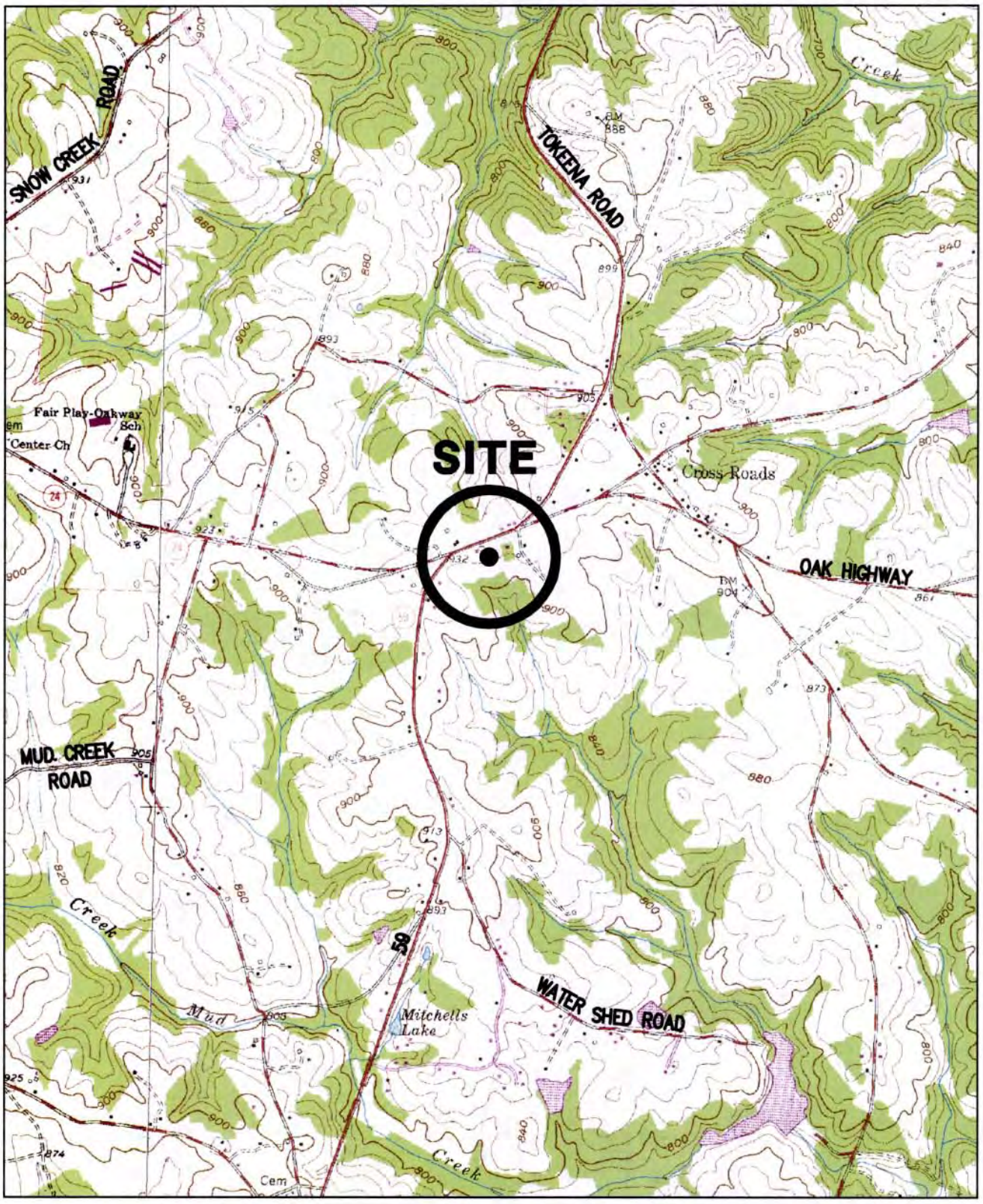
TABLE 5

Monitoring Well Gauging Data - October 11, 2010
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #39531
BLE Project Number J10-6940-02

	Monitoring Well Gauging Data													
Well ID	**MWR-1A**	**MWR-1**	**MW-7**	**MW-8**	**MW-51**	**MW-54**	**MW-60**	**MW-61**	**MW-62**	**MW-63**	**MW-64**	**MW-65**	**MW-66**	**MW-67**
Depth to Free-Product/Groundwater (ft)	33 54	32 90	31 24 / 31 25	33 20 / 33 22	30 16 / 30 25	32.60 / 32.71	32 70 / 32 83	32 50 / 32 63	32 50 / 32 53	32 09 / 32 10	32 36 / 32 70	30 30 / 30 31	30 90 / 30 94	30 90 / 30 98
Free-Product Thickness (ft)	None	None	**0.01**	**0.02**	**0.09**	**0.11**	**0.13**	**0.13**	**0.03**	**0.01**	**0.34**	**0.01**	**0.04**	**0.08**

Prepared By IAI
Checked By TZS

FIGURES

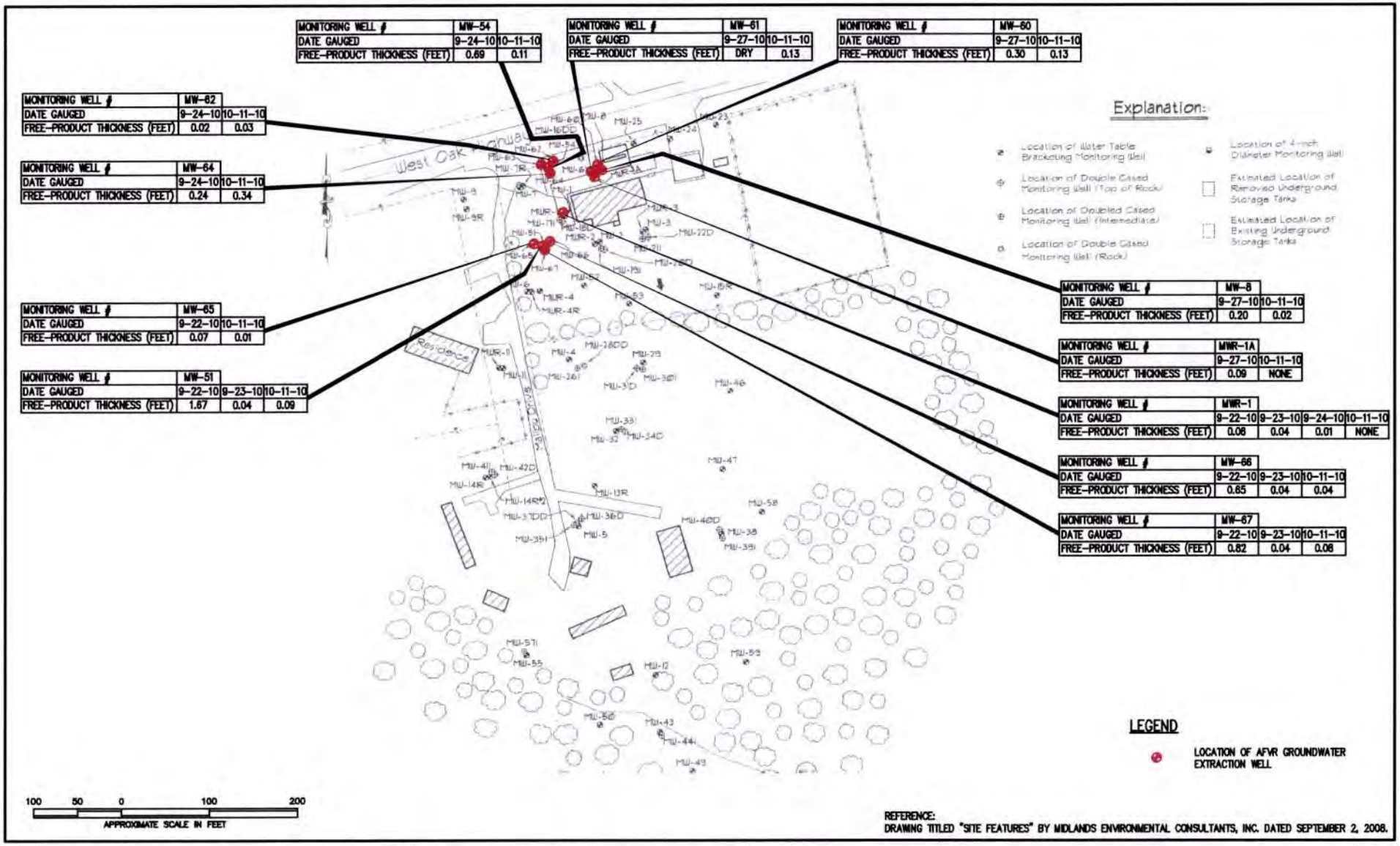


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, FAIR PLAY AND OAKWAY, S.C. QUADRANGLES, PHOTOREVISED 1979 AND 1985.

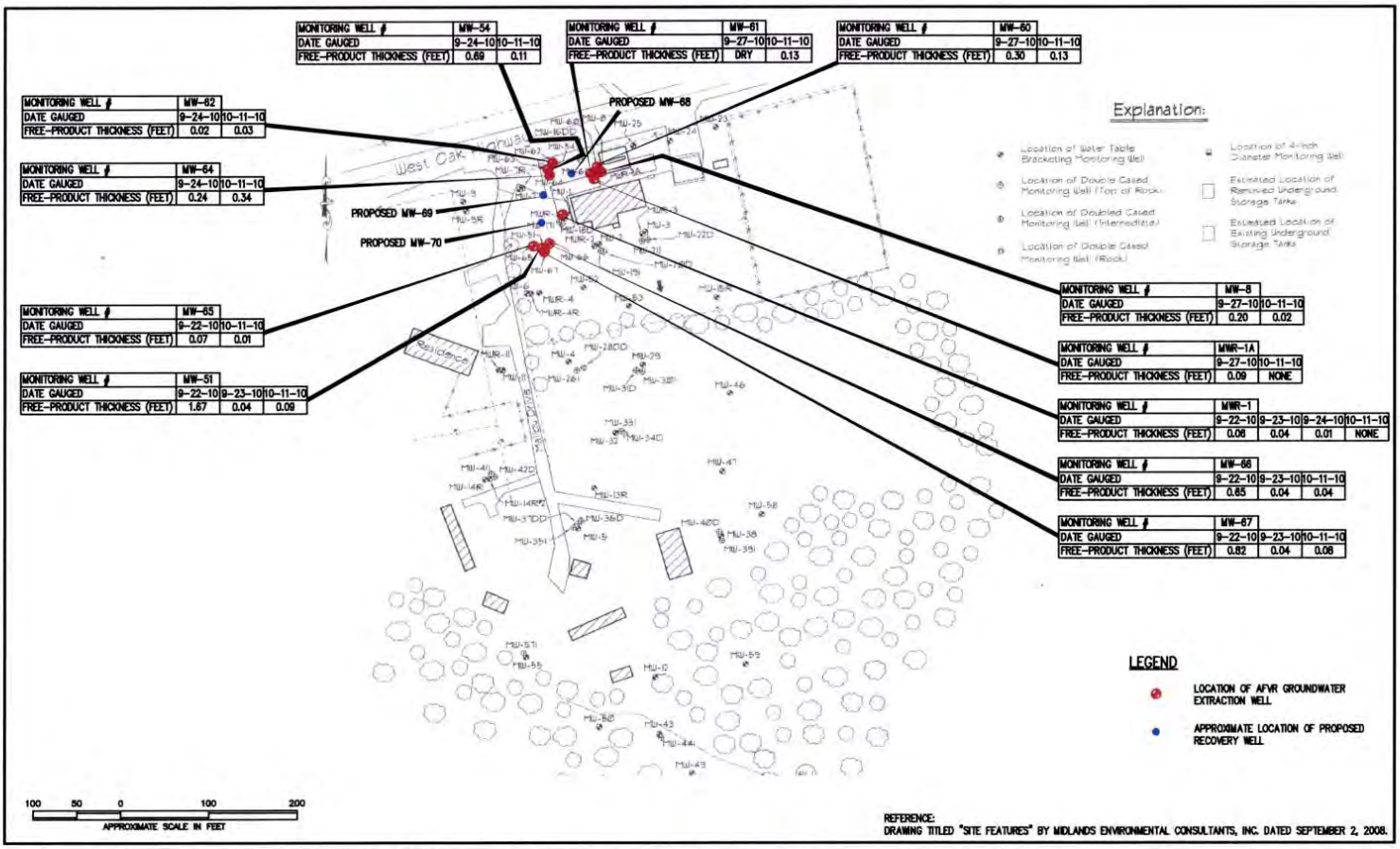
DRAWN: ACE	DATE: 10-21-10	BLE inc. BUSSELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP FORMER CROSSROADS GROCERY UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA
CHECKED: IAI	CAD: FORMCRGROC-02SLM		FIGURE 1
APPROVED:	JOB NO: J10-6940-02		



REFERENCE:
DRAWING TITLED "SITE FEATURES" BY MIDLANDS ENVIRONMENTAL CONSULTANTS, INC. DATED SEPTEMBER 2, 2008.

DRAWN BY: ACE	DATE: 10-21-10	REVISIONS No. / DESCRIPTION / BY	FREE-PRODUCT ASSESSMENT MAP FORMER CROSSROADS GROCERY UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA
CHECKED BY: IAI	FILE: FORMCRGROC-02AFVR		FIGURE 2
APPROVED BY:	JOB NO: J10-6940-02		

BLE INC. RUSSELL-LANDRUM ENGINEERING, INC.
8004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430



REFERENCE:
DRAWING TITLED "SITE FEATURES" BY MIDLANDS ENVIRONMENTAL CONSULTANTS, INC. DATED SEPTEMBER 2, 2008.

DRAWN BY: ACE	DATE: 11-01-10	REVISIONS			BLE INC. BUSSELL-LAMBERT ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1288 FAX: (864)288-4430	PROPOSED RECOVERY WELL LOCATION PLAN FORMER CROSSROADS GROCERY UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA	FIGURE 3
CHECKED BY: IAI	FILE: FORMCRGROC-02PRW	No.	DESCRIPTION	BY			
APPROVED BY:	JOB NO: J10-6940-02						

APPENDICES

APPENDIX A

WASTE TRANSPORTATION AND DISPOSAL RECORDS

Cont 6/14

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
			6940-02

GENERATOR

5. Generator's Name and Mailing Address

Bunnell-Lammons Eng, Inc
6004 Ponders Court
Greenville, SC 29615
As Agent for

Generator's Site Address (if different than mailing address)

8050 West Oak Hwy
Westminster, SC

Generator's Phone:

6. Transporter 1 Company Name: BLE — U.S. EPA ID Number:

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
VLS Recovery Services Piedmont, LLC
305 South Main St.
Mauldin, SC 29660

U.S. EPA ID Number: SCR000762458

Facility's Phone: 864-962-9953

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Well Water #11312	001	TT	~~1000~~ 1249	G	
2.	WELL WATER #11312 — UST # 11845 — 8050 E MAIN ST WESTMINSTER, SC			6	G	
3.						
4.						

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable International and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: REGINA KOENIG — Signature: Regina Koenig — Month 9 Day 23 Year 10

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Robert Banks — Signature: Robert Banks — Month 9 Day 23 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Brian Tripp — Signature: Brian Tripp — Month 9 Day 23 Year 10

Conf. # 615

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
				6940-02

GENERATOR

5. Generator's Name and Mailing Address
Bunnell-Lammons Eng, Inc
6304 Ponders Court
Greenville, SC 29615
Generator's Phone:

Generator's Site Address (if different than mailing address)
Agent for
Former Crossroads Grocery
8050 West Oak Hwy
Westminster, SC

6. Transporter 1 Company Name
RLE
U.S. EPA ID Number

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
VLS Recovery Services Piedmont, LLC
305 South Main St.
Mauldin, SC 29660
U.S. EPA ID Number
SCR000762458
Facility's Phone: 864-952-6953

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Well Water #11312 UST # 06742	001	TT	1000 6062	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: REGINA KOENIG
Signature: Regina Koenig
Month 9 Day 23 Year 10

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: RLE
Signature:
Month 9 Day 24 Year 10

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Brian Tripp
Signature:
Month 9 Day 24 Year 10

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY'S COPY

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number 6940-02

5. Generator's Name and Mailing Address
Bunnell-Lammons Eng. Inc
6004 Ponders Court
Greenville, SC 29615
As Agent Pre
Generator's Phone:

Generator's Site Address (if different than mailing address)
Former Crossroads Grocery
8050 West Oak Highway
~~US~~

6. Transporter 1 Company Name: BLE — U.S. EPA ID Number:

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
VLS Recovery Services Piedmont, LLC
306 South Main St.
Mauldin, SC 29660
Facility's Phone: 864-962-9953
U.S. EPA ID Number: SCR000762468

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	Well Water #11312 8050 West Oak Highway Westminister, SC UST # 06742	001	TT	1000 1236	G
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Regina Koenig — Signature: [signature] — Month 9 Day 24 Year 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year
Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name — Signature: [signature] — Month 9 Day 24 Year 10

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

169-BLC-OG-11977 (Rev. 9/99) TRANSPORTER #1

Conf # 734

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
			6940-02

GENERATOR

5. Generator's Name and Mailing Address
Burnell-Lammons Eng, Inc As Agent for
6004 Ponders Court
Greenville, SC 29615
Generator's Phone:

Generator's Site Address (if different than mailing address)
Former Crossroads Grocery
8050 West Oak Hwy
Westminster, SC

6. Transporter 1 Company Name
BLE
U.S. EPA ID Number

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
VLS Recovery Services Piedmont, LLC
305 South Main St.
Mauldin, SC 29650
U.S. EPA ID Number
SCR000752465
Facility's Phone: 864-962-9953

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	Well Water 8050 West Oak Hwy Westminster, SC #11312 UST #06742	001	TT	~~1000~~ 1043	G
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Regina Koenig
Signature: Regina Koenig
Month: 9 Day: 27 Year: 10

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Robert Banks
Signature: Robert Banks
Month: 9 Day: 28 Year: 10

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Brian Tripp
Signature
Month: 9 Day: 28 Year: 10

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

MR NEIL ALEXANDER
C/O ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINSTER SC 29693-5534

JUL 15 2011

42tech
UST
DOCKET

Re: QAPP Contractor Addendum
Former Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742
Release reported January 11, 1993
Aggressive Fluid and Vapor Recovery report received November 8, 2010
Oconee County

Dear Mr. Alexander:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (SCDHEC) recognizes your commitment to continue work at this site using Bunnell-Lammons Engineering as your contractor. The next scope of work is monitoring/recovery well installation as outlined in the UST Quality Assurance Program Plan (QAPP). Please have your contractor install three additional monitoring/recovery wells in accordance with the QAPP and in compliance with all applicable regulations. The wells should be installed at the locations proposed by your contractor in the referenced report. A copy of the QAPP is available at http://www.dhec.sc.gov/environment/lwm/pubs/DHEC%20UST%20QAPP_Rev-1_Feb2011_3.pdf.

Your contractor must complete and submit a QAPP Contractor Addendum and cost agreement for the aforementioned scope of work within 30 days of the date of this letter. Upon review and approval of the Addendum and cost agreement, the Division will issue a directive to you for the work.

On all correspondence concerning this site, please reference UST Permit #06742. If there are any questions, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
06742.14

cc: Bunnell-Lammons Engineering, Inc., 6004 Ponders Court, Greenville, SC 29615-4601
Technical file

DHEC/UST/JPP/071111

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

August 4, 2011

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
2600 Bull Street
Columbia, South Carolina 29201-1708

Attention: Mr. Joel P. Padgett, P.G., Hydrogeologist

Subject: **QAPP Addendum**
Former Crossroads Grocery
8050 West Oak Highway
Westminster, South Carolina
SCDHEC UST Permit #06742
BLE Project No. J11-6940-03

Dear Mr. Padgett:

On behalf of Mr. Neil Alexander, Bunnell-Lammons Engineering, Inc. (BLE) submits herein the completed Quality Assurance Program Plan (QAPP) addendum for the subject site. This submittal is in response to SCDHEC's QAPP addendum request dated July 15, 2011, for the installation of three additional groundwater monitoring/recovery wells at the subject site. Upon approval from SCDHEC, additional copies of the QAPP addendum will be distributed to the parties listed in section A3.

Please do not hesitate to contact us if you have any questions concerning this submittal.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina #2395

TREVOR J. BENTON REGISTERED No. 2395 SOUTH CAROLINA PROFESSIONAL GEOLOGIST

Thomas L. Lammons, P.G.
Principal Hydrogeologist
Registered, South Carolina #893

PROFESSIONAL GEOLOGIST REGISTERED No 893 SOUTH CAROLINA THOMAS L. LAMMONS

cc: Mr. Neil Alexander, 8050 West Oak Highway, Westminster, SC 29693

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

43 Tech

Appendix B: Contractor Addendum

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Former Crossroads Grocery – UST Permit #06742

8050 West Oak Highway, Westminster, SC

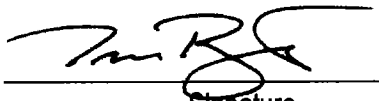
Prepared by: Trevor J. Benton, P.G. – Bunnell-Lammons Engineering, Inc.

Date: August 2, 2011

Bunnell-Lammons Engineering, Inc. – SCDHEC Certified Contractor No. UCC-010

Approvals

Joel P. Padgett, P.G.
SC DHEC Project Manager
_____ Signature Date_____

Trevor J. Benton, P.G.
Contractor QA Manager
 Signature Date 8/4/11

Thomas L. Lammons, P.G
Site Rehabilitation Contractor
Signature Date 8/4/11

A2 Table of Contents

A3 Distribution List

Name	Title	Organization/Address	Telephone Number	Fax Number	Email Address
Joel Padgett, P.G.	SC DHEC Technical Project Manager	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6398	803-896-6245	padgetjp@dhec.sc.gov
Thomas Lammons, P.G.	Site Rehabilitation Contractor	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	tom@blecorp.com
Trevor Benton, P.G.	Field Manager	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	trevor@blecorp.com
Marty King	Well Services/Driller	Landprobe Drilling, 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	marty@landprobe.com

Table 1A Addendum Distribution List

A4 Project Organization

Role from the UST Master QAPP	Name of person in this Role for this Project	Organization/Address	Telephone Number	Fax Number	Email Address
Project Manager	Joel Padgett, P.G.	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6398	803-896-6245	padgetjp@dhec.sc.gov
Site Rehabilitation Contractor	Thomas Lammons, P.G.	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	tom@blecorp.com
Field Manager	Trevor Benton, P.G.	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	trevor@blecorp.com

Role from the UST Master QAPP	Name of person in this Role for this Project	Organization/Address	Telephone Number	Fax Number	Email Address
Soil Boring and Monitoring Well Driller	Marty King	Landprobe Drilling, 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	marty@landprobe.com
Project Verifier	Trevor Benton, P.G.	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	trevor@blecorp.com

Table 2A Addendum Role Identification and Contact Information

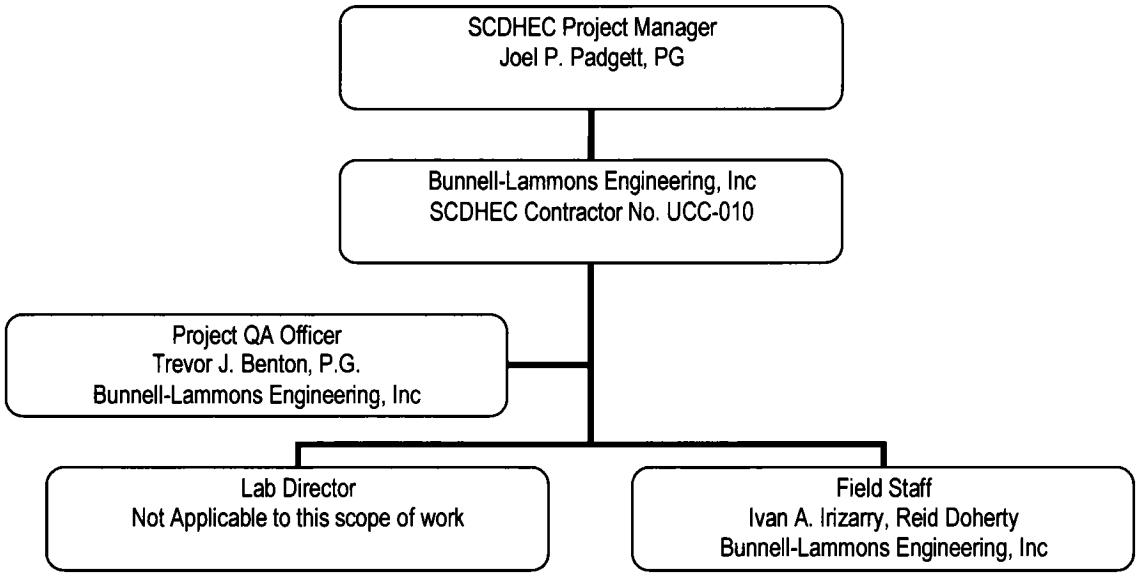


Figure 1A Organizational Chart

A5 Problem Definition/Background

Discuss the background (as much as is known) of the site and appropriate historical information, and why this site is being assessed.

The subject property is located at 8050 West Oak Highway in Westminster, South Carolina (Figure 1). The site currently operates as Country Side 2, which is an active automobile fueling station and convenience store. We understand that five underground storage tanks (USTs) and associated piping and fueling dispensers were removed from the site in June 1990: (2) 1,000-gallon gasoline, (1) 550-gallon gasoline, (1) 550-gallon diesel, and (1) 550-gallon kerosene. Five new USTs, (1) 10,000-gallon off-road diesel, (1) 10,000-gallon kerosene, (1) 8,000-gallon "regular" gasoline, (1) 6,000-gallon "plus" gasoline, and (1) 6,000-gallon diesel, and associated equipment were installed in their place. In association with the UST removal activities, a release of petroleum contaminants to the subsurface was reported in January 1993. Various environmental assessments have been conducted at the site by other consultants since 1993, including the installation of seventy-two groundwater monitoring wells to assess the horizontal and vertical extent of petroleum hydrocarbons in the water table aquifer. Additionally, petroleum free-product recovery has been conducted via numerous aggressive fluid vapor recovery (AFVR) events. BLE also understands that the site was previously in active corrective action utilizing a form of injection technology. Several injection wells are still present on the property. Historically, a downgradient spring has been impacted by the documented release. The purpose of this scope of work is to install three additional monitoring/recovery wells to be utilized as extraction points for continued free-product removal at the site.

Please answer the following: Does this project fall under UST or Brownfields area?

UST Division (UST Permit #06742)

A6 Project/Task Description

1. ***Summarize what is known about the work to be done. This can be a short sentence indicating what the Scope of this project is (see Master QAPP Section A6).***

   Installation of three additional monitoring/recovery wells (MW-68, MW-69, and MW-70).

2. ***The work will begin within <u>two weeks</u> after cost approval and the project should be <u>completed within 60 days</u>.***

3. ***Are there any time or resource constraints? Include those factors that may interfere with the tentative schedule.***

   Utility clearance and drill rig availability are potential time constraints for this project.

A7 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs)

Detail the geographical area that is to be part of the project. Maps should be included to show not only the topography and the geographical area of the State, but also to show more detail of the site itself including property lines.

See attached Figures 1 and 2

A8 Training and Certificates

Required training and licenses:

Title/Job	Name	Training Required	Date training received	Type of License	License Number
Hydrogeologist	Thomas Lammons, P.G.			SC Professional Geologist	#893
Hydrogeologist	Trevor Benton. P.G.			SC Professional Geologist	#2395
Hydrogeologist	Thomas Lammons, Trevor Benton, Ivan Irizarry, Reid Doherty	40-hour OSHA HAZWOPER & 8-Hour refresher	2/11/11		
Well Driller	Marty King	40-hour OSHA HAZWOPER & 8-Hour refresher	2/11/11	SC Well Driller	#1089

Table 3A Required Training and Licenses

Thomas Lammons, P.G. of Bunnell-Lammons Engineering, Inc. is responsible to ensuring that personnel participating in this project receive the proper training. All training records will be stored in the following location: Bunnell-Lammons Engineering, Inc., Human Resources Department Files c/o Ms. Esther Lande

It is understood that training records will be produced if requested by SC DHEC.

The Following Laboratory(ies) will be used for this Project:

Commercial Lab(s)

Full Name of the Laboratory: Not applicable to this scope of work
Name of Lab Director:
SC DHEC Certification Number:
Parameters this Lab will analyze for this project:

Full Name of the Laboratory: Not applicable to this scope of work
Name of Lab Director:
SC DHEC Certification Number:
Parameters this Lab will analyze for this project:

Please note: SC DHEC may require that the contractor submit some or all of the Laboratory's SOPs as part of this QAPP.

A9 Documents and Records

Personnel will receive the most current version of the QAPP Addendum via:
(Check all that apply)

√ US Mail ____Courier √ Hand delivered

Other (please specify):_____

Record	Produced By	Hardcopy/ Electronic	Storage Location For how long?	Archival
Project Field Notes	BLE/Landprobe personnel	Hardcopy	BLE file library. Hard copy storage for a minimum of 3 years.	After 3 years, the project data may be scanned and transferred to CD. CDs will be archived in BLEs file library.
Boring Logs	Landprobe personnel	Hardcopy	BLE file library. Hard copy storage for a minimum of 3 years.	After 3 years, the project data may be scanned and transferred to CD. CDs will be archived in BLEs file library.
Final Report	BLE personnel	Hardcopy & Electronic	BLE file library and electronic data storage backup. Hard copy storage for a minimum of 3 years.	After 3 years, the project data may be scanned and transferred to CD. CDs will be archived in BLEs file library.

Table 4A Record Identification, Storage, and Disposal

Section B Measurement/Data Acquisition

B1 Sampling Process/Experimental Design

Item	Start Date	End Date	Comments
Well Drilling	August 15, 2011	August 16, 2011	Three monitoring/recovery wells installed to 45 feet below ground surface with 20 foot screens. See SOP Attachment for procedures for installing monitoring/recovery wells.
Well Development	August 16, 2011	August 16, 2011	Purge a minimum of three well volumes to remove fine-grained sediments from the well screen and filter pack.
Comprehensive Site/Well Survey	August 31, 2011	September 1, 2011	Perform comprehensive site survey to incorporate all new and existing monitoring/recovery wells on one site map. Survey results will be tied into the State Plane Coordinate System.

Table 5A Sampling Activities

B2 Sampling Methods

Please note: The contractor must follow sampling protocols as given in the UST QAPP.

***Estimate* the number of samples of each matrix that are expected to be collected:**

Soil N/A

Ground Water from monitoring wells N/A

From Drinking/Irrigation water wells N/A

From surface water features N/A

Total number of Water samples N/A

The samples will be (check as many as apply): ____Homogenized ____Split

If any of the above are circled please indicate how will it be done and the equipment needed.

Not Applicable

Will Sampling Equipment have to be cleaned and decontaminated or is everything disposable?

Drilling rods and equipment will be decontaminated (high pressure steam-cleaning) prior to mobilizing to the site. Additionally, all drill rods will be properly decontaminated after each boring location and prior to leaving the site.

If sampling equipment must be cleaned please give a detailed description of how this is done and the disposal of by-products from the cleaning and decontamination.

A decontamination pad will be established on-site. Soil cuttings and drilling decontamination fluids will be contained and transferred to steel 55-gallon drums, which will be staged on-site for proper disposal. High pressure steam-cleaning will be utilized as the decontamination procedure.

Identify any equipment and support facilities needed. This may include such things as Fed-ex to ship the samples, a Geoprobe, field analysis done by another contractor (who must be certified), and electricity to run sampling equipment.

Equipment: Schramm T450S air rotary drill rig
Soil/Water Disposal Contractor: A&D Environmental – 1741 Calks Ferry Road, Lexington, SC
Surveyor: Souther Land Surveying – 10253 Asheville Highway, Inman, SC (SC PLS #21232)

Address the actions to be taken when problems occur in the field, and the person responsible for taking corrective action and how the corrective action will be documented.

Failure	Response	Documentation	Individual Responsible
Property Access	Notify SCDHEC PM of failure to receive property access.	Telephone record/email correspondence to SCDHEC placed in project file.	Trevor J. Benton, P.G.
Drill rig breakdown	Make repairs in field or get replacement drilling equipment.	Field notes placed in project file.	Trevor J. Benton, P.G.
Well location inaccessibility – power lines or other utilities	Move well within 5 feet of proposed boring location. Notify SCDHEC PM if location is still not accessible.	Field notes placed in project file. Telephone record/email (if applicable) to SCDHEC placed in project file.	Trevor J. Benton, P.G.

Table 6A Field Corrective Action

B3 Sample Handling and Custody

1. ***How will the samples get from the Site to the Lab to ensure holding requirements are met?***

   Not Applicable to this scope of work.

2. ***How will the contactors cool the samples and keep the samples cool?***

   Not Applicable to this scope of work.

3. ***How will the lab determine the temperature of the samples upon receipt? Will they be using a temperature blank?***

   Not Applicable to this scope of work.

4. ***Where will the samples be stored in the Lab once they are received?***

   Not Applicable to this scope of work.

5. ***Describe the chain of custody procedure and attach a copy of each chain of custody that will be used. If a Chain of Custody SOP exists from the Lab and the Contractor is willing to adhere to it, then this may be attached.***

   Not Applicable to this scope of work.

B4 Analytical Methods

1. ***Identify the SOPs which will be used to analyze the samples, the method which the SOP references and the equipment or instrumentation that is needed:***

Not Applicable to this scope of work.

Parameter	SOP ID*	Method Referenced	Equipment	Comments

Table 7A Analytical SOPs and Referenced Methods

- **This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

Abbreviation	Lab Identification of this SOP	Full Name of the SOP

Table 8A SOP Abbreviation Key

2. **Identify procedures to follow when failures occur, identify the individual responsible for corrective action and appropriate documentation:** Not Applicable to this scope of work.

Failure	Response	Documented Where?	Individual Responsible

Table 9A Corrective Action Procedures

3. **Identify sample disposal procedures.** Not Applicable to this scope of work.

Analysis	Matrix	Schedule for disposal	Method for disposal	Comments

Table 10A Sample Disposal

4. **Provide SOPs for the Kerr Method or the Ferrous Iron Method if these are parameters for this study. This can be attached or written here. If attached please note that it is an attachment and where it is located (if applicable).**

   Not Applicable to this scope of work.

B5 Quality Control Requirements:

All QC will follow the requirements laid out in Section B5 of the UST Programmatic QAPP.

B6 Field Instrument and Equipment Testing, Inspection and Maintenance

1. **Identify all field and laboratory equipment needing periodic maintenance, the schedule for this, and the person responsible. Not the availability and location of spare parts.**

Instrument	Serial Number	Type of Maintenance	Frequency	Parts needed/Location	Person responsible
MiniRae 3000 Photo-Ionization Detector	592-903471	Filter inspection and lamp cleaning	Filter inspection – Daily Lamp Cleaning – Monthly or as needed	Filters, calibration gases, and lamp cleaning supplies - available at Pine Environmental Services, Inc. in Lilburn, GA	Ivan Irizarry
Heron little dipper water level indicator	18816	Indicator probe cleaning	Daily	Replacement probe – available at Field Environmental Instruments, Inc. in Pittsburgh, PA	Ivan Irizarry
Solinst Interface Meter - Model 122	122 007909-1	Indicator probe cleaning	Daily	Replacement probe – available at Field Environmental Instruments, Inc. in Pittsburgh, PA	Ivan Irizarry

Table 11A Instrument and Equipment Maintenance

2. Identify the testing criteria for each lab or field instrument that is used to ensure the equipment is performing properly. Indicate how deficiencies, if found, will be resolved, re-inspections performed, and effectiveness of corrective action determined and documented. Give the person responsible for this

Instrument/Equipment & Serial Number	Type of Inspection	Requirement	Individual Responsible	Resolution of Deficiencies
MiniRae 3000 Photo-Ionization Detector 592-903471	Filter inspection and lamp cleaning	Inspect filter for dust, moisture, and/or debris. Inspect lamp for moisture or smudges.	Ivan Irizarry	Clean/replace PID filter and/or lamp

Table 12A Instrument and Equipment Inspection

B7 Instrument Calibration and Frequency

1. **Identify equipment, tools, and instruments for field or lab work that should be calibrated and the frequency.**
2. **Describe how the calibrations should be performed and documented, indicating test criteria and standards or certified equipment.**
3. **Identify how deficiencies should be resolved and documented. Identify the person responsible for corrective action.**

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
MiniRae 3000 Photo-Ionization Detector	Zero gas calibration and span gas calibration.	Daily	Verify span gas calibration against 100 ppm isobutylene	Raise or lower span gas output value to match span gas concentration.	Ivan Irizarry	*MiniRae 3000 Volatile Organic Compound Detector Calibration Procedures*

Table 13A Instrument Calibration Criteria and Corrective Action

*** This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

B8 Inspection/Acceptance Requirements for Supplies and Consumables

1. **Identify critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials.**
2. **Identify the individual(s) responsible for this.**

Item	Vendor	Acceptance criteria	Handling/Storage Conditions	Person responsible for inspection and tracking.
Leather work gloves	Grainger	New or in good condition (if previously used) with no tears	Store away from direct sunlight in work vehicle	Ivan Irizarry
Latex gloves	Eon Products	New material	Store in clean supply room located at BLE office	Ivan Irizarry

Table 14A List of Consumables and Acceptance Criteria

B9 Data Acquisition Requirements (Non-Direct Measurements)

1. **Identify data sources, for example, computer databases or literature files, or models that should be accessed or used.**
2. **Describe the intended use of this information and the rationale for their selection, i.e., its relevance to project.**
3. **Indicate the acceptance criteria for these data sources and/or models.**

Data Source	Used for	Justification for use in this project	Comments
Drawing titled "Site Features" by Midlands Environmental Consultants Inc., dated September 2, 2008	Site map with existing well locations installed by others	Site map utilized for placement of proposed monitoring/recovery well locations	

Table 15A Non-Direct Measurements

4. **Identify key resources/support facilities needed.**

   Not applicable to this scope of work.

B10 Data Management

1. **Describe the data management scheme from field to final use and storage.**

   Not Applicable to this scope of work.

2. **How does the lab and field staff ensure that no unauthorized changes are made to the chain of custody, sampling notebooks, laboratory notebooks and computer records?**

   Not applicable to this scope of work.

3. **How does the lab ensure that there are no errors in samples records including times when sample information is compiled, data calculated and/or transmitted.**

   Not applicable to this scope of work.

4. **How will the data be archived once the report is produced? How can it be retrieved? (This applies to both electronic and hard copies).**

   Not applicable to this scope of work.

Section C Assessment and Oversight

C1 Assessment and Response Actions

1. ***The Contractor is supposed to observe field personnel daily during sampling activities to ensure samples are collected and handled properly and report problems to DHEC within 24 hours. . Please state who is responsible for doing this and what observations will be made. Will this person have the authority to stop work if severe problems are seen?***

   Internal field audits will be performed on a daily basis by Trevor Benton, P.G. of Bunnell-Lammons Engineering, Inc. If any significant problems or deviations from the QAPP are noted, work may be stopped to resolve the issues. The SCDHEC project manager will be notified of the issues within 24 hours of the occurrence.

2. ***The SCDHEC UST QAPP states that the Lab will receive an Offsite Technical System Audit. For this project, what assessments will be done on the Commercial Lab(s) that are being used—other than their certification audit? When or how often are these done? Who will the results be given to and who has the ability to stop work if problems are severe?***

   Not applicable to this scope of work.

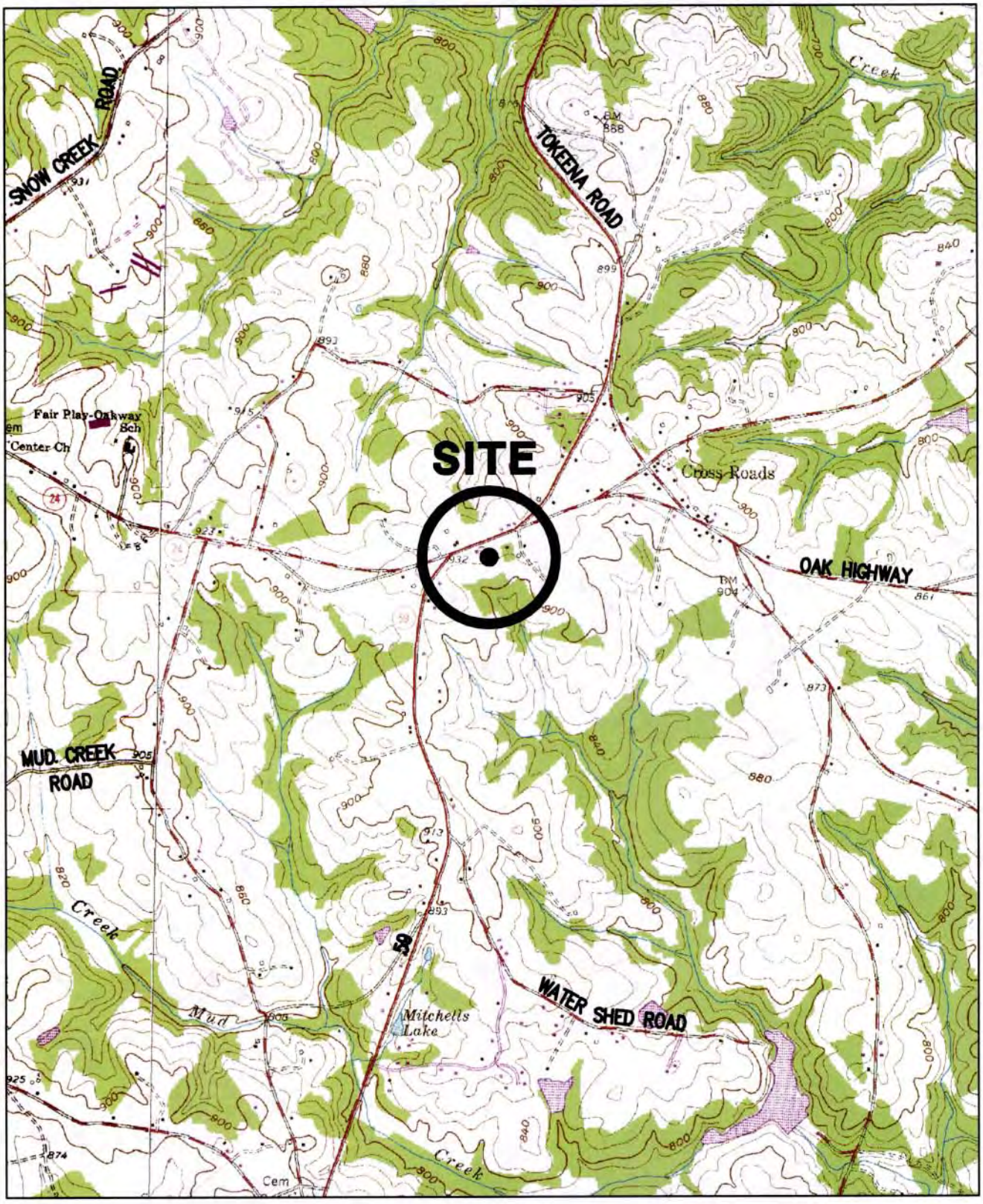
C2 Reports to Management

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

Section D Data Validation and Usability

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

FIGURES

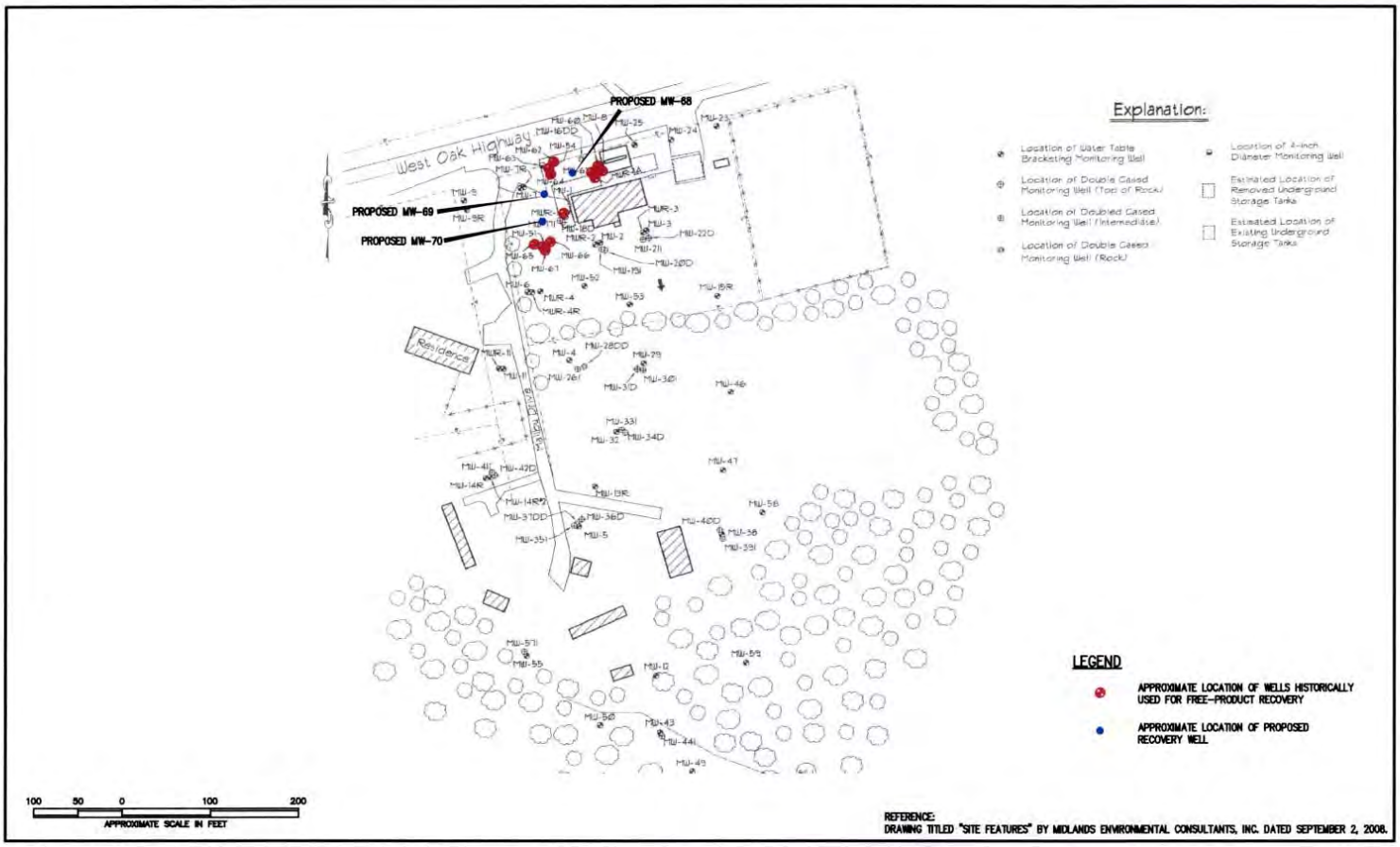


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, FAIR PLAY AND OAKWAY, S.C. QUADRANGLES, PHOTOREVISED 1979 AND 1985.

DRAWN: ACE	DATE: 08-01-11	BLE, inc. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1285 FAX: (864)288-4430	SITE LOCATION MAP FORMER CROSSROADS GROCERY UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA
CHECKED: TJB	CAD: FORMCRGROC-03SLM		FIGURE 1
APPROVED:	JOB NO: J11-6940-03		



REFERENCE:
DRAWING TITLED "SITE FEATURES" BY MIDLANDS ENVIRONMENTAL CONSULTANTS, INC. DATED SEPTEMBER 2, 2008.

DRAWN BY: ACE	DATE: 08-01-11	REVISIONS			BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 8004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)255-1265 FAX: (864)255-4430	PROPOSED RECOVERY WELL LOCATION PLAN FORMER CROSSROADS GROCERY UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA	FIGURE 2
CHECKED BY: TJB	FILE: FORMCRGROC-03PRW	No.	DESCRIPTION	BY			
APPROVED BY:	JOB NO: J11-6940-03						

STANDARD OPERATING PROCEDURES

BLE

MINIRAE 3000 VOLATILE ORGANIC COMPOUND (VOC) DETECTOR CALIBRATION PROCEDURES

The calibration of the MiniRae 3000 (MiniRae) is a two point process using fresh air and a standard reference gas or span calibration. The fresh air calibration is performed by exposing the meter probe to a zero point gas or fresh air (0.0 parts per million (ppm)). The secondary calibration or span calibration is performed by exposing the probe to a standardized gas. Choices of calibration gases are available, but for our calibration purposes a gas cylinder of 100 ppm isobutylene is utilized.

Fresh Air (Zero) Calibration

The fresh air calibration on the MiniRae is performed by exposing the sensor to a fresh air source without trace concentrations of VOCs (reading of 0.0 ppm). The probe is exposed for approximately 30 seconds to the fresh air gas or clean ambient air. Once completed the sensor automatically updates the internal database and displays the appropriate fresh air calibration reading.

Span Calibration

For the second point calibration a standard cylinder of gas is connected to a >500 cubic centimeter per minute (cc/min) flow monitoring regulator with an attached coupling tube for the probe. Span values in the MiniRae are present for the appropriate gas. The gas is applied to the probe for approximately 30 seconds. After exposure to the span gas, the concentration readings should be within three ppm of the span gas concentration.

BLE

MONITORING/RECOVERY WELL CONSTRUCTION PROCEDURES

Type II Well

Type II groundwater monitoring/recovery wells are constructed of 4-inch diameter, Schedule 40 polyvinyl chloride (PVC) casing with flush-threaded joints installed in a 10-inch nominal diameter borehole utilizing air-rotary drilling equipment. The bottom 20-foot section of each well will be a manufactured well screen with 0.010-inch wide machined slots. The well screen will be installed to the depth of the boring (approximately 45 feet below ground surface) and will bracket the water table.

General

In Type II wells, a washed sand filter pack is emplaced around the outside of the pipe from the bottom of the well casing to at least 2 feet above the top of the well screen. The sand filter pack is used to stabilize the formation and to help yield a less turbid groundwater sample.

An approximate two-foot thick (minimum) bentonite seal is installed on top of the sand filter pack to seal the monitoring well at the desired level. The well annulus was then grouted to the surface with a cement/bentonite grout mixture. A lockable PVC cap and a steelbolted manhole cover is secured over each well in a two-foot by two-foot concrete pad.

ASSESSMENT COMPONENT COST AGREEMENT

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account

Facility Name: **Former Crossroads Grocery**

UST Permit #: 06742 **Cost Agreement #:**

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. **Plan***				
B. Tax Map		x	$50.00	$0.00
C. Tier II or Comp. Plan /QAPP Appendix B	1	x	$525.00	$525.00
2. **Receptor Survey ***		x	$500.00	$0.00
3. **Survey (500 x 500 feet)**				
A. Comprehensive Survey	2	x	$1,000.00	$2,000.00
B. Subsurface Geophysical Survey				
1. < 10 meters below grade		x	$2,750.00	$0.00
2. > 10 meters below grade		x	$3,250.00	$0.00
C. Geophysical UST or Drum Survey		x	$1,125.00	$0.00
4. **Mob/Demob (Each)**				
A. Equipment	1	x	$575.00	$575.00
B. Personnel	2	x	$290.00	$580.00
C. Adverse Terrain Vehicle to install wells		x	$575.00	$0.00
5. **Soil Borings (hand auger)* (Feet)**		feet x	$14.00	$0.00
6. **Soil Borings (drilled) & Field Screening ***				
Rate includes collection of water sample or soil sample, and lab or other analyses				
A. Standard		feet x	$17.00	$0.00
C. Fractured Rock		feet x	$27.50	$0.00
7. **Soil Leachability Model (Each)**		each x	$200.00	$0.00
8. **Abandonment* (per foot)**				
A. 2" diameter or less		feet x	$5.00	$0.00
B. Greater than 2" to 6" diameter		feet x	$5.50	$0.00
C. Dug/Bored well (up to 6 foot diameter)		feet x	$18.00	$0.00
9. **Well Installation* (per foot)**				
A. Water Table (hand augered)		feet x	$20.00	$0.00
B. Water Table (drill rig)		feet x	$38.00	$0.00
C. Telescoping/ Pit Cased		feet x	$58.00	$0.00
D. Rock Drilling		feet x	$58.00	$0.00
E. 2" Rock Coring		feet x	$45.00	$0.00
G. Rock Multi-sampling ports/screens		feet x	$47.20	$0.00
H. Recovery Well (4 inch diameter)	135	each x	$45.00	$6,075.00
I. Pushed Pre-packed screen (1.25 diameter)		each x	$18.50	$0.00
J. Rotosonic (2 inch diameter)		each x	$45.00	$0.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**				
A. Groundwater Purge		wells x	$55.00	$0.00
B. Air or Vapors		samples x	$90.00	$0.00
C. Water Supply		samples x	$30.00	$0.00
D. Groundwater No Purge or Duplicate		samples x	$35.00	$0.00
E. Gauge Well only		per well x	$20.00	$0.00
F. Sample Below Product		wells x	$50.00	$0.00
G. Pasive Diffusion Bag		each x	$40.00	$0.00
H. Field Blank		each x	$5.00	$0.00

11. Laboratory Analyses-Groundwater (Each Sample)					
A1. BTEX+Naphth.+ Oxyg's+ 1,2 DCA + Ethanol		samples x	$100.00		$0.00
AA. Lead, Filtered		samples x	$46.00		$0.00
B1. Rush EPA Method 8260B (All of item A.)		samples x	$143.00		$0.00
C1. Trimethal, Butyl, and Isopropyl Benzenes		samples x	$40.00		$0.00
D. PAH's		samples x	$120.00		$0.00
E. Lead, Unfiltered		samples x	$20.00		$0.00
F. EDB by EPA 8011		samples x	$55.00		$0.00
FF. EDB by EPA Method 8011 Rush		samples x	$75.00		$0.00
G. 8 RCRA Metals		samples x	$140.00		$0.00
H. TPH (9070)		samples x	$55.00		$0.00
I. pH		samples x	$10.00		$0.00
J. BOD		samples x	$40.00		$0.00
P1. Ethanol		samples x	$21.50		$0.00
11. **Analyses-Soil (Each Sample)**					
Q. BTEX + Naphth.		samples x	$100.00		$0.00
R. PAH's		samples x	$120.00		$0.00
S. 8 RCRA Metals		samples x	$150.00		$0.00
T. Oil & Grease (9071)		samples x	$60.00		$0.00
U. TPH-DRO (3550B/8015B)		samples x	$65.00		$0.00
V. TPH- GRO (5030B/8015B)		samples x	$65.00		$0.00
W. Grain size/hydrometer		samples x	$99.00		$0.00
X. Total Organic Carbon		samples x	$35.00		$0.00
11. **Analyses-Air (Each Sample)**					
Y. BTEX + Naphthalene		samples x	$247.50		$0.00
11. **Analyses-Free Phase Product (Each Sample)**					
Z. Hydrocarbon Fuel Identification		samples x	$620.00		$0.00
12. **Aquifer Characterization***					
A. Pumping Test		hours x	$120.00		$0.00
B. Slug Test*		tests x	$150.00		$0.00
C. Fractured Rock		tests x	$500.00		$0.00
13. **Free Product Recovery Rate Test* (Each)**		tests x	$120.00		$0.00
14. **Fate/Transport Modeling**					
A. Mathematical Model		each x	$300.00		$0.00
B. Computer Model		each x	$500.00		$0.00
15. **Risk Evaluation**					
A. Tier I Risk Evaluation		x	$300.00		$0.00
B. Tier II Risk Evaluation		x	$500.00		$0.00
16. **Subsequent Survey***		x	$300.00		$0.00
17. **Disposal* (gallons or tons)**					
A. Wastewater		gallons x	$0.80		$0.00
B1. Free Product		gallons x	$0.85		$0.00
C. Soil Treatment/Disposal	6	tons x	$72.50		$435.00
D. Drilling fluids Decon water	25	gallons x	$0.80		$20.00
18. **Miscellaneous (attach receipts)**					
		x			$0.00
		x			$0.00
		x			$0.00
20. **Tier I Assessment (Use DHEC 3665 form)**		x			$0.00
21. **IGWA (Use DHEC 3666 form)**		x			$0.00
22. **Corrective Action (Use DHEC 3667 form)**		x			$0.00

23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A. 8-hour Event*		each x	$3,000.00		$0.00
B. AFVR per-hour Continuance		per hour x	$204.00		$0.00
C. Off-gas treatment per-hour Continuance		per hour x	$35.00		$0.00
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A. New GAC System Installation*		each x	$2,500.00		$0.00
B1. Refurbished GAC Sys. Install*		each x	$1,180.00		$0.00
C. Filter replacement/removal*		each x	$450.00		$0.00
D1. GAC System removal, cleaning, & refurbishment*		each x	$720.00		$0.00
E. GAC System housing		each x	$450.00		$0.00
F. In-line particulate filter		each x	$150.00		$0.00
G. Additional piping & fittings		feet x	$4.00		$0.00
25. **Well Repair**					
A. Additional Copies of the Report Delivered		each x	$32.50		$0.00
B. Repair 2x2 MW pad		each x	$100.00		$0.00
C. Repair 4x4 MW pad		each x	$150.00		$0.00
D. Repair well vault		each x	$225.00		$0.00
F. Replace well cover bolts		each x	$10.00		$0.00
G. Replace locking well cap & lock		each x	$15.00		$0.00
H. Replace/Repair stick-up		each x	$137.50		$0.00
I. Convert Flush-mount to Stick-up		each x	$175.00		$0.00
J. Convert Stick-up to Flush-mount		each x	$125.00		$0.00
K. Replace missing/illegible well ID plate		each x	$22.50		$0.00
Report Prep & Project Management	15%	x	$10,210.00		$1,531.50
TOTAL					$11,741.50

*The appropriate mobilization cost can be added to complete these tasks, as necessary

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

44Tech
UST
DOCKET

MR NEIL ALEXANDER
C/O ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINSTER SC 29693-5534

AUG 19 2011

Re: Required revision of QAPP Addendum
Former Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742
Release reported January 11, 1993
Quality Assurance Project Plan (QAPP) Addendum received August 8, 2011
E-mail sent August 17, 2011 to Bunnell-Lammons regarding QAPP Addendum revisions
Oconee County

Dear Mr. Alexander:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the referenced QAPP Addendum and is providing specific comments on the enclosed QAPP Addendum Checklist. A revised QAPP Addendum that addresses the comments is due on or before August 31, 2011.

On all correspondence concerning this facility, please reference UST Permit #06742. If there are any questions, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
06742.15

enc: QAPP Addendum Checklist

cc: Bunnell-Lammons Engineering, Inc., 6004 Ponders Court, Greenville, SC 29615-4601 (w/enc)
Technical file (w/enc)

DHEC/UST/JPP/081711

UST CONTRACTORS QA PROJECT PLAN REVIEW CHECKLIST

Site Name: Former Crossroads Grocery
Permit #: 06742

Author: Bunnell-Lammons Engineering, Inc.
Reviewer: J. Padgett, P.G., SCDHEC

Date Submitted for Review: 8/8/2011
Date of Review: 8/17/2011

Element	Acceptable (Yes/No/NA)	Comments
A1. Title and Approval Sheet		
Contains project name or site and UST permit number	Y	
Indicates Site location-address, city and state	Y	
Contractor's name is given as well as the preparer's name	Y	
Dated signature of SC DHEC project manager	No	SC DHEC project manager will sign revised/approved QAPP Addendum.
Dated signature of organization's QA manager present	Y	
Dated signature Laboratory Director	N/A	
Other Signatures as required (sub-contracted Lab Directors for instance).	N/A	
A2. Table of Contents		
Lists QA Project Plan information sections	No	No table of contents.
Document control information indicated	No	No right header with site information.
A3. Distribution List		
Includes all individuals who are to receive a copy of the QA Project Plan and identifies their organization	Y	
Includes the SC DHEC Project Manager, all Laboratories that will be used in this project, field manager, the well driller, and the Site Rehabilitation Contractor at a minimum.	Y	
A4. Project/Task Organization		
Identifies key individuals involved in all major aspects of the project, including contractors, project verifiers, validators, and lab directors.	Y	
Discusses their responsibilities	Y	
Identifies individual responsible for maintaining the official, approved QA Project Plan	Y	
Organizational Chart is present and the Project QA Manager position indicates independence from unit generating data	N	Field Manager and QA Manager are same person.
Organizational chart shows lines of authority and reporting responsibilities	N	Bunnell-Lammons Manager not identified on organizational chart (box on flow chart immediately beneath DHEC Project Manager).
A5. Problem Definition/Background		
The background and history of the site is given.	Y	
Indicates why this site is being assessed.	Y	
Indicates whether the Project falls under UST or Brownfields	Y	
A6. Project/Task Description		
The QAPP summarizes what is known about the work to be done—in other words indicates what the Scope of this project is. See Master QAPP Section A6	Y	

UST CONTRACTORS QA PROJECT PLAN REVIEW CHECKLIST

Site Name: Former Crossroads Grocery
Permit #: 06742

Author: Bunnell-Lammons Engineering, Inc.
Reviewer: J. Padgett, P.G., SCDHEC

Date Submitted for Review: 8/8/2011
Date of Review: 8/17/2011

Element	Acceptable (Yes/No/NA)	Comments
Indicates when the work will be done once QAPP and cost approval is obtained and when the sampling is expected to be completed.	Y	
Discusses resource and time constraints, if applicable. If there are indicates how these may interfere with the tentative schedule.	Y	
A7. Quality Objectives and Criteria		
Details geographical locations to be studied, including maps where possible. Indicates property lines, wells, and other site details.	Y	
A8. Special Training/Certifications		
Identifies any project personnel specialized training or certifications	Y	
Discusses how this training will be provided	Y	
Indicates personnel responsible for assuring these are satisfied	Y	
Identifies where this information is documented	Y	
Provides the SC DHEC Environmental Laboratory Certification Number for all Labs including Subcontracted Labs.	N/A	
Indicates the parameters each lab will perform including method number and revision date for the method referenced in the Lab SOP for each parameter.	N/A	
EFIS indicates that the above labs are certified for all parameters to be used to make environmental decisions.	N/A	
A.9 Documentation and Records		
QAPP indicates the method in which each person on the distribution list will receive the most current copy of the QAPP.	Y	
Lists records pertinent to the project produced during the project by the contractor, labs, and subcontractors.	Y	
Indicates whether the records are hardcopies or electronic, and where they will be kept.	Y	
Identifies how long project information should be kept and this time period is not less than 5 years.	Y	
B1. Sampling Process Design (Experimental Design)		
The QAPP lists the schedule for project activities with approximated start and end dates.	No	Table does not list all project activities (i.e. QAPP Addendum preparation/approval, report preparation/submittal).
B2. Sampling Methods		
Indicates the locations of each sampling sites this can be on a map of the site).	N/A	
QAPP estimates the number of soil, groundwater, drinking water and surface water samples to be collected and gives the total number of expected samples.	N/A	

UST CONTRACTORS QA PROJECT PLAN REVIEW CHECKLIST

Site Name: Former Crossroads Grocery
Permit #: 06742

Author: Bunnell-Lammons Engineering, Inc. Date Submitted for Review: 8/8/2011
Reviewer: J. Padgett, P.G., SCDHEC Date of Review: 8/17/2011

Element	Acceptable (Yes/No/NA)	Comments
Indicates and equipment that will be needed for sampling (Geoprobes etc)	N/A	
Indicates and identify any support facilities that will be needed (Indicate what group will do the sampling and how the samples will get to the lab (Fed-Ex for instance); contractor to dig wells, contractor to run Geoprobe	N/A	
The QAPP indicates if the samples will be homogenized and/or split.	N/A	
If the samples are to be homogenized and/or split the QAPP indicates · How this will be done and · What equipment will be needed.	N/A	
Indicates is sampling equipment will be cleaned/decontaminated or whether all will be disposable.	Yes	
If the sampling equipment is to be cleaned, the QAPP gives · A detailed description of how this is done. · And how the by-products of cleaning will be disposed of	Yes	
If problems occur in the field the QAPP indicates: · What Corrective Actions will be taken · The Person responsible for taking action · Where the Corrective Action will be documented	Yes	
B3. Sample Handling and Custody		
Indicates how the samples will get to the lab in order to meet holding time requirements.	N/A	
Indicates how the contractors will cool the samples (ice, blue ice, refrigerator).	N/A	
Indicates how the lab will check the temperature of the samples upon receipt (temperature blank, IR Gun, etc)	N/A	
Describes the Chain of Custody (COC) procedure from collection to disposal of the samples (this can be an attached SOP).	N/A	
Includes a copy of the COC that will be used. If there are multiples labs with multiple COCs each COC that will be used is included.	N/A	
Indicates where the samples will be stored in the lab once received. This is for security purposes and can be a simple statement or in the COC SOP.	N/A	
B4. Analytical Methods		
The SOPs that will be used are matched with the parameters, the method that is referenced in that SOP, and the equipment that will be used to analyze the samples. If abbreviations are used, these are explained.	N/A	
The analytical methods that will be used match those required by the programmatic QAPP.	N/A	

UST CONTRACTORS QA PROJECT PLAN REVIEW CHECKLIST

Site Name: Former Crossroads Grocery
Permit #: 06742

Author: Bunnell-Lammons Engineering, Inc. Date Submitted for Review: 8/8/2011
Reviewer: J. Padgett, P.G., SCDHEC Date of Review: 8/17/2011

Element	Acceptable (Yes/No/NA)	Comments
If problems occur in the lab the QAPP indicates: · What Corrective Actions will be taken · The Person responsible for taking action · Where the Corrective Action will be documented	N/A	
The schedule and method of sample disposal is indicated	N/A	
An SOP is attached for the Kerr Method or Ferrous Iron Method if they are to be used.	N/A	
B5. Quality Control –See programmatic QAPP		
B6. Instrument/Equipment Testing, Inspection, and Maintenance		
Each field and lab equipment needed periodic maintenance is listed, along with the schedule and the person responsible.	Yes	
The availability and location of spare parts for the above equipment is noted.	Yes	
Indicates the testing criteria for each lab or field instrument which is used to determine that the instrument is working properly.	Yes	
Indicates corrective action that will be done if deficiencies are noted, what re-inspections will be performed and how the corrective action and the results of the corrective action are documented.	Yes	
B7. Instrument/Equipment Calibration and Frequency		
Identifies equipment, tools, and instruments that should be calibrated and the frequency for this calibration	Yes	
Describes how calibrations should be performed and documented, indicating test criteria and standards or certified equipment	Yes	
Identifies how deficiencies should be resolved and documented and identifies the person responsible for corrective action.	Yes	
B8. Inspection/Acceptance for Supplies and Consumables		
Identifies critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials	No	PID calibration gasses not identified.
Identifies the individual(s) responsible for this	No	See comment above.
B9. Non-direct Measurements		
Identifies data sources, for example, computer databases or literature files, or models that should be accessed and used	Y	
Describes the intended use of this information and the rationale for their selection, i.e., its relevance to project	Y	
Indicates the acceptance criteria for these data sources and/or models	Y	

UST CONTRACTORS QA PROJECT PLAN REVIEW CHECKLIST

Site Name: Former Crossroads Grocery
Permit #: 06742

Author: Bunnell-Lammons Engineering, Inc. Date Submitted for Review: 8/8/2011
Reviewer: J. Padgett, P.G., SCDHEC Date of Review: 8/17/2011

Element	Acceptable (Yes/No/NA)	Comments
Identifies key resources/support facilities if they are needed	N/A	
B10. Data Management		
Describes data management scheme from field to final use and storage	No	No data management scheme described (can be depicted as flowchart).
Indicates how the lab and field staff ensure that no unauthorized changes are made to the COC, sampling notebooks, lab notebooks and computer records.	No	No procedure/method described for data generated in field (e.g. field notebooks, drill logs, etc.).
Indicates how the lab(s) ensure that there are no errors in sample records including the processes used in LIMs (Laboratory Information System) and for data calculations, compiling, and transmission.	N/A	
Indicates how the data will be archived once the reported is produced and how it can be retrieved if needed for both hardcopy and electronic files.	Y	No archive method described for data generated in field.
C1. Assessments and Response Actions		
Indicates who will be observing field personnel during sampling activities to ensure samples are collected according to the requirements of the QAPP.	Yes	
Indicates what this person will check and if they have the authority to stop work in case of quality problems.	Yes	
Does the QAPP indicate (Other than a Lab Certification Assessment of the laboratories) what assessments/audits will be done on the commercial labs that are being used?	N/A	
Indicates who will do the above assessments and how often?	N/A	
Indicates who will the results of the audits be given to and who has the authority to issue stop work orders if the problems found are severe?	N/A	
C2. Reports to Management—Covered in the UST Master QAPP		
D Validation and Usability--- Covered in the UST Master QAPP		

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

August 18, 2011

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
2600 Bull Street
Columbia, South Carolina 29201-1708

Attention: Mr. Joel P. Padgett, P.G., Hydrogeologist

Subject: **Revised QAPP Addendum**
Revision Number: 1
Former Crossroads Grocery
8050 West Oak Highway
Westminster, South Carolina
SCDHEC UST Permit #06742
BLE Project No. J11-6940-03

Dear Mr. Padgett:

On behalf of Mr. Neil Alexander, Bunnell-Lammons Engineering, Inc. (BLE) submits herein the completed revised Quality Assurance Program Plan (QAPP) addendum for the subject site. This submittal is in response to SCDHEC's QAPP addendum request dated July 15, 2011, for the installation of three additional groundwater monitoring/recovery wells at the subject site. Upon approval from SCDHEC, additional copies of the QAPP addendum will be distributed to the parties listed in section A3.

Please do not hesitate to contact us if you have any questions concerning this submittal.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina #2395

TREVOR J. BENTON REGISTERED No. 2395 SOUTH CAROLINA PROFESSIONAL GEOLOGIST

Thomas L. Lammons, P.G.
Principal Hydrogeologist
Registered, South Carolina #893

PROFESSIONAL GEOLOGIST REGISTERED No. 893 SOUTH CAROLINA THOMAS L. LAMMONS

cc: Mr. Neil Alexander, 8050 West Oak Highway, Westminster, SC 29693

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

HJ Tech

Appendix B: Contractor Addendum

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Former Crossroads Grocery – UST Permit #06742

8050 West Oak Highway, Westminster, SC

Prepared by: Trevor J. Benton, P.G. – Bunnell-Lammons Engineering, Inc.

Date: August 2, 2011

Bunnell-Lammons Engineering, Inc. – SCDHEC Certified Contractor No. UCC-010

Approvals

Joel P. Padgett, P.G.
SC DHEC Project Manager _____ Date_____
Signature

Trevor J. Benton, P.G.
Contractor QA Manager Date 8/18/11
Signature

Thomas L. Lammons, P.G
Site Rehabilitation Contractor Date 8/18/11
Signature

A2 Table of Contents

SECTION A – PROJECT MANAGEMENT 2
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Instrument and Equipment Maintenance 13
Instrument and Equipment Inspection 13
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C2 Reports to Management 16

A3 Distribution List

Name	Title	Organization/Address	Telephone Number	Fax Number	Email Address
Joel Padgett, P.G.	SC DHEC Technical Project Manager	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6398	803-896-6245	padgetjp@dhec.sc.gov
Thomas Lammons, P.G.	Site Rehabilitation Contractor	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	tom@blecorp.com
Trevor Benton, P.G.	Field Manager	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	trevor@blecorp.com
Trevor Slack, P.G.	QA Manager	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	tslack@blecorp.com
Marty King	Well Services/Driller	Landprobe Drilling, 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	marty@landprobe.com

Table 1A Addendum Distribution List

A4 Project Organization

Role from the UST Master QAPP	Name of person in this Role for this Project	Organization/Address	Telephone Number	Fax Number	Email Address
Project Manager	Joel Padgett, P.G.	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6398	803-896-6245	padgetjp@dhec.sc.gov
Site Rehabilitation Contractor	Thomas Lammons, P.G.	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	tom@blecorp.com
Field Manager	Trevor Benton, P.G.	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	trevor@blecorp.com

Role from the UST Master QAPP	Name of person in this Role for this Project	Organization/Address	Telephone Number	Fax Number	Email Address
Soil Boring and Monitoring Well Driller	Marty King	Landprobe Drilling, 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	marty@landprobe.com
Project Verifier	Trever Slack, P.G.	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	tslack@blecorp.com

Table 2A Addendum Role Identification and Contact Information

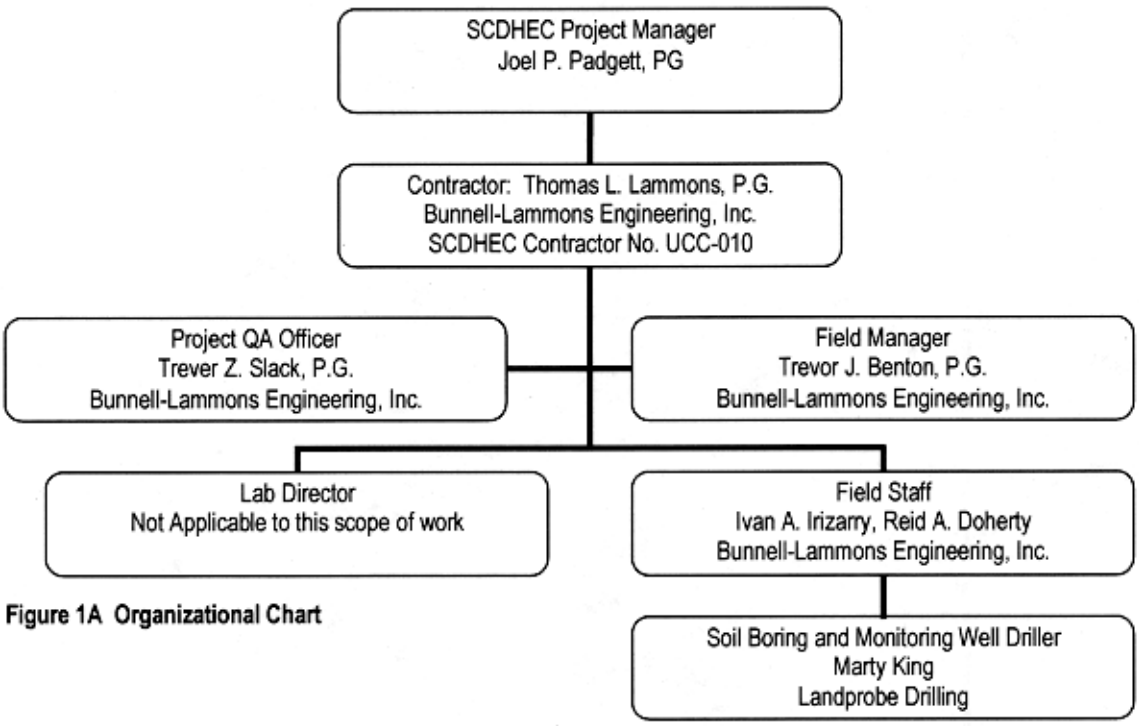


Figure 1A Organizational Chart

A5 Problem Definition/Background

Discuss the background (as much as is known) of the site and appropriate historical information, and why this site is being assessed.

The subject property is located at 8050 West Oak Highway in Westminster, South Carolina (Figure 1). The site currently operates as Country Side 2, which is an active automobile fueling station and convenience store. We understand that five underground storage tanks (USTs) and associated piping and fueling dispensers were removed from the site in June 1990: (2) 1,000-gallon gasoline, (1) 550-gallon gasoline, (1) 550-gallon diesel, and (1) 550-gallon kerosene. Five new USTs, (1) 10,000-gallon off-road diesel, (1) 10,000-gallon kerosene, (1) 8,000-gallon "regular" gasoline, (1) 6,000-gallon "plus" gasoline, and (1) 6,000-gallon diesel, and associated equipment were installed in their place. In association with the UST removal activities, a release of petroleum contaminants to the subsurface was reported in January 1993. Various environmental assessments have been conducted at the site by other consultants since 1993, including the installation of seventy-two groundwater monitoring wells to assess the horizontal and vertical extent of petroleum hydrocarbons in the water table aquifer. Additionally, petroleum free-product recovery has been conducted via numerous aggressive fluid vapor recovery (AFVR) events. BLE also understands that the site was previously in active corrective action utilizing a form of injection technology. Several injection wells are still present on the property. Historically, a downgradient spring has been impacted by the documented release. The purpose of this scope of work is to install three additional monitoring/recovery wells to be utilized as extraction points for continued free-product removal at the site.

Please answer the following: Does this project fall under UST or Brownfields area?

UST Division (UST Permit #06742)

A6 Project/Task Description

1. ***Summarize what is known about the work to be done. This can be a short sentence indicating what the Scope of this project is (see Master QAPP Section A6).***

   Installation of three additional monitoring/recovery wells (MW-68, MW-69, and MW-70).

2. ***The work will begin within <u>two weeks</u> after cost approval and the project should be <u>completed within 60 days</u>.***

3. ***Are there any time or resource constraints? Include those factors that may interfere with the tentative schedule.***

   Utility clearance and drill rig availability are potential time constraints for this project.

A7 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs)

Detail the geographical area that is to be part of the project. Maps should be included to show not only the topography and the geographical area of the State, but also to show more detail of the site itself including property lines.

See attached Figures 1 and 2

A8 Training and Certificates

Required training and licenses:

Title/Job	Name	Training Required	Date training received	Type of License	License Number
Hydrogeologist	Thomas Lammons, P.G.			SC Professional Geologist	#893
Hydrogeologist	Trevor Benton. P.G.			SC Professional Geologist	#2395
Hydrogeologist	Thomas Lammons, Trevor Benton, Trever Slack, Ivan Irizarry, Reid Doherty	40-hour OSHA HAZWOPER & 8-Hour refresher	2/11/11		
Well Driller	Marty King	40-hour OSHA HAZWOPER & 8-Hour refresher	2/11/11	SC Well Driller	#1089

Table 3A Required Training and Licenses

Thomas Lammons, P.G. of Bunnell-Lammons Engineering, Inc. is responsible to ensuring that personnel participating in this project receive the proper training. All training records will be stored in the following location: Bunnell-Lammons Engineering, Inc., Human Resources Department Files c/o Ms. Esther Lande

It is understood that training records will be produced if requested by SC DHEC.

The Following Laboratory(ies) will be used for this Project:

Commercial Lab(s)

Full Name of the Laboratory: Not applicable to this scope of work
Name of Lab Director:
SC DHEC Certification Number:
Parameters this Lab will analyze for this project:

Full Name of the Laboratory: Not applicable to this scope of work
Name of Lab Director:
SC DHEC Certification Number:
Parameters this Lab will analyze for this project:

Please note: SC DHEC may require that the contractor submit some or all of the Laboratory's SOPs as part of this QAPP.

A9 Documents and Records

Personnel will receive the most current version of the QAPP Addendum via:
(Check all that apply)

√ US Mail ____Courier √ Hand delivered

Other (please specify):_____

Record	Produced By	Hardcopy/ Electronic	Storage Location For how long?	Archival
Project Field Notes	BLE/Landprobe personnel	Hardcopy	BLE file library. Hard copy storage for a minimum of 3 years.	After 3 years, the project data may be scanned and transferred to CD. CDs will be archived in BLEs file library.
Boring Logs	Landprobe personnel	Hardcopy	BLE file library. Hard copy storage for a minimum of 3 years.	After 3 years, the project data may be scanned and transferred to CD. CDs will be archived in BLEs file library.
Final Report	BLE personnel	Hardcopy & Electronic	BLE file library and electronic data storage backup. Hard copy storage for a minimum of 3 years.	After 3 years, the project data may be scanned and transferred to CD. CDs will be archived in BLEs file library.

Table 4A Record Identification, Storage, and Disposal

Section B Measurement/Data Acquisition

B1 Sampling Process/Experimental Design

Item	Start Date	End Date	Comments
QAPP Addendum Preparation/Approval	August 4, 2011	August 24, 2011	Preparation dates include time for QAPP revisions.
Well Drilling	September 5, 2011	September 6, 2011	Three monitoring/recovery wells installed to 45 feet below ground surface with 20 foot screens. See SOP Attachment for procedures for installing monitoring/recovery wells.
Well Development	September 6, 2011	September 6, 2011	Purge a minimum of three well volumes to remove fine-grained sediments from the well screen and filter pack.
Comprehensive Site/Well Survey	September 12, 2011	September 13, 2011	Perform comprehensive site survey to incorporate all new and existing monitoring/recovery wells on one site map. Survey results will be tied into the State Plane Coordinate System.
Report Preparation/Review/Submittal	October 3, 2011	October 14, 2011	Report preparation, review, and submittal dates are contingent on completion of all required project activities. Date may be subject to change.

Table 5A Sampling Activities

B2 Sampling Methods

Please note: The contractor must follow sampling protocols as given in the UST QAPP.

***Estimate* the number of samples of each matrix that are expected to be collected:**

Soil	N/A
Ground Water from monitoring wells	N/A
From Drinking/Irrigation water wells	N/A
From Surface Water features	N/A
Total number of Water samples	N/A

The samples will be (check as many as apply): ____Homogenized ____Split

If any of the above are circled please indicate how will it be done and the equipment needed.

Not Applicable

Will Sampling Equipment have to be cleaned and decontaminated or is everything disposable?

Drilling rods and equipment will be decontaminated (high pressure steam-cleaning) prior to mobilizing to the site. Additionally, all drill rods will be properly decontaminated after each boring location and prior to leaving the site.

If sampling equipment must be cleaned please give a detailed description of how this is done and the disposal of by-products from the cleaning and decontamination.

A decontamination pad will be established on-site. Soil cuttings and drilling decontamination fluids will be contained and transferred to steel 55-gallon drums, which will be staged on-site for proper disposal. High pressure steam-cleaning will be utilized as the decontamination procedure.

Identify any equipment and support facilities needed. This may include such things as Fed-ex to ship the samples, a Geoprobe, field analysis done by another contractor (who must be certified), and electricity to run sampling equipment.

Equipment: Schramm T450S air rotary drill rig
Soil/Water Disposal Contractor: A&D Environmental – 1741 Calks Ferry Road, Lexington, SC
Surveyor: Souther Land Surveying – 10253 Asheville Highway, Inman, SC (SC PLS #21232)

Address the actions to be taken when problems occur in the field, and the person responsible for taking corrective action and how the corrective action will be documented.

Failure	Response	Documentation	Individual Responsible
Property Access	Notify SCDHEC PM of failure to receive property access.	Telephone record/email correspondence to SCDHEC placed in project file.	Trevor J. Benton, P.G.
Drill rig breakdown	Make repairs in field or get replacement drilling equipment.	Field notes placed in project file.	Trevor J. Benton, P.G.
Well location inaccessibility – power lines or other utilities	Move well within 5 feet of proposed boring location. Notify SCDHEC PM if location is still not accessible.	Field notes placed in project file. Telephone record/email (if applicable) to SCDHEC placed in project file.	Trevor J. Benton, P.G.

Table 6A Field Corrective Action

B3 Sample Handling and Custody

1. ***How will the samples get from the Site to the Lab to ensure holding requirements are met?***

   Not Applicable to this scope of work.

2. ***How will the contactors cool the samples and keep the samples cool?***

   Not Applicable to this scope of work.

3. ***How will the lab determine the temperature of the samples upon receipt? Will they be using a temperature blank?***

   Not Applicable to this scope of work.

4. ***Where will the samples be stored in the Lab once they are received?***

   Not Applicable to this scope of work.

5. ***Describe the chain of custody procedure and attach a copy of each chain of custody that will be used. If a Chain of Custody SOP exists from the Lab and the Contractor is willing to adhere to it, then this may be attached.***

   Not Applicable to this scope of work.

B4 Analytical Methods

1. ***Identify the SOPs which will be used to analyze the samples, the method which the SOP references and the equipment or instrumentation that is needed:***

Not Applicable to this scope of work.

Parameter	SOP ID*	Method Referenced	Equipment	Comments

Table 7A Analytical SOPs and Referenced Methods

- This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.

Abbreviation	Lab Identification of this SOP	Full Name of the SOP

Table 8A SOP Abbreviation Key

2. **Identify procedures to follow when failures occur, identify the individual responsible for corrective action and appropriate documentation:** Not Applicable to this scope of work.

Failure	Response	Documented Where?	Individual Responsible

Table 9A Corrective Action Procedures

3. **Identify sample disposal procedures.** Not Applicable to this scope of work.

Analysis	Matrix	Schedule for disposal	Method for disposal	Comments

Table 10A Sample Disposal

4. **Provide SOPs for the Kerr Method or the Ferrous Iron Method if these are parameters for this study. This can be attached or written here. If attached please note that it is an attachment and where it is located (if applicable).**

   Not Applicable to this scope of work.

B5 Quality Control Requirements:

All QC will follow the requirements laid out in Section B5 of the UST Programmatic QAPP.

B6 Field Instrument and Equipment Testing, Inspection and Maintenance

1. **Identify all field and laboratory equipment needing periodic maintenance, the schedule for this, and the person responsible. Not the availability and location of spare parts.**

Instrument	Serial Number	Type of Maintenance	Frequency	Parts needed/Location	Person responsible
MiniRae 3000 Photo-Ionization Detector	592-903471	Filter inspection and lamp cleaning	Filter inspection – Daily Lamp Cleaning – Monthly or as needed	Filters, calibration gases, and lamp cleaning supplies - available at Pine Environmental Services, Inc. in Lilburn, GA	Ivan Irizarry
Heron little dipper water level indicator	18816	Indicator probe cleaning	Daily	Replacement probe – available at Field Environmental Instruments, Inc. in Pittsburgh, PA	Ivan Irizarry
Solinst Interface Meter - Model 122	122 007909-1	Indicator probe cleaning	Daily	Replacement probe – available at Field Environmental Instruments, Inc. in Pittsburgh, PA	Ivan Irizarry

Table 11A Instrument and Equipment Maintenance

2. Identify the testing criteria for each lab or field instrument that is used to ensure the equipment is performing properly. Indicate how deficiencies, if found, will be resolved, re-inspections performed, and effectiveness of corrective action determined and documented. Give the person responsible for this

Instrument/Equipment & Serial Number	Type of Inspection	Requirement	Individual Responsible	Resolution of Deficiencies
MiniRae 3000 Photo-Ionization Detector 592-903471	Filter inspection and lamp cleaning	Inspect filter for dust, moisture, and/or debris. Inspect lamp for moisture or smudges.	Ivan Irizarry	Clean/replace PID filter and/or lamp

Table 12A Instrument and Equipment Inspection

B7 Instrument Calibration and Frequency

1. **Identify equipment, tools, and instruments for field or lab work that should be calibrated and the frequency.**
2. **Describe how the calibrations should be performed and documented, indicating test criteria and standards or certified equipment.**
3. **Identify how deficiencies should be resolved and documented. Identify the person responsible for corrective action.**

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
MiniRae 3000 Photo-Ionization Detector	Zero gas calibration and span gas calibration.	Daily	Verify span gas calibration against 100 ppm isobutylene	Raise or lower span gas output value to match span gas concentration.	Ivan Irizarry	*MiniRae 3000 Volatile Organic Compound Detector Calibration Procedures*

Table 13A Instrument Calibration Criteria and Corrective Action
*** This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

B8 Inspection/Acceptance Requirements for Supplies and Consumables

1. **Identify critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials.**
2. **Identify the individual(s) responsible for this.**

Item	Vendor	Acceptance criteria	Handling/Storage Conditions	Person responsible for inspection and tracking.
PID calibration gas	Pine Environmental	Canister of 100 ppm factory verified Isobutylene calibration gas	Store away from heat in padded protective case	Ivan Irizarry
Leather work gloves	Grainger	New or in good condition (if previously used) with no tears	Store away from direct sunlight in work vehicle	Ivan Irizarry
Latex gloves	Eon Products	New material	Store in clean supply room located at BLE office	Ivan Irizarry

Table 14A List of Consumables and Acceptance Criteria

B9 Data Acquisition Requirements (Non-Direct Measurements)

1. **Identify data sources, for example, computer databases or literature files, or models that should be accessed or used.**
2. **Describe the intended use of this information and the rationale for their selection, i.e., its relevance to project.**
3. **Indicate the acceptance criteria for these data sources and/or models.**

Data Source	Used for	Justification for use in this project	Comments
Drawing titled "Site Features" by Midlands Environmental Consultants Inc., dated September 2, 2008	Site map with existing well locations installed by others	Site map utilized for placement of proposed monitoring/recovery well locations	

Table 15A Non-Direct Measurements

4. **Identify key resources/support facilities needed.**

   Not applicable to this scope of work.

B10 Data Management

1. **Describe the data management scheme from field to final use and storage.**

   Field notes and logs will be stored in hardback bound field books and/or on standard 8 ½" x 11" field data sheets. Field data sheets are signed by field staff upon completion of daily work. Copies of field notes and driller 1903 forms are provided to the Field Manager on a daily basis and placed in the project file. Field boring logs are submitted to the BLE AutoCAD operator for boring log finalization. Digital copies of the final boring logs are kept on a backed-up digital file library.

2. **How does the lab and field staff ensure that no unauthorized changes are made to the chain of custody, sampling notebooks, laboratory notebooks and computer records?**

   Copies of field notes and boring logs are reviewed by the Field Manager and placed in the project file. Additionally, field notes/logs are scanned, password secured, and placed into the digital project file. Original data sheets will also be kept by the field staff in field notebooks/folders for a minimum of three years.

3. **How does the lab ensure that there are no errors in samples records including times when sample information is compiled, data calculated and/or transmitted.**

   Not applicable to this scope of work.

4. **How will the data be archived once the report is produced? How can it be retrieved? (This applies to both electronic and hard copies).**

   Hard copies of final reports are contained in the specific project folder in BLE's file library. Additionally, each report is converted to digital format and stored in its applicable digital file folder. Hard copy storage will be for a minimum of three years. Digital storage will be indefinite. Digital data is backed-up on a weekly basis on a four month rolling schedule. For security purposes, current week data is stored at an off-site location. Additionally, data is backed-up and stored indefinitely at an off-site location on a biannual basis.

Section C Assessment and Oversight

C1 Assessment and Response Actions

1. ***The Contractor is supposed to observe field personnel daily during sampling activities to ensure samples are collected and handled properly and report problems to DHEC within 24 hours. . Please state who is responsible for doing this and what observations will be made. Will this person have the authority to stop work if severe problems are seen?***

   Internal field audits will be performed on a daily basis by Trevor Benton, P.G. of Bunnell-Lammons Engineering, Inc. If any significant problems or deviations from the QAPP are noted, work may be stopped to resolve the issues. The SCDHEC project manager will be notified of the issues within 24 hours of the occurrence.

2. ***The SCDHEC UST QAPP states that the Lab will receive an Offsite Technical System Audit. For this project, what assessments will be done on the Commercial Lab(s) that are being used—other than their certification audit? When or how often are these done? Who will the results be given to and who has the ability to stop work if problems are severe?***

   Not applicable to this scope of work.

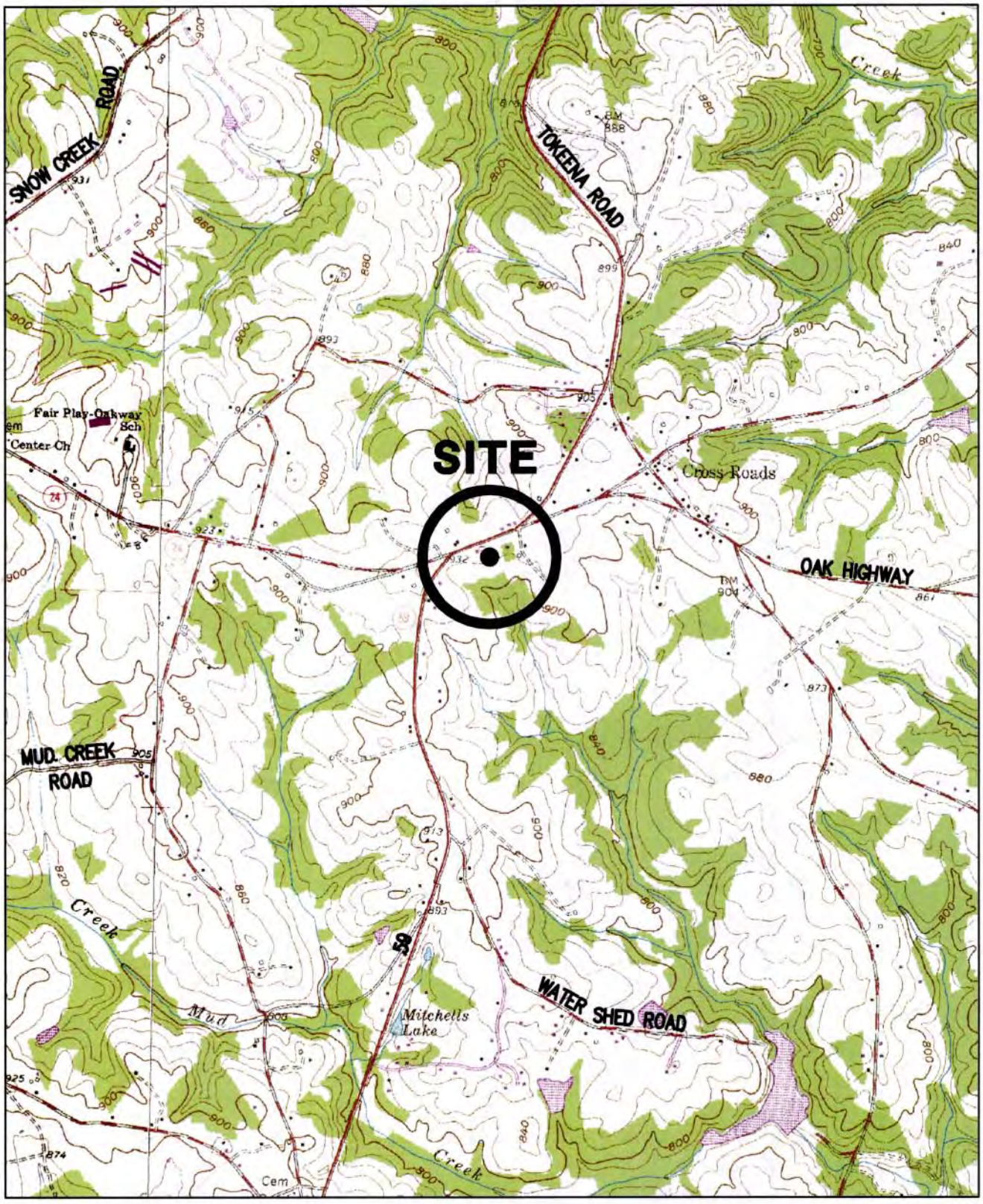
C2 Reports to Management

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

Section D Data Validation and Usability

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

FIGURES

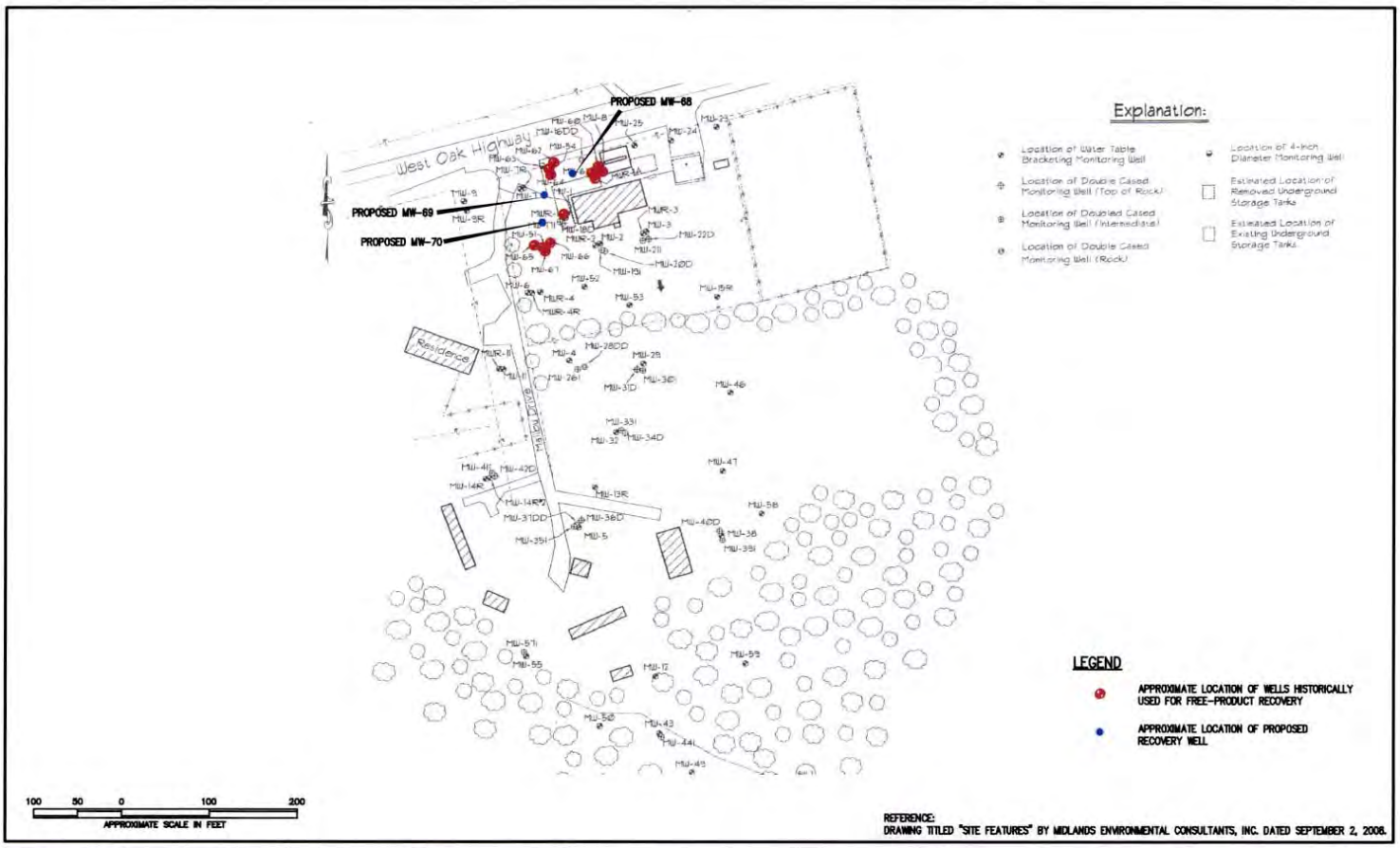


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, FAIR PLAY AND OAKWAY, S.C. QUADRANGLES, PHOTOREVISED 1979 AND 1985.

DRAWN: ACE	DATE: 08-01-11	BLE INC. BURNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP FORMER CROSSROADS GROCERY UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA
CHECKED: TJB	CAD: FORMCRGROC-03SLM		FIGURE 1
APPROVED:	JOB NO: J11-6940-03		



REFERENCE:
DRAWING TITLED "SITE FEATURES" BY MIDLANDS ENVIRONMENTAL CONSULTANTS, INC. DATED SEPTEMBER 2, 2008.

DRAWN BY: ACE	DATE: 08-01-11	REVISIONS			BLE INC.	PROPOSED RECOVERY WELL LOCATION PLAN FORMER CROSSROADS GROCERY UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA	FIGURE 2
CHECKED BY: TJB	FILE: FORMCRGROC-03PRW	No.	DESCRIPTION	BY			
APPROVED BY:	JOB NO: J11-6940-03						

STANDARD OPERATING PROCEDURES

MINIRAE 3000 VOLATILE ORGANIC COMPOUND (VOC) DETECTOR CALIBRATION PROCEDURES

The calibration of the MiniRae 3000 (MiniRae) is a two point process using fresh air and a standard reference gas or span calibration. The fresh air calibration is performed by exposing the meter probe to a zero point gas or fresh air (0.0 parts per million (ppm)). The secondary calibration or span calibration is performed by exposing the probe to a standardized gas. Choices of calibration gases are available, but for our calibration purposes a gas cylinder of 100 ppm isobutylene is utilized.

Fresh Air (Zero) Calibration

The fresh air calibration on the MiniRae is performed by exposing the sensor to a fresh air source without trace concentrations of VOCs (reading of 0.0 ppm). The probe is exposed for approximately 30 seconds to the fresh air gas or clean ambient air. Once completed the sensor automatically updates the internal database and displays the appropriate fresh air calibration reading.

Span Calibration

For the second point calibration a standard cylinder of gas is connected to a >500 cubic centimeter per minute (cc/min) flow monitoring regulator with an attached coupling tube for the probe. Span values in the MiniRae are present for the appropriate gas. The gas is applied to the probe for approximately 30 seconds. After exposure to the span gas, the concentration readings should be within three ppm of the span gas concentration.

BLE

MONITORING/RECOVERY WELL CONSTRUCTION PROCEDURES

Type II Well

Type II groundwater monitoring/recovery wells are constructed of 4-inch diameter, Schedule 40 polyvinyl chloride (PVC) casing with flush-threaded joints installed in a 10-inch nominal diameter borehole utilizing air-rotary drilling equipment. The bottom 20-foot section of each well will be a manufactured well screen with 0.010-inch wide machined slots. The well screen will be installed to the depth of the boring (approximately 45 feet below ground surface) and will bracket the water table.

General

In Type II wells, a washed sand filter pack is emplaced around the outside of the pipe from the bottom of the well casing to at least 2 feet above the top of the well screen. The sand filter pack is used to stabilize the formation and to help yield a less turbid groundwater sample.

An approximate two-foot thick (minimum) bentonite seal is installed on top of the sand filter pack to seal the monitoring well at the desired level. The well annulus was then grouted to the surface with a cement/bentonite grout mixture. A lockable PVC cap and a steelbolted manhole cover is secured over each well in a two-foot by two-foot concrete pad.

ASSESSMENT COMPONENT COST AGREEMENT

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account

Facility Name: Former Crossroads Grocery

UST Permit #: 06742 **Cost Agreement #:**

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. **Plan***				
B. Tax Map		x	$50.00	$0.00
C. Tier II or Comp. Plan /QAPP Appendix B	1	x	$525.00	$525.00
2. **Receptor Survey ***		x	$500.00	$0.00
3. **Survey (500 x 500 feet)**				
A. Comprehensive Survey	2	x	$1,000.00	$2,000.00
B. Subsurface Geophysical Survey				
1. < 10 meters below grade		x	$2,750.00	$0.00
2. > 10 meters below grade		x	$3,250.00	$0.00
C. Geophysical UST or Drum Survey		x	$1,125.00	$0.00
4. **Mob/Demob (Each)**				
A. Equipment	1	x	$575.00	$575.00
B. Personnel	2	x	$290.00	$580.00
C. Adverse Terrain Vehicle to install wells		x	$575.00	$0.00
5. **Soil Borings (hand auger)* (Feet)**		feet x	$14.00	$0.00
6. **Soil Borings (drilled) & Field Screening ***				
Rate includes collection of water sample or soil sample, and lab or other analyses				
A. Standard		feet x	$17.00	$0.00
C. Fractured Rock		feet x	$27.50	$0.00
7. **Soil Leachability Model (Each)**		each x	$200.00	$0.00
8. **Abandonment* (per foot)**				
A. 2" diameter or less		feet x	$5.00	$0.00
B. Greater than 2" to 6" diameter		feet x	$5.50	$0.00
C. Dug/Bored well (up to 6 foot diameter)		feet x	$18.00	$0.00
9. **Well Installation* (per foot)**				
A. Water Table (hand augered)		feet x	$20.00	$0.00
B. Water Table (drill rig)		feet x	$38.00	$0.00
C. Telescoping/ Pit Cased		feet x	$58.00	$0.00
D. Rock Drilling		feet x	$58.00	$0.00
E. 2" Rock Coring		feet x	$45.00	$0.00
G. Rock Multi-sampling ports/screens		feet x	$47.20	$0.00
H. Recovery Well (4 inch diameter)	135	each x	$45.00	$6,075.00
I. Pushed Pre-packed screen (1.25 diameter)		each x	$18.50	$0.00
J. Rotosonic (2 inch diameter)		each x	$45.00	$0.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**				
A. Groundwater Purge		wells x	$55.00	$0.00
B. Air or Vapors		samples x	$90.00	$0.00
C. Water Supply		samples x	$30.00	$0.00
D. Groundwater No Purge or Duplicate		samples x	$35.00	$0.00
E. Gauge Well only		per well x	$20.00	$0.00
F. Sample Below Product		wells x	$50.00	$0.00
G. Pasive Diffusion Bag		each x	$40.00	$0.00
H. Field Blank		each x	$5.00	$0.00

11. Laboratory Analyses-Groundwater (Each Sample)					
A1. BTEX+Naphth.+ Oxyg's+ 1,2 DCA + Ethanol		samples x	$100.00		$0.00
AA. Lead, Filtered		samples x	$46.00		$0.00
B1. Rush EPA Method 8260B (All of item A.)		samples x	$143.00		$0.00
C1. Trimethal, Butyl, and Isopropyl Benzenes		samples x	$40.00		$0.00
D. PAH's		samples x	$120.00		$0.00
E. Lead, Unfiltered		samples x	$20.00		$0.00
F. EDB by EPA 8011		samples x	$55.00		$0.00
FF. EDB by EPA Method 8011 Rush		samples x	$75.00		$0.00
G. 8 RCRA Metals		samples x	$140.00		$0.00
H. TPH (9070)		samples x	$55.00		$0.00
I. pH		samples x	$10.00		$0.00
J. BOD		samples x	$40.00		$0.00
P1. Ethanol		samples x	$21.50		$0.00
11. **Analyses-Soil (Each Sample)**					
Q. BTEX + Naphth.		samples x	$100.00		$0.00
R. PAH's		samples x	$120.00		$0.00
S. 8 RCRA Metals		samples x	$150.00		$0.00
T. Oil & Grease (9071)		samples x	$60.00		$0.00
U. TPH-DRO (3550B/8015B)		samples x	$65.00		$0.00
V. TPH- GRO (5030B/8015B)		samples x	$65.00		$0.00
W. Grain size/hydrometer		samples x	$99.00		$0.00
X. Total Organic Carbon		samples x	$35.00		$0.00
11. **Analyses-Air (Each Sample)**					
Y. BTEX + Naphthalene		samples x	$247.50		$0.00
11. **Analyses-Free Phase Product (Each Sample)**					
Z. Hydrocarbon Fuel Identification		samples x	$620.00		$0.00
12. **Aquifer Characterization***					
A. Pumping Test		hours x	$120.00		$0.00
B. Slug Test*		tests x	$150.00		$0.00
C. Fractured Rock		tests x	$500.00		$0.00
13. **Free Product Recovery Rate Test* (Each)**		tests x	$120.00		$0.00
14. **Fate/Transport Modeling**					
A. Mathematical Model		each x	$300.00		$0.00
B. Computer Model		each x	$500.00		$0.00
15. **Risk Evaluation**					
A. Tier I Risk Evaluation		x	$300.00		$0.00
B. Tier II Risk Evaluation		x	$500.00		$0.00
16. **Subsequent Survey***		x	$300.00		$0.00
17. **Disposal* (gallons or tons)**					
A. Wastewater		gallons x	$0.80		$0.00
B1. Free Product		gallons x	$0.85		$0.00
C. Soil Treatment/Disposal	6	tons x	$72.50		$435.00
D. Drilling fluids Decon water	25	gallons x	$0.80		$20.00
18. **Miscellaneous (attach receipts)**					
		x			$0.00
		x			$0.00
		x			$0.00
20. **Tier I Assessment (Use DHEC 3665 form)**		x			$0.00
21. **IGWA (Use DHEC 3666 form)**		x			$0.00
22. **Corrective Action (Use DHEC 3667 form)**		x			$0.00

23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A. 8-hour Event*		each x	$3,000.00		$0.00
B. AFVR per-hour Continuance		per hour x	$204.00		$0.00
C. Off-gas treatment per-hour Continuance		per hour x	$35.00		$0.00
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A. New GAC System Installation*		each x	$2,500.00		$0.00
B1. Refurbished GAC Sys. Install*		each x	$1,180.00		$0.00
C. Filter replacement/removal*		each x	$450.00		$0.00
D1. GAC System removal, cleaning, & refurbishment*		each x	$720.00		$0.00
E. GAC System housing		each x	$450.00		$0.00
F. In-line particulate filter		each x	$150.00		$0.00
G. Additional piping & fittings		feet x	$4.00		$0.00
25. **Well Repair**					
A. Additional Copies of the Report Delivered		each x	$32.50		$0.00
B. Repair 2x2 MW pad		each x	$100.00		$0.00
C. Repair 4x4 MW pad		each x	$150.00		$0.00
D. Repair well vault		each x	$225.00		$0.00
F. Replace well cover bolts		each x	$10.00		$0.00
G. Replace locking well cap & lock		each x	$15.00		$0.00
H. Replace/Repair stick-up		each x	$137.50		$0.00
I. Convert Flush-mount to Stick-up		each x	$175.00		$0.00
J. Convert Stick-up to Flush-mount		each x	$125.00		$0.00
K. Replace missing/illegible well ID plate		each x	$22.50		$0.00
Report Prep & Project Management	15%	x	$10,210.00		$1,531.50
TOTAL					$11,741.50

*The appropriate mobilization cost can be added to complete these tasks, as necessary

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

SEP 0 2 2011

MR NEIL ALEXANDER
C/O ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINSTER SC 29693-5534

UST 46 feet DOCKETING

Re: Monitoring/recovery well installation directive
Former Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; Cost Agreement #40533; MWA #UMW-23980
Release reported January 11, 1993
Quality Assurance Program Plan (QAPP) Addendum received August 22, 2011
Oconee County

Dear Mr. Alexander:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed and approved the referenced QAPP Addendum submitted by Bunnell-Lammons Engineering, Inc. Monitoring/recovery well installation and surveying as outlined in the Addendum may proceed immediately upon receipt of this letter. The installation must be conducted in accordance with the UST QAPP. A copy of the QAPP is available at http://www.dhec.sc.gov/environment/lwm/html/ust.htm.

Cost Agreement #40533 has been approved in the amount shown on the enclosed cost agreement form for the installation of three four-inch monitoring/recovery wells and site survey. The necessary monitoring well approval is enclosed. The wells should be installed with twenty-foot screens at the locations proposed in the QAPP Addendum. Please note that all applicable South Carolina certification requirements apply to the well installation and preparation of an assessment report. Further, all site rehabilitation activities must be performed and submitted by a South Carolina-Certified Underground Storage Tank Site Rehabilitation Contractor.

An assessment report and invoice are due within 90 days from the date of this letter. Bunnell-Lammons may directly bill the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Interim invoices may not be submitted for this scope of work. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the SCDHEC is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the

Department for the cost to be paid. SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Division grants pre-approval for transportation of petroleum-contaminated, investigative-derived waste (IDW) from the referenced site to a permitted treatment/disposal facility. The transport and disposal must be conducted in accordance with the QAPP.

On all correspondence concerning this facility, please reference UST Permit #06742. If there are any questions concerning this project, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
06742.16

enc: QAPP Addendum title and approval page
Approved cost agreement form
Monitoring well approval

cc: Bunnell-Lammons Engineering, Inc., 6004 Ponders Court, Greenville, SC 29615-4601 (w/enc)
Technical file (w/enc)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

Monitoring Well Approval

Approval is hereby granted to:	Bunnell-Lammons Engineering, Inc.
(On behalf of):	Mr. Neil Alexander
Facility:	Former Crossroads Grocery
UST Permit Number:	06742
County:	Oconee

This approval is for the installation of three monitoring/recovery wells. The wells are to be installed in the approved locations in accordance with the South Carolina Well Standards, R.61-71, and the applicable guidance documents.

Please note that R.61-71 requires the following:

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.
2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.
3. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted to the Department within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f
4. All analytical data and water levels obtained from each monitoring well shall be submitted to the Department within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.
5. If any of the information provided to the Department changes, notification to Joel Padgett (tel: (803) 896-6398 or e-mail: padgetjp@dhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.
6. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.
7. Departmental approval is required prior to abandonment of all monitoring wells as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated April 26, 2002. A copy of this approval should be on the site during well installation.

Date of Issue: August 25, 2011 **Approval #:** UMW-23980

JoeDC.CS

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Former Crossroads Grocery – UST Permit #06742

8050 West Oak Highway, Westminster, SC

Prepared by: Trevor J. Benton, P.G. – Bunnell-Lammons Engineering, Inc.

Date: August 2, 2011

Bunnell-Lammons Engineering, Inc. – SCDHEC Certified Contractor No. UCC-010

Approvals

Joel P. Padgett, P.G.
SC DHEC Project Manager
_____ Signature Date 8/25/11

Trevor J. Benton, P.G.
Contractor QA Manager
_____ Signature Date 8/18/11

Thomas L. Lammons, P.G
Site Rehabilitation Contractor
_____ Signature Date 8/18/11

Approved Cost Agreement 40533

Facility: 06742 COUNTRY SIDE 2
PADGETJP
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
01 PLAN						
		C	TIER II/COMP. PLAN/QAPP APP B	1.0000	525.00	525.00
03 COMPREHENSIVE SURVEY						
			COMPREHENSIVE SURVEY	2.0000	1,000.00	2,000.00
04 MOB/DEMOB						
		A	EQUIPMENT	1.0000	575.00	575.00
		B	PERSONNEL	2.0000	290.00	580.00
09 WELL INSTALLATION						
		H	RECOVERY WELL (4 INCH DIA)	135.0000	45.00	6,075.00
17 DISPOSAL						
		C	SOIL (TREATMENT/DISPOSAL)	6.0000	72.50	435.00
		D	DRILLING FLUIDS	25.0000	0.80	20.00
19 RPT/PROJECT MNGT & COORDINATIO						
			PCT PERCENT	0.1500	10,210.00	1,531.50
				Total Amount		11,741.50

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF RECOVERY WELL INSTALLATION AND FREE-PRODUCT GAUGING

Former Crossroads Grocery
8050 West Oak Highway
Westminster, South Carolina
UST Permit #06742; Cost Agreement #40533

Prepared For:

Mr. Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693

Prepared By:

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, South Carolina 29615
SCDHEC Certified Contractor No. UCC-010

June 1, 2012

BLE Project Number J11-6940-03

4 Heck

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

June 1, 2012

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
Underground Storage Tank Program
2600 Bull Street
Columbia, South Carolina 29201-1708

Attention: Mr. Joel Padgett, P.G.

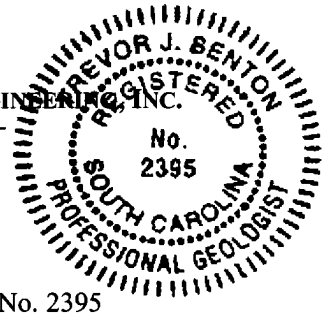
Subject: **Report of Recovery Well Installation and Free-Product Gauging**
Former Crossroads Grocery
8050 West Oak Highway
Westminster, South Carolina
UST Permit #06742; Cost Agreement #40533
BLE Project No. J11-6940-03

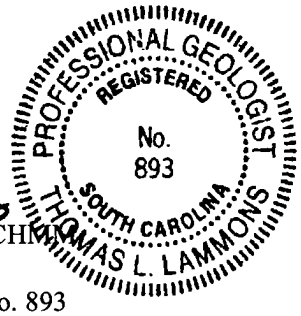
Dear Mr. Padgett:

On behalf of Mr. Neil Alexander, Bunnell-Lammons Engineering, Inc. (BLE) has completed the installation of three free-product recovery wells and performed a free-product gauging event at the subject site. This scope of work was performed in response to the South Carolina Department of Health and Environmental Control's (SCDHEC) letter dated September 2, 2011 and in accordance with BLE's Quality Assurance Project Plan (QAPP) Addendum dated August 18, 2011. This report describes the work performed and presents the results obtained, along with our comments and recommendations. Please do not hesitate to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.





Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina No. 2395

Thomas L. Lammons, P.G., CHMM
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Neil Alexander, 8050 West Oak Highway, Westminster, SC 29693

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

BACKGROUND INFORMATION

The subject property is located at 8050 West Oak Highway in Westminster, South Carolina (Figure 1). The site currently operates as Country Side 2, which is an active automobile fueling station and convenience store. We understand that five underground storage tanks (USTs) and associated piping and fueling dispensers were removed from the site in June 1990: (2) 1,000-gallon gasoline, (1) 550-gallon gasoline, (1) 550-gallon diesel, and (1) 550-gallon kerosene. Five new USTs, (1) 10,000-gallon off-road diesel, (1) 10,000-gallon kerosene, (1) 8,000-gallon "regular" gasoline, (1) 6,000-gallon "plus" gasoline, and (1) 6,000-gallon diesel, and associated equipment were installed in their place. In association with the UST removal activities, a release of petroleum contaminants to the subsurface was reported in January 1993. Various environmental assessments have been conducted at the site by other consultants since 1993, including the installation of seventy-two groundwater monitoring wells to assess the horizontal and vertical extent of petroleum hydrocarbons in the water table aquifer. Additionally, petroleum free-product recovery has been conducted via numerous aggressive fluid vapor recovery (AFVR) events. BLE also understands that the site was previously in active corrective action utilizing a form of injection technology. Several injection wells are still present on the property.

The purpose of this scope of work was to install three additional recovery wells to be utilized as extraction points for continued free-product removal at the site. Additionally, SCDHEC has required completion of a comprehensive site survey to include all groundwater monitoring/recovery wells associated with the site. This report documents the results of these activities.

RECOVERY WELL INSTALLATION

On September 28-29, 2011 BLE personnel and Landprobe Drilling (Landprobe) of Greenville, South Carolina (Marty King – SCWD #B1089) mobilized to the site to install three free-product recovery wells (MW-68, MW-69, and MW- 70). The borings were performed using a Schramm T450S drill rig employing an eight-inch diameter air rotary drill bit. The wells were installed in accordance with BLE's QAPP Addendum dated August 18, 2011.

Each recovery well consists of 4-inch ID, schedule 40 PVC casing with flush threaded joints with a 20-foot long manufactured well screen consisting of 0.010-inch wide machined slots. Each recovery well was installed to depths sufficient to bracket the water table. Standard filter sand pack, bentonite seal, and grout were installed to the ground surface. The wells were completed at the ground surface with an eight-inch diameter steel, bolted manhole cover secured in a two-foot by two-foot concrete pad. New recovery well locations are shown on Figure 2. Drilling procedures for the recovery wells are described in Appendix A.

Down-hole drilling equipment was decontaminated by steam cleaning prior to and after each use. Monitoring well installation details and boring logs are provided in Appendix A. New recovery well construction data is provided in Table 1. Drill cuttings and decontamination water generated during the installation of the monitoring wells were contained on-site in 55-gallon drums. These wastes were transported off-site for disposal. Waste transportation and disposal records are in Appendix B.

COMPREHENSIVE SURVEY AND FREE-PRODUCT GAUGING

Upon completion of the new recovery wells, a comprehensive site survey was completed by Souther Land Surveying (George B. Souther - PLS 21232) of Inman, South Carolina on November 29, 2011 to establish horizontal control and vertical elevations of pertinent site features and the top of PVC casings and ground surface of all monitoring/recovery wells associated with the site. Additionally, six remediation injection wells were located during the comprehensive site survey. These wells were identified as MW-1x through MW-6x, as the numbering system for the injection wells was unknown to BLE at the time of the comprehensive survey. A copy of the survey is provided as Figure 2.

On November 29, 2011, BLE personnel mobilized to the site to conduct free-product gauging. Twenty-seven monitoring and recovery wells (MWR-1, MWR-1A, MW-2, MWR-2, MW-3, MWR-3, MWR-4, MWR-4R, MW-6x, MW-7, MW-7R, MW-8, MW-24, MW-25, MW-51, MW-54, and MW-60 through MW-70) were gauged with a Solinst Interface Meter Model 122 for the presence of petroleum free-product. Free-product thicknesses ranged from 0.02 feet in MWR-1A to 3.82 feet in MW-69. No free-product was detected in monitoring wells MWR-3, MWR-4R, MW-7, MW-7R, MW-24, or MW-25, and monitoring wells MW-2, MW-3, and MW-4

were dry at the time of measurement. The depths to free-product and the groundwater table are provided on Figure 3. Additionally, a contour map depicting the free-product thicknesses in the gauged wells is shown on Figure 3.

CONCLUSIONS AND RECOMMENDATIONS

Three, four-inch diameter free-product recovery wells (MW-68, MW-69, and MW-70) have been installed in accordance with BLE's QAPP Addendum dated August 18, 2011. Upon installation of the new recovery wells, all wells associated with the site were incorporated into an updated comprehensive survey. Additionally, in an effort to identify the extent of the free-product plume, BLE personnel gauged 27 monitoring and recovery wells (MWR-1, MWR-1A, MW-2, MWR-2, MW-3, MWR-3, MWR-4, MWR-4R, MW-6x, MW-7, MW-7R, MW-8, MW-24, MW-25, MW-51, MW-54, and MW-60 through MW-70) for the presence of petroleum free-product. Measurable free-product was detected in 18 of the 27 gauged wells.

Since significant thicknesses of free-product are present in the subsurface at the facility, we recommend a long-term (96-hour) mobile multi-phase extraction (MMPE) event be conducted to 1) remove residual free-phase product from the area around the extraction points, 2) remove petroleum hydrocarbon vapors from the unsaturated zone, and 3) remove petroleum impacted groundwater from the subsurface. We recommend performing the MMPE event on the following wells: MWR-1, MWR-2, MW-6x, MW-51, MW-65, and MW-67 (Figure 3).

Pursuant to conversations with SCDHEC, we understand ZAVA Industrial, Inc. (ZAVA) of Graham, North Carolina will be conducting a seminar on MMPE during the week of June 28, 2012. BLE has been in contact with ZAVA and has retained qualifications and a proposal for conducting the aforementioned MMPE event. An Assessment Component Cost Agreement based on State Underground Petroleum Environmental Response Bank (SUPERB) allowable rates is provided in Appendix C. Based on our current schedule and the schedule of ZAVA, the work can be completed after the week of July 2, 2012. Fieldwork will be completed within one week and a report of the MMPE event will be completed within 30 days following the event.

If SCDHEC is in agreement with this proposed scope of work, please contact us at your earliest convenience so that we may proceed with contractual arrangements with ZAVA.

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Mr. Neil Alexander. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

TABLE

TABLE 1

New Recovery Well Construction Data

Former Crossraods Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #40533
BLE Project Number J11-6940-03

Monitoring Well	Northing	Easting	Ground Elev.	TOC Elev.	Well Depth BGS	Screened Interval Depth BGS	Screened Interval Elevation
MW-68	1010198.905	1402710.451	931.92	931.65	46.0	35.7 - 45.7	896.22 - 886.22
MW-69	1010168.966	1402692.953	931.42	931.20	44.7	34.4 - 44.4	897.02 - 887.02
MW-70	1010144.217	1402685.418	930.46	930.19	44.6	39.3 - 44.3	891.16 - 886.16

NOTES:

Measurements are in feet.

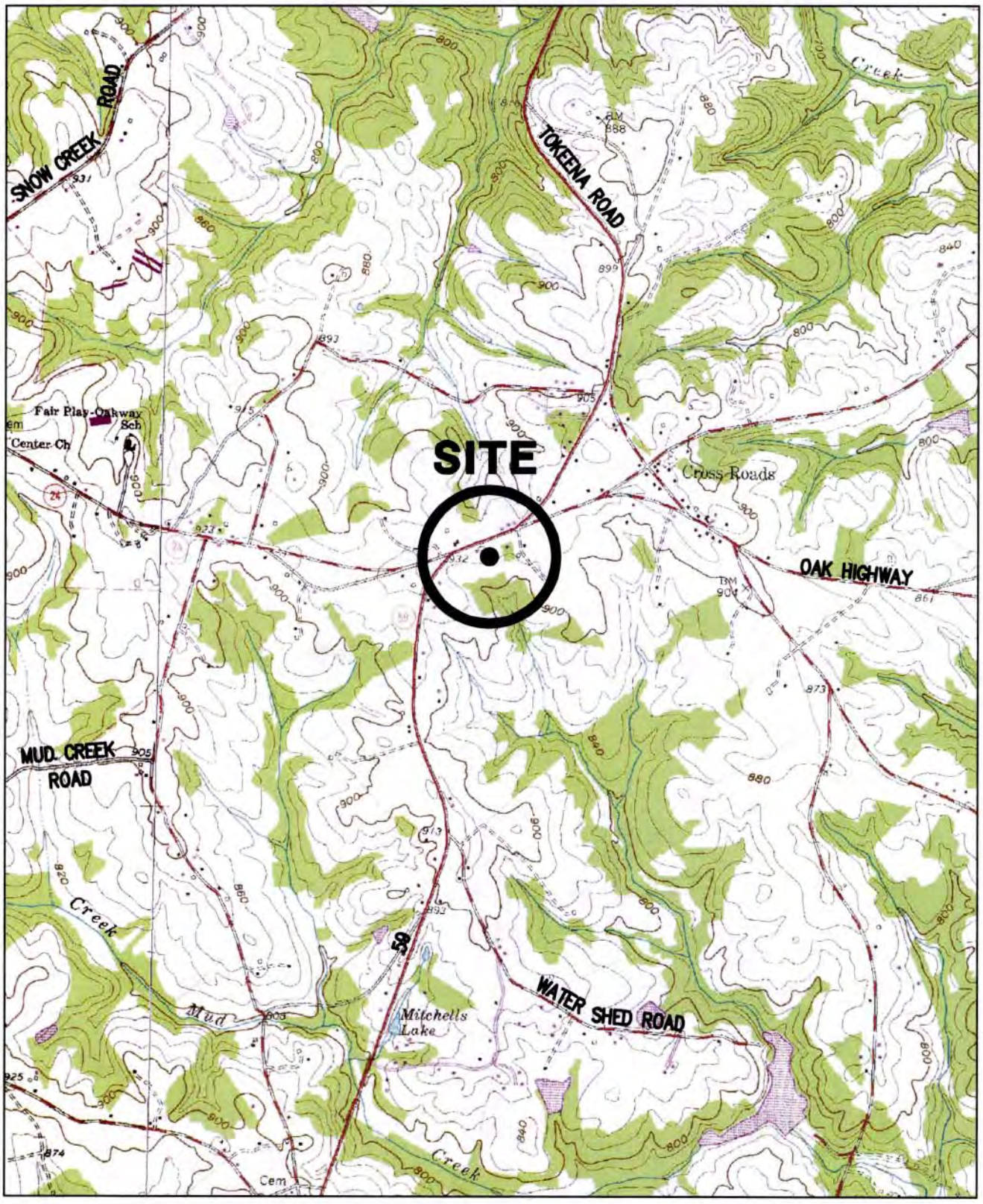
Elevations are relative to mean sea level (MSL)

BTOC - Below Top Of Casing

BGS - Below Ground Surface

Prepared By: TJB
Checked By: IAI

FIGURES

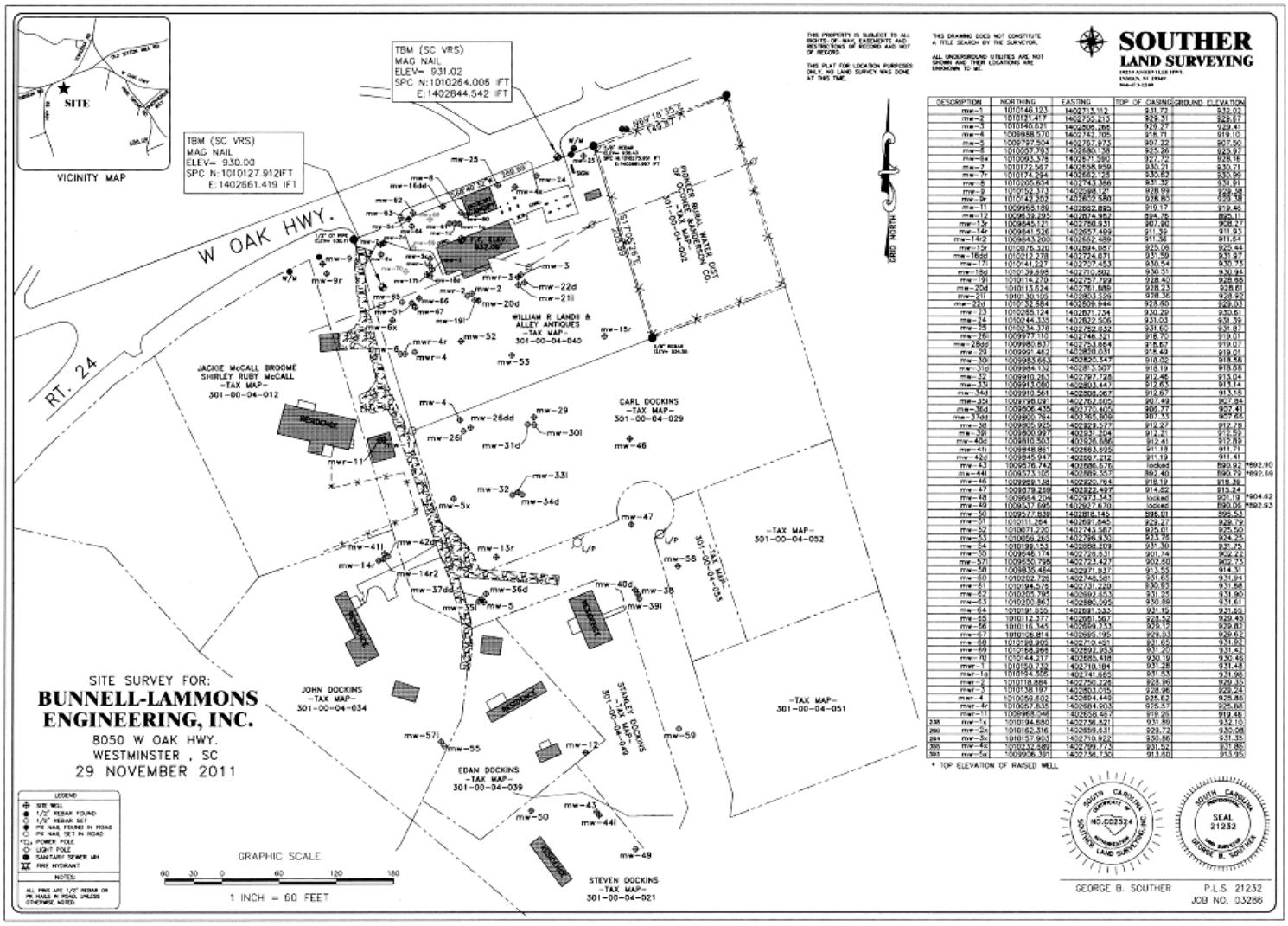


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, FAIR PLAY AND OAKWAY, S.C. QUADRANGLES, PHOTOREVISED 1979 AND 1985.

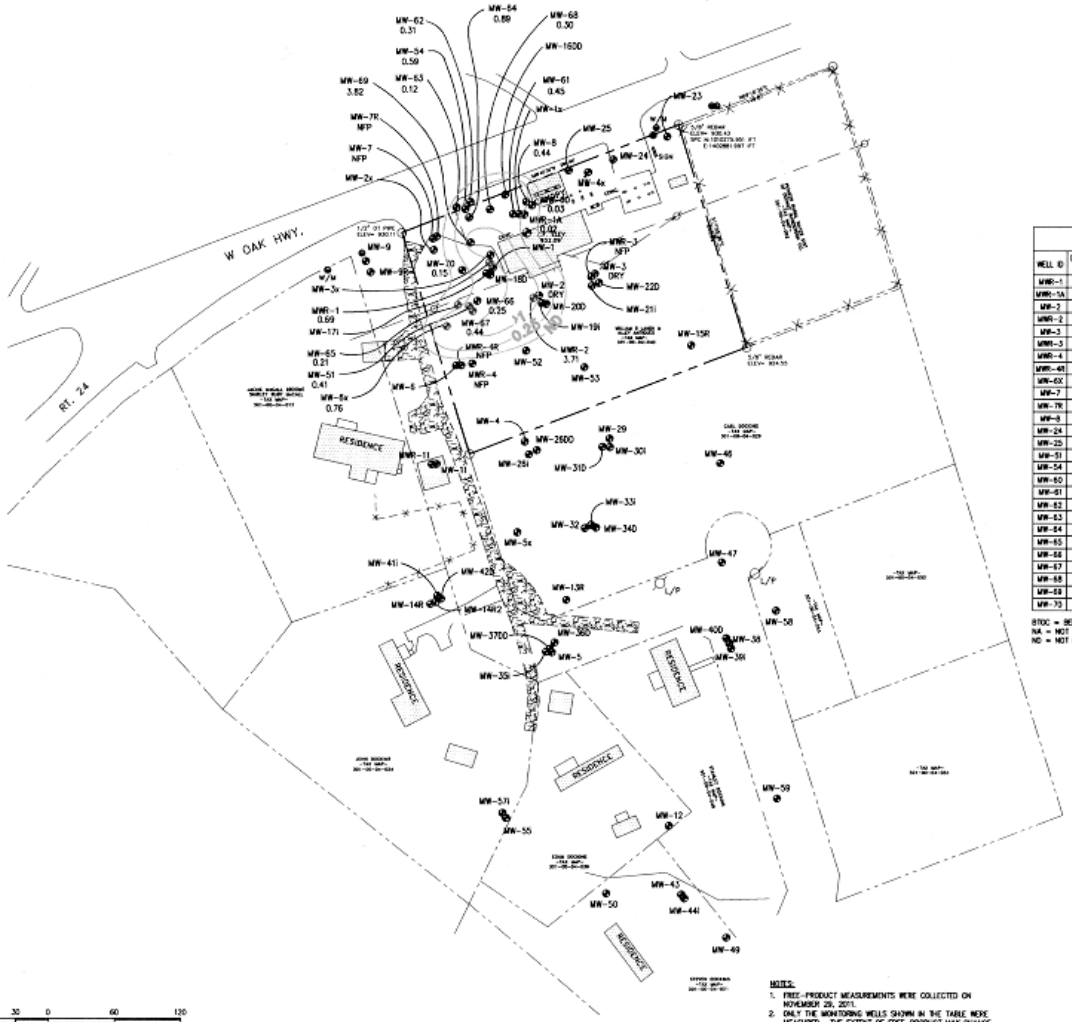
DRAWN: ACE	DATE: 08-01-11	BLE inc. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP FORMER CROSSROADS GROCERY UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA
CHECKED: TJB	CAD: FORMCRGROC-03SLM		FIGURE 1
APPROVED:	JOB NO: J11-6940-03		



DESCRIPTION	NORTHING	EASTING	TOP OF CASING	GROUND ELEVATION
mw-1	1010146.123	1402713.112	931.72	932.02
mw-2	1010121.417	1402750.213	929.31	929.67
mw-3	1010140.671	1402806.266	929.27	929.41
mw-4	1009998.570	1402742.705	918.71	919.10
mw-5	1009737.504	1402767.873	907.22	907.50
mw-6	1010057.793	1402680.138	925.66	925.97
mw-6x	1010093.376	1402671.390	927.72	928.16
mw-7	1010172.567	1402635.939	930.21	930.71
mw-7r	1010174.284	1402662.123	930.62	930.99
mw-8	1010205.654	1402743.366	931.32	931.91
mw-9	1010159.373	1402689.121	928.99	929.38
mw-9r	1010142.262	1402682.580	928.80	929.38
mw-11	1009955.189	1402692.899	919.17	919.66
mw-12	1009639.295	1402674.952	894.76	895.11
mw-13r	1009845.121	1402780.921	907.90	908.27
mw-14r	1009841.526	1402657.499	911.39	911.83
mw-14r2	1009843.200	1402662.489	911.38	911.64
mw-15r	1010076.320	1402894.087	925.06	925.44
mw-16d	1010212.278	1402724.071	931.59	931.97
mw-17i	1010141.227	1402727.453	930.54	930.73
mw-18d	1010139.695	1402710.802	930.51	930.94
mw-19i	1010114.220	1402757.799	928.40	928.68
mw-20d	1010113.624	1402761.689	928.23	928.61
mw-21i	1010130.105	1402803.329	928.36	928.92
mw-22d	1010132.864	1402808.944	928.60	928.93
mw-23	1010255.124	1402871.734	930.29	930.61
mw-24	1010244.335	1402822.906	931.03	931.39
mw-25	1010334.370	1402752.032	931.60	931.87
mw-26i	1009977.110	1402746.321	918.70	919.01
mw-26dd	1009980.837	1402753.864	918.67	919.07
mw-29	1009997.462	1402820.031	918.49	919.01
mw-30i	1009983.643	1402820.347	918.02	918.56
mw-31d	1009984.132	1402811.507	918.19	918.66
mw-32	1009910.263	1402797.728	912.46	913.04
mw-33i	1009913.080	1402803.447	912.63	913.14
mw-34d	1009910.561	1402808.267	912.67	913.15
mw-35i	1009798.091	1402762.605	907.49	907.84
mw-36d	1009806.435	1402779.405	906.77	907.41
mw-37dd	1009800.764	1402765.879	907.33	907.68
mw-38	1009805.925	1402823.577	912.27	912.78
mw-39i	1009800.957	1402837.204	912.51	912.89
mw-40d	1009810.503	1402826.686	912.41	912.89
mw-41i	1009848.861	1402766.692	911.18	911.71
mw-42d	1009845.947	1402787.212	911.19	911.41
mw-43	1009576.742	1402886.676	locked	890.92 *892.90
mw-44i	1009573.150	1402889.357	892.40	890.79 *892.69
mw-46	1009959.138	1402920.764	918.19	918.39
mw-47	1009879.269	1402929.497	914.82	915.24
mw-48	1009954.224	1402973.343	locked	901.09 *904.82
mw-49	1009537.695	1402927.670	locked	890.06 *892.93
mw-50	1009577.839	1402818.145	896.01	896.52
mw-51	1010011.264	1402691.845	929.27	929.79
mw-52	1010071.220	1402743.587	925.01	925.50
mw-53	1010059.263	1402799.300	933.76	934.25
mw-54	1010199.153	1402888.279	931.30	931.75
mw-55	1009646.174	1402729.831	901.74	902.22
mw-57i	1009650.798	1402781.427	902.50	902.73
mw-58	1009830.464	1402771.917	913.53	914.01
mw-60	1010202.726	1402746.581	931.65	931.94
mw-61	1010194.576	1402737.220	930.95	931.68
mw-62	1010203.795	1402742.453	931.25	931.90
mw-63	1010200.843	1402880.122	930.89	931.61
mw-64	1010191.635	1402891.532	931.15	931.63
mw-65	1010112.377	1402881.567	928.52	928.49
mw-66	1010116.345	1402899.233	929.12	929.83
mw-67	1010106.814	1402895.195	929.03	929.62
mw-68	1010198.905	1402710.451	931.65	931.92
mw-69	1010188.984	1402892.953	931.20	931.42
mw-70	1010144.217	1402885.418	930.19	930.48
mw-71	1010150.730	1402710.184	931.48	931.48
mw-1a	1010194.355	1402741.865	931.53	931.98
mw-2	1010118.884	1402750.228	928.96	929.35
mw-3	1010138.197	1402803.015	928.96	928.41
mw-4	1010059.802	1402894.448	925.63	925.86
mw-4r	1010057.835	1402884.903	925.57	925.88
mw-11	1009965.048	1402858.481	919.09	919.56
235 mw-1x	1010194.680	1402736.521	931.89	932.10
280 mw-2x	1010162.316	1402559.631	929.72	930.08
284 mw-3x	1010157.903	1402710.922	930.86	931.25
305 mw-4x	1010232.589	1402799.773	931.92	931.86
393 mw-5x	1009936.391	1402736.732	913.60	913.95

* TOP ELEVATION OF RAISED WELL

FIGURE 2



FREE-PRODUCT MEASUREMENTS NOVEMBER 29, 2011			
WELL ID	DEPTH TO FREE-PRODUCT (FEET BTOC)	DEPTH TO GROUNDWATER (FEET BTOC)	FREE-PRODUCT THICKNESS (FEET)
MWR-1	35.10	35.79	0.69
MWR-1A	35.33	35.35	0.02
MW-2	DRY	DRY	NA
MWR-2	32.65	36.36	3.71
MW-3	DRY	DRY	NA
MWR-3	ND	33.95	NA
MWR-4	DRY	DRY	NA
MWR-4R	ND	30.78	NA
MW-6X	31.96	32.72	0.76
MW-7	ND	34.72	NA
MW-7R	ND	34.12	NA
MW-8	34.67	35.11	0.44
MW-24	ND	35.75	NA
MW-25	ND	36.00	NA
MW-51	33.37	33.78	0.41
MW-54	34.77	35.36	0.59
MW-60	35.38	35.41	0.03
MW-61	34.84	35.29	0.45
MW-62	34.73	35.04	0.31
MW-63	34.40	34.52	0.12
MW-64	34.88	35.07	0.41
MW-65	32.54	32.75	0.21
MW-66	33.15	33.39	0.24
MW-67	33.11	33.55	0.44
MW-68	35.78	36.08	0.30
MW-69	35.50	39.32	3.82
MW-70	35.80	35.75	0.15

BTOC = BELOW TOP OF PVC CASING
NA = NOT APPLICABLE
ND = NOT DETECTED

LEGEND

- SURVEYED LOCATION OF GROUNDWATER MONITORING WELL
- MONITORING WELL LOCATION PROPOSED TO BE UTILIZED FOR MOBILE MULTI-PHASE EXTRACTION (MMPE) EVENT
- 0.44 FREE-PRODUCT THICKNESS (IN FEET)
- 0.25 FREE-PRODUCT THICKNESS CONTOUR (IN FEET)
- NFP NO FREE-PRODUCT DETECTED

NOTES:
1. FREE-PRODUCT MEASUREMENTS WERE COLLECTED ON NOVEMBER 29, 2011.
2. ONLY THE MONITORING WELLS SHOWN IN THE TABLE WERE MEASURED. THE EXTENT OF FREE-PRODUCT MAY CHANGE BASED ON A SITE-WIDE GAUGING EVENT.

REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

60 30 0 60 120
APPROXIMATE SCALE IN FEET

REVISIONS			DRAWN: ACE	DATE: 05-16-12
No.	DESCRIPTION	BY	CHECKED: TJB	CAD FILE: FORMORGROC-03FPTM
			APPROVED:	JOB NO: J12-6940-03

BLE INC. BUSNELL-LAMMONS ENGINEERING, INC.
6004 POINDEXTER COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1588 FAX: (864)288-6480

FREE-PRODUCT THICKNESS MAP
FORMER CROSSROADS GROCERY
UST PERMIT #05742
WESTMINSTER, SOUTH CAROLINA

FIGURE NO. 3

APPENDICES

APPENDIX A

MONITORING WELL DRILLING PROCEDURES AND BORING LOGS

APPENDIX A

MONITORING WELL CONSTRUCTION PROCEDURES

Type II Recovery Well

Type II groundwater monitoring wells are constructed of 4-inch diameter, Schedule 40 PVC casing with flush-threaded joints installed in an 8-inch nominal diameter air hammered borehole. The bottom 20-foot section of each well is a manufactured well screen with 0.01-inch wide machined slots. The well screen was installed to the depth of the boring and bracketed the water table.

General

In Type II wells, a washed sand filter pack was emplaced around the outside of the pipe from the bottom of the well casing to at least 2 feet above the top of the well screen. The sand filter pack was used to stabilize the formation and to help yield a less turbid groundwater sample.

A two-foot thick (minimum) bentonite seal was installed on top of the sand filter pack to seal the monitoring well at the desired level. The well annulus was then grouted to the surface with a cement/bentonite grout mixture. A lockable PVC cap and a steel, bolted manhole cover was secured over the wells.

KEY TO SOIL CLASSIFICATIONS AND CONSISTENCY DESCRIPTIONS

BUNNELL-LAMMONS ENGINEERING, INC.
GREENVILLE, SOUTH CAROLINA

Penetration Resistance* Blows per Foot (SANDS)	Relative Density
0 to 4	Very Loose
5 to 10	Loose
11 to 20	Firm
21 to 30	Very Firm
31 to 50	Dense
over 50	Very Dense

Penetration Resistance* Blows per Foot (SILTS and CLAYS)	Consistency
0 to 2	Very Soft
3 to 4	Soft
5 to 8	Firm
9 to 15	Stiff
16 to 30	Very Stiff
31 to 50	Hard
over 50	Very Hard

*ASTM D 1586

Particle Size Identification

Boulder: Greater than 300 mm
Cobble: 75 to 300 mm
Gravel:
Coarse - 19 to 75 mm
Fine - 4.75 to 19 mm
Sand:
Coarse - 2 to 4.75 mm
Medium - 0.425 to 2 mm
Fine - 0.075 to 0.425 mm
Silt & Clay: Less than 0.075 mm

KEY TO DRILLING SYMBOLS

Grab Sample

Split Spoon Sample

Undisturbed Sample

NR = No reaction to HCL

NA = Not applicable

NS = No sample

Groundwater Table at Time of Drilling

Groundwater Table 24 Hours after Completion of Drilling

KEY TO SOIL CLASSIFICATIONS

Well-graded Gravel
GW

Low Plasticity Clay
CL

Clayey Silt
MH

Silty Sand
SM

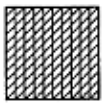
Poorly-graded Gravel
GP

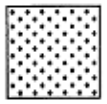
Sandy Clay
CLS

Sandy Silt
MLS

Topsoil
TOPSOIL

Partially Weathered Rock
BLDRCBBL


Silty Clay
CL-ML

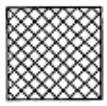

Sand
SW

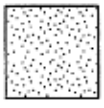
Trash
MUCKPEAT

High Plasticity Clay
CH

Silt
ML

Clayey Sand
SC


Fill
FILL


Poorly Graded Sand
SP

Bedrock
BEDROCK

Limestone
LIMESTONE

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-68

PROJECT: Former Crossroads Grocery
PROJECT NO.: J11-6940-03
CLIENT: Neil Alexander
START: 9-28-11 END: 9-29-11
LOCATION: Westminster, South Carolina
ELEVATION:
DRILLER: Landprobe, M. King
LOGGED BY: T. Benton
DRILLING METHOD: Schramm T450S; 8-inch air rotary
DEPTH TO - WATER> INITIAL: ▽ 35 AFTER 48 HOURS: ▼ 33.76 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
0	CONCRETE and GRAVEL		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel, bolted manhole cover in a 2' x 2' concrete pad
	Reddish-brown and orangish-brown, dry, very micaceous, fine to medium sandy SILT		Top of PVC casing elev. = 931.65 feet Ground surface elev. = 931.92 feet Elevations are relative to mean sea level
10	Reddish-brown and brown, dry, very micaceous SILT with moderate gasoline odor		Neat cement, 0 to 21 feet
20			Bentonite seal, 21 to 23.5 feet Filter pack, sand 23.5 to 46.0 feet
30	Reddish-brown and brown, dry to moist, very micaceous, fine to medium sandy SILT with strong gasoline odor		
35	Reddish-brown and brown, wet, very micaceous, fine to medium sandy SILT with strong gasoline odor		4-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 25.7 to 45.7 feet

GEOT_WELLNB 6940-03.GPJ 5/16/12

BLB INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-68

PROJECT: Former Crossroads Grocery
PROJECT NO.: J11-6940-03
CLIENT: Neil Alexander
START: 9-28-11 END: 9-29-11
LOCATION: Westminster, South Carolina
ELEVATION:
DRILLER: Landprobe, M. King
LOGGED BY: T. Benton
DRILLING METHOD: Schramm T450S; 8-inch air rotary
DEPTH TO - WATER> INITIAL: ▽ 35 AFTER 48 HOURS: ▼ 33.76 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
45	Reddish-brown and brown, wet, very micaceous, fine to medium sandy SILT with strong gasoline odor		Pipe cap
	Boring terminated at 46 feet. Groundwater encountered at 35 feet at time of drilling and at 33.76 feet after 48 hours.		Total well depth, 46 feet
50			
55			
60			
65			
70			
75			

GEOT_WELLNB 6940-03.GPJ 5/16/12

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Alexander (last) Neil (first)
Address: 8050 West Oak Highway
City: Westminster State: SC zip: 29678
Phone Work:
Home:

2. LOCATION OF WELL: COUNTY: Oconee
Name: Former Crossroads Grocery
Address: 8050 West Oak Highway
City: Westminster Zip: 29678
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: UST Permit #06742 **PUBLIC SYSTEM NUMBER:** MW-68

4. ABANDONMENT: No
Grouted Depth: from to ft.

Formation Description	Thickness of Stratum	Depth to Bottom of Stratum
See Attached Boring Log		

5. REMARKS: Holeplug 23.5' - 21.0'

6. TYPE: Mud Rotary / Jetted / Bored; Dug / Air Rotary / Driven; Cable tool / Auger / Other

7. PERMIT NUMBER: UMW-23980

8. USE: Residential / Public Supply / Process; Irrigation / Air Conditioning / Emergency; Test Well / (Monitor Well) / Replacement

9. WELL DEPTH (completed): 46.00 ft. Date Started: 9/28/2011 Date Completed: 9/29/2011

10. CASING: (Threaded) / Welded
Diameter: 4"
Type: PVC
4.0 in. to 25.7 ft. depth
in. to ft. depth
Height: Below Surface: ft.
Drive Shoe.
Weight: lb./ft.

11. SCREEN:
Type: PVC Diameter: 4"
Slot/Gauge: 0.010 Length: 20
Set Between: 25.70 ft. and 45.70 ft.
ft. and ft.
Sieve Analysis: No

12. STATIC WATER LEVEL N/A ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
ft. after hrs Pumping GPM
Pumping Test: No
Yield:

14. WATER QUALITY
Chemical Analysis: No Bacterial Analysis: No

15. ARTIFICIAL FILTER (filter pack)
Installed from. 46.0 ft. to 23.5 ft.
Effective Size. #2 Uniformity Coefficient: Sand

16. WELL GROUTED?
Neat Cement / Bentonite / (Bentonite/Cement) / Other
Depth: From 20.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type: N/A
Well Disinfected: Type: Amount:

18. PUMP: Date Installed.
Mfr. Name: Model no.:
H.P.: Volts: Length of pipe. ft
Capacity. gpm
TYPE:
Submersible / Jet (shallow) / Turbine
Jet (deep) / Reciprocating / Centrifugal

19. WELL DRILLER: Brunson (Marty) King CERT NO.: 1089
Address: 6004 Ponders Court Level: A (B) C D (circle one)
Greenville SC 29615
Telephone: 864-527-9324 Fax: 864-288-4430

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Marty King
Date: 9/30/11

If D Level Driller, provide supervising driller's name.

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-69

PROJECT: Former Crossroads Grocery
PROJECT NO.: J11-6940-03
CLIENT: Neil Alexander
START: 9-28-11 END: 9-29-11
LOCATION: Westminster, South Carolina
ELEVATION:
DRILLER: Landprobe, M. King
LOGGED BY: T. Benton
DRILLING METHOD: Schramm T450S; 8-inch air rotary
DEPTH TO - WATER> INITIAL: ▽ 35.5 AFTER 48 HOURS: ▼ 35.52 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
0	CONCRETE and GRAVEL		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel, bolted manhole cover in a 2' x 2' concrete pad
	Reddish-brown and brown, dry, very micaceous, fine to medium sandy SILT		Top of PVC casing elev. = 931.20 feet Ground surface elev. = 931.42 feet Elevations are relative to mean sea level
5			
10			Neat cement, 0 to 20 feet
	Brown, dry, very micaceous SILT with slight gasoline odor		
15			
20			Bentonite seal, 20 to 22.2 feet
	Brown and orangish-brown, dry to moist, very micaceous, fine to medium sandy SILT with very strong gasoline odor		Filter pack, sand 22.2 to 44.7 feet
25			
30			
35 ▼			4-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 24.4 to 44.4 feet
	Brown, wet, very micaceous, fine to medium sandy SILT with very strong gasoline odor		

GEOT_WELLNB 6940-03.GPJ 5/16/12

BLB INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-69

PROJECT: Former Crossroads Grocery
PROJECT NO.: J11-6940-03
CLIENT: Neil Alexander
START: 9-28-11 END: 9-29-11
LOCATION: Westminster, South Carolina
ELEVATION:
DRILLER: Landprobe, M. King
LOGGED BY: T. Benton
DRILLING METHOD: Schramm T450S; 8-inch air rotary
DEPTH TO - WATER> INITIAL: ▽ 35.5 AFTER 48 HOURS: ▼ 35.52 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
	Brown, wet, very micaceous, fine to medium sandy SILT with very strong gasoline odor		Pipe cap
45	Boring terminated at 44.7 feet. Groundwater encountered at 35.5 feet at time of drilling and at 35.52 feet after 48 hours.		Total well depth, 44.7 feet
50			
55			
60			
65			
70			
75			

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Alexander (last) Nell (first)
Address: 8050 West Oak Highway
City: Westminster State: SC zip: 29678
Phone: Work: Home:

2. LOCATION OF WELL: COUNTY: Oconee
Name: Former Crossroads Grocery
Address: 8050 West Oak Highway
City: Westminster Zip: 29678
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: UST Permit #06742 **PUBLIC SYSTEM NUMBER:** MW-69

4. ABANDONMENT: No
Grouted Depth: from to ft.

Formation Description	Thickness of Stratum	Depth to Bottom of Stratum
See Attached Boring Log		

5. REMARKS: Holeplug 22.2' - 20.0'

6. TYPE: Mud Rotary, Jetted, Bored, Dug, Air Rotary, Driven, Cable tool, Auger, Other

7. PERMIT NUMBER: UMW-23980

8. USE: Residential, Public Supply, Process, Irrigation, Air Conditioning, Emergency, Test Well, (Monitor Well), Replacement

9. WELL DEPTH (completed)
44.70 ft. Date Started: 9/28/2011 Date Completed: 9/29/2011

10. CASING: (Threaded) Welded
Diameter: 4"
Type: PVC
4.0 in. to 24.4 ft. depth
in. to ft. depth
Height: Below Surface: ft.
Drive Shoe. Weight. lb./ft.

11. SCREEN:
Type: PVC Diameter: 4"
Slot/Gauge. 0.010 Length: 20
Set Between: 24.40 ft. and 44.40 ft.
ft. and ft
Sieve Analysis: No

12. STATIC WATER LEVEL N/A ft. below land surface after 24 hours.

13. PUMPING LEVEL Below Land Surface.
ft. after hrs Pumping GPM
Pumping Test: No
Yield:

14. WATER QUALITY
Chemical Analysis: No Bacterial Analysis: No

15. ARTIFICIAL FILTER (filter pack)
Installed from: 44.7 ft. to 22.2 ft.
Effective Size: #2 Uniformity Coefficient: Sand

16. WELL GROUTED?
Neat Cement, Bentonite, (Bentonite/Cement), Other
Depth: From 20.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type: N/A
Well Disinfected: Type: Amount:

18. PUMP: Date Installed:
Mfr. Name: Model no.:
H P.: Volts: Length of pipe: ft.
Capacity: gpm
TYPE:
Submersible, Jet (shallow), Turbine
Jet (deep), Reciprocating, Centrifugal

19. WELL DRILLER: Brunson (Marty) King CERT NO.: 1089
Address: 6004 Ponders Court Level: A (B) C D (circle one)
Greenville SC 29615
Telephone: 864-527-9324 Fax: 864-288-4430

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Marty King
Date: 9/30/11

If D Level Driller, provide supervising driller's name.

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-70

PROJECT: Former Crossroads Grocery
PROJECT NO.: J11-6940-03
CLIENT: Nell Alexander
START: 9-28-11 END: 9-29-11
LOCATION: Westminster, South Carolina
ELEVATION:
DRILLER: Landprobe, M. King
LOGGED BY: T. Benton
DRILLING METHOD: Schramm T450S; 8-Inch air rotary
DEPTH TO - WATER> INITIAL: ▽ 36 AFTER 48 HOURS: ▼ 35.60 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
0	TOPSOIL		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel, bolted manhole cover in a 2' x 2' concrete pad
	Reddish-brown and orangish-brown, dry, very micaceous, fine to medium sandy SILT		Top of PVC casing elev. = 930.19 feet Ground surface elev. = 930.46 feet Elevations are relative to mean sea level
10	Brown, dry, very micaceous SILT with slight gasoline odor		Neat cement, 0 to 20 feet
20			Bentonite seal, 20 to 22 feet Filter pack, sand 22 to 44.6 feet
30	Reddish-brown and brown, moist to wet, very micaceous, fine to medium sandy SILT with strong gasoline odor		4-Inch diameter, 0.010-Inch slotted Schedule 40 PVC well screen, 24.3 to 44.3 feet
35 ▼			

GEOT_WELLNB 6940-03.GPJ 5/30/12

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-70

PROJECT: Former Crossroads Grocery — PROJECT NO.: J11-6940-03

CLIENT: Neil Alexander — START: 9-28-11 END: 9-29-11

LOCATION: Westminster, South Carolina — ELEVATION:

DRILLER: Landprobe, M. King — LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450S; 8-inch air rotary

DEPTH TO - WATER> INITIAL: ▽ 36 AFTER 48 HOURS: ▼ 35.60 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
	Reddish-brown and brown, moist to wet, very micaceous, fine to medium sandy SILT with strong gasoline odor		
45	Boring terminated at 44.6 feet. Groundwater encountered at 36 feet at time of drilling and at 35.60 feet after 48 hours.		Pipe cap Total well depth, 44.6 feet
50			
55			
60			
65			
70			
75			

GEOT_WELLNB 6940-03.GPJ 5/30/12

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Alexander (last) Neil (first)
Address: 8050 West Oak Highway
City: Westminster State: SC zip: 29678
Phone: Work:
Home:

2. LOCATION OF WELL: COUNTY: Oconee
Name: Former Crossroads Grocery
Address: 8050 West Oak Highway
City: Westminster Zip: 29678
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: UST Permit #06742
PUBLIC SYSTEM NUMBER: MW-70

4. ABANDONMENT: No
Grouted Depth: from to ft

Formation Description	Thickness of Stratum	Depth to Bottom of Stratum
See Attached Boring Log		

5. REMARKS: Holeplug 20.0' - 22.0'

6. TYPE: Mud Rotary / Jetted / Bored / Dug / Air Rotary XX / Driven / Cable tool / Auger / Other

7. PERMIT NUMBER: UMW-23980

8. USE: Residential / Public Supply / Process / Irrigation / Air Conditioning / Emergency / Test Well / (Monitor Well) / Replacement

9. WELL DEPTH (completed) 44.60 ft.
Date Started: 9/28/2011
Date Completed: 9/29/2011

10. CASING: (Threaded) / Welded
Diameter: 4"
Type: PVC
4.0 in to 24.3 ft depth
in. to ft. depth
Height: Below Surface: ft.
Weight: lb./ft.
Drive Shoe:

11. SCREEN:
Type: PVC Diameter: 4"
Slot/Gauge: 0.010 Length: 20
Set Between: 24.30 ft. and 44.30 ft.
ft. and ft.
Sieve Analysis: No

12. STATIC WATER LEVEL N/A ft. below land surface after 24 hours.

13. PUMPING LEVEL Below Land Surface.
ft. after hrs Pumping GPM
Pumping Test: No
Yield:

14. WATER QUALITY
Chemical Analysis: No Bacterial Analysis: No

15. ARTIFICIAL FILTER (filter pack)
Installed from: 44.6 ft. to 22.0 ft.
Effective Size: #2 Uniformity Coefficient: Sand

16. WELL GROUTED?
Neat Cement / Bentonite / (Bentonite/Cement) / Other
Depth: From 20.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type: N/A
Well Disinfected: Type Amount:

18. PUMP: Date installed:
Mfr. Name: Model no..
H.P.: Volts: Length of pipe: ft.
Capacity: gpm
TYPE:
Submersible / Jet (shallow) / Turbine
Jet (deep) / Reciprocating / Centrifugal

19. WELL DRILLER: Brunson (Marty) King
Address: 6004 Ponders Court, Greenville SC 29615
CERT NO.: 1089
Level: A (B) C D (circle one)
Telephone: 864-527-9324 Fax: 864-288-4430

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Marty King
Date: 9/30/11

If D Level Driller, provide supervising driller's name.

APPENDIX B

WASTE TRANSPORTATION AND DISPOSAL RECORDS

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone: 803-957-9176

4. Waste Tracking Number: 31849

5. Generator's Name and Mailing Address: Neil Alexander, 8050 West Oak Hwy, Westminster, SC

Generator's Site Address (if different than mailing address): Crossroads Grocery, 8050 West Oak Hwy, Westminster, SC

Generator's Phone: 864.288.1265 Ivan Irizarry - BLE

6. Transporter 1 Company Name: A&D Environmental Services (SC) LLC — U.S. EPA ID Number: SCD987598331

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: A&D Environmental Services, Inc, 2614 Uharrie Road, Archdale, NC 27263 — U.S. EPA ID Number: NCD986232221

Facility's Phone: 336-434-7750

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON-HAZARDOUS NON-REGULATED MATERIAL ~~Purge Water~~ Profile #101911NAS-SF	6	DM	330	G	
2.	Soil Cuttings					
3.						
4.						

13. Special Handling Instructions and Additional Information

In Case of Emergency Call: 803-957-9176

A&D (SC) Job #17890

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and governmental regulations.

Generator's/Offeror's Printed/Typed Name: Ivan A. Irizarry (Agent for Neil Alexander) — Signature: (Agent for Neil Alexander) — Month: 10 Day: 19 Year: 11

15. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Chris Peter — Signature: Chris Peter — Month: 10 Day: 21 Year: 11

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

17. Discrepancy

17a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number:

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month: Day: Year:

GENERATOR — TRANSPORTER — INTL — DESIGNATED FACILITY

169-BLC-0 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

APPENDIX C

PROPOSED ASSESSMENT COMPONENT COST AGREEMENT FOR MMPE EVENT

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account

Facility Name: Former Crossroads Grocery

UST Permit #: 06742 **Cost Agreement #** _____

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
1. **Plan***					
B. Tax Map		x	$50.00		$0.00
C. Tier II or Comp. Plan /QAPP Appendix B		x	$525.00		$0.00
2. **Receptor Survey ***		x	$500.00		$0.00
3. **Survey (500 x 500 feet)**					
A. Comprehensive Survey		x	$1,000.00		$0.00
B. Subsurface Geophysical Survey					
1. < 10 meters below grade		x	$2,750.00		$0.00
2. > 10 meters below grade		x	$3,250.00		$0.00
C. Geophysical UST or Drum Survey		x	$1,125.00		$0.00
4. **Mob/Demob (Each)**					
A. Equipment	1	x	$575.00		$575.00
B. Personnel	5	x	$290.00		$1,450.00
C. Adverse Terrain Vehicle to install wells		x	$575.00		$0.00
5. **Soil Borings (hand auger)* (Feet)**		feet x	$14.00		$0.00
6. **Soil Borings (drilled) & Field Screening ***					
Rate includes collection of water sample or soil sample, and lab or other analyses					
A. Standard		feet x	$17.00		$0.00
C. Fractured Rock		feet x	$27.50		$0.00
7. **Soil Leachability Model (Each)**		each x	$200.00		$0.00
8. **Abandonment* (per foot)**					
A. 2" diameter or less		feet x	$5.00		$0.00
B. Greater than 2" to 6" diameter		feet x	$5.50		$0.00
C. Dug/Bored well (up to 6 foot diameter)		feet x	$18.00		$0.00
9. **Well Installation* (per foot)**					
A. Water Table (hand augered)		feet x	$20.00		$0.00
B. Water Table (drill rig)		feet x	$38.00		$0.00
C. Telescoping/ Pit Cased		feet x	$58.00		$0.00
D. Rock Drilling		feet x	$58.00		$0.00
E. 2" Rock Coring		feet x	$45.00		$0.00
G. Rock Multi-sampling ports/screens		feet x	$47.20		$0.00
H. Recovery Well (4 inch diameter)		each x	$45.00		$0.00
I. Pushed Pre-packed screen (1.25 diameter)		each x	$18.50		$0.00
J. Rotosonic (2 inch diameter)		each x	$45.00		$0.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**					
A. Groundwater Purge		wells x	$55.00		$0.00
B. Air or Vapors		samples x	$90.00		$0.00
C. Water Supply		samples x	$30.00		$0.00
D. Groundwater No Purge or Duplicate		samples x	$35.00		$0.00
E. Gauge Well only		per well x	$20.00		$0.00
F. Sample Below Product		wells x	$50.00		$0.00
G. Pasive Diffusion Bag		each x	$40.00		$0.00
H. Field Blank		each x	$5.00		$0.00

11. Laboratory Analyses-Groundwater (Each Sample)					
A1. BTEX+Naphth.+ Oxyg's+ 1,2 DCA + Ethanol		samples x	$100.00		$0.00
AA. Lead, Filtered		samples x	$46.00		$0.00
B1. Rush EPA Method 8260B (All of item A.)		samples x	$143.00		$0.00
C1. Trimethal, Butyl, and Isopropyl Benzenes		samples x	$40.00		$0.00
D. PAH's		samples x	$120.00		$0.00
E. Lead, Unfiltered		samples x	$20.00		$0.00
F. EDB by EPA 8011		samples x	$55.00		$0.00
FF. EDB by EPA Method 8011 Rush		samples x	$75.00		$0.00
G. 8 RCRA Metals		samples x	$140.00		$0.00
H. TPH (9070)		samples x	$55.00		$0.00
I. pH		samples x	$10.00		$0.00
J. BOD		samples x	$40.00		$0.00
P1. Ethanol		samples x	$21.50		$0.00
11. Analyses-Soil (Each Sample)					
Q. BTEX + Naphth.		samples x	$100.00		$0.00
R. PAH's		samples x	$120.00		$0.00
S. 8 RCRA Metals		samples x	$150.00		$0.00
T. Oil & Grease (9071)		samples x	$60.00		$0.00
U. TPH-DRO (3550B/8015B)		samples x	$65.00		$0.00
V. TPH- GRO (5030B/8015B)		samples x	$65.00		$0.00
W. Grain size/hydrometer		samples x	$99.00		$0.00
X. Total Organic Carbon		samples x	$35.00		$0.00
11. Analyses-Air (Each Sample)					
Y. BTEX + Naphthalene		samples x	$247.50		$0.00
11. Analyses-Free Phase Product (Each Sample)					
Z. Hydrocarbon Fuel Identification		samples x	$620.00		$0.00
12. Aquifer Characterization*					
A. Pumping Test		hours x	$120.00		$0.00
B. Slug Test*		tests x	$150.00		$0.00
C. Fractured Rock		tests x	$500.00		$0.00
13. Free Product Recovery Rate Test* (Each)		tests x	$120.00		$0.00
14. Fate/Transport Modeling					
A. Mathematical Model		each x	$300.00		$0.00
B. Computer Model		each x	$500.00		$0.00
15. Risk Evaluation					
A. Tier I Risk Evaluation		x	$300.00		$0.00
B. Tier II Risk Evaluation		x	$500.00		$0.00
16. Subsequent Survey*		x	$300.00		$0.00
17. Disposal* (gallons or tons)					
A. Wastewater	20000	gallons x	$0.80		$16,000.00
B1. Free Product		gallons x	$0.85		$0.00
C. Soil Treatment/Disposal		tons x	$72.50		$0.00
D. Drilling fluids		gallons x	$0.80		$0.00
18. Miscellaneous (attach receipts)					
		x			$0.00
		x			$0.00
		x			$0.00
20. Tier I Assessment (Use DHEC 3665 form)		x			$0.00
21. IGWA (Use DHEC 3666 form)		x			$0.00
22. Corrective Action (Use DHEC 3667 form)		x			$0.00

23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A. 8-hour Event*	1	each x	$3,000.00		$3,000.00
B. AFVR per-hour Continuance	88	per hour x	$204.00		$17,952.00
C. Off-gas treatment per-hour Continuance		per hour x	$35.00		$0.00
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A. New GAC System Installation*		each x	$2,500.00		$0.00
B1. Refurbished GAC Sys. Install*		each x	$1,180.00		$0.00
C. Filter replacement/removal*		each x	$450.00		$0.00
D1. GAC System removal, cleaning, & refurbishment*		each x	$720.00		$0.00
E. GAC System housing		each x	$450.00		$0.00
F. In-line particulate filter		each x	$150.00		$0.00
G. Additional piping & fittings		feet x	$4.00		$0.00
25. **Well Repair**					
A. Additional Copies of the Report Delivered		each x	$32.50		$0.00
B. Repair 2x2 MW pad		each x	$100.00		$0.00
C. Repair 4x4 MW pad		each x	$150.00		$0.00
D. Repair well vault		each x	$225.00		$0.00
F. Replace well cover bolts		each x	$10.00		$0.00
G. Replace locking well cap & lock		each x	$15.00		$0.00
H. Replace/Repair stick-up		each x	$137.50		$0.00
I. Convert Flush-mount to Stick-up		each x	$175.00		$0.00
J. Convert Stick-up to Flush-mount		each x	$125.00		$0.00
K. Replace missing/illegible well ID plate		each x	$22.50		$0.00
Report Prep & Project Management	15%	x	$38,977.00		$5,846.55
TOTAL					$44,823.55

*The appropriate mobilization cost can be added to complete these tasks, as necessary

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MR NEIL ALEXANDER
C/O ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINSTER SC 29693-5534

JUN 2 1 2012

UST 48Hed DOCKETING

Re: MMPE directive
Former Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; Cost Agreement #44059
Release reported January 11, 1993
Oconee County

Dear Mr. Alexander:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) recognizes your commitment to continue work at this site using Bunnell-LammonsEngineering, Inc. as your contractor. The next appropriate scope of work is to conduct a 48- hour Mobile Multiphase Extraction (MMPE) event on monitoring/recovery wells MWR-1, MWR-2, MW-6x, MW-51, MW-65, and MW-67 to remove free-phase product (FPP).

Cost Agreement #44059 has been approved in the amount shown on the enclosed cost agreement form for the MMPE event. MMPE activities may proceed immediately upon receipt of this letter, and must be performed by a South Carolina-Certified Underground Storage Tank Site Rehabilitation Contractor. All applicable South Carolina certification requirements apply to preparation of an MMPE report.

Bunnell-Lammons may directly bill the State Underground Petroleum Environmental Response Bank (SUPERB) Account. An invoice and MMPE report must be submitted to the Division within 60 days from the date of this letter. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available. Interim invoices for separate elements of the work scope may not be submitted.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Agency is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated costs must be pre-approved by the Agency for the costs to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with

established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Division grants pre-approval for transportation of petroleum-contaminated, investigative-derived waste (IDW) from the referenced site to a permitted treatment/disposal facility. The transport and disposal must be conducted in accordance with the QAPP and applicable Department of Transportation (DOT) regulations.

On all correspondence concerning this facility, please reference UST Permit #06742. If there are any questions concerning this project, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
06742.18

enc: Approved cost agreement form

cc: Bunnell-Lammons Engineering, Inc., 6004 Ponders Court, Greenville, SC 29615-4601 (w/enc)
Technical file (w/enc)

Approved Cost Agreement 44059

Facility: 06742 COUNTRY SIDE 2

PADGETJP

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		A	EQUIPMENT	1.0000	575.00	575.00
		B	PERSONNEL	2.0000	290.00	580.00
17 DISPOSAL						
		A	WASTEWATER	10,000.0000	0.80	8,000.00
19 RPT/PROJECT MNGT & COORDINATIO						
		PCT	PERCENT	0.1500	20,315.00	3,047.25
23 EFR						
		A	8 HOUR EVENT	1.0000	3,000.00	3,000.00
		B	ADDITIONAL HOUR	40.0000	204.00	8,160.00
				Total Amount		23,362.25

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF MOBILE MULTI-PHASE EXTRACTION EVENT

Former Crossroads Grocery
8050 West Oak Highway
Westminster, South Carolina
UST Permit #06742; Cost Agreement #44059

Prepared For:

Mr. Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693-5534

Prepared By:

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, South Carolina 29615
SCDHEC Certified Contractor UCC-0010

September 21, 2012

BLE Project Number J12-6940-04

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

September 21, 2012

South Carolina Department of Health and Environmental Control
Underground Storage Tank Program
Bureau of Land and Waste Management
2600 Bull Street
Columbia, SC 29201-1708

Attention: Mr. Joel P. Padgett, P.G.
Hydrogeologist

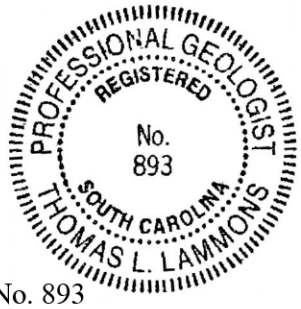
Subject: **Report of Mobile Multi-Phase Extraction Event**
Former Crossroads Grocery
8050 West Oak Highway
Westminster, South Carolina
UST Permit #06742; CA #44059
BLE Project No. J12-6940-04

Dear Mr. Padgett:

On behalf of Mr. Neil Alexander, Bunnell-Lammons Engineering, Inc. (BLE) has completed a 96-hour Mobile Multi-Phase Extraction (MMPE) event at the subject site. This scope of work was performed in response to South Carolina Department of Health and Environmental Control's (SCDHEC) letter, dated June 21, 2012. The results of our activities are provided herein. Please feel free to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.



Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina No. 2395

Thomas L. Lammons, P.G
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Neil Alexander, 8050 West Oak Highway, Westminster, SC 29693-5534

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

PROJECT INFORMATION

The subject property is located at 8050 West Oak Highway in Westminster, South Carolina (Figure 1). The site currently operates as Country Side 2, which is an active automobile fueling station and convenience store. We understand that five underground storage tanks (USTs) and associated piping and fueling dispensers were removed from the site in June 1990: (2) 1,000-gallon gasoline, (1) 550-gallon gasoline, (1) 550-gallon diesel, and (1) 550-gallon kerosene. Five new USTs, (1) 10,000-gallon off-road diesel, (1) 10,000-gallon kerosene, (1) 8,000-gallon "regular" gasoline, (1) 6,000-gallon "plus" gasoline, and (1) 6,000-gallon diesel, and associated equipment were installed in their place. In association with the UST removal activities, a release of petroleum contaminants to the subsurface was reported in January 1993. Numerous environmental assessments have been conducted at the site by various consultants since 1993, including the installation of over seventy-five groundwater monitoring/recovery wells to assess the horizontal and vertical extent of petroleum hydrocarbons in the water table aquifer. Additionally, petroleum free-product recovery has been conducted via multiple aggressive fluid vapor recovery (AFVR) events. BLE also understands that the site was previously in active corrective action utilizing a form of injection technology. Several injection wells are still present on the property.

Recent AFVR events appear to have been effective in reducing the thicknesses of free-product at the site. Therefore, SCDHEC has requested a 96-hour MMPE event be conducted in an effort to maximize free-product recovery over an extended period of time. This report documents the results of these activities.

MOBILE MULTI-PHASE EXTRACTION EVENT – JULY 9-13, 2012

On July 9-13, 2012, BLE personnel mobilized to the site to perform a 96-hour MMPE event on existing wells MWR-1, MW-6X, MW-51, MW-65, MW-67, and MW-70. The MMPE event was performed by Zava Industrial, Inc. of Graham, North Carolina utilizing an Atlantic Fluidics Multi-Phase Extractor with effluent pump, powered by a Caterpillar 60KW self-contained generator. A hydrogeologist from BLE was on site daily to observe and monitor the week-long event. A site and well location plan is shown as Figure 2.

Prior to initiating the MMPE event, BLE personnel gauged the wells using a Solinst® Interface Meter Model 122. Approximately 0.63 feet (MWR-1), 0.47 feet (MW-6X), 0.01 feet (MW-51), 0.22 feet (MW-65), 0.36 feet (MW-67), and 0.68 feet (MW-70) was detected in the wells (Figure 2). Additionally, the initial depth to free-product/groundwater readings in adjacent wells MWR-2, MW-3X, MW-8, MW-64, MW-66, and MW-69 were measured (feet below top of PVC casing (btoc)) and recorded on Table 1.

The MMPE event was initiated at 0930 on July 9, 2012 and concluded at 0930 on July 13, 2012. The general weather conditions observed during this period of time were partly cloudy skies with scattered showers and thunderstorms; winds varied between 5 and 10 mph with an ambient temperature between 70º and 95º Fahrenheit. Throughout the duration of the MMPE event, a continuous vacuum ranging between 20 and 21.5 inches of mercury was applied to MWR-1, MW-6X, MW-51, MW-65, MW-67, and MW-70. The depth to free-product/groundwater (feet btoc) was also measured daily in adjacent wells MWR-2, MW-3X, MW-8, MW-64, MW-66, and MW-69 to evaluate drawdown and free-product removal. Additionally, on September 10-12, 2012, temporary vacuum was applied to existing wells MWR-1A, MW-8, MW-54, MW-60, MW-61, MW-62, MW-63, MW-64, MW-66, MW-68, MW-69 to remove measurable free-product thicknesses from the wells. Gauging data observed during the MMPE event is shown in Table 1.

Effluent vapor concentrations along with the off-gas stack temperature, relative humidity, and air flow velocity were measured throughout the event using a MiniRAE® 2000 Photoionization Detector (PID) and an Extech 45160 Thermo-Hygro-Anemometer. The observed vapor concentrations are shown in Table 1A.

At the completion of the MMPE event, a total volume of 20,000 gallons of petroleum impacted groundwater was determined to have been recovered from the site. Of this volume, approximately 35 gallons of free-phase petroleum product was measured in the tanker trucks at the end of the MMPE event. Please note that petroleum product losses may occur through emulsification with the groundwater and volatilization during the AFVR event. Additionally, the liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness. Waste

transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix A.

A total of approximately 342 pounds of gasoline vapor which is equivalent to approximately 47 gallons of gasoline, were calculated to have been recovered during the MMPE event. The MMPE emissions calculations for this event are provided as Table 1A.

At the conclusion of the MMPE event, the applicable wells were immediately gauged for the presence of free-product. Free-phase product was only detected in monitoring wells MW-64 (0.09 feet), MW-68 (sheen), MW-61 (0.01 feet), MW-62 (0.02 feet), MW-60 (0.21 feet), and MW-63 (sheen). Total free-product/water level changes for this event are shown in Table 1.

CONCLUSIONS AND RECOMMENDATIONS

A total volume of 20,000 gallons of petroleum impacted groundwater was recovered during this current scope of work. Of this volume, approximately 35 gallons of liquid-phase petroleum product was measured in the tanker trucks and 47 gallons of vapor-phase petroleum product was calculated to have been recovered through off-gas emissions.

On August 14, 2012, BLE personnel mobilized to the site to measure 27 existing wells (MWR-1, MWR-1A, MW-2, MWR-2, MW-3, MWR-3, MWR-4, MWR-4R, MW-6x, MW-7, MW-7R, MW-8, MW-24, MW-25, MW-51, MW-54, and MW-60 through MW-70) for the presence of petroleum free-product. Measurable free-product was detected in 13 of the 27 gauged wells. Pre-MMPE and post-MMPE free-product measurements are shown in tabular format on Figure 2.

The MMPE event appears to have been extremely effective in reducing free-product thicknesses at the subject site. However, since free-product continues to be present in a wide-spread area at the facility, we recommend an additional 96-hour MMPE event be conducted to 1) remove residual free-phase product from the area around each extraction point, 2) remove petroleum hydrocarbon vapors from the unsaturated zone, and 3) remove petroleum impacted groundwater (mass) from the

subsurface. We recommend performing the MMPE event on the following wells: MW-54, MW-60, MW-61, MW-62, MW-64, MW-68, and MW-70. Temporary vacuum will be applied to the remaining monitoring wells exhibiting free-product during the MMPE event on an as-needed basis.

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Mr. Neil Alexander. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

TABLES

TABLE 1

MMPE Event Gauging Data - July 9-13, 2012
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #44059
BLE Project Number J12-6940-04

		Monitoring Well Gauging Data																			
	System Vacuum (in.of Hg)	Depth to Free-Product/Groundwater (feet BTOC)																			
		MMPE Wells						Adjacent Monitoring Wells													
Date		MWR-1	MW-6X	MW-51	MW-65	MW-67	MW-70	MWR-1A	MWR-2	MW-3X	MW-7R	MW-8	MW-54	MW-60	MW-61	MW-62	MW-63	MW-64	MW-66	MW-68	MW-69
7/9/12	20.0	35.45/36.08	32.18/32.65	33.80/33.81	32.86-33.08	33.45/33.81	34.26/34.94	35.38	33.50	35.25	34.17	35.50/36.29	NM	NM	NM	NM	NM	35.10/35.62	33.49/33.71	NM	35.38/35.39
7/10/12	21.0	39.22	39.86	37.26	44.86	43.10	39.92	NM	33.88	36.29	NM	36.38/36.42	35.39/36.30	35.50/36.29	35.38/36.06	35.35/35.81	35.47/35.79	35.34/35.90	36.44/36.60	35.88/36.64	35.43/35.44
7/11/12	21.5	39.89	38.81	39.18	44.23	44.71	36.05	NM	33.80	36.21	35.16	36.46	36.00/36.02	35.89/36.10	35.78/35.84	35.87/36.00	35.43/35.60	35.90/35.96	37.03/37.27	36.34/36.39	35.60/35.65
7/12/12	21.0	39.61	39.23	39.21	44.12	44.01	38.22	36.38	34.34	36.59	NM	NM	35.79/35.84	35.85/36.34	35.61/35.71	35.67/35.78	35.27/35.29	35.70/35.79	37.52/37.54	36.31/36.33	36.21/36.22
7/13/12	21.0	38.75	39.18	38.86	43.01	44.15	37.92	36.35	34.58	36.46	35.90	36.49	35.69	35.47/35.68	35.80/35.81	35.45/35.47	34.67	35.72/35.81	36.91	36.32	36.29
	Water Level Change (feet)	2.67	6.53	5.05	9.93	10.34	2.98	0.97	1.08	1.21	1.73	0.20	-0.61	-0.61	-0.25	-0.34	-1.12	0.19	3.20	-0.32	0.90
	Initial FP thickness (feet)	0.63	0.47	0.01	0.22	0.36	0.68	NFP	NFP	NFP	NFP	0.79	0.91	0.79	0.68	0.46	0.32	0.52	0.22	0.76	0.01
	Final FP thickness (feet)	NFP	NFP	NFP	NFP	NFP	NFP	NFP	NFP	NFP	NFP	NFP	NFP	0.21	0.01	0.02	NFP	0.09	NFP	NFP	NFP

NOTES:
MMPE event conducted July 9-13, 2012.
Vapor concentrations measured using a portable MiniRAE® 2000
Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
BTOC - below top of casing
ppm - parts per million
Water Level Change (feet) = Final depth to water minus initial depth to water; positive = drawdown; negative = rise
NFP - No free-phase product detected in wells

Prepared By: TJB
Checked By: IAI

TABLE 1A

MMPE Emissions Field Data - July 9-13, 2012
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #44059
BLE Project Number J12-6940-04

WELL ID #: MWR-1, MW-6X, MW-51, MW-65, MW-67, & MW-70

MMPE FIELD MEASUREMENTS								EMISSION CALCULATIONS										
Date	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Days	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	Total Pounds of Gasoline Recovered	PMR_g (gal/hr)	Total Gallons of Gasoline Recovered
7/9/2012	20.0	3,392	2	138.7	100	10,000	0	48.60	13,428.19	53,712.74	4	26,800.58	1.67E-03	4.88	5.65	0.0	0.781	0.0
7/10/2012	21.0	2,487	2	141.6	100	10,000	1	35.46	13,428.19	53,712.74	4	26,800.58	1.67E-03	3.56	4.12	98.9	0.570	13.7
7/11/2012	21.5	2,106	2	141.9	100	10,000	2	30.01	13,428.19	53,712.74	4	26,800.58	1.67E-03	3.01	3.49	83.7	0.482	11.6
7/12/2012	21.0	2,411	2	133.7	100	8,247	3	34.84	11,074.23	44,296.90	4	22,102.44	1.38E-03	2.88	3.34	80.1	0.461	11.1
7/13/2012	21.0	2,510	2	139.2	100	7,894	4	35.93	10,600.21	42,400.84	4	21,156.38	1.32E-03	2.85	3.30	79.1	0.456	10.9

B_{ws}	0.255	B_{wsw}	0.154

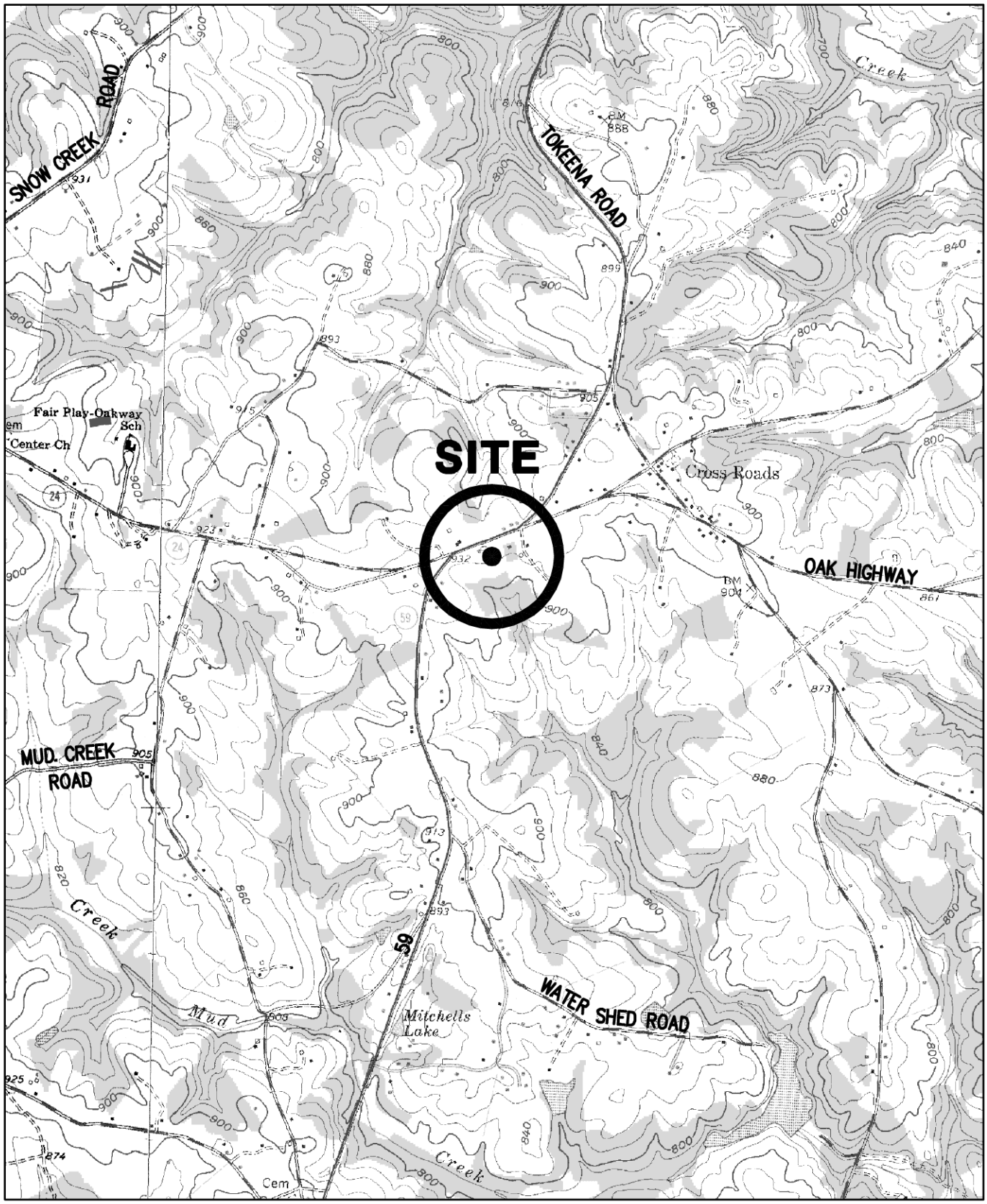
Cumulative Total Pounds of Gasoline Recovered as Emissions: 342
Cumulative Total Gallons of Gasoline Recovered as Emissions: 47

NOTES:

Vapor concentrations were measured using a portable MiniRAE® 3000 Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration
PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wsw} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By: TJB
Checked By: IAI

FIGURES

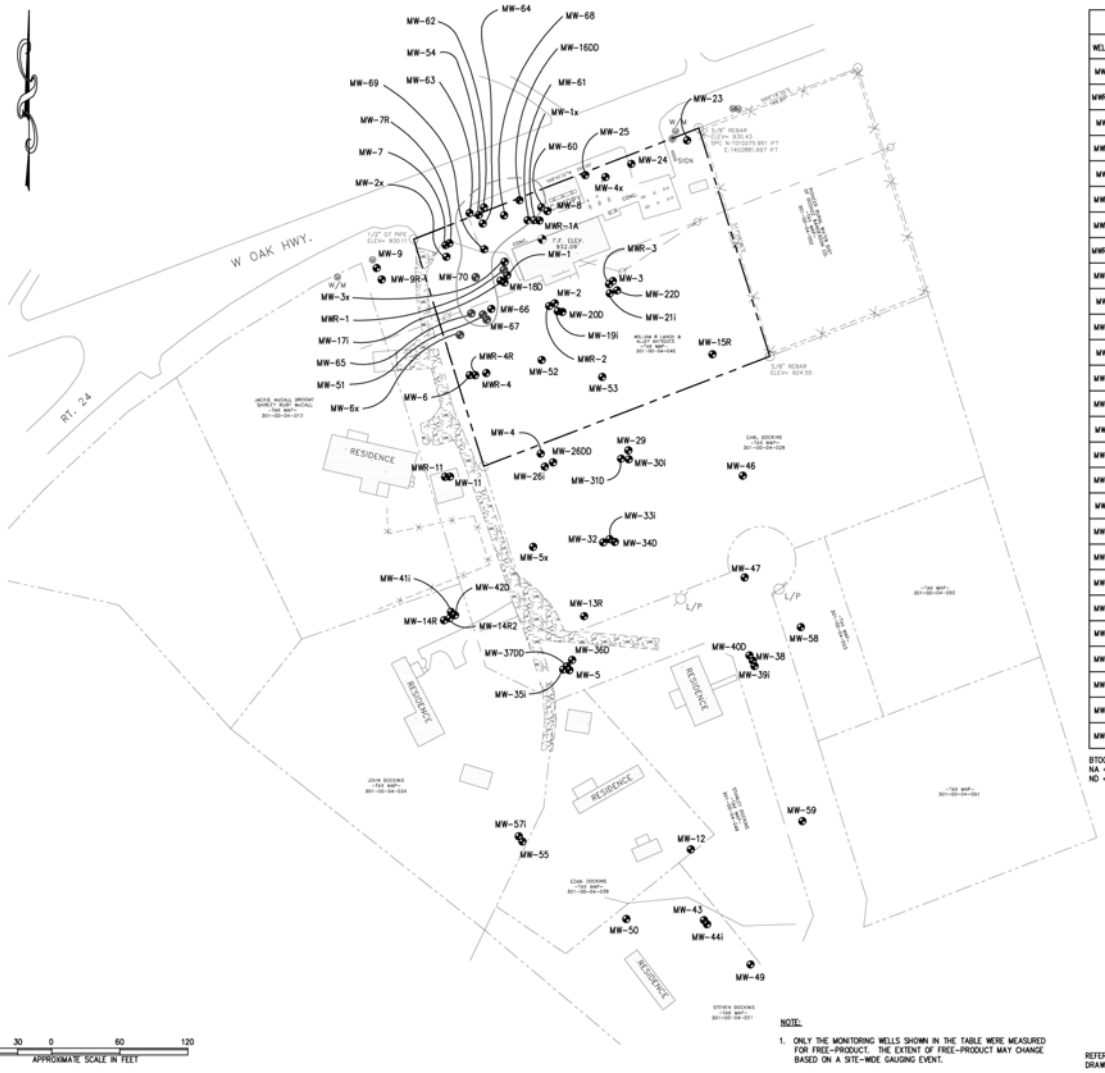


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, FAIR PLAY AND OAKWAY, S.C. QUADRANGLES, PHOTOREVISED 1979 AND 1985.

DRAWN: ACE	DATE: 09-11-12	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP FORMER CROSSROADS GROCERY UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA
CHECKED: TJB	CAD: FORMCRGROC-SLM		FIGURE 1
APPROVED:	JOB NO: J12-6940-04		



PRE- AND POST- MMPE EVENT
FREE-PRODUCT MEASUREMENTS

WELL ID	DATE	DEPTH TO FREE-PRODUCT (FEET BTOC)	DEPTH TO GROUNDWATER (FEET BTOC)	FREE-PRODUCT THICKNESS (FEET)
MWR-1	7-9-12	35.45	36.08	0.63
	8-14-12	ND	35.57	NA
MWR-1A	7-9-12	ND	35.38	NA
	8-14-12	ND	35.80	NA
MW-2	7-9-12	DRY	DRY	NA
	8-14-12	DRY	DRY	NA
MWR-2	7-9-12	ND	33.50	NA
	8-14-12	ND	33.64	NA
MW-3	7-9-12	DRY	DRY	NA
	8-14-12	DRY	DRY	NA
MWR-3	7-9-12	ND	33.81	NA
	8-14-12	ND	33.94	NA
MWR-4	7-9-12	ND	30.75	NA
	8-14-12	ND	30.86	NA
MWR-4R	7-9-12	ND	30.78	NA
	8-14-12	ND	30.85	NA
MW-6X	7-9-12	32.18	32.65	0.47
	8-14-12	ND	32.51	NA
MW-7	7-9-12	ND	34.67	NA
	8-14-12	ND	34.72	NA
MW-7R	7-9-12	ND	34.17	NA
	8-14-12	ND	34.21	NA
MW-8	7-9-12	35.50	36.29	0.79
	8-14-12	ND	35.95	NA
MW-24	7-9-12	ND	35.71	NA
	8-14-12	ND	35.85	NA
MW-25	7-9-12	ND	36.10	NA
	8-14-12	ND	36.17	NA
MW-51	7-9-12	33.80	33.81	0.01
	8-14-12	33.79	33.84	0.05
MW-54	7-10-12	35.39	36.30	0.91
	8-14-12	35.15	35.22	0.07
MW-60	7-10-12	35.50	36.29	0.79
	8-14-12	35.43	35.63	0.20
MW-61	7-10-12	35.38	36.06	0.68
	8-14-12	35.17	35.38	0.21
MW-62	7-10-12	35.35	35.81	0.46
	8-14-12	35.09	35.10	0.01
MW-63	7-10-12	35.47	35.79	0.32
	8-14-12	34.64	34.65	0.01
MW-64	7-9-12	35.10	35.62	0.52
	8-14-12	34.99	35.07	0.08
MW-65	7-9-12	32.86	33.08	0.22
	8-14-12	32.87	32.91	0.04
MW-66	7-9-12	33.49	33.71	0.22
	8-14-12	33.55	33.56	0.01
MW-67	7-9-12	33.45	33.81	0.36
	8-14-12	33.56	33.57	0.01
MW-68	7-10-12	35.88	36.64	0.76
	8-14-12	35.63	35.88	0.25
MW-69	7-9-12	35.38	35.39	0.01
	8-14-12	35.25	35.26	0.01
MW-70	7-9-12	34.26	34.94	0.68
	8-14-12	34.27	34.42	0.15

BTOC = BELOW TOP OF PVC CASING
NA = NOT APPLICABLE
ND = NOT DETECTED

LEGEND

- SURVEYED LOCATION OF GROUNDWATER MONITORING WELL
- MONITORING WELL UTILIZED IN MOBILE MULTI-PHASE EXTRACTION (MMPE) EVENT
- APPROXIMATE AREA EXHIBITING FREE-PRODUCT AS GAUGED ON AUGUST 14, 2012 (DASHED WHERE INFERRED)

NOTE:

1. ONLY THE MONITORING WELLS SHOWN IN THE TABLE WERE MEASURED FOR FREE-PRODUCT. THE EXTENT OF FREE-PRODUCT MAY CHANGE BASED ON A SITE-WIDE GAUGING EVENT.

REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

REVISIONS					
No.	DESCRIPTION	BY	DRAWN: ACE	DATE: 09-10-12	
			CHECKED: TJB	CAD FILE: FORMCRGROC-04MMPE	
			APPROVED:	JOB NO: J12-6940-04	

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
6004 FOWLERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

MMPE EVENT SITE PLAN
FORMER CROSSROADS GROCERY
UST PERMIT #06742
WESTMINSTER, SOUTH CAROLINA

FIGURE NO. 2

APPENDICES

APPENDIX A

WASTE TRANSPORTATION AND DISPOSAL RECORDS

VLS recovery services, llc

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
			0710122I

GENERATOR

5. Generator's Name and Mailing Address

~~BUNNELL-LAMMON ENG, INC~~
6004 PONDERS COURT
GREENVILLE, SC 29615
Generator's Phone: ~~864-288-1265~~

Generator's Site Address (if different than mailing address)

ZAVA INDUSTRIAL SVC.
909 E. ELM ST. GRAHAM, NC 27253
910-538-8419

6. Transporter 1 Company Name: SPARKS INDUSTRIAL SERVICE — U.S. EPA ID Number: 7012108

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address

VLS RECOVERY SERVICES, LLC
305 S. MAIN STREET
MAULDIN, SC 29662
Facility's Phone: 864-962-9953

U.S. EPA ID Number: SCR000752469

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON HAZ NON REG WELL WATER # ~~1428~~ 15136	1	TT	~~750~~ Est. 5000	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

Westminster Site

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Wm Maynard — Signature: [signature] — Month 7 Day 16 Year 12

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Owenby — Signature: [signature] — Month 7 Day 10 Year 12

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Angelo Talley — Signature: [signature] — Month 7 Day 10 Year 12

VLS recovery services, llc

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
				SJ7111213

GENERATOR

5. Generator's Name and Mailing Address

BUNNELL-LAMMON ENG, INC
6004 PONDERS COURT
GREENVILLE, SC 29615

Generator's Site Address (if different than mailing address)

ZAVA

Generator's Phone: 864-286-1265

6. Transporter 1 Company Name: SPARKS INDUSTRIAL SERVICE — U.S. EPA ID Number:

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address

VLS RECOVERY SERVICES, LLC
305 S. MAIN STREET
MAULDIN, SC 29662

U.S. EPA ID Number: SCR000762468

Facility's Phone: 864-962-9953

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	NON HAZ NON REG WELL WATER #XXXX 15136	1	TT	5000	G
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information

Westminster Site

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Win Maynard — Signature: [signature] — Month / Day / Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steven Johnson — Signature: [signature] — Month 7 Day 11 Year 12

Transporter 2 Printed/Typed Name: — Signature: — Month / Day / Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month / Day / Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Angelo Talley — Signature: Angelo Talley — Month 7 Day 11 Year 12

VLS recovery services, llc

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
				RO 71212

GENERATOR

5. Generator's Name and Mailing Address

BUNNELL-LAMMON ENG, INC
6004 PONDERS COURT
GREENVILLE, SC 29615

Generator's Phone: ~~864-288-1265~~

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: SPARKS INDUSTRIAL SERVICE — # 701208 — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address

VLS RECOVERY SERVICES, LLC
305 S. MAIN STREET
MAULDIN, SC 29662

Facility's Phone: 864-962-9953

U.S. EPA ID Number: SCR000762468

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	NON HAZ NON REG WELL WATER # ~~XXXX~~ 15136	1	ST	5000	gallons
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information

Westminster Site

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Wm Maynard — Signature — Month / Day / Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Owenby — Signature: Roger Owenby — Month: 7 — Day: 12 — Year: 12

Transporter 2 Printed/Typed Name — Signature — Month / Day / Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month / Day / Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Angelo Talley — Signature: Angelo Talley — Month: 7 — Day: 12 — Year: 12

VLS recovery services, llc

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
			7312

GENERATOR

5. Generator's Name and Mailing Address

BUNNELL-LAMMON ENG, INC
6004 PONDERS COURT
GREENVILLE, SC 29615

Generator's Phone: 864-288-1265

Generator's Site Address (if different than mailing address)

ZAVA INDUSTRIAL INC
909 EAST ELEM STREET
GRAHAM, NC 27233

6. Transporter 1 Company Name: SPARKS INDUSTRIAL SERVICE — U.S. EPA ID Number:

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address

VLS RECOVERY SERVICES, LLC
305 S. MAIN STREET
MAULDIN, SC 29662

U.S. EPA ID Number: SCR000762468

Facility's Phone: 864-962-9953

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON HAZ NON REG WELL WATER #~~XGWR~~ 15136	Est		5000	Gallons	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

WESTMINSTER SITE

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: WIN MAYNARD — Signature: SIGNATURE ON FILE — Month: 7 — Day: 13 — Year: 2012

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Owenby — Signature: Roger Owenby — Month: 7 — Day: 13 — Year: 12

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Angelo Talley — Signature: Angelo Talley — Month: 7 — Day: 13 — Year: 12

D H E C
PROMOTE PROTECT PROSPER

CA Addendum

Padgett, Joel P. <padgetjp@dhec.sc.gov>

Former Crossroads Grocery - UST Permit #06742 - MMPE Event

1 message

Trevor Benton <trevor@blecorp.com> Fri, Sep 21, 2012 at 3:35 PM
To: "Joel P. Padgett" <Padgetjp@dhec.sc.gov>

Hey Joel,

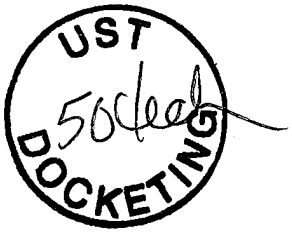
I hope you had a good week. I wanted to let you know that I have sent the MMPE Report to your attention and I am I the process of pulling together the invoice. The costs for the MMPE event were a bit higher than the original CA (as expected). I think if we add the correct volume of water extracted from the site and two additional personnel mobilizations, we will be good. Below are the requested addendums to the Cost Agreement:

Addition of 10,000-gallons of wastewater (20,000 gallons total) @ $0.80/gal = $8,000.00

Addition of 2 personnel mobilizations @ $290.00/each = $580.00

15% Report/Project Management = $1,287.00

Total Project Addendum = $9,867.00



Please let me know if you have any questions or need any additional information. Have a great weekend and GO TIGERS!

Trevor J. Benton, P.G.
Project Hydrogeologist
Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615
(864) 288-1265 (office)
(864) 288-4430 (fax)
(864) 346-8208 (cell)

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BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF MOBILE MULTI-PHASE EXTRACTION EVENT

Former Crossroads Grocery
8050 West Oak Highway
Westminster, South Carolina
UST Permit #06742; Cost Agreement #44059

Prepared For:

Mr. Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693-5534

Prepared By:

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, South Carolina 29615
SCDHEC Certified Contractor UCC-0010

September 21, 2012

BLE Project Number J12-6940-04

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

September 21, 2012

South Carolina Department of Health and Environmental Control
Underground Storage Tank Program
Bureau of Land and Waste Management
2600 Bull Street
Columbia, SC 29201-1708

Attention: Mr. Joel P. Padgett, P.G.
Hydrogeologist

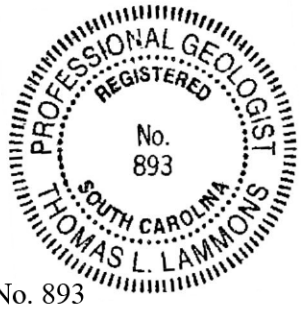
Subject: **Report of Mobile Multi-Phase Extraction Event**
Former Crossroads Grocery
8050 West Oak Highway
Westminster, South Carolina
UST Permit #06742; CA #44059
BLE Project No. J12-6940-04

Dear Mr. Padgett:

On behalf of Mr. Neil Alexander, Bunnell-Lammons Engineering, Inc. (BLE) has completed a 96-hour Mobile Multi-Phase Extraction (MMPE) event at the subject site. This scope of work was performed in response to South Carolina Department of Health and Environmental Control's (SCDHEC) letter, dated June 21, 2012. The results of our activities are provided herein. Please feel free to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.



Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina No. 2395

Thomas L. Lammons, P.G
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Neil Alexander, 8050 West Oak Highway, Westminster, SC 29693-5534

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

PROJECT INFORMATION

The subject property is located at 8050 West Oak Highway in Westminster, South Carolina (Figure 1). The site currently operates as Country Side 2, which is an active automobile fueling station and convenience store. We understand that five underground storage tanks (USTs) and associated piping and fueling dispensers were removed from the site in June 1990: (2) 1,000-gallon gasoline, (1) 550-gallon gasoline, (1) 550-gallon diesel, and (1) 550-gallon kerosene. Five new USTs, (1) 10,000-gallon off-road diesel, (1) 10,000-gallon kerosene, (1) 8,000-gallon "regular" gasoline, (1) 6,000-gallon "plus" gasoline, and (1) 6,000-gallon diesel, and associated equipment were installed in their place. In association with the UST removal activities, a release of petroleum contaminants to the subsurface was reported in January 1993. Numerous environmental assessments have been conducted at the site by various consultants since 1993, including the installation of over seventy-five groundwater monitoring/recovery wells to assess the horizontal and vertical extent of petroleum hydrocarbons in the water table aquifer. Additionally, petroleum free-product recovery has been conducted via multiple aggressive fluid vapor recovery (AFVR) events. BLE also understands that the site was previously in active corrective action utilizing a form of injection technology. Several injection wells are still present on the property.

Recent AFVR events appear to have been effective in reducing the thicknesses of free-product at the site. Therefore, SCDHEC has requested a 96-hour MMPE event be conducted in an effort to maximize free-product recovery over an extended period of time. This report documents the results of these activities.

MOBILE MULTI-PHASE EXTRACTION EVENT – JULY 9-13, 2012

On July 9-13, 2012, BLE personnel mobilized to the site to perform a 96-hour MMPE event on existing wells MWR-1, MW-6X, MW-51, MW-65, MW-67, and MW-70. The MMPE event was performed by Zava Industrial, Inc. of Graham, North Carolina utilizing an Atlantic Fluidics Multi-Phase Extractor with effluent pump, powered by a Caterpillar 60KW self-contained generator. A hydrogeologist from BLE was on site daily to observe and monitor the week-long event. A site and well location plan is shown as Figure 2.

Prior to initiating the MMPE event, BLE personnel gauged the wells using a Solinst® Interface Meter Model 122. Approximately 0.63 feet (MWR-1), 0.47 feet (MW-6X), 0.01 feet (MW-51), 0.22 feet (MW-65), 0.36 feet (MW-67), and 0.68 feet (MW-70) was detected in the wells (Figure 2). Additionally, the initial depth to free-product/groundwater readings in adjacent wells MWR-2, MW-3X, MW-8, MW-64, MW-66, and MW-69 were measured (feet below top of PVC casing (btoc)) and recorded on Table 1.

The MMPE event was initiated at 0930 on July 9, 2012 and concluded at 0930 on July 13, 2012. The general weather conditions observed during this period of time were partly cloudy skies with scattered showers and thunderstorms; winds varied between 5 and 10 mph with an ambient temperature between 70º and 95º Fahrenheit. Throughout the duration of the MMPE event, a continuous vacuum ranging between 20 and 21.5 inches of mercury was applied to MWR-1, MW-6X, MW-51, MW-65, MW-67, and MW-70. The depth to free-product/groundwater (feet btoc) was also measured daily in adjacent wells MWR-2, MW-3X, MW-8, MW-64, MW-66, and MW-69 to evaluate drawdown and free-product removal. Additionally, on September 10-12, 2012, temporary vacuum was applied to existing wells MWR-1A, MW-8, MW-54, MW-60, MW-61, MW-62, MW-63, MW-64, MW-66, MW-68, MW-69 to remove measurable free-product thicknesses from the wells. Gauging data observed during the MMPE event is shown in Table 1.

Effluent vapor concentrations along with the off-gas stack temperature, relative humidity, and air flow velocity were measured throughout the event using a MiniRAE® 2000 Photoionization Detector (PID) and an Extech 45160 Thermo-Hygro-Anemometer. The observed vapor concentrations are shown in Table 1A.

At the completion of the MMPE event, a total volume of 20,000 gallons of petroleum impacted groundwater was determined to have been recovered from the site. Of this volume, approximately 35 gallons of free-phase petroleum product was measured in the tanker trucks at the end of the MMPE event. Please note that petroleum product losses may occur through emulsification with the groundwater and volatilization during the AFVR event. Additionally, the liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness. Waste

transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix A.

A total of approximately 342 pounds of gasoline vapor which is equivalent to approximately 47 gallons of gasoline, were calculated to have been recovered during the MMPE event. The MMPE emissions calculations for this event are provided as Table 1A.

At the conclusion of the MMPE event, the applicable wells were immediately gauged for the presence of free-product. Free-phase product was only detected in monitoring wells MW-64 (0.09 feet), MW-68 (sheen), MW-61 (0.01 feet), MW-62 (0.02 feet), MW-60 (0.21 feet), and MW-63 (sheen). Total free-product/water level changes for this event are shown in Table 1.

CONCLUSIONS AND RECOMMENDATIONS

A total volume of 20,000 gallons of petroleum impacted groundwater was recovered during this current scope of work. Of this volume, approximately 35 gallons of liquid-phase petroleum product was measured in the tanker trucks and 47 gallons of vapor-phase petroleum product was calculated to have been recovered through off-gas emissions.

On August 14, 2012, BLE personnel mobilized to the site to measure 27 existing wells (MWR-1, MWR-1A, MW-2, MWR-2, MW-3, MWR-3, MWR-4, MWR-4R, MW-6x, MW-7, MW-7R, MW-8, MW-24, MW-25, MW-51, MW-54, and MW-60 through MW-70) for the presence of petroleum free-product. Measurable free-product was detected in 13 of the 27 gauged wells. Pre-MMPE and post-MMPE free-product measurements are shown in tabular format on Figure 2.

The MMPE event appears to have been extremely effective in reducing free-product thicknesses at the subject site. However, since free-product continues to be present in a wide-spread area at the facility, we recommend an additional 96-hour MMPE event be conducted to 1) remove residual free-phase product from the area around each extraction point, 2) remove petroleum hydrocarbon vapors from the unsaturated zone, and 3) remove petroleum impacted groundwater (mass) from the

subsurface. We recommend performing the MMPE event on the following wells: MW-54, MW-60, MW-61, MW-62, MW-64, MW-68, and MW-70. Temporary vacuum will be applied to the remaining monitoring wells exhibiting free-product during the MMPE event on an as-needed basis.

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Mr. Neil Alexander. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

TABLES

TABLE 1

MMPE Event Gauging Data - July 9-13, 2012
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #44059
BLE Project Number J12-6940-04

		Monitoring Well Gauging Data																			
	System Vacuum (in.of Hg)	Depth to Free-Product/Groundwater (feet BTOC)																			
		MMPE Wells						Adjacent Monitoring Wells													
Date		MWR-1	MW-6X	MW-51	MW-65	MW-67	MW-70	MWR-1A	MWR-2	MW-3X	MW-7R	MW-8	MW-54	MW-60	MW-61	MW-62	MW-63	MW-64	MW-66	MW-68	MW-69
7/9/12	20.0	35.45/36.08	32.18/32.65	33.80/33.81	32.86-33.08	33.45/33.81	34.26/34.94	35.38	33.50	35.25	34.17	35.50/36.29	NM	NM	NM	NM	NM	35.10/35.62	33.49/33.71	NM	35.38/35.39
7/10/12	21.0	39.22	39.86	37.26	44.86	43.10	39.92	NM	33.88	36.29	NM	36.38/36.42	35.39/36.30	35.50/36.29	35.38/36.06	35.35/35.81	35.47/35.79	35.34/35.90	36.44/36.60	35.88/36.64	35.43/35.44
7/11/12	21.5	39.89	38.81	39.18	44.23	44.71	36.05	NM	33.80	36.21	35.16	36.46	36.00/36.02	35.89/36.10	35.78/35.84	35.87/36.00	35.43/35.60	35.90/35.96	37.03/37.27	36.34/36.39	35.60/35.65
7/12/12	21.0	39.61	39.23	39.21	44.12	44.01	38.22	36.38	34.34	36.59	NM	NM	35.79/35.84	35.85/36.34	35.61/35.71	35.67/35.78	35.27/35.29	35.70/35.79	37.52/37.54	36.31/36.33	36.21/36.22
7/13/12	21.0	38.75	39.18	38.86	43.01	44.15	37.92	36.35	34.58	36.46	35.90	36.49	35.69	35.47/35.68	35.80/35.81	35.45/35.47	34.67	35.72/35.81	36.91	36.32	36.29
	Water Level Change (feet)	2.67	6.53	5.05	9.93	10.34	2.98	0.97	1.08	1.21	1.73	0.20	-0.61	-0.61	-0.25	-0.34	-1.12	0.19	3.20	-0.32	0.90
	Initial FP thickness (feet)	0.63	0.47	0.01	0.22	0.36	0.68	NFP	NFP	NFP	NFP	0.79	0.91	0.79	0.68	0.46	0.32	0.52	0.22	0.76	0.01
	Final FP thickness (feet)	NFP	NFP	NFP	NFP	NFP	NFP	NFP	NFP	NFP	NFP	NFP	NFP	0.21	0.01	0.02	NFP	0.09	NFP	NFP	NFP

NOTES:
MMPE event conducted July 9-13, 2012.
Vapor concentrations measured using a portable MiniRAE® 2000
Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
BTOC - below top of casing
ppm - parts per million
Water Level Change (feet) = Final depth to water minus initial depth to water; positive = drawdown; negative = rise
NFP - No free-phase product detected in wells

Prepared By: TJB
Checked By: IAI

TABLE 1A

MMPE Emissions Field Data - July 9-13, 2012
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #44059
BLE Project Number J12-6940-04

WELL ID #: MWR-1, MW-6X, MW-51, MW-65, MW-67, & MW-70

MMPE FIELD MEASUREMENTS								EMISSION CALCULATIONS										
Date	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Days	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	Total Pounds of Gasoline Recovered	PMR_g (gal/hr)	Total Gallons of Gasoline Recovered
7/9/2012	20.0	3,392	2	138.7	100	10,000	0	48.60	13,428.19	53,712.74	4	26,800.58	1.67E-03	4.88	5.65	0.0	0.781	0.0
7/10/2012	21.0	2,487	2	141.6	100	10,000	1	35.46	13,428.19	53,712.74	4	26,800.58	1.67E-03	3.56	4.12	98.9	0.570	13.7
7/11/2012	21.5	2,106	2	141.9	100	10,000	2	30.01	13,428.19	53,712.74	4	26,800.58	1.67E-03	3.01	3.49	83.7	0.482	11.6
7/12/2012	21.0	2,411	2	133.7	100	8,247	3	34.84	11,074.23	44,296.90	4	22,102.44	1.38E-03	2.88	3.34	80.1	0.461	11.1
7/13/2012	21.0	2,510	2	139.2	100	7,894	4	35.93	10,600.21	42,400.84	4	21,156.38	1.32E-03	2.85	3.30	79.1	0.456	10.9

B_{ws}	0.255	B_{wsw}	0.154

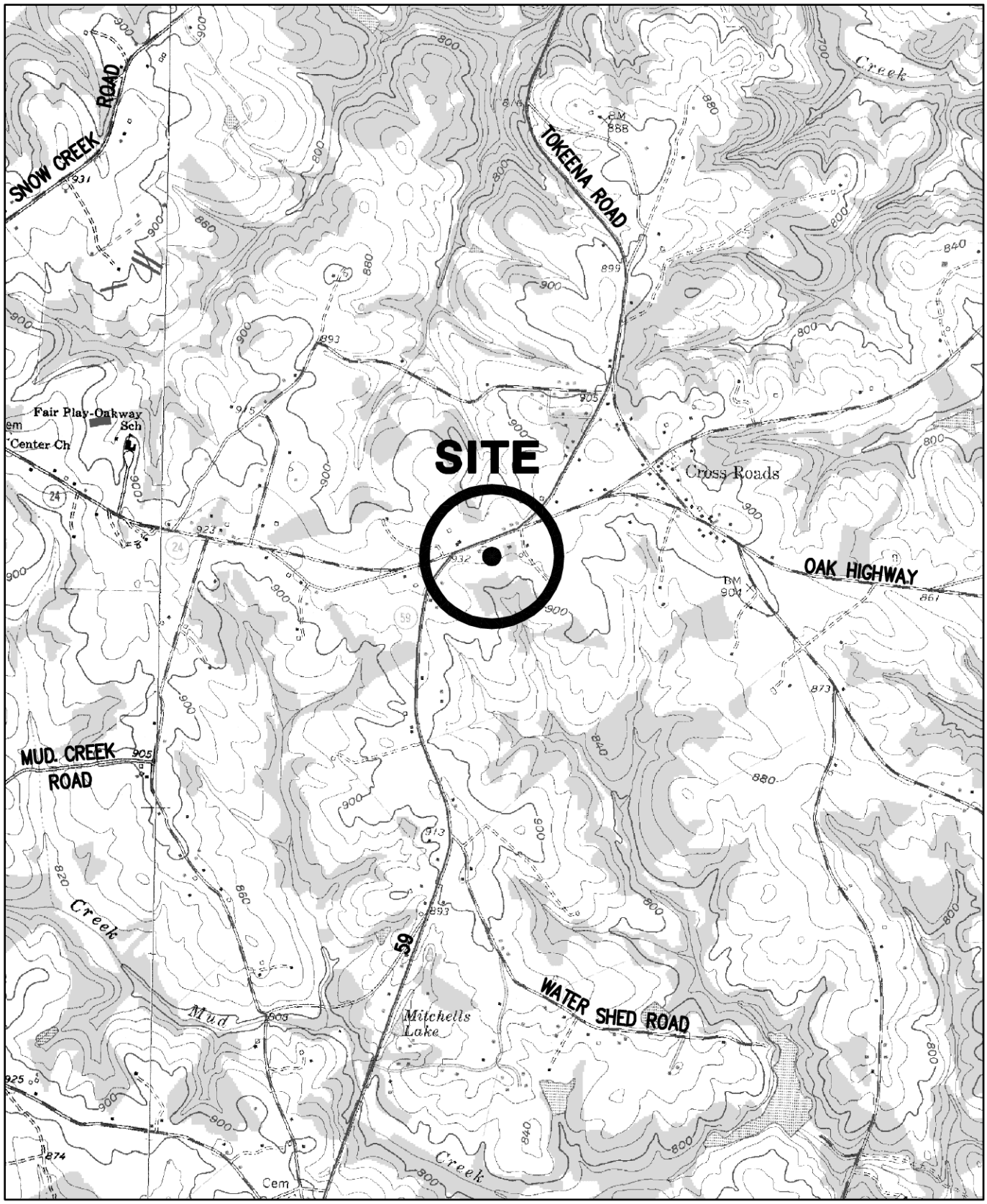
Cumulative Total Pounds of Gasoline Recovered as Emissions: 342
Cumulative Total Gallons of Gasoline Recovered as Emissions: 47

NOTES:

Vapor concentrations were measured using a portable MiniRAE® 3000 Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration
PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wsw} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By: TJB
Checked By: IAI

FIGURES

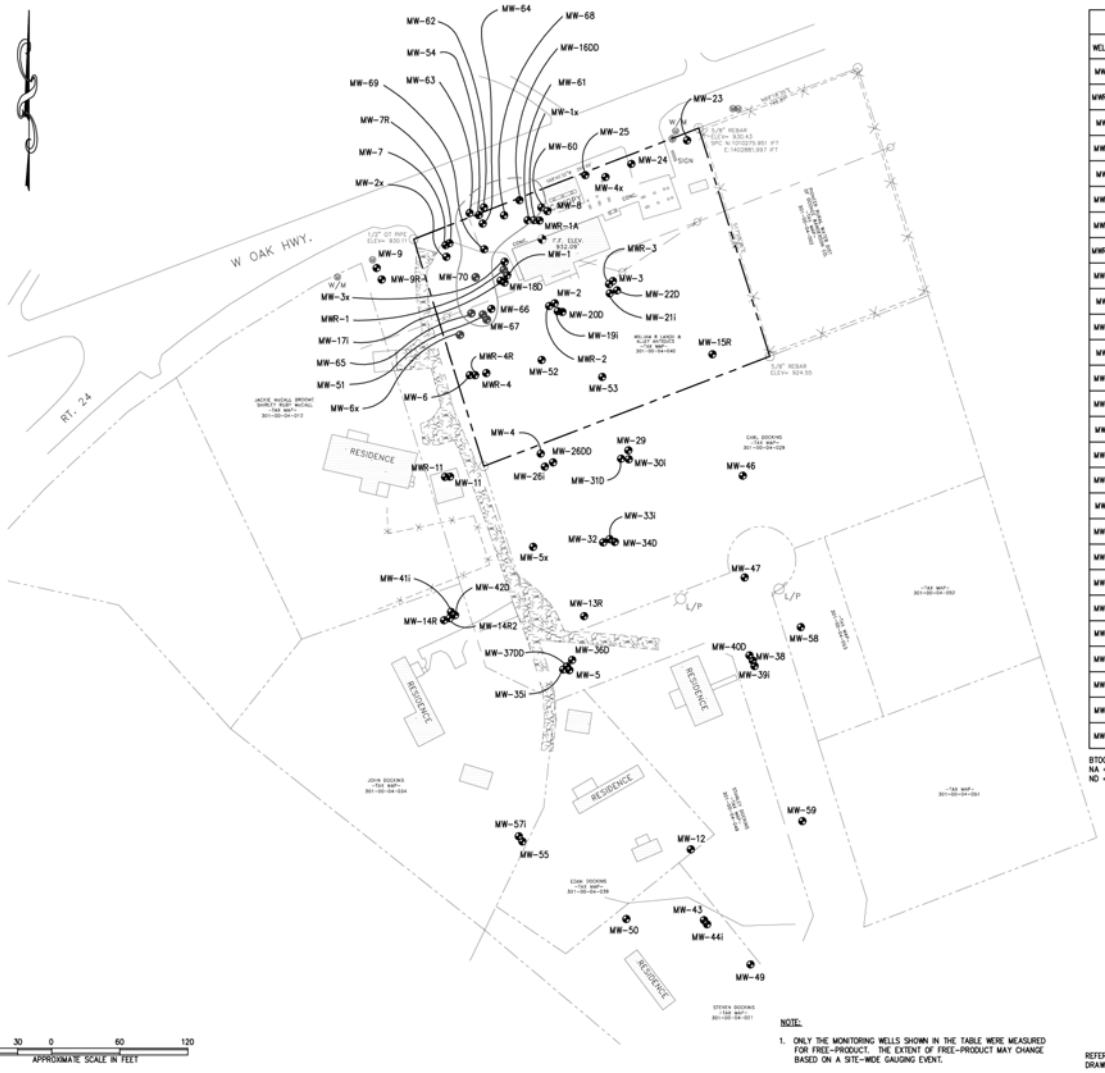


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, FAIR PLAY AND OAKWAY, S.C. QUADRANGLES, PHOTOREVISED 1979 AND 1985.

DRAWN: ACE	DATE: 09-11-12	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP FORMER CROSSROADS GROCERY UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA
CHECKED: TJB	CAD: FORMCRGROC-SLM		FIGURE 1
APPROVED:	JOB NO: J12-6940-04		



PRE- AND POST- MMPE EVENT
FREE-PRODUCT MEASUREMENTS

WELL ID	DATE	DEPTH TO FREE-PRODUCT (FEET BTOC)	DEPTH TO GROUNDWATER (FEET BTOC)	FREE-PRODUCT THICKNESS (FEET)
MWR-1	7-9-12	35.45	36.08	0.63
	8-14-12	ND	35.57	NA
MWR-1A	7-9-12	ND	35.38	NA
	8-14-12	ND	35.80	NA
MW-2	7-9-12	DRY	DRY	NA
	8-14-12	DRY	DRY	NA
MWR-2	7-9-12	ND	33.50	NA
	8-14-12	ND	33.64	NA
MW-3	7-9-12	DRY	DRY	NA
	8-14-12	DRY	DRY	NA
MWR-3	7-9-12	ND	33.81	NA
	8-14-12	ND	33.94	NA
MWR-4	7-9-12	ND	30.75	NA
	8-14-12	ND	30.86	NA
MWR-4R	7-9-12	ND	30.78	NA
	8-14-12	ND	30.85	NA
MW-6X	7-9-12	32.18	32.65	0.47
	8-14-12	ND	32.51	NA
MW-7	7-9-12	ND	34.67	NA
	8-14-12	ND	34.72	NA
MW-7R	7-9-12	ND	34.17	NA
	8-14-12	ND	34.21	NA
MW-8	7-9-12	35.50	36.29	0.79
	8-14-12	ND	35.95	NA
MW-24	7-9-12	ND	35.71	NA
	8-14-12	ND	35.85	NA
MW-25	7-9-12	ND	36.10	NA
	8-14-12	ND	36.17	NA
MW-51	7-9-12	33.80	33.81	0.01
	8-14-12	33.79	33.84	0.05
MW-54	7-10-12	35.39	36.30	0.91
	8-14-12	35.15	35.22	0.07
MW-60	7-10-12	35.50	36.29	0.79
	8-14-12	35.43	35.63	0.20
MW-61	7-10-12	35.38	36.06	0.68
	8-14-12	35.17	35.38	0.21
MW-62	7-10-12	35.35	35.81	0.46
	8-14-12	35.09	35.10	0.01
MW-63	7-10-12	35.47	35.79	0.32
	8-14-12	34.64	34.65	0.01
MW-64	7-9-12	35.10	35.62	0.52
	8-14-12	34.99	35.07	0.08
MW-65	7-9-12	32.86	33.08	0.22
	8-14-12	32.87	32.91	0.04
MW-66	7-9-12	33.49	33.71	0.22
	8-14-12	33.55	33.56	0.01
MW-67	7-9-12	33.45	33.81	0.36
	8-14-12	33.56	33.57	0.01
MW-68	7-10-12	35.88	36.64	0.76
	8-14-12	35.63	35.88	0.25
MW-69	7-9-12	35.38	35.39	0.01
	8-14-12	35.25	35.26	0.01
MW-70	7-9-12	34.26	34.94	0.68
	8-14-12	34.27	34.42	0.15

BTOC = BELOW TOP OF PVC CASING
NA = NOT APPLICABLE
ND = NOT DETECTED

LEGEND

- SURVEYED LOCATION OF GROUNDWATER MONITORING WELL
- MONITORING WELL UTILIZED IN MOBILE MULTI-PHASE EXTRACTION (MMPE) EVENT
- APPROXIMATE AREA EXHIBITING FREE-PRODUCT AS GAUGED ON AUGUST 14, 2012 (DASHED WHERE INFERRED)

NOTE:

1. ONLY THE MONITORING WELLS SHOWN IN THE TABLE WERE MEASURED FOR FREE-PRODUCT. THE EXTENT OF FREE-PRODUCT MAY CHANGE BASED ON A SITE-WIDE GAUGING EVENT.

REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

REVISIONS					
No.	DESCRIPTION	BY	DRAWN: ACE	DATE: 09-10-12	
			CHECKED: TJB	CAD FILE: FORMCRGROC-04MMPE	
			APPROVED:	JOB NO: J12-6940-04	

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
6004 FOWLERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

MMPE EVENT SITE PLAN
FORMER CROSSROADS GROCERY
UST PERMIT #06742
WESTMINSTER, SOUTH CAROLINA

FIGURE NO. 2

APPENDICES

APPENDIX A

WASTE TRANSPORTATION AND DISPOSAL RECORDS

VLS recovery services, llc

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
			0710122I

GENERATOR

5. Generator's Name and Mailing Address

~~BUNNELL-LAMMON ENG, INC~~
6004 PONDERS COURT
GREENVILLE, SC 29615
Generator's Phone: ~~864-288-1265~~

Generator's Site Address (if different than mailing address)

ZAVA INDUSTRIAL SVC.
909 E. ELM ST. GRAHAM, NC 27253
910-538-8419

6. Transporter 1 Company Name: SPARKS INDUSTRIAL SERVICE — U.S. EPA ID Number: 7012108

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address

VLS RECOVERY SERVICES, LLC
305 S. MAIN STREET
MAULDIN, SC 29662
Facility's Phone: 864-962-9953

U.S. EPA ID Number: SCR000752469

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON HAZ NON REG WELL WATER # ~~1428~~ 15136	1	TT	~~750~~ Est. 5000	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

Westminster Site

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Wm Maynard — Signature: [signature] — Month 7 Day 16 Year 12

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Owenby — Signature: [signature] — Month 7 Day 10 Year 12

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Angelo Talley — Signature: [signature] — Month 7 Day 10 Year 12

VLS recovery services, llc

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
				SJ7111213

GENERATOR

5. Generator's Name and Mailing Address

BUNNELL-LAMMON ENG, INC
6004 PONDERS COURT
GREENVILLE, SC 29615

Generator's Site Address (if different than mailing address)

ZAVA

Generator's Phone: 864-286-1265

6. Transporter 1 Company Name: SPARKS INDUSTRIAL SERVICE — U.S. EPA ID Number:

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address

VLS RECOVERY SERVICES, LLC
305 S. MAIN STREET
MAULDIN, SC 29662

U.S. EPA ID Number: SCR000762468

Facility's Phone: 864-962-9953

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	NON HAZ NON REG WELL WATER #XXXX 15136	1	TT	5000	G
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information

Westminster Site

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Win Maynard — Signature: [signature] — Month / Day / Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steven Johnson — Signature: [signature] — Month 7 Day 11 Year 12

Transporter 2 Printed/Typed Name: — Signature: — Month / Day / Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month / Day / Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Angelo Talley — Signature: Angelo Talley — Month 7 Day 11 Year 12

VLS recovery services, llc

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
				RO 71212

GENERATOR

5. Generator's Name and Mailing Address

BUNNELL-LAMMON ENG, INC
6004 PONDERS COURT
GREENVILLE, SC 29615

Generator's Phone: ~~864-288-1265~~

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: SPARKS INDUSTRIAL SERVICE — # 701208 — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address

VLS RECOVERY SERVICES, LLC
305 S. MAIN STREET
MAULDIN, SC 29662

Facility's Phone: 864-962-9953

U.S. EPA ID Number: SCR000762468

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	NON HAZ NON REG WELL WATER # ~~XXXX~~ 15136	1	ST	5000	gallons
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information

Westminster Site

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Wm Maynard — Signature — Month / Day / Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Owenby — Signature: Roger Owenby — Month: 7 — Day: 12 — Year: 12

Transporter 2 Printed/Typed Name — Signature — Month / Day / Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month / Day / Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Angelo Talley — Signature: Angelo Talley — Month: 7 — Day: 12 — Year: 12

VLS recovery services, llc

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
			7312

GENERATOR

5. Generator's Name and Mailing Address

BUNNELL-LAMMON ENG, INC
6004 PONDERS COURT
GREENVILLE, SC 29615

Generator's Phone: 864-288-1265

Generator's Site Address (if different than mailing address)

ZAVA INDUSTRIAL INC
909 EAST ELEM STREET
GRAHAM, NC 27233

6. Transporter 1 Company Name: SPARKS INDUSTRIAL SERVICE — U.S. EPA ID Number:

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address

VLS RECOVERY SERVICES, LLC
305 S. MAIN STREET
MAULDIN, SC 29662

U.S. EPA ID Number: SCR000762468

Facility's Phone: 864-962-9953

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON HAZ NON REG WELL WATER #~~XGWR~~ 15136	Est		5000	Gallons	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

WESTMINSTER SITE

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: WIN MAYNARD — Signature: SIGNATURE ON FILE — Month: 7 — Day: 13 — Year: 2012

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Owenby — Signature: Roger Owenby — Month: 7 — Day: 13 — Year: 12

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Angelo Talley — Signature: Angelo Talley — Month: 7 — Day: 13 — Year: 12

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

MAR 25 2013

UST MAR 25 2013 PROGRAM

MR NEIL ALEXANDER
C/O ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINSTER SC 29693-5534

UST 52tech DOCKETING

Re: QAPP Contractor Addendum request
Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit #06742
Release reported January 11, 1993
Oconee County

Dear Mr. Alexander:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) recognizes your commitment to continue work at this site using Emerald, Inc. as your contractor. The next scope of work is groundwater sampling as outlined in the UST Quality Assurance Program Plan (QAPP). Please have your contractor plan to sample all monitoring wells, recovery wells, and surface water location SW-1 for BTEX+naph+MtBE+DCA+oxygenates and EDB in accordance with the QAPP and in compliance with all applicable regulations. Do not sample wells containing measurable free-phase product. A copy of the QAPP is available at http://www.scdhec.gov/environment/lwm/usthome/Qapp.htm.

Your contractor must complete and submit a QAPP Contractor Addendum for the sampling, and a cost agreement for the sampling within 30 days of the date of this letter. Upon review and approval of the Addendum and cost agreement, the Division will issue a directive to you for the work.

On all correspondence concerning this site, please reference UST Permit #06742. If there are any questions, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
06742.19

cc: Bunnell-Lammons Engineering, Inc., 6004 Ponders Court, Greenville, SC 29615-4601
Technical file

DHEC/UST/JPP/030513

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

June 11, 2013

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
2600 Bull Street
Columbia, South Carolina 29201-1708

Attention: Mr. Joel P. Padgett, P.G., Geologist/Hydrologist

Subject: **QAPP Addendum – Groundwater Sampling Event**
Country Side 2
8050 West Oak Highway
West Minister, Anderson County, South Carolina
SCDHEC UST Permit #06742
BLE Project No. J13-6940-05

Dear Mr. Padgett:

On behalf of Mr. Neil Alexander, Bunnell-Lammons Engineering, Inc. (BLE) submits herein the completed Quality Assurance Program Plan (QAPP) addendum for the subject site. This submittal is in response to the South Carolina Department of Health and Environmental Control's (SCDHEC) QAPP addendum request dated March 25, 2013, for the implementation of a groundwater sampling event at the subject site. Upon approval from SCDHEC, additional copies of the QAPP addendum will be distributed to the parties listed in section A3.

Please do not hesitate to contact us if you have any questions concerning this submittal.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina #2395

Thomas L. Lammons, P.G., CHMM
Principal Hydrogeologist
Registered, South Carolina #893

cc: Mr. Neil Alexander, Alley Antiques, 8050 West Oak Hwy, Westminster, SC 29693-5534

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Country Side 2– UST Permit #06742

8050 West Oak Highway, Westminster, South Carolina

Prepared by: Trevor J. Benton, P.G – Bunnell-Lammons Engineering, Inc.

Date: June 11, 2013

Bunnell-Lammons Engineering, Inc. – SCDHEC Certified Contractor No. UCC-0010

Approvals

Joel P. Padgett, P.G.
SC DHEC Project Manager
_____ Date _____
Signature

Andrew Alexander, P.G.
Contractor QA Manager
A W Alexander Date 6/11/13
Signature

Thomas L. Lammons, P.G.
Site Rehabilitation Contractor
T L Lammons Date 6/11/13
Signature

Daniel J. Wright
Laboratory Director
Daniel J Wright Date 6/11/13
Signature

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Attachment C – YSI 550A Dissolved Oxygen Instrument Calibration, Maintenance, and Operation Procedures

Attachment D – LaMotte Model 2020 Turbidimeter Calibration and Operation Procedures

ASSESSMENT COMPONENT COST AGREEMENT

A3 Distribution List

Name	Title	Organization/Address	Telephone Number	Fax Number	Email Address
Joel P. Padgett, P.G.	SC DHEC Technical Project Manager	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-898-0655	803-896-6245	padgetjp@dhec.sc.gov
Thomas Lammons, P.G.	Site Rehabilitation Contractor	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	tom@blecorp.com
Trevor Benton, P.G.	Field Manager	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	trevor@blecorp.com
Andrew Alexander, P.G.	Contractor QA Manager/ Project Verifier	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court Greenville, SC 29615	864-288-1265	864-288-4430	andy@blecorp.com
Daniel Wright	Laboratory Director	Shealy Environmental Services, Inc. 106 Vantage Point Dr. West Columbia, SC 29172	803-791-9700	803-791-9111	dwright@ shealylab.com

Table 1A Addendum Distribution List

A4 Project Organization

Role from the UST Master QAPP	Name of person in this Role for this Project	Organization/Address	Telephone Number	Fax Number	Email Address
Project Manager	Joel P. Padgett, P.G.	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-898-0655	803-896-6245	padgetjp@dhec.sc.gov
Site Rehabilitation Contractor	Thomas Lammons, P.G.	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	tom@blecorp.com
Field Manager	Trevor Benton, P.G.	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	trevor@blecorp.com

Role from the UST Master QAPP	Name of person in this Role for this Project	Organization/Address	Telephone Number	Fax Number	Email Address
Analytical Laboratory Director	Dan Wright	Shealy Environmental Services, Inc. 106 Vantage Point Dr. West Columbia, SC 29172	803-791-9700	803-791-9111	dwright@ shealylab.com
Contractor QA Manager/ Project Verifier	Andrew Alexander, P.G.	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	andy@blecorp.com
Purge Water Disposal Contractor	Robin Woodward	VLS Recovery Services, LLC 305 South Main Street Mauldin, SC 29662	864-962-9953	864-963-3997	robin.woodward@vlsrs.com

Table 2A Addendum Role Identification and Contact Information

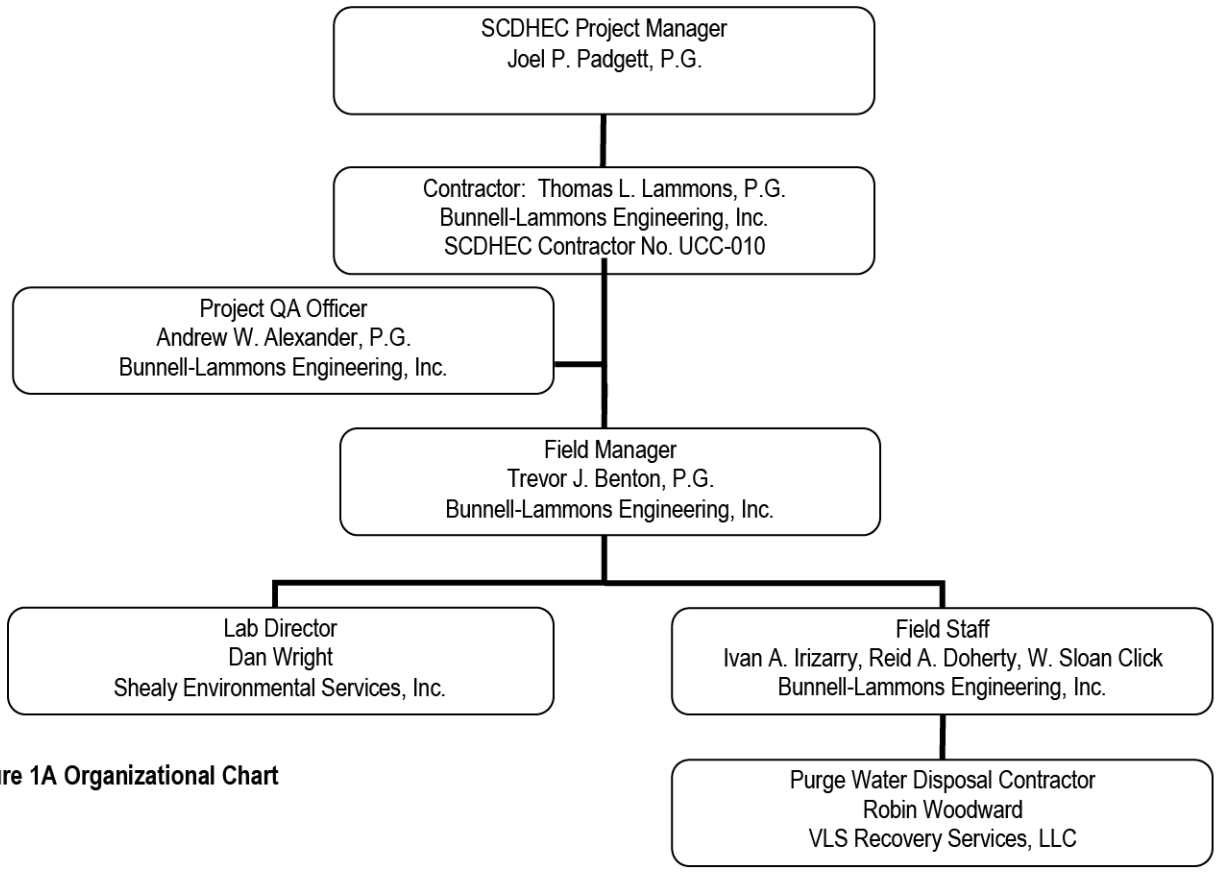


Figure 1A Organizational Chart

Discuss the responsibilities of key individuals associated with the project.

SCHEC Project Manager – Responsible for direct oversight of contractors conducting assessment and site rehabilitation of releases at UST sites. Perform day-to-day review of plans and reports related to site rehabilitation activities on their assigned sites. These reviews include verification and analysis of data submitted to the UST Management Division by site rehabilitation contractors and analytical laboratories and recommendations for future work. Also responsible for validating the Project Data.

Contractor – Responsible for managing and coordinating field and office activities necessary for assessment or cleanup. Perform data analysis and interpretation of field data.

Project QA Officer – Responsible for the Quality Assurance aspect of the Project. The QA officer is independent of the staff generating the project data; however, works closely with the Field Manager to ensure tasks are completed in compliance with the QAPP procedures. Additionally, the QA officer is responsible for monitoring the QA Project Plan.

Field Manager – Oversees and reviews all field activities. Responsible for all duties (i.e. site access, boring access, utility clearance, etc.) required to initiate field activities. Field Staff and the analytical laboratory report directly to the Field Manager with any problems or potential issues. The Field Manager also reviews and compiles all field data provided by the Field Staff and analytical laboratory. Project information is discussed with the Project QA Officer to ensure compliance.

Lab Director – Responsible for ensuring production, quality, and overall direction of the laboratory. Oversees the laboratory QA manager and has the authority to stop work and initiate Corrective Actions if problems are identified.

Field Staff – Conducts field activities such as drilling oversight and sample collection. Field Staff report directly to and provide daily field notes to the Field Manager. Additionally, the field staff are responsible for coordination and management of on-site subcontractors during field work completion.

Purge Water Disposal Contractor – Responsible for classification and disposal of investigation derive waste in accordance with all regulatory requirements. Ensure that proper waste characterization is provided and transportation/disposal manifests are complete.

A5 Problem Definition/Background

Discuss the background (as much as is known) of the site and appropriate historical information, and why this site is being assessed.

The subject property is located at 8050 West Oak Highway in Westminster, South Carolina (Figure 1). The site currently operates as Country Side 2, which is an active automobile fueling station and convenience store. We understand that five underground storage tanks (USTs) and associated piping and fueling dispensers were removed from the site in June 1990: (2) 1,000-gallon gasoline, (1) 550-gallon gasoline, (1) 550-gallon diesel, and (1) 550-gallon kerosene. Five new USTs, (1) 10,000-gallon off-road diesel, (1) 10,000-gallon kerosene, (1) 8,000-gallon "regular" gasoline, (1) 6,000-gallon "plus" gasoline, and (1) 6,000-gallon diesel, and associated equipment were installed in their place. In association with the UST removal activities, a release of petroleum contaminants to the subsurface was reported in January 1993. Numerous environmental assessments have been conducted at the site by various consultants since 1993, including the installation of over eighty-one groundwater monitoring/recovery wells to assess the horizontal and vertical extent of petroleum hydrocarbons in the water table aquifer. Additionally,

petroleum free-product recovery has been conducted via multiple aggressive fluid vapor recovery (AFVR) events and a 96-hour Mobile Multi-Phase Extraction (MMPE) event. BLE understands that the site was previously in active corrective action utilizing a form of injection technology. Several injection wells associated with the prior remedial activities are still present on the property.

In an effort to determine what risk the release may pose to the environment and to evaluate current groundwater chemical of concern (CoC) data, the SCDHEC has required an updated comprehensive groundwater sampling event be conducted at the site. Additionally, one surface water sample (SW-1) is to be collected from an unnamed tributary to Beaverdam Creek, located approximately 675 feet south/southeast of the subject site. A Site Plan depicting the current groundwater monitoring well network and location of the surface water sampling point is provided as Figure 2.

Please answer the following: Does this project fall under UST or Brownfields area?

UST Division (UST Permit #06742)

A6 Project/Task Description

1. ***Summarize what is known about the work to be done. This can be a short sentence indicating what the Scope of this project is (see Master QAPP Section A6).***

Conduct a comprehensive groundwater sampling event at the subject site pursuant to SCDHEC's Master QAPP - Section A6 and B1. Currently, 81 groundwater monitoring wells and one surface water location are associated with the subject site. Each location will be sampled and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), naphthalene, methyl-tert-butyl-ether (MTBE), 1,2-dichloroethane (1,2-DCA), and 8-oxygenates by EPA Method 8260B and 1,2-dibromoethane (EDB) by EPA Method 8011.

2. ***The work will begin within <u>two weeks</u> after cost approval and the project should be <u>completed within 60 days</u>.***

3. ***Are there time or resource constraints? Include those factors that may interfere with the tentative schedule.***

Weather is a possible time constraint for this current scope of work.

A7 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs)

Detail the geographical area that is to be part of the project. Maps should be included to show not only the topography and the geographical area of the State, but also to show more detail of the site itself including property lines.

See attached Figures 1 and 2.

A8 Training and Certificates

Required training and licenses:

Title/Job	Name	Training Required	Date training received	Type of License	License Number
Hydrogeologist	Thomas Lammons, P.G., CHMM	40-hour OSHA HAZWOPER & 8-Hour Refresher	1/23/13	SC Professional Geologist	#893
Hydrogeologist	Trevor Benton, P.G.	40-hour OSHA HAZWOPER & 8-Hour Refresher	1/23/13	SC Professional Geologist	#2395
Hydrogeologist	Andrew Alexander, P.G.	40-hour OSHA HAZWOPER & 8-Hour Refresher	1/23/13	SC Professional Geologist	#2028
Geologist	Ivan A. Irizarry	40-hour OSHA HAZWOPER & 8-Hour Refresher	1/23/13	N/A	N/A
Geologist	Reid A. Doherty	40-hour OSHA HAZWOPER & 8-Hour Refresher	3/19/13	N/A	N/A
Geologist	W. Sloan Click	40-hour OSHA HAZWOPER & 8-Hour Refresher	1/23/13	N/A	N/A
Lab Manager	Daniel Wright	N/A	N/A	Lab Certification	SC32010

Table 3A Required Training and Licenses

Thomas L. Lammons, P.G. of Bunnell-Lammons Engineering, Inc. is responsible to ensuring that personnel participating in this project receive the proper training. All training records will be stored in the following location: Bunnell-Lammons Engineering, Inc., Human Resources Department Files c/o Ms. Esther Lande.

It is understood that training records will be produced if requested by SC DHEC.

The Following Laboratory(ies) will be used for this Project:

Commercial Lab(s)

Full Name of the Laboratory: Shealy Environmental Services, Inc.
Name of Lab Director: Dan Wright
SC DHEC Certification Number: 32010
Parameters this Lab will analyze for this project:

Groundwater

- BTEX, Naphthalene, MTBE, 1,2-DCA, and 8-Oxygenates by EPA Method 8260B
- EDB by EPA Method 8011

Please note: SC DHEC may require that the contractor submit some or all of the Laboratory's SOPs as part of this QAPP.

A9 Documents and Records

Personnel will receive the most current version of the QAPP Addendum via: (Check all that apply)

XXX US Mail ____ Courier **XXX** Hand delivered

Other (please specify): _____

Record	Produced By	Hardcopy/ Electronic	Storage Location For How Long?	Archival
Project Field Notes	BLE personnel	Hardcopy	BLE file library. Hard copy storage for a minimum of 3 years.	After 3 years, the project data may be scanned and transferred to CD. CDs and/or reports will be archived in BLEs file library for a minimum of 5 years.
Instrument Raw Data	Shealy Environmental Services, Inc.	Hardcopy and Electronic	Hardcopy: Offsite 7 years Electronic: External hard drive 10 years	Yes
Laboratory Analytical Data	Shealy Environmental Services, Inc.	Hardcopy & Electronic	Shealy will retain data on an external hard drive for 10 years. Data stored in BLE file library and electronic data storage backup. BLE hard copy storage for a minimum of 3 years.	After 3 years, the project data may be scanned and transferred to CD. CDs and/or reports will be archived in BLEs file library for a minimum of 5 years.

Record	Produced By	Hardcopy/ Electronic	Storage Location For How Long?	Archival
Final Report	BLE personnel	Hardcopy & Electronic	BLE file library and electronic data storage backup. Hard copy storage for a minimum of 3 years.	After 3 years, the project data may be scanned and transferred to CD. CDs and/or reports will be archived in BLEs file library for a minimum of 5 years.

Table 4A Record Identification, Storage, and Disposal

Section B Measurement/Data Acquisition

B1 Sampling Process/Experimental Design

Item	Start Date	End Date	Comments
QAPP Addendum Preparation/Approval	June 11, 2013	June 25, 2013	Date assumes two weeks for SCDHEC QAPP review.
Monitoring Well Sampling	July 8, 2013	July 11, 2013	Sample groundwater monitoring wells and surface water point as directed. See SOP Attachment A for groundwater sampling procedures.
Report Preparation, Review, and Submittal	July 22, 2013	August 23, 2013	Report preparation, review, and submittal dates are contingent on completion of all required project activities. Date may be subject to change.

Table 5A Sampling Activities

B2 Sampling Methods

Please note: The contractor must follow sampling protocols as given in the UST QAPP.

***Estimate* the number of samples of each matrix that are expected to be collected:**

Soil	0
Ground Water from Monitoring Wells	81
From Drinking/Irrigation Water Wells	0
From Surface Water Features	1
Field Duplicates	5
Field Blanks	4
Trip Blanks	3
Total Number of Water Samples	94

The samples will be (check as many as apply): ____Homogenized ____Split

For the sample matrices indicated above, please describe how samples will be collected and the equipment needed.

A Heron Little Dipper Water Level Indicator and/or a Solinst Interface Meter will be used to measure the depth-to-water and/or depth-to-product in the monitoring wells prior to sample collection. An Oakton Model 35630-62 Multi-Parameter Meter will be used to measure pH, specific conductivity, and temperature during the groundwater sampling event and a YSI 550A Dissolved Oxygen Meter will be used to measure dissolved oxygen levels in the groundwater. Additionally, a LaMotte Model 2020 Turbidimeter will be used to monitor turbidity during purging to ensure that the groundwater sample collected is representative of the formation.

Will Sampling Equipment have to be cleaned and decontaminated or is everything disposable?

Disposable sampling equipment (i.e tubing, bailers, latex gloves, etc.) will be utilized for collecting groundwater samples.

Groundwater monitoring well samples will be collected with disposable polyethylene bailers. A new bailer will be utilized for each sampling location. Monitoring well sampling procedures are provided in SOP Attachment A.

The Heron Little Dipper Water Level Indicator and/or Solinst Interface Meter will require cleaning and decontamination between each groundwater monitoring well sampling. The Oakton Model 35630-62 Multi-Parameter Meter and YSI 550A Dissolved Oxygen Meter will require cleaning and decontamination between measurements.

If sampling equipment must be cleaned please give a detailed description of how this is done and the disposal of by-products from the cleaning and decontamination.

Disposable sampling equipment (i.e. tubing, bailers, latex gloves, etc.) will be utilized for collecting groundwater samples, and will be properly disposed of after collection of each groundwater sample.

The Heron Little Dipper Water Level Indicator and/or Solinst Interface Meter will be cleaned and decontaminated by between each use. Decontamination procedures will consist of donning a new, clean pair of disposable gloves. A clean, lint free paper towel saturated with an alconox (or similar laboratory detergent)-potable water mix and a second paper towel saturated with distilled water will be used to wipe the water level tape as it is rewound onto the spool. Plastic will be placed underneath the meter to capture any rinse fluids. The water level indicator probe will be rinsed with an alconox-potable water mix, followed by a final rinse with distilled water. Used gloves and paper towels will be properly disposed of after decontamination procedures are complete.

The Oakton Model 35630-62 Multi-Parameter Meter, YSI 550A Dissolved Oxygen Meter, and LaMotte Model 2020 Turbidimeter will be cleaned and decontaminated between each measurement by first rinsing with an alconox-potable water mix. If the sampling equipment is severely contaminated, a soft disposable brush will be used. The alconox-potable water rinse will be followed by several rinses with de-ionized water prior to the next measurement. The glass cylinders of the LaMotte Model 2020 Turbidimeter will be wiped dry with a clean, lint free cloth following decontamination.

By-products of the cleaning and decontamination will be contained in a 55-gallon drum and transported off-site for disposal at a permitted facility.

Identify any equipment and support facilities needed. This may include such things as Fed-ex to ship the samples, a Geoprobe, field analysis done by another contractor (who must be certified), and electricity to run sampling equipment.

Equipment: Chevrolet 1500 support truck with power inverter capabilities

Water Disposal Contractor: VLS Recovery Services, LLC – 305 S. Main Street, Mauldin, SC 29662

Laboratory Courier: Shealy Environmental – 106 Vantage Point Drive, West Columbia, SC 29172

Address the actions to be taken when problems occur in the field, and the person responsible for taking corrective action and how the corrective action will be documented.

Failure	Response	Documentation	Individual Responsible
Property Access	Notify SCDHEC project manager of failure to receive property access.	Telephone record/ email correspondence to SCDHEC placed in project file.	Field Manager: Trevor J. Benton, P.G. trevor@blecorp.com
Monitoring Well Not Located or Well is Dry	Field personnel notify field manager of issue(s). Field manger will notify SCDHEC project manager of issue(s).	Field notes placed in project file. Telephone record/email (if applicable) to SCDHEC placed in project file.	Field Manager: Trevor J. Benton, P.G. trevor@blecorp.com
Heron Little Dipper Water Level Indicator Failure	Notify field manager of equipment failure. Clean indicator probe and replace batteries in the field. If problem persists, use backup water level indicator and send failed equipment to Field Environmental Instruments, Inc. in Pittsburgh, Pennsylvania for repair.	Telephone record/email correspondence to field manager.	Field Staff: Ivan A. Irizarry Reid A. Doherty W. Sloan Click Field Manager: Trevor J. Benton, P.G. trevor@blecorp.com
Solinst Interface Meter Product – Water Level Indicator Failure	Notify field manager of equipment failure. Clean indicator probe and replace batteries in the field. If problem persists, use backup interface meter and send failed equipment to Field Environmental Instruments, Inc. in Pittsburgh, Pennsylvania for repair.	Telephone record/email correspondence to field manager.	Field Staff: Ivan A. Irizarry Reid A. Doherty W. Sloan Click Field Manager: Trevor J. Benton, P.G. trevor@blecorp.com

Failure	Response	Documentation	Individual Responsible
Oakton Model 35630-62 Multi-Parameter Meter Failure	Notify field manager of equipment failure. Clean probe and replace batteries in the field, then recalibrate according to manufacturer's standards. If problem persists, use backup meter and send failed equipment to Field Environmental Instruments, Inc. in Pittsburgh, Pennsylvania for repair.	Telephone record/email correspondence to field manager.	Field Staff: Ivan A. Irizarry Reid A. Doherty W. Sloan Click Field Manager: Trevor J. Benton, P.G. trevor@blecorp.com
YSI 550A Dissolved Oxygen Meter	Notify field manager of equipment failure. Replace membrane with spare, clean probe, and replace batteries in the field, then recalibrate according to manufacturer's standards. If problem persists, use backup meter and send failed equipment to Pine Environmental Services in Lilburn, Georgia for repair.	Telephone record/email correspondence to field manager.	Field Staff: Ivan A. Irizarry Reid A. Doherty W. Sloan Click Field Manager: Trevor J. Benton, P.G. trevor@blecorp.com
LaMotte Model 2020 Turbidimeter Failure	Notify field manager of equipment failure. Replace batteries in the field, then recalibrate according to manufacturer's standards. If problem persists, use backup turbidimeter and send failed equipment to Pine Environmental Services in Lilburn, Georgia for repair.	Telephone record/email correspondence to field manager.	Field Staff: Ivan A. Irizarry Reid A. Doherty W. Sloan Click Field Manager: Trevor J. Benton, P.G. trevor@blecorp.com

Table 6A Field Corrective Action

B3 Sample Handling and Custody

1. ***How will the samples get from the Site to the Lab to ensure holding requirements are met?***

   By vehicle to BLE office; then vehicle pick-up by laboratory courier who delivers to lab location.

2. ***How will the contractors cool the samples and keep the samples cool?***

   Wet ice will be used in an appropriate sized cooler for storage of samples between project site and office. Once at office, samples will be maintained at appropriate temperatures in a refrigerator/freezer in a secured storage room located within the office.

3. ***How will the lab determine the temperature of the samples upon receipt? Will they be using a temperature blank?***

   A calibrated thermometer and temperature blank will be used to document sample temperature. The temperature blank is immediately checked by the sample receiving technician upon arrival at the laboratory.

4. ***Where will the samples be stored in the Lab once they are received?***

   All samples are stored in clean refrigeration units monitored and maintained at 4 degrees C + or – 2 degrees. Volatile organic samples are stored separately from all other samples.

5. ***Describe the chain of custody procedure and attach a copy of each chain of custody that will be used. If a Chain of Custody SOP exists from the Lab and the Contractor is willing to adhere to it, then this may be attached.***

   A chain of custody (COC) will be filled out for each sampling event at the site. COC will be signed by Bunnell-Lammons Engineering, Inc. field staff and Shealy Environmental Services, Inc. lab staff at time physical transfer of samples occurs to courier. Shealy Environmental Services, Inc. uses the following COC procedures to protect sample integrity following pickup by their courier: A full time Sample Receiving Technician receives all samples and completes a Sample Receipt Checklist (SRC), which will identify any anomalies. If any anomalies exist, the Sample Receiving Technician or Project Manager must resolve the deviation internally and/or notify the client to resolve the anomaly. A copy of a standard Shealy Environmental Services, Inc. COC is included with SOP Attachment A.

B4 Analytical Methods

1. ***Identify the SOPs which will be used to analyze the samples, the method which the SOP references and the equipment or instrumentation that is needed:***

Parameter	SOP ID*	Method Referenced	Equipment	Comments
Specific Conductivity	See Standard Operating Procedures Attachment B for Oakton pH/Conductivity Series 10 Multi-Parameter Tester Calibration and Operation Procedures	Manufacturer Product Manual/Specifications	Oakton Model 35630-62 Multi-Parameter Meter	None
pH	See Standard Operating Procedures Attachment B for Oakton pH/Conductivity Series 10 Multi-Parameter Tester Calibration and Operation Procedures	Manufacturer Product Manual/Specifications	Oakton Model 35630-62 Multi-Parameter Meter	None
Temperature	See Standard Operating Procedures Attachment B for Oakton pH/Conductivity Series 10 Multi-Parameter Tester Calibration and Operation Procedures	Manufacturer Product Manual/Specifications	Oakton Model 35630-62 Multi-Parameter Meter	None
Dissolved Oxygen	See Standard Operating Procedures Attachment C for YSI 550A Dissolved Oxygen Instrument Calibration, Maintenance, and Operation Procedures	Manufacturer Product Manual/Specifications	YSI 550A Dissolved Oxygen Meter	None

Turbidity	See Attachment D Standard Operating Procedures for LaMotte Model 2020 Turbidimeter Instrument Analysis	Manufacturer Product Manual/Specifications	LaMotte Model 2020 Turbidimeter	None
BTEX+Naphthalene +MTBE+1,2-DCA+ 8 Oxygenates	S-VO-002	8260B	GC/MS	None
EDB	S-SV-012	8011	GC	None

Table 7A Analytical SOPs and Referenced Methods

- **This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

Abbreviation	Identification of this SOP	Full Name of the SOP
SOP Attachment A	SOP Attachment A	Monitoring Well Purging and Sampling Procedures
SOP Attachment B	SOP Attachment B	Oakton pH/Conductivity Series 10 Multi-Parameter Tester Calibration and Operation Procedures
SOP Attachment C	SOP Attachment C	YSI 550A Dissolved Oxygen Instrument Calibration, Maintenance, and Operation Procedures
SOP Attachment D	SOP Attachment D	LaMotte Model 2020 Turbidimeter Calibration and Operation Procedures
S-VO-002	S-VO-002	GC/MS Volatiles Analysis Based on EPA Methods 8260B and 624 Prepared by EPA Methods 5030B, 5035 and 3585
S-SV-012	S-SV-012	GC/ECD Analysis of EDB and DBCP Based on Method 8011 & 504.1

Table 8A SOP Abbreviation Key

2. Identify procedures to follow when failures occur, identify the individual responsible for corrective action and appropriate documentation:

Failure	Response	Documented Where?	Individual Responsible
COC or Sample Receiving Issues	Call Client	Sample Receiving Checklist (SRC)	PM – Lucas Odom lodom@shealylab.com
Analytical Errors	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director – Daniel Wright dwright@shealylab.com
QA/QC Failure	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director – Daniel Wright dwright@shealylab.com QA/QC Officer – Jami Savje jsavje@shealylab.com
On Time Delivery	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director – Daniel Wright dwright@shealylab.com QA/QC Officer – Jami Savje jsavje@shealylab.com
Specific Conductivity Reading Failure	Notify field manager of equipment failure. Clean probe and replace batteries in the field, then recalibrate according to manufacturer's standards. If problem persists, use backup meter and send failed equipment to Field Environmental Instruments, Inc. in Pittsburgh, Pennsylvania for repair.	Include a narrative of problem in field notes	*Field Staff:* Ivan A. Irizarry Reid A. Doherty W. Sloan Click *Field Manager:* Trevor J. Benton, P.G. trevor@blecorp.com

Failure	Response	Documented Where?	Individual Responsible
pH Reading Failure	Notify field manager of equipment failure. Clean probe and replace batteries in the field, then recalibrate according to manufacturer's standards. If problem persists, use backup meter and send failed equipment to Field Environmental Instruments, Inc. in Pittsburgh, Pennsylvania for repair.	Include a narrative of problem in field notes	*Field Staff:* Ivan A. Irizarry, Reid A. Doherty, W. Sloan Click; *Field Manager:* Trevor J. Benton, P.G. trevor@blecorp.com
Temperature Reading Failure	Notify field manager of equipment failure. Clean probe and replace batteries in the field, then recalibrate according to manufacturer's standards. If problem persists, use backup meter and send failed equipment to Field Environmental Instruments, Inc. in Pittsburgh, Pennsylvania for repair.	Include a narrative of problem in field notes	*Field Staff:* Ivan A. Irizarry, Reid A. Doherty, W. Sloan Click; *Field Manager:* Trevor J. Benton, P.G. trevor@blecorp.com
Dissolved Oxygen Reading Failure	Notify field manager of equipment failure. Replace membrane with spare, clean probe, and replace batteries in the field, then recalibrate according to manufacturer's standards. If problem persists, use backup meter and send failed equipment to Pine Environmental Services in Lilburn, Georgia for repair.	Include a narrative of problem in field notes	*Field Staff:* Ivan A. Irizarry, Reid A. Doherty, W. Sloan Click; *Field Manager:* Trevor J. Benton, P.G. trevor@blecorp.com
Turbidimeter Reading Failure	Notify field manager of equipment failure. Replace batteries in the field, then recalibrate according to manufacturer's standards. If problem persists, use backup turbidimeter and send failed equipment to Pine Environmental Services in Lilburn, Georgia for repair.	Include a narrative of problem in field notes	*Field Staff:* Ivan A. Irizarry, Reid A. Doherty, W.Sloan Click; *Field Manager:* Trevor J. Benton, P.G. trevor@blecorp.com

Table 9A Corrective Action Procedures

3. Identify sample disposal procedures.

Analysis	Matrix	Schedule for disposal	Method for disposal	Comments
BTEX+Naphthalene+MTBE+ 1,2-DCA+8 Oxygenates	Water	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	None
EDB	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	None

Table 10A Sample Disposal

4. **Provide SOPs for the Kerr Method or the Ferrous Iron Method if these are parameters for this study. This can be attached or written here. If attached please note that it is an attachment and where it is located (if applicable).**

   Not Applicable for this scope of work.

B5 Quality Control Requirements:

All QC will follow the requirements laid out in Section B5 of the UST Programmatic QAPP.

B6 Field Instrument and Equipment Testing, Inspection and Maintenance

1. **Identify all field and laboratory equipment needing periodic maintenance, the schedule for this, and the person responsible. Not the availability and location of spare parts.**

Instrument	Serial Number	Type of Maintenance	Frequency	Parts needed/Location	Person Responsible
Heron Little Dipper Water Level Indicator	18816	Indicator probe cleaning (in accordance with Section B2) and battery monitoring	Daily	Replacement probe/battery – available at Field Environmental Instruments, Inc. in Pittsburgh, PA	Ivan Irizarry
Solinst Interface Meter - Model 122	122 007909-1	Indicator probe cleaning (in accordance with Section B2)	Daily	Replacement probe – available at Field Environmental Instruments, Inc. in Pittsburgh, PA	Ivan Irizarry
Oakton 35630-62 Multi-Parameter Meter (pH, specific conductivity, and temperature)	324976	Probe cleaning and calibration in accordance with SOP Attachment B	Weekly	Replacement parts available at Field Environmental Instruments, Inc. in Pittsburgh, PA	Ivan Irizarry
YSI 550A Dissolved Oxygen Meter	06A1121AC	Probe cleaning and membrane replacement in accordance with SOP Attachment C	Cleaning – daily Membrane replacement - monthly	Cleaning supplies and additional membranes and salt solution - available at Pine Environmental Services, Inc. in Lilburn, GA	Ivan Irizarry
LaMotte Model 2020 Turbidimeter	3164-1602	Cleaning and calibration	Daily	Lint-free cloth and turbidity standards available at Pine Environmental Services, Inc. in Lilburn, GA	Ivan Irizarry
Volatiles Mass Spec	ALL	Change traps, clean ion source, replace filaments	Periodic	Laboratory	MSV Analyst

Instrument	Serial Number	Type of Maintenance	Frequency	Parts needed/Location	Person Responsible
ECD GC	ALL	Injection port maintenance, column replacement	Periodic	Laboratory	GC Analyst

Table 11A Instrument and Equipment Maintenance

2. **Identify the testing criteria for each lab or field instrument that is used to ensure the equipment is performing properly. Indicate how deficiencies, if found, will be resolved, re-inspections performed, and effectiveness of corrective action determined and documented. Give the person responsible for this.**

Instrument/Equipment & Serial Number	Type of Inspection	Requirement	Individual Responsible	Resolution of Deficiencies
Heron Little Dipper Water Level Indicator 18816	Inspect probe/tape condition and battery output	Inspect probe and tape for continuity. Test probe with conductive water to ensure meter is properly working	Ivan Irizarry	Clean/replace probe or tape as necessary
Solinst Interface Meter - Model 122 122 007909-1	Inspect probe/tape condition and battery output	Inspect probe and tape for continuity. Test probe with conductive water to ensure meter is properly working	Ivan Irizarry	Clean/replace probe or tape as necessary
Oakton 35630-62 Multi-Parameter Meter 324976	Inspect probe condition and verify output reading accuracy	Inspect probe for cracks or breaks. Inspect for residue on probe tips. Compare output readings to known standards.	Ivan Irizarry	Clean/replace probe. Calibrate instrument if output readings do not match standard values
YSI 55 Dissolved Oxygen Meter 06A1121AC	Inspect probe/membrane condition.	Inspect probe for cracks or breaks. Verify that probe membrane is filled with salt (KCl) solution. Inspect for residue on probe tips. Compare output readings to known standards.	Ivan Irizarry	Clean/replace probe. Replace membrane. Calibrate instrument if output readings do not match standard values
LaMotte Model 2020 Turbidimeter 3164-1602	Inspect meter condition and verify output reading accuracy	Inspect glass cylinders for cracks or scratches that may interfere with proper turbidity measurements. Compare output readings to known standards.	Ivan Irizarry	Clean/replace glass cylinders. Calibrate instrument if output readings do not match standard values.
Volatiles Mass Spec	Daily calibration check	Method Requirements	MSV Analyst	Recalibration or instrument maintenance
ECD GC	Daily calibration check	Method Requirements	GC Analyst	Recalibration or instrument maintenance

Table 12A Instrument and Equipment Inspection

B7 Instrument Calibration and Frequency

1. **Identify equipment, tools, and instruments for field or lab work that should be calibrated and the frequency.**
2. **Describe how the calibrations should be performed and documented, indicating test criteria and standards or certified equipment.**
3. **Identify how deficiencies should be resolved and documented. Identify the person responsible for corrective action.**

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
Oakton 35630-62 Multi-Parameter Meter	Four point conductivity calibration; three point pH calibration; temperature verification	Daily	pH: Output value within ±1.00 pH unit of buffer Conductivity: Output value with 20% of calibration range at standard temperature.	Recalibrate equipment. If calibrations will not hold then replace unit.	Ivan Irizarry	SOP Attachment B *Oakton pH/Conductivity Series 10 Multi-Parameter Tester Calibration Procedures*
YSI 55 Dissolved Oxygen Meter	% Saturation	Daily	Output value within 1 mg/L of calibration solution.	Recalibrate equipment or replace membrane.	Ivan Irizarry	SOP Attachment C *YSI 550A Dissolved Oxygen Instrument Calibration and Maintenance Procedures*
LaMotte Model 2020 Turbidimeter	AMCO Turbidity Standard (1.0 NTU, 10 NTU, 100 NTU, or 250 NTU) in the expected turbidity range of the samples to be tested	Daily or as needed during sampling	Output value within 0.1 NTU for measured turbidity values less than 10 NTU, and 1 NTU for measured turbidity values greater than 10 NTU.	Recalibrate equipment. If calibration will not hold then replace unit.	Ivan Irizarry	SOP Attachment D *LaMotte Model 2020 Turbidimeter Calibration and Operation Procedures*
Heron little dipper water level indicator	Calibrate against an invar steel surveyor's chain or steel tape	Monthly	Within 0.01 foot per 10 feet length	Replace water level meter tape	Ivan Irizarry	See Master QAPP
Solinst Interface Meter – Model 122	Calibrate against an invar steel surveyor's chain or steel tape	Monthly	Within 0.01 foot per 10 feet length	Replace water level meter tape	Ivan Irizarry	See Master QAPP
Volatiles Mass Spec	Minimum of 5 calibration standards for all compounds	When indicated by continuous calibration verification standard	Method Criteria	Detailed in Laboratory SOP	MSV Analyst	S-VO-002

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
GC ECD	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in Laboratory SOP	GC Analyst	S-SV-012

Table 13A Instrument Calibration Criteria and Corrective Action

*** This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key**

B8 Inspection/Acceptance Requirements for Supplies and Consumables

1. **Identify critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials.**
2. **Identify the individual(s) responsible for this.**

Item	Vendor	Acceptance criteria	Handling/Storage Conditions	Person responsible for inspection and tracking
Leather work gloves	Grainger	New or in good condition (if previously used) with no tears	Store away from direct sunlight in work vehicle	Ivan Irizarry
Latex gloves	Eon Products	New material	Store in clean supply room located at BLE office	Ivan Irizarry
36-inch weighted polyethylene bailer	Eon Products	New material	Store in clean supply room located at BLE office	Ivan Irizarry
Five-gallon polyethylene bucket	Lowes	New or in good condition (if previously used) with no cracks or holes	Store in clean supply room located at BLE office	Ivan Irizarry
Nylon twine	Grainger/Lowes	New material	Store in clean supply room located at BLE office	Ivan Irizarry
Laboratory Chemicals	Fisher, VWR	Certificates of analysis and laboratory testing	Laboratory storage	Receiving and laboratory personnel
Laboratory standards	O2Si, Restek, High Purity, VHG, Supelco	Certificates of analysis and laboratory verifications	Vendor specific storage conditions	Laboratory Analysts
Sample Containers	Daniels Scientific, QEC	Certificates of analysis and laboratory testing	Bottle storage area	Sample receiving personnel
15 lb bags of ice	Convenience store	Pre-package bag of wet ice	Store in laboratory provided coolers	Ivan Irizarry

55-gallon steel open-head drums	Dependable Drum Co.	New or reconditioned. Drums with holes or cracks will not be accepted	Storage at BLE lay-down yard until transported to site. At the site, drums will be filled and staged in a safe location. Drums will be moved around the site with a 1,000-lb capacity drum dolly.	Ivan Irizarry
Non-hazardous waste labels (vinyl)	Grainger	New material	Store in clean supply room located at BLE office	Ivan Irizarry

Table 14A List of Consumables and Acceptance Criteria

B9 Data Acquisition Requirements (Non-Direct Measurements)

1. **Identify data sources, for example, computer databases or literature files, or models that should be accessed or used.**
2. **Describe the intended use of this information and the rationale for their selection, i.e., its relevance to project.**
3. **Indicate the acceptance criteria for these data sources and/or models.**

Data Source	Used for	Justification for use in this project	Comments
Report of Assessment Activities by Midlands Environmental Consultants, Inc., dated June 5, 2007	Monitoring well construction information and historical groundwater analytical results	Data tables utilized for determining well depths and historical analytical results	None
Report of Monitoring Well Installation by Midlands Environmental Consultants, Inc., dated September 5, 2008.	Additional monitoring well construction information.	Boring logs utilized for determining the total well depth of additional monitoring wells.	None
Report of Recovery Well Installation and Free-Product Gauging by BLE, dated June 1, 2012.	Identifying locations of the existing groundwater monitoring/ recovery wells at the site.	Site plan and data tables utilized for determining location of wells and well depths.	None

Table 15A Non-Direct Measurements

4. **Identify key resources/support facilities needed.**

Not applicable to this scope of work.

B10 Data Management

1. Describe the data management scheme from field to final use and storage.

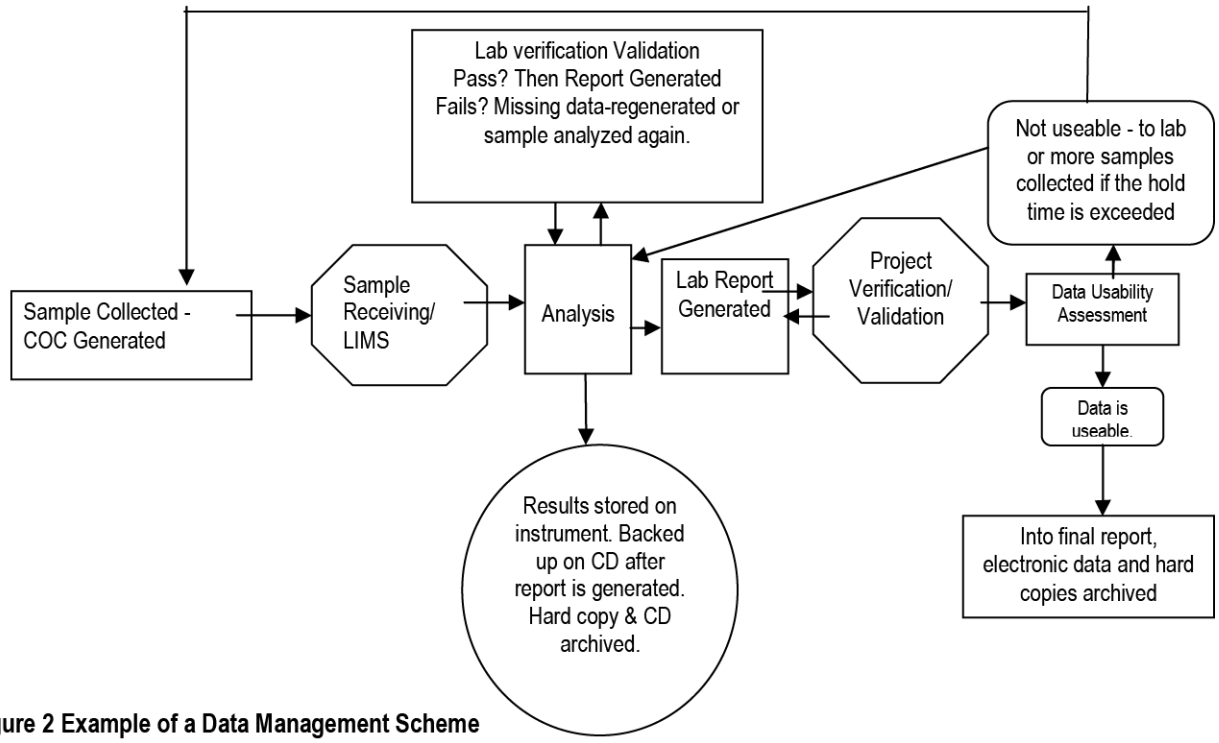


Figure 2 Example of a Data Management Scheme

2. How does the lab and field staff ensure that no unauthorized changes are made to the chain of custody, sampling notebooks, laboratory notebooks and computer records?

The chain of custody has an attached carbon copy, in which the field staff keeps one copy after the laboratory picks up samples. This original is used to determine if any changes are made to the COC after laboratory receipt. All COCs are reviewed by the laboratory during receipt of samples and submittal of final report. Looking for inappropriate changes to the COC is in the scope of both laboratory reviews. The Quality Assurance/Quality Control Department oversees adherence to and review of these programs.

Field notes and logs will be stored in hardback bound field books and/or on standard 8 ½" x 11" field data sheets. Field data sheets are signed by field staff upon completion of daily work.

Copies of field notes and sampling logs are reviewed by the Field Manager and placed in the project file. Additionally, field notes/logs are scanned, password secured, and placed into the digital project file. Original data sheets will also be kept by the field staff in field notebooks/folders for a minimum of three years.

3. **How does the lab ensure that there are no errors in samples records including times when sample information is compiled, data calculated and/or transmitted?**

   The use of a Laboratory Information Management System (LIMS) is employed. The LIMS database is reviewed daily by laboratory management. Furthermore, the database is backed up daily to prevent the loss of data in the event of a system malfunction. Documentation of these procedures is provided in laboratory SOP S-AD-003, LIMS.

4. **How will the data be archived once the report is produced? How can it be retrieved? (This applies to both electronic and hard copies).**

   The laboratory QA/QC department maintains and archives hardcopy data offsite. Electronic data is maintained and archived by the laboratory IT systems manager.

   The final analytical data from Shealy Environmental Services, Inc. will be kept by the laboratory for a minimum of seven years. A hard copy of the data will be stored at an off-site facility and a digital copy will be saved on a backed-up computer server.

   Hard copies of BLE's final reports are contained in the specific project folder in BLE's file library. Additionally, each report is converted to digital format and stored in its applicable digital file folder. Hard copy storage will be for a minimum of three years. Digital storage will be for a minimum of five years. Digital data is backed-up on a weekly basis on a four month rolling schedule. For security purposes, current week's data is stored at an off-site location. Additionally, data is backed-up and stored for a minimum of five years at an off-site location on a biannual basis.

Section C Assessment and Oversight

C1 Assessment and Response Actions

1. ***The Contractor is supposed to observe field personnel daily during sampling activities to ensure samples are collected and handled properly and report problems to DHEC within 24 hours. Please state who is responsible for doing this and what observations will be made. Will this person have the authority to stop work if severe problems are seen?***

   Internal field audits will be performed on a daily basis by Trevor Benton, P.G. of Bunnell-Lammons Engineering, Inc. If any significant problems or deviations from the QAPP are noted, work may be stopped to resolve the issues. The SCDHEC project manager will be notified of the issues within 24 hours of the occurrence.

2. ***The SCDHEC UST QAPP states that the Lab will receive an Offsite Technical System Audit. For this project, what assessments will be done on the Commercial Lab(s) that are being used—other than their certification audit? When or how often are these done? Who will the results be given to and who has the ability to stop work if problems are severe?***

   The laboratory submits annual Proficiency Testing (PT) samples to Wibby Environmental. Wibby is an approved vendor that submits PT results to the office of environmental laboratory certification. The laboratory director has the authority to stop work and submit Corrective Actions if problems are severe.

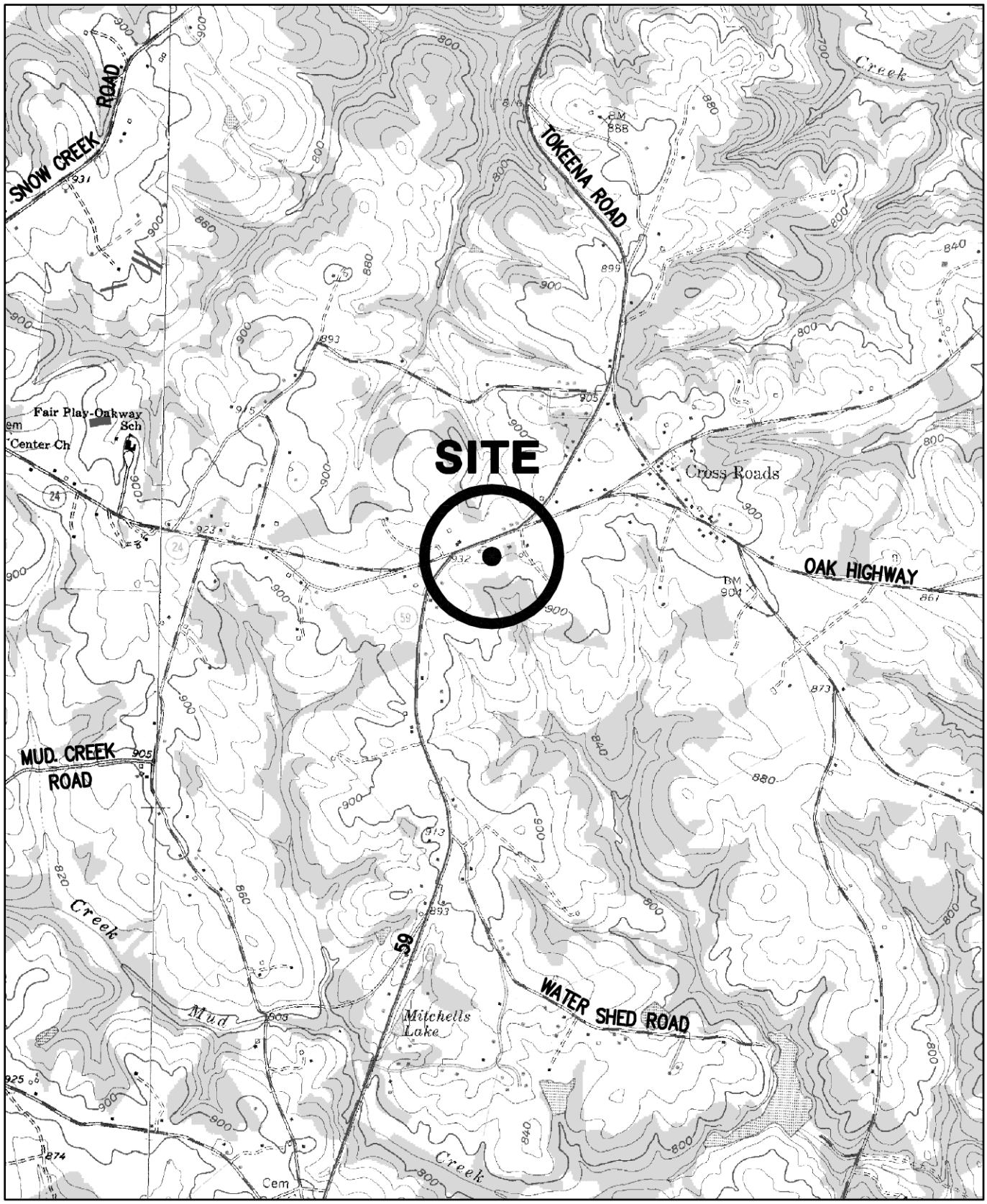
C2 Reports to Management

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

Section D Data Validation and Usability

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

FIGURES

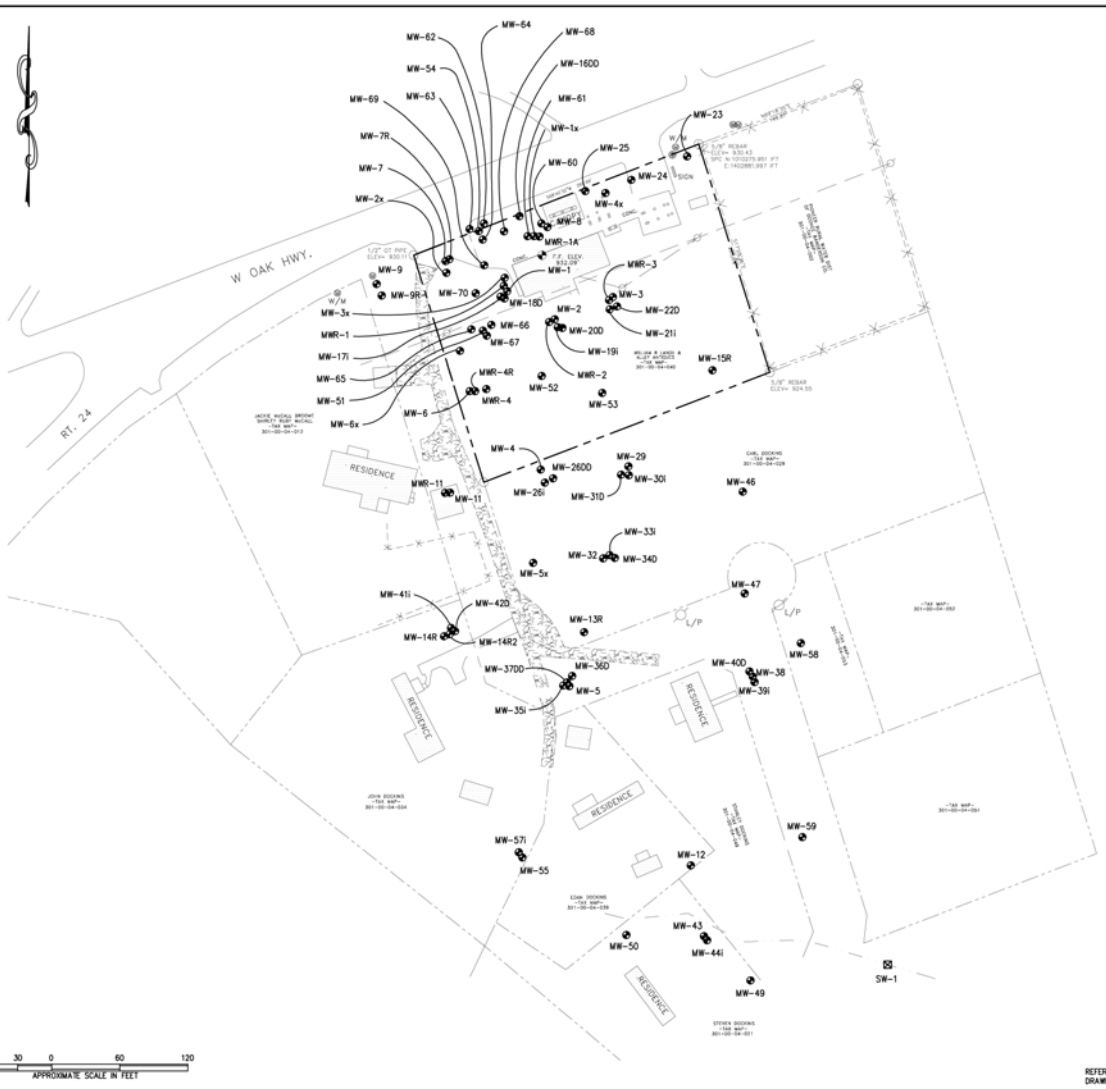


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, FAIR PLAY AND OAKWAY, S.C. QUADRANGLES, PHOTOREVISED 1979 AND 1985.

DRAWN: ACE	DATE: 05-28-13	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP FORMER CROSSROADS GROCERY UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA
CHECKED: RAD	CAD: FORMCRGROC-05SLM		FIGURE 1
APPROVED:	JOB NO: J13-6940-05		



REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

REVISIONS			DRAWN: ACE	DATE: 05-28-13	BUNNELL-LAMMONS ENGINEERING, INC.	SITE PLAN	FIGURE NO.
No.	DESCRIPTION	BY	CHECKED: RAD	CAD FILE: FORMCRGROC-05MWLP	6004 FONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	FORMER CROSSROADS GROCERY UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA	2
			APPROVED:	JOB NO: J13-6940-05			

STANDARD OPERATING PROCEDURES AND FORMS

ATTACHMENT A

MONITORING WELL PURGING AND SAMPLING PROCEDURES

Monitoring wells will be purged prior to sample collection to remove any stagnant water from the well so that the samples collected are representative of the groundwater quality in the vicinity of the well. For wells that recover quickly, a minimum of three volumes of water will be evacuated. Specific conductance, pH, turbidity, and water temperature will be measured periodically during well evacuation using properly calibrated instruments. Wells that are evacuated to dryness with less than three well volumes being removed will be sampled as soon as the well has recovered enough to yield sufficient volume for a sample.

The monitoring wells will be purged using a 36-inch long by 1.6-inch diameter disposable polyethylene bailer attached to an unused nylon cord. The wells will also be sampled using a bailer as described above.

Samples will be placed in the appropriate laboratory supplied containers and marked with identifying numbers. Samples will be maintained at 4°Celsius in a refrigerated sample cooler and shipped to Shealy Environmental Services, Inc. in West Columbia, South Carolina via courier service for analysis.

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 02112

Client	Report to Contact	Sampler (Printed Name)	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page ___ of ___
City / State / Zip Code	Preservative: 1. Unpres. 4. HNO_3 7. NaOH; 2. NaOH/ZnA 5. HCl; 3. H_2SO_4 6. Na Thio.		Number of Containers / Bottle (See Instructions on back) / Preservative / Lot No.
Project Name			
Project Number	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis	Remarks / Cooler ID

Turn Around Time Required (Prior lab approval required for expedited TAT)
☐ Standard ☐ Rush (Please Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler			1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by		

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. _____ °C
Temp. Blank ☐ Y / ☐ N

ATTACHMENT B

OAKTON PH/CONDUCTIVITY SERIES 10 MULTI-PARAMETER TESTER CALIBRATION AND OPERATION PROCEDURES

The Oakton pH/conductivity multi-parameter series 10 tester requires a set of three calibrations for each of its output components. The three calibrations required for the meter are temperature, pH, and specific conductivity. The temperature calibration is based on comparing the meter based temperature reading to an appropriately calibrated thermometer. The pH calibration is based on a multi-point calibration utilizing three different buffers (pH 4, pH 7, and pH 10). The conductivity calibration is based on a four point calibration setup utilizing a set of predefined conductivity range solutions. The procedures to perform the three different calibrations are as follow.

Temperature Calibration

The built-in temperature sensor included in the probe is factory calibrated. The temperature sensor is calibrated only if temperature errors are suspected or if the probe is replaced. Temperature calibration procedures are as follows:

1. Power on the meter and select the pH mode.

2. Pres the Cal/measure key to enter calibration monde, the CAL indicator will appear above the primary display.

3. While in pH calibration mode, press the MODE key to enter temperature calibration mode. The primary display shows the temperature reading with zero offset and the secondary display shows you what the temperature value was initially.

4. The probe is dipped into a temperature bath and its allowed sufficient time for the meter's temperature reading to stabilize.

5. Once stabilized the temperature is set in to the meter using the up and down keys to match the temperature bath. The word Con appears on the screen indicating that calibration is complete.

Note: Since temperature readings affect the accuracy of the pH and conductivity measurements, pH and conductivity calibration are performed following the completion of the temperature calibration is.

pH Calibration

The instrument is capable of performing three point calibrations for pH. Though the three points are not essential for calibration, for our purposes we shall perform a three point pH calibration. The calibrations are performed by using standard pH buffers of 4.00, 7.00 and 10.00.

1. Select pH mode

2. Rinse the probe with DI water or rinse solution.

3. Dip the probe into the calibration buffer and stir the buffer. Press CAL/MEAS to enter the pH calibration mode. The primary display will show the measured reading while the smaller secondary display will indicate the pH standard buffer solution.

OAKTON PH/CONDUCTIVITY SERIES 10 MULTI-PARAMETER TESTER CALIBRATION AND OPERATION PROCEDURES - CONTINUED

4. Wait for the measured pH value to stabilize. The READY indicator will display when the reading stabilizes.

5. After the reading has stabilized and the READY indicator is displayed, press ENTER to confirm the calibration. A confirming indicator (CON) flashes and disappears. The meter is now calibrated to the buffer indicated in the secondary display.

The secondary display automatically scrolls to the next buffer calibration option if you are performing multi-point calibration, go to

6. Press the up or down keys to select the next buffer value you want to calibrate (pH 4.00, 7.00 or 10.00).

7. Repeat steps 1 through 6.

8. When calibration is complete, press CAL/MEAS to return to pH measurement mode.

Note: If the selected buffer value is not within ±1.00 pH from the measured pH value: The electrode and buffer icon blink and the ERR enunciator appears in the lower left corner of the display. These indicators also flash if the buffer used is not the same as the buffer value on the secondary display.

Conductivity Calibration

The series 10 pH/conductivity meter has four different conductivity measuring ranges. You can calibrate one point in each of the measuring ranges (up to four points). If you are measuring values in more than one range, each of the ranges must be calibrated. The following table lists the corresponding conductivity range. You should calibrate each range using a solution that falls between the values in the "recommended calibration solution range" column.

Conductivity Range Calibration Solution Range:

0.00 µS	19.99 µS	6.00 µS	17.0 µS
0.00 µS	199.9 µS	60.0 µS	170 µS
0.00 µS	1999 µS	600 µS	1700 µS
0.00 mS	19.99 mS	6.00 mS	17.00 mS

Note: Minimum calibration value should be 20% of full scale for the specific range (e.g.: the **LOWEST** calibration value for the range of 0.00 to 19.99 µS is 4.00 µS). When the meter is recalibrated, old calibrations are replaced on a range basis.

Conductivity calibration procedures are as follows:

1. Pour out two separate portions of the selected calibration standard and one of DI water into separate clean containers.

2. Select the conductivity mode on the meter.

OAKTON PH/CONDUCTIVITY SERIES 10 MULTI-PARAMETER TESTER CALIBRATION AND OPERATION PROCEDURES - CONTINUED

3. Rinse the probe with DI water, and then rinse the probe in one portion of the calibration standard. Submerge the probe into the second portion of the calibration standard. The meter auto ranging function selects the appropriate conductivity range (four ranges are possible). Be sure the probe is free from air bubbles and sufficient calibration standard is used to cover the conductivity sensor. Wait for the reading to stabilize. Once the readings have stabilized, the READY indicator should appear in the upper left hand corner.

4. Press the CAL/MEAS key. The CAL indicator appears above the primary display. The primary display shows the measured reading and the secondary display shows the temperature.

5. Use the up and down keys to match the reading to the solution standard.

6. Press the ENTER key to confirm calibration. Upon confirmation, the CON indicator appears briefly. The meter automatically switches back into Measurement mode. The display now shows the calibrated, temperature compensated conductivity value.

7. For calibration in other ranges (maximum: four ranges) repeat steps 1 through 6 with the appropriate calibration standards.

Meter Operation

The READY indicator appears on the display when the meter has stabilized. It will turn off if the readings start to fluctuate.

To take measurements:

1. Rinse the probe with DI water before use to remove any impurities adhering to the probebody. If the pH electrode has dehydrated, soak it for 30 minutes in tap water.

2. Switch on the meter. The MEAS annunciator appears on the top center of the LCD. The ATC indicator appears in the lower right hand corner to indicate Automatic Temperature Compensation.

3. Dip the probe into the sample. Allow time for the readings to stabilize. Note the readings on the display. When the readings are stable, the READY annunciator appears.

   Note: *Conductivity readings are auto-ranging and will automatically move to the correct range (four ranges possible).*

4. To toggle between pH and conductivity readings, press the MODE key.

   Note: *When measuring a sample, make sure that the probe is immersed beyond the electrode band. Stir the sample using the probe gently to create a homogenous sample.*

ATTACHMENT C

YSI 550A DISSOLVED OXYGEN INSTRUMENT CALIBRATION, MAINTENANCE, AND OPERATION PROCEDURES

INSTRUMENT CALIBRATION

Dissolved oxygen calibration must be done in an environment with known oxygen content. The YSI 550A DO Instrument can be calibrated in either mg/L or % saturation. BLE's preference is utilizing the % saturation method. Calibration instructions are described below:

1. Ensure that the sponge inside the instrument's calibration chamber is moist. Insert the probe into the calibration chamber.

2. Power the instrument on and allow readings to stabilize. This may take 5 to 15 minutes, depending on the age of the instrument and condition of the probe.

3. Press and release both the **UP ARROW** and **DOWN ARROW** keys at the same time to enter the calibration menu.

4. Press the **Mode** key until "%" is displayed on the right side of the screen for oxygen units. Press **ENTER**.

5. The LCD will prompt you to enter the local altitude in hundreds of feet. Use the arrow keys to increase or decrease the altitude. When the proper altitude appears on the LCD, press the **ENTER** key.

6. **CAL** will now display in the lower left corner of the screen, the calibration value in the lower right corner and the current DO reading (before calibration) will be the main display. Once the current DO reading is stable, press the **ENTER** button.

7. The LCD will prompt you to enter the approximate salinity of the water you are about to analyze. You can enter any number from 0 to 70 parts per thousand (PPT) of salinity. Use the arrow keys to increase or decrease the salinity setting. When the correct salinity appears on the LCD, press the **ENTER** key. The instrument will return to normal operation.

Upon completion of % saturation calibration, dissolved oxygen values can be compared to a known oxygen content for verification. Typically a 0.0 mg/L dissolved oxygen solution is utilized for this verification step.

MEMBRANE MAINTENANCE

A thin semi-permeable membrane, stretched over the sensor, isolates the electrodes from the environment, while allowing gases to enter. When a polarizing voltage is applied to the sensor electrodes oxygen that has passed through the membrane reacts at the cathode causing a current to flow. The membrane passes oxygen at a rate proportional to the pressure difference across it. Since oxygen is rapidly consumed at the

YSI 550A DISSOLVED OXYGEN INSTRUMENT CALIBRATION, MAINTENANCE, AND OPERATION PROCEDURES – CONTINUED

cathode, it can be assumed that the oxygen pressure inside the membrane is zero. Hence, the force causing the oxygen to diffuse through the membrane is proportional to the partial pressure of oxygen outside the membrane. As the oxygen partial pressure varies, so does the oxygen diffusion through the membrane. This causes the probe current to change proportionally. Additional membrane changes will be required over time. The average replacement interval is 4 to 8 weeks, although they may last longer if kept clean. To clean the membrane, a Kimwipe, and rubbing alcohol will be used to gently remove the contamination. Membranes will be replaced as necessary. Membrane replacement procedures are described below:

1. Remove the probe sensor guard to access the probe tip.

2. Unscrew and remove the old membrane cap and discard.

3. Thoroughly rinse the sensor tip with distilled or DI water.

4. Fill a new membrane cap with O2 probe solution that has been prepared according to the directions on the bottle. Be very careful not to touch the membrane surface. Lightly tap the side of the membrane cap to release bubbles that may be trapped.

5. Thread the membrane cap onto the probe. It is normal for a small amount of electrolyte to overflow.

6. Replace the probe sensor guard.

METER OPERATION

It is important to recognize that a very small amount of oxygen dissolved in the sample is consumed during probe operation. It is therefore essential that the sample be continuously stirred at the sensor tip. If stagnation occurs, measurements will appear artificially low. Stirring may be accomplished by mechanically moving the sample around the probe tip, or by moving the probe through the sample. The YSI Model 550A has a flow dependence of <25%. The rate of stirring required is 1/2 foot per second (16cm per second). Measurement procedures are as follows:

1. Insert the probe into the sample to be measured.

2. Continuously stir or move the probe through the sample.

3. Allow temperature and dissolved oxygen readings to stabilize.

4. Observe/Record readings.

5. Rinse the probe with clean water after each use and return probe to the calibration/storage chamber.

6. If unstable readings or membrane damage occurs, replace both the membrane cap and electrolyte solution.

ATTACHMENT D

LAMOTTE MODEL 2020 TURBIDIMETER CALIBRATION AND OPERATION PROCEDURES

The LaMotte Model 2020 Turbidimeter is a portable, microprocessor controlled nephelometer (suspended colloid meter). The LaMotte Model 2020 measures the scattering of a beam of light as it passes through a water sample in order to produce an average reading of nephelometric turbidity units (NTU). All readings are determined by the process of signal averaging over a 5 second period, minimizing fluctuations in readings attributed to large particles and enabling rapid, repeatable measurements. The microprocessor enables auto-ranging over the full range of 0 to 1,100 NTU and provides direct digital readout with a resolution of 0.01 NTU for the lowest range.

INSTRUMENT CALIBRATION

- Select a LaMotte AMCO 2020 Turbidity Standard (1.0 NTU, 10 NTU, 100 NTU, or 250 NTU) in the expected turbidity range of the samples to be tested. Wipe the outside of the standard tube with a clean, lint-free cloth.

- Open the lid of the meter. Align the indexing arrow mark on the tube with the indexing arrow mark on the meter, and insert the tube into the analysis chamber. Close the lid.

- Push the CAL button. While the display is flashing, adjust the display up or down using the arrow buttons until the value of the standard is displayed.

- Push the CAL button again to memorize the calibration. The display will stop flashing when the calibration is complete.

INSTRUMENT OPERATION

- Fill a clean sample tube with 50 ml of sample water and replace cap. Set sample aside to equilibrate with the air temperature and allow gases to escape.

- Rinse and empty a sample tube with a portion of the water sample and shake out excess water.

- Fill the sample tube to the neck by carefully pouring the temperature equilibrated sample down the side of the tube to avoid creating bubbles.

- Cap the tube and wipe dry with a clean, lint-free cloth.

- Open the meter lid, align the indexing arrow on the tube with the indexing arrow on the meter. Insert the tube into the meter chamber.

- Close the lid to the meter. Push READ button. The turbidity in NTU units will be displayed within 5 seconds.

- The meter will automatically turn off after 2 minutes after the last button is pressed. To turn off the meter manually, hold the READ button down for more than 1 second. Release the button when OFF is displayed.

ASSESSMENT COMPONENT COST AGREEMENT

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account

Facility Name: Country Side 2

UST Permit #: 06742 **Cost Agreement #**

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
1. **Plan***					
B. Tax Map		x	$50.00		$0.00
C. Tier II or Comp. Plan /QAPP Appendix B	1	x	$525.00		$525.00
2. **Receptor Survey ***		x	$500.00		$0.00
3. **Survey (500 x 500 feet)**					
A. Comprehensive Survey		x	$1,000.00		$0.00
B. Subsurface Geophysical Survey					
1. < 10 meters below grade		x	$2,750.00		$0.00
2. > 10 meters below grade		x	$3,250.00		$0.00
C. Geophysical UST or Drum Survey		x	$1,125.00		$0.00
4. **Mob/Demob (Each)**					
A. Equipment		x	$575.00		$0.00
B. Personnel 82 samples + disposal	5	x	$290.00		$1,450.00
C. Adverse Terrain Vehicle to install wells		x	$575.00		$0.00
5. **Soil Borings (hand auger)* (Feet)**		feet x	$14.00		$0.00
6. **Soil Borings (drilled) & Field Screening ***					
Rate includes collection of water sample or soil sample, and lab or other analyses					
A. Standard		feet x	$17.00		$0.00
C. Fractured Rock		feet x	$27.50		$0.00
7. **Soil Leachability Model (Each)**		each x	$200.00		$0.00
8. **Abandonment* (per foot)**					
A. 2" diameter or less		feet x	$5.00		$0.00
B. Greater than 2" to 6" diameter		feet x	$5.50		$0.00
C. Dug/Bored well (up to 6 foot diameter)		feet x	$18.00		$0.00
9. **Well Installation* (per foot)**					
A. Water Table (hand augered)		feet x	$20.00		$0.00
B. Water Table (drill rig)		feet x	$38.00		$0.00
C. Telescoping/ Pit Cased		feet x	$58.00		$0.00
D. Rock Drilling		feet x	$58.00		$0.00
E. 2" Rock Coring		feet x	$45.00		$0.00
G. Rock Multi-sampling ports/screens		feet x	$47.20		$0.00
H. Recovery Well (4 inch diameter)		each x	$45.00		$0.00
I. Pushed Pre-packed screen (1.25 diameter)		each x	$18.50		$0.00
J. Rotosonic (2 inch diameter)		each x	$45.00		$0.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**					
A. Groundwater Purge	81	wells x	$55.00		$4,455.00
B. Air or Vapors		samples x	$90.00		$0.00
C. Water Supply		samples x	$30.00		$0.00
D. Groundwater No Purge or Duplicate 1 SW, 5 DUPs	6	samples x	$35.00		$210.00
E. Gauge Well only		per well x	$20.00		$0.00
F. Sample Below Product		wells x	$50.00		$0.00
G. Pasive Diffusion Bag		each x	$40.00		$0.00
H. Field Blank	4	each x	$5.00		$20.00

11. Laboratory Analyses-Groundwater (Each Sample)					
A1. BTEX+Naphth.+ Oxyg's+ 1,2 DCA + Ethanol	94	samples x	$100.00		$9,400.00
AA. Lead, Filtered		samples x	$46.00		$0.00
B1. Rush EPA Method 8260B (All of item A.)		samples x	$143.00		$0.00
C1. Trimethal, Butyl, and Isopropyl Benzenes		samples x	$40.00		$0.00
D. PAH's		samples x	$120.00		$0.00
E. Lead, Unfiltered		samples x	$20.00		$0.00
F. EDB by EPA 8011	94	samples x	$55.00		$5,170.00
FF. EDB by EPA Method 8011 Rush		samples x	$75.00		$0.00
G. 8 RCRA Metals		samples x	$140.00		$0.00
H. TPH (9070)		samples x	$55.00		$0.00
I. pH		samples x	$10.00		$0.00
J. BOD		samples x	$40.00		$0.00
P1. Ethanol		samples x	$21.50		$0.00
11. **Analyses-Soil (Each Sample)**					
Q. BTEX + Naphth.		samples x	$100.00		$0.00
R. PAH's		samples x	$120.00		$0.00
S. 8 RCRA Metals		samples x	$150.00		$0.00
T. Oil & Grease (9071)		samples x	$60.00		$0.00
U. TPH-DRO (3550B/8015B)		samples x	$65.00		$0.00
V. TPH- GRO (5030B/8015B)		samples x	$65.00		$0.00
W. Grain size/hydrometer		samples x	$99.00		$0.00
X. Total Organic Carbon		samples x	$35.00		$0.00
11. **Analyses-Air (Each Sample)**					
Y. BTEX + Naphthalene		samples x	$247.50		$0.00
11. **Analyses-Free Phase Product (Each Sample)**					
Z. Hydrocarbon Fuel Identification		samples x	$620.00		$0.00
12. **Aquifer Characterization***					
A. Pumping Test		hours x	$120.00		$0.00
B. Slug Test*		tests x	$150.00		$0.00
C. Fractured Rock		tests x	$500.00		$0.00
13. **Free Product Recovery Rate Test* (Each)**		tests x	$120.00		$0.00
14. **Fate/Transport Modeling**					
A. Mathematical Model		each x	$300.00		$0.00
B. Computer Model		each x	$500.00		$0.00
15. **Risk Evaluation**					
A. Tier I Risk Evaluation		x	$300.00		$0.00
B. Tier II Risk Evaluation		x	$500.00		$0.00
16. **Subsequent Survey***		x	$300.00		$0.00
17. **Disposal* (gallons or tons)**					
A. Wastewater	550	gallons x	$0.80		$440.00
B1. Free Product		gallons x	$0.85		$0.00
C. Soil Treatment/Disposal		tons x	$72.50		$0.00
D. Drilling fluids		gallons x	$0.80		$0.00
18. **Miscellaneous (attach receipts)**					
		x			$0.00
		x			$0.00
		x			$0.00
20. **Tier I Assessment (Use DHEC 3665 form)**		x			$0.00
21. **IGWA (Use DHEC 3666 form)**		x			$0.00
22. **Corrective Action (Use DHEC 3667 form)**		x			$0.00

23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A. 8-hour Event*		each x	$3,000.00		$0.00
B. AFVR per-hour Continuance		per hour x	$204.00		$0.00
C. Off-gas treatment per-hour Continuance		per hour x	$35.00		$0.00
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A. New GAC System Installation*		each x	$2,500.00		$0.00
B1. Refurbished GAC Sys. Install*		each x	$1,180.00		$0.00
C. Filter replacement/removal*		each x	$450.00		$0.00
D1. GAC System removal, cleaning, & refurbishment*		each x	$720.00		$0.00
E. GAC System housing		each x	$450.00		$0.00
F. In-line particulate filter		each x	$150.00		$0.00
G. Additional piping & fittings		feet x	$4.00		$0.00
25. **Well Repair**					
A. Additional Copies of the Report Delivered		each x	$32.50		$0.00
B. Repair 2x2 MW pad		each x	$100.00		$0.00
C. Repair 4x4 MW pad		each x	$150.00		$0.00
D. Repair well vault		each x	$225.00		$0.00
F. Replace well cover bolts		each x	$10.00		$0.00
G. Replace locking well cap & lock		each x	$15.00		$0.00
H. Replace/Repair stick-up		each x	$137.50		$0.00
I. Convert Flush-mount to Stick-up		each x	$175.00		$0.00
J. Convert Stick-up to Flush-mount		each x	$125.00		$0.00
K. Replace missing/illegible well ID plate		each x	$22.50		$0.00
Report Prep & Project Management	15%	x	$21,670.00		$3,250.50
TOTAL					$24,920.50

*The appropriate mobilization cost can be added to complete these tasks, as necessary

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MR NEIL ALEXANDER
C/O ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINSTER SC 29693-5534

JUN 2 6 2013

Re: Ground-water sampling directive
Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA #45513
Release reported January 11, 1993
QAPP Contractor Addendum received June 17, 2013
Oconee County

Dear Mr. Alexander:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has reviewed and approved the referenced QAPP Contractor Addendum submitted by Bunnell-Lammons Engineering, Inc. Ground-water sampling as outlined in the Addendum may proceed immediately upon receipt of this letter. The work must be conducted in accordance with the Quality Assurance Program Plan (QAPP) for the UST Management Division. A copy of the QAPP is available at http://www.scdhec.gov/environment/lwm/usthome/Qapp.htm.

Cost Agreement (CA) #45513 has been approved in the amount shown on the enclosed cost agreement form for the sampling of 81 monitoring/recovery wells and one surface water location for BTEX+naph+MtBE+DCA+oxygenates and EDB. Do not sample wells containing measurable free-phase product. Please note that all applicable South Carolina certification requirements apply to the sampling and report preparation. Further, all site rehabilitation activities must be performed and submitted by a South Carolina-Certified Underground Storage Tank Site Rehabilitation Contractor.

A monitoring report, contractor checklist (QAPP Appendix K), and invoice are due within 60 days from the date of this letter. Your contractor may directly bill the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Interim invoices may not be submitted for this scope of work. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Agency is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established

criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The UST Management Division grants pre-approval for transportation of petroleum-contaminated, investigative-derived waste (IDW) from the referenced site to a permitted treatment/disposal facility. The transport and disposal must be conducted in accordance with the QAPP.

On all correspondence concerning this facility, please reference UST Permit #06742. If there are any questions concerning this project, feel free to contact me by telephone at (803) 898-0655, by fax at (803) 898-0673, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
06742.mr1

enc: QAPP Addendum title and approval page
Approved cost agreement form

cc: Bunnell-Lammons Engineering, Inc., 6004 Ponders Court, Greenville, SC 29615 (w/enc)
Technical file (w/enc)

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Country Side 2– UST Permit #06742

8050 West Oak Highway, Westminster, South Carolina

Prepared by: Trevor J. Benton, P.G – Bunnell-Lammons Engineering, Inc.

Date: June 11, 2013

Bunnell-Lammons Engineering, Inc. – SCDHEC Certified Contractor No. UCC-0010

Approvals

Joel P. Padgett, P.G. SC DHEC Project Manager	Signature	Date 6/24/13
Andrew Alexander, P.G. Contractor QA Manager	Signature	Date 6/11/13
Thomas L. Lammons, P.G. Site Rehabilitation Contractor	Signature	Date 6/11/13
Daniel J. Wright Laboratory Director	Signature	Date 6/11/13

Approved Cost Agreement 45513

Facility: 06742 COUNTRY SIDE 2

PADGETJP

PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
01 PLAN					
		C TIER II/COMP. PLAN/QAPP APP B	1.0000	525.00	525.00
04 MOB/DEMOB					
		B PERSONNEL	3.0000	290.00	870.00
10 SAMPLE COLLECTION					
		A GROUND WATER	81.0000	55.00	4,455.00
		C WATER SUPPLY	1.0000	30.00	30.00
		D GROUNDWATER NO-PURGE	5.0000	35.00	175.00
		H FIELD BLANK	4.0000	5.00	20.00
11 ANALYSES	GW GROUNDWATER				
		A1 BTEXNM+OXYGS+1,2-DCA+ETH-8260B	94.0000	100.00	9,400.00
		F EDB	94.0000	55.00	5,170.00
17 DISPOSAL					
		A WASTEWATER	400.0000	0.80	320.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	20,965.00	3,144.75
			Total Amount		24,109.75

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF COMPREHENSIVE GROUNDWATER SAMPLING EVENT – AUGUST 2013

Country Side 2
8050 West Oak Highway
Westminster, Oconee County, South Carolina
UST Permit #06742; Cost Agreement #45513

Prepared For:

Mr. Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693-5534

Prepared By:

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, South Carolina 29615
SCDHEC Certified Contractor No. UCC-010

November 26, 2013

BLE Project Number J13-6940-05

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

November 26, 2013

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
Underground Storage Tank Program
2600 Bull Street
Columbia, South Carolina 29201-1708

Attention: Mr. Joel P. Padgett, P.G., Geologist/Hydrologist

Subject: **Report of Comprehensive Groundwater Sampling Event – August 2013**
Country Side 2
8050 West Oak Highway
Westminster, Oconee County, South Carolina
UST Permit #06742; CA #45513
BLE Project No. J13-6940-05

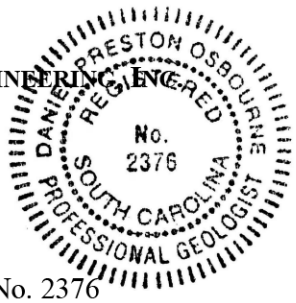
Dear Mr. Padgett:

On behalf of Mr. Neil Alexander, Bunnell-Lammons Engineering, Inc. (BLE) has completed a comprehensive groundwater sampling event at the subject site. This scope of work was performed in response to the South Carolina Department of Health and Environmental Control's (SCDHEC) directive dated June 26, 2013 and in accordance with BLE's Quality Assurance Project Plan (QAPP) Addendum dated June 11, 2013. The results of our activities are provided herein.

The Assessment Component Invoice will be submitted under separate cover to Ms. Robertha Dorsey of the SCDHEC, Bureau of Business Management, Division of Procurement Services for payment. Please do not hesitate to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.



Daniel P. Osbourne, P.G.
Senior Hydrogeologist
Registered, South Carolina No. 2376

Thomas L. Lammons, P.G., CHMM
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Neil Alexander C/O Alley Antiques, 8050 West Oak Hwy, Westminster, SC 29693-5534

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

BACKGROUND INFORMATION

The subject property is located at 8050 West Oak Highway in Westminster, Oconee County, South Carolina (Figure 1). The site currently operates as Country Side 2, an active automobile fueling station and convenience store. We understand that five underground storage tanks (USTs) and associated piping and fueling dispensers were removed from the site in June 1990: two 1,000-gallon gasoline, one 550-gallon gasoline, one 550-gallon diesel, and one 550-gallon kerosene. Five USTs are currently in use at the site: one 10,000-gallon off-road diesel, one 10,000-gallon kerosene, one 8,000-gallon "regular" gasoline, one 6,000-gallon "plus" gasoline, and one 6,000-gallon diesel, and associated equipment were installed in their place. In January 1993, during the UST removal activities, a release of petroleum from the UST system was reported. Numerous environmental assessments have been conducted at the site by various consultants since 1993, including the installation of over eighty-one groundwater monitoring/recovery/injection wells to assess the horizontal and vertical extent of petroleum hydrocarbons in groundwater beneath the site. Additionally, petroleum free-product recovery has been conducted via multiple Aggressive Fluid Vapor Recovery (AFVR) events and a 96-hour Mobile Multi-Phase Extraction (MMPE) event. BLE also understands the site was previously in active corrective action utilizing a form of injection technology. Several injection wells associated with the prior remedial activities are still present on the property.

On June 26, 2013, in an effort to determine what risk the release may pose to the environment and to evaluate current groundwater chemical of concern (CoC) data, the SCDHEC issued a directive for the completion of a comprehensive groundwater sampling event at the subject site. The directive was submitted upon approval of BLE's Quality Assurance Program Plan (QAPP) Addendum dated June 11, 2013. This report documents the results of these activities.

GROUNDWATER WATER SAMPLING

From August 12, 2013 to August 15, 2013, BLE personnel mobilized to the site to measure groundwater levels and collect groundwater and surface water samples. The subject site contains eighty-one groundwater access points, consisting of the following:

- Seventy 2-inch diameter monitoring wells:
    - Forty-two shallow monitoring wells (MW-1 through MW-7, MW-7R, MW-8, MW-9, MW-9R, MW-11, MW-12, MW-13R, MW-14R, MW-14R2, MW-15R, MW-23 through MW-25, MW-29, MW-32, MW38, MW-43, MW46, MW-47, MW-49 through MW-55, MW-58, MW-59, MWR-1 through MWR-4, MWR-11, MWR-1A, and MWR-4R)
    - Two intermediate single-cased wells (MW-44I and MW-57I),
    - Nine intermediate double-cased wells (MW-17I, MW-19I, MW-21I, MW-26I, MW-30I, MW-33I, MW-35I, MW-39I, and MW-41I),
    - Eight deep-penetrating double-cased wells emplaced on the top of rock (MW-18D, MW-20D, MW-22D, MW-31D, MW-34D, MW-36D, MW-40D, and MW-42D),
    - Three deep-penetrating double-cased wells advanced into rock (MW-16DD, MW-28DD, and MW-37DD), and
    - Six injection wells (MW-1X through MW-6X).
- Eleven 4-inch diameter recovery wells (MW-60 through MW-70)

Additionally, one surface water sampling point (SW-1) is located down-gradient of the subject site.

The following monitoring wells were not able to be sampled during the current scope of work:

- MW-1, MW-3, and MW-4X were dry;
- MW-8 (0.58-feet), MW-51 (0.22-feet), and MW-60 (0.01-feet) contained free-phase product;
- MW-50 was not able to be located, and is thought to be under a pile of lumber;
- MW-3X was obstructed by organic debris, and;
- MW-5X has been destroyed.

Groundwater level measurements are summarized on Table 1. Monitoring well locations and a groundwater elevation contour map, which shows the occurrence and direction of groundwater flow in the uppermost aquifer, are provided in Figure 2. Groundwater flow is generally to the south/southeast from the site.

Pursuant to the SCDHEC's directive and the site specific QAPP, monitoring wells associated with the site were purged prior to groundwater sample collection. Petroleum-impacted purge-water generated during the sampling event was contained in sealed 55-gallon drums on-site and later transported off-site for disposal. Monitoring well purging and sampling procedures are described in Appendix A and a disposal manifest for the purge-water is included as Appendix B.

Seventy-two groundwater monitoring wells (MWR-1, MWR-1A, MW-2, MWR-2, MWR-3, MW-4, MWR-4, MWR-4R, MW-5 through MW-7, MW-7R, MW-9, MW-9R, MW-11, MWR-11, MW-12, MW-13R, MW-14R, MW-14R2, MW-15R, MW-16DD, MW17I, MW-18D, MW-19I, MW-20D, MW-21I, MW-22D, MW-23 through MW-25, MW-26I, MW-28DD, MW-29, MW-30I, MW-31D, MW-32, MW-33I, MW-34D, MW-35I, MW-36D, MW-37DD, MW38, MW-39I, MW-40D, MW-41I, MW-42D, MW-43, MW-44I, MW-46, MW-47, MW-49, MW-52 through MW-55, MW-57I, MW-58, MW-59, MW-61 through MW-70, MW-1X, MW-2X, and MW-6X) were sampled for laboratory analyses from August 13, 2013 to August 15, 2013. Additionally, one surface water location (SW-1) was sampled on August 14, 2013. Sample containers were marked in the field with identifying numbers, properly preserved, placed into sample coolers, secured, and maintained at less than 4 degrees Celsius. The samples and chain-of-custody records were delivered to Shealy Environmental Services, Inc. in West Columbia, South Carolina for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX), naphthalene, MTBE, 1,2-dichloroethane (1,2 DCA), and 8-oxygenates by Environmental Protection Agency (EPA) Method 8260B and 1,2-dibromoethane (EDB) by EPA Method 8011. Additionally, as required by the SCDHEC's Master QAPP Revision 2.0, dated April 2013, four field duplicates (denoted by the suffix DUP), three field blanks, and two trip blanks were collected and submitted for the appropriate laboratory analyses. Monitoring well sampling procedures and logs are provided in Appendix A.

GROUNDWATER SAMPLING RESULTS

Of the seventy-two groundwater monitoring wells and one surface water point sampled for laboratory analysis, fifty-one monitoring wells and the surface water point detected petroleum

hydrocarbon chemicals of concern (CoCs) above South Carolina Risk-Based Screening Levels[1] (RBSLs). Concentrations exceeding RBSLs are as follows:

Benzene: MWR-1, MWR-1A, MWR-2, MW-4, MWR-4, MWR-4R, MW-6, MW-7, MW-7R, MW-11, MWR-11, MW-13R, MW-14R2, MW-16DD, MW-17I, MW-18D, MW-19I, MW-20D, MW-21I, MW-24, MW-25, MW-26I, MW-28DD, MW-30I, MW-31D, MW-32, MW-33I, MW-34D, MW-35I, MW-36D, MW-39I, MW-40D, MW-52, MW-54, MW-57I, MW-61 through MW-70, MW-1X, MW-2X, and MW-6X;

Toluene: MWR-1, MWR-1A, MW-4, MWR-4, MWR-4R, MW-6, MW-7, MW-7R, MW-17I, MW-19I, MW-52, MW-54, MW-61 through MW-70, MW-2X, and MW-6X;

Ethylbenzene: MWR-1, MWR-1A, MWR-4, MWR-4R, MW-7, MW-7R, MW-17I, MW-19I, MW-52, MW-54, MW-62 through MW-70, MW-2X, and MW-6X;

Xylenes: MWR-1, MWR-1A, MWR-4, MWR-4R, MW-7, MW-7R, MW-17I, MW-19I, MW-54, MW-61 through MW-70, MW-2X, and MW-6X;

MTBE: MWR-1, MWR-1A, MW-4, MWR-4, MWR-4R, MW-7R, MW-13R, MW-15R, MW-17I, MW-18D, MW-19I, MW-20D, MW-21I, MW-25, MW-26I, MW-30I, MW-31D, MW-32, MW-33I, MW-34D, MW-35I, MW-36D, MW-39I, MW-40D, MW-46, MW-52, MW-59, MW-61, MW-65 through MW-70, MW-2X, MW-6X, and SW-1;

Naphthalene: MWR-1, MWR-1A, MW-4, MWR-4, MWR-4R, MW-6, MW-7, MW-7R, MWR-11, MW-13R, MW-14R2, MW-17I, MW-18D, MW-19I, MW-25, MW-30I, MW-34D, MW-52, MW-61, MW-62, MW-63, MW-65 through MW-67, MW-69, MW-70, and MW-6X;

EDB: MWR-1, MWR-1A, MW-4, MWR-4, MWR-4R, MW-19I, MW-21I, MW-52, MW-54, MW-61 through MW-70, MW-2X, and MW-6X;

1,2-DCA: MW-4, MW-13R, MW-18D, MW-26I, MW-63, MW-64, MW-69, and MW-2X;

Diisopropyl Ether (IPE): MWR-1A, MW-21I, and MW-64;

[1] South Carolina Risk-Based Corrective Action for Petroleum Releases, Bureau of Land and Waste Management, Underground Storage Tank Program, May 15, 2001.

Tert-amyl alcohol (TAA): MWR-1, MWR-1A, MW-4, MWR-4, MWR-4R, MW-6, MW-13R, MW-17I, MW-18D, MW-19I, MW-20D, MW-21I, MW-25, MW-26I, MW-30I, MW-31D, MW-32, MW-33I, MW-34D, MW-35I, MW-36D, MW-39I, MW-40D, MW-52, MW-61, MW-63 through MW-67, MW-69, MW-70, MW-6X, and SW-1;
Tert-amyl methyl ether (TAME): MWR-1, MWR-1A, MW-19I, MW-21I, and MW-64;
Tert-butyl alcohol (TBA): MWR-1, MWR-1A, MW-4, MW-19I, MW-67, and MW-70.

Various petroleum hydrocarbons were also detected in groundwater monitoring wells MW-2, MW-22D, MW-37DD, MW-38, MW-42D, MW-43, MW-44I, and MW-49, however, the concentrations did not exceed South Carolina established RBSLs. Additionally, free-phase petroleum product was discovered in monitoring wells MW-8 (0.58-feet), MW-51 (0.22-feet), and MW-60 (0.01-feet). Historical groundwater analytical results from the groundwater monitoring wells and surface water sampling point associated with the facility are summarized in Tables 2A and 2B and current groundwater CoC concentrations are shown on Figure 3. Laboratory data sheets are provided in Appendix C.

CONCLUSIONS AND RECOMMENDATIONS

Based on the groundwater elevation data obtained during this sampling event, groundwater appears to flow south/southeast from the area of the UST system release. The depth to groundwater in the unconfined aquifer ranges from 7.49-feet bgs (MW-43) to 30.60-feet bgs (MW-25) across the study area. Petroleum constituents detected in the groundwater above RBSLs during the August 2013 groundwater sampling event include: BTEX, MTBE, naphthalene, EDB, 1,2-DCA, IPE, TAA, TAME, and TBA. Free-phase petroleum product was also detected in monitoring wells MW-8 (0.58-feet), MW-51 (0.22-feet), and MW-60 (0.01-feet).

Based on current groundwater CoC concentrations, it appears that the contamination plume is not currently defined horizontally or vertically; therefore, BLE recommends the installation of eight additional shallow groundwater monitoring wells. The proposed locations of the new groundwater monitoring wells are depicted on Figure 4.

Additionally, BLE recommends a 96-hour MMPE event be conducted to 1) remove residual free-phase product from the area around each extraction point, 2) remove petroleum hydrocarbon vapors from the unsaturated zone, and 3) remove petroleum-impacted groundwater (mass) from the subsurface. We recommend performing the MMPE event on the following wells: MWR-4R, MW-52, MW-61, MW-62, MW-63, MW-64, MW-65, MW-66, MW-67, MW-68, MW-69, and MW-70. Temporary vacuum will be applied to the remaining monitoring wells exhibiting free-product during the MMPE event on an as-needed basis.

Approximately 30 days after completion of the MMPE event, we recommend a comprehensive groundwater sampling event be performed to evaluate contaminant trends on the site and to evaluate the effectiveness of the MMPE event at removing free-phase petroleum product and reducing concentrations of petroleum compounds in the groundwater.

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Mr. Neil Alexander. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

TABLES

TABLE 1

Monitoring Well and Groundwater Elevation Data
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Monitoring Well	Date	Northing	Easting	TOC Elev.	Ground Elev.	Free-Product Thickness	GW Depth BTOC	GW Depth BGS	Groundwater Elev.	Well Depth	Screened Interval Depth	Screened Interval Elevation
06742-MW1	5/8/2007	1010146.123	1402713.112	931.72	932.02	DRY				NA	NA - NA	NA - NA
	8/12/2013					DRY						
06742-MWR1	5/8/2007	1010150.732	1402710.184	931.28	931.48	**1.25**	33.65	33.85	897.63	45.0	30.0 - 45.0	901.28 - 886.28
	8/12/2013					---	29.65	29.85	901.63			
06742-MWR1A	5/8/2007	1010194.305	1402741.665	931.53	931.98	---	33.23	33.68	898.30	70.0	65.0 - 70.0	866.53 - 861.53
	8/12/2013					---	30.05	30.50	901.48			
06742-MW2	5/8/2007	1010121.417	1402755.213	929.31	929.67	DRY				NA	NA - NA	NA - NA
	8/12/2013					**---**	27.38	27.74	901.93			
06742-MWR2	5/8/2007	1010118.884	1402750.226	928.96	929.35	---	30.63	31.02	898.33	40.0	25.0 - 40.0	903.96 - 888.96
	8/12/2013					---	27.05	27.44	901.91			
06742-MW3	5/8/2007	1010140.621	1402806.266	929.27	929.41	DRY				NA	NA - NA	NA - NA
	8/12/2013					DRY						
06742-MWR3	5/8/2007	1010138.197	1402803.015	928.96	929.24	---	30.81	31.09	898.15	40.0	30.0 - 40.0	898.96 - 888.96
	8/12/2013					---	27.51	27.79	901.45			
06742-MW4	5/8/2007	1009988.570	1402742.705	918.71	919.10	---	25.74	26.13	892.97	25.0	15.0 - 25.0	903.71 - 893.71
	8/12/2013					---	18.40	18.79	900.31			
06742-MWR4	5/8/2007	1010059.602	1402694.449	925.62	925.86	**0.29**	28.05	28.29	897.57	38.0	28.0 - 38.0	897.62 - 887.62
	8/12/2013					---	24.50	24.74	901.12			
06742-MWR4R	5/8/2007	1010057.835	1402684.903	925.57	925.88	**0.58**	28.42	28.73	897.15	40.0	25.0 - 40.0	900.57 - 885.57
	8/12/2013					---	24.52	24.83	901.05			
06742-MW5	5/8/2007	1009797.504	1402767.973	907.22	907.50	---	14.51	14.79	892.71	20.0	10.0 - 20.0	897.22 - 887.22
	8/12/2013					---	11.66	11.94	895.56			
06742-MW6	5/8/2007	1010057.793	1402680.138	925.26	925.97	---	27.49	28.20	897.77	35.0	20.0 - 35.0	905.26 - 890.26
	8/12/2013					---	24.28	24.99	900.98			
06742-MW7	5/8/2007	1010172.567	1402658.959	930.21	930.71	---	31.14	31.64	899.07	39.0	24.0 - 39.0	906.21 - 891.21
	8/12/2013					---	28.01	28.51	902.20			
06742-MW7R	5/8/2007	1010174.294	1402662.125	930.62	930.99	---	31.57	31.94	899.05	45.0	35.0 - 45.0	895.62 - 885.62
	8/12/2013					---	28.41	28.78	902.21			
06742-MW8*	5/8/2007	1010205.854	1402743.366	931.32	931.91	**0.44**	33.26	33.85	898.06	45.0	25.0 - 45.0	906.32 - 886.32
	8/12/2013					**0.58**	29.93	30.52	901.39			
06742-MW9	5/8/2007	1010152.373	1402598.121	928.99	929.38	---	29.12	29.51	899.87	32.0	17.0 - 32.0	911.99 - 896.99
	8/12/2013					---	25.03	25.42	903.96			
06742-MW9R	5/8/2007	1010142.202	1402602.580	928.80	929.38	---	29.47	30.05	899.33	45.0	35.0 - 45.0	893.80 - 883.80
	8/12/2013					---	25.40	25.98	903.40			
06742-MW11	5/8/2007	1009968.189	1402662.895	919.17	919.46	---	22.35	22.64	896.82	35.0	22.0 - 35.0	897.17 - 884.17
	8/12/2013					---	18.81	19.10	900.36			
06742-MWR11	5/8/2007	1009968.046	1402658.467	919.26	919.46	---	22.42	22.62	896.84	40.0	30.0 - 40.0	889.26 - 879.26
	8/12/2013					---	18.90	19.10	900.36			
06742-MW12	5/8/2007	1009639.295	1402874.982	894.76	895.11	---	9.62	9.97	885.14	12.0	7.0 - 12.0	887.76 - 882.76
	8/12/2013					---	7.09	7.44	887.67			
06742-MW13R	5/8/2007	1009845.121	1402780.931	907.90	908.27	---	14.87	15.24	893.03	35.0	25.0 - 35.0	882.90 - 872.90
	8/12/2013					---	11.61	11.98	896.29			
06742-MW14R	5/8/2007	1009841.526	1402657.499	911.39	911.93	---	16.80	17.34	894.59	35.0	25.0 - 35.0	886.39 - 876.39
	8/12/2013					---	13.25	13.79	898.14			
06742-MW14R2	5/8/2007	1009843.200	1402662.489	911.36	911.64	---	16.73	17.01	894.63	25.0	10.0 - 25.0	901.36 - 886.36
	8/12/2013					---	13.20	13.48	898.16			
06742-MW15R	5/8/2007	1010076.320	1402894.087	925.06	925.44	---	27.74	28.12	897.32	45.0	30.0 - 45.0	895.06 - 880.06
	8/12/2013					---	24.49	24.87	900.57			
06742-MW16DD	5/8/2007	1010212.278	1402724.071	931.59	931.97	---	37.86	38.24	893.73	95.0	90.0 - 95.0	841.59 - 836.59
	8/12/2013					---	31.85	32.23	899.74			
06742-MW17I	5/8/2007	1010141.227	1402707.453	930.54	930.73	---	31.93	32.12	898.61	52.0	47.0 - 52.0	883.54 - 878.54
	8/12/2013					---	28.80	28.99	901.74			
06742-MW18D	5/8/2007	1010139.698	1402710.802	930.51	930.94	---	31.99	32.42	898.52	61.0	56.0 - 61.0	874.51 - 869.51
	8/12/2013					---	28.87	29.30	901.64			
06742-MW19I	5/8/2007	1010114.270	1402757.799	928.40	928.68	---	30.37	30.65	898.03	55.0	50.0 - 55.0	878.40 - 873.40
	8/12/2013					---	26.97	27.25	901.43			
06742-MW20D	5/8/2007	1010113.624	1402761.889	928.23	928.61	---	30.32	30.70	897.91	76.0	71.0 - 76.0	857.23 - 852.23
	8/12/2013					---	27.87	27.87	900.36			
06742-MW21I	5/8/2007	1010130.105	1402803.526	928.36	928.92	---	30.36	30.92	898.00	55.0	50.0 - 55.0	878.36 - 873.36
	8/12/2013					---	27.10	27.66	901.26			
06742-MW22D	5/8/2007	1010132.684	1402809.944	928.60	929.03	---	32.13	32.56	896.47	75.0	70.0 - 75.0	858.60 - 853.60
	8/12/2013					---	27.38	27.81	901.22			
06742-MW23	5/8/2007	1010265.124	1402871.734	930.29	930.61	---	32.02	32.34	898.27	40.0	25.0 - 40.0	905.29 - 890.29
	8/12/2013					---	29.11	29.43	901.18			
06742-MW24	5/8/2007	1010244.335	1402822.506	931.03	931.39	---	32.64	33.00	898.39	40.0	25.0 - 40.0	906.03 - 891.03
	8/12/2013					---	29.83	30.19	901.20			
06742-MW25	5/8/2007	1010234.378	1402782.032	931.60	931.87	---	33.05	33.32	898.55	45.0	30.0 - 45.0	901.60 - 886.60
	8/12/2013					---	30.33	30.60	901.27			
06742-MW26I	5/8/2007	1009977.110	1402746.321	918.70	919.01	---	21.85	22.16	896.85	45.0	40.0 - 45.0	878.70 - 873.70
	8/13/2013					---	18.45	18.76	900.25			
06742-MW28DD	5/8/2007	1009980.837	1402753.664	918.67	919.07	---	21.98	22.38	896.69	96.0	91.0 - 96.0	827.67 - 822.67
	8/13/2013					---	18.47	18.87	900.20			
06742-MW29	5/8/2007	1009991.462	1402820.031	918.49	919.01	---	21.90	22.42	896.59	33.0	20.0 - 33.0	898.49 - 885.49
	8/13/2013					---	18.52	19.04	899.97			
06742-MW30I	5/8/2007	1009983.663	1402820.347	918.02	918.58	---	21.59	22.15	896.43	45.0	40.0 - 45.0	878.02 - 873.02
	8/13/2013					---	18.19	18.75	899.83			
06742-MW31D	5/8/2007	1009984.132	1402813.507	918.19	918.68	---	21.71	22.20	896.48	66.0	61.0 - 66.0	857.19 - 852.19
	8/13/2013					---	18.33	18.82	899.86			
06742-MW32	5/8/2007	1009910.263	1402797.728	912.46	913.04	---	17.55	18.13	894.94	30.0	15.0 - 30.0	897.46 - 882.46
	8/13/2013					---	13.94	14.52	898.55			
06742-MW33I	5/8/2007	1009913.080	1402803.447	912.63	913.14	---	17.90	18.41	894.73	40.0	35.0 - 40.0	877.63 - 872.63
	8/13/2013					---	14.33	14.84	898.30			
06742-MW34D	5/8/2007	1009910.561	1402808.067	912.67	913.18	---	18.12	18.63	894.55	51.0	46.0 - 51.0	866.67 - 861.67
	8/13/2013					---	14.61	15.12	898.06			
06742-MW35I	5/8/2007	1009798.091	1402762.605	907.49	907.84	---	14.62	14.97	892.87	35.0	30.0 - 35.0	877.49 - 872.49
	8/13/2013					---	11.57	11.57	895.92			

Prepared By: RAD
Checked By: DRM

TABLE 1

Monitoring Well and Groundwater Elevation Data
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Monitoring Well	Date	Northing	Easting	TOC Elev.	Ground Elev.	Free-Product Thickness	GW Depth BTOC	GW Depth BGS	Groundwater Elev.	Well Depth	Screened Interval Depth	Screened Interval Elevation
06742-MW36D	5/8/2007	1009806.435	1402770.405	906.77	907.41	---	13.98	14.62	892.79	36.0	31.0 - 36.0	875.77 - 870.77
	8/13/2013					---	10.85	11.49	895.92			
06742-MW37DD	5/8/2007	1009800.764	1402765.809	907.33	907.66	---	14.39	14.72	892.94	57.0	52.0 - 57.0	855.33 - 850.33
	8/13/2013					---	11.33	11.66	896.00			
06742-MW38	5/8/2007	1009805.925	1402929.577	912.27	912.78	---	21.53	22.04	890.74	25.0	15.0 - 25.0	897.27 - 887.27
	8/13/2013					---	18.57	19.08	893.70			
06742-MW39I	5/8/2007	1009800.997	1402931.204	912.21	912.59	---	21.51	21.89	890.70	45.0	40.0 - 45.0	872.21 - 867.21
	8/13/2013					---	18.54	18.92	893.67			
06742-MW40D	5/8/2007	1009810.503	1402926.686	912.41	912.89	---	21.49	21.97	890.92	66.0	61.0 - 66.0	851.41 - 846.41
	8/13/2013					---	18.32	18.80	894.09			
06742-MW41I	5/8/2007	1009848.861	1402663.695	911.18	911.71	---	16.50	17.03	894.68	45.0	40.0 - 45.0	871.18 - 866.18
	8/13/2013					---	13.10	13.63	898.08			
06742-MW42D	5/8/2007	1009845.947	1402667.212	911.19	911.41	---	16.35	16.57	894.84	60.0	55.0 - 60.0	856.19 - 851.19
	8/13/2013					---	12.81	13.03	898.38			
06742-MW43	5/8/2007	1009576.742	1402886.676	892.57	890.92	---	11.60	9.95	880.97	15.0	5.0 - 15.0	887.57 - 877.57
	8/13/2013					---	9.14	7.49	883.43			
06742-MW44I	5/8/2007	1009573.105	1402889.357	892.40	890.79	---	9.11	7.50	883.29	25.0	20.0 - 25.0	872.40 - 867.40
	8/13/2013					---	7.25	5.64	885.15			
06742-MW46	5/8/2007	1009969.138	1402920.764	918.19	918.39	---	23.02	23.22	895.17	35.0	20.0 - 35.0	898.19 - 883.19
	8/13/2013					---	19.47	19.67	898.72			
06742-MW47	5/8/2007	1009879.269	1402922.497	914.82	915.24	---	22.12	22.54	892.70	30.0	15.0 - 30.0	899.82 - 884.82
	8/13/2013					---	18.89	19.31	895.93			
06742-MW49	5/8/2007	1009537.695	1402927.670	892.50	890.06	---	14.92	12.48	877.58	20.0	5.0 - 20.0	887.50 - 872.50
	8/13/2013					---	14.06	11.62	878.44			
06742-MW50	5/8/2007	1009577.839	1402818.145	896.01	896.53	---	10.95	11.47	885.06	20.0	5.0 - 20.0	891.01 - 876.01
	8/12/2013					---	Not Located					
06742-MW51	5/8/2007	1010111.264	1402691.845	929.27	929.79	---	30.85	31.37	898.42	45.0	30.0 - 45.0	899.27 - 884.27
	8/12/2013					**0.22**	27.77	28.29	901.50			
06742-MW52	5/8/2007	1010071.220	1402743.587	925.01	925.50	---	27.22	27.71	897.79	45.0	30.0 - 45.0	895.01 - 880.01
	8/12/2013					---	23.97	24.46	901.04			
06742-MW53	5/8/2007	1010056.265	1402796.930	923.76	924.25	---	26.22	26.71	897.54	45.0	25.0 - 45.0	898.76 - 878.76
	8/12/2013					---	22.85	23.34	900.91			
06742-MW54	5/8/2007	1010199.153	1402688.209	931.30	931.75	---	32.31	32.76	898.99	45.0	30.0 - 45.0	901.30 - 886.30
	8/12/2013					---	29.57	30.02	901.73			
06742-MW55	5/8/2007	1009646.174	1402726.631	901.74	902.22	---	11.23	11.71	890.51	20.0	5.0 - 20.0	896.74 - 881.74
	8/12/2013					---	7.61	8.09	894.13			
06742-MW57I	5/8/2007	1009650.798	1402723.427	902.60	902.73	---	12.05	12.18	890.55	30.0	25.0 - 30.0	877.60 - 872.60
	8/13/2013					---	9.24	9.37	893.36			
06742-MW58	5/8/2007	1009835.484	1402971.937	913.55	914.31	---	22.16	22.92	891.39	30.0	20.0 - 30.0	893.55 - 883.55
	8/13/2013					---	19.15	19.91	894.40			
06742-MW59	5/8/2007	1009664.204	1402973.343	904.04	901.19	---	16.08	13.23	887.96	22.0	7.0 - 22.0	897.04 - 882.04
	8/13/2013					---	16.76	13.91	887.28			
06742-MW60	8/20/2008	1010202.726	1402748.581	931.65	931.94	**0.38**	37.47	37.76	894.18	45.0	25.0 - 45.0	906.65 - 886.65
	8/12/2013					**0.01**	30.20	30.49	901.45			
06742-MW61	8/20/2008	1010194.576	1402731.220	930.95	931.88	---	36.92	37.85	894.03	45.0	25.0 - 45.0	905.95 - 885.95
	8/12/2013					---	29.40	30.33	901.55			
06742-MW62	8/20/2008	1010205.795	1402692.653	931.25	931.90	---	37.97	38.62	893.28	45.0	25.0 - 45.0	906.25 - 886.25
	8/12/2013					---	29.40	30.05	901.85			
06742-MW63	8/20/2008	1010200.863	1402680.095	930.89	931.61	---	36.61	37.33	894.28	45.0	25.0 - 45.0	905.89 - 885.89
	8/12/2013					---	28.84	29.56	902.05			
06742-MW64	8/20/2008	1010191.655	1402691.533	931.15	931.65	---	36.90	37.40	894.25	45.0	25.0 - 45.0	906.15 - 886.15
	8/12/2013					---	29.30	29.80	901.85			
06742-MW65	8/20/2008	1010112.377	1402681.567	928.52	929.45	---	34.77	35.70	893.75	45.0	25.0 - 45.0	903.52 - 883.52
	8/12/2013					---	26.70	27.63	901.82			
06742-MW66	8/20/2008	1010116.345	1402699.233	929.12	929.82	**0.07**	35.38	36.08	893.74	45.0	25.0 - 45.0	904.12 - 884.12
	8/12/2013					---	27.29	27.99	901.83			
06742-MW67	8/20/2008	1010106.814	1402695.195	929.03	929.62	---	35.38	35.97	893.65	45.0	25.0 - 45.0	904.03 - 884.03
	8/12/2013					---	27.28	27.87	901.75			
06742-MW68	8/12/2013	1010198.905	1402710.451	931.65	931.92	---	29.95	30.22	901.70	46.0	25.7 - 45.7	905.95 - 885.95
06742-MW69	8/12/2013	1010168.966	1402692.953	931.20	931.42	---	29.42	29.64	901.78	44.7	24.4 - 44.4	906.80 - 886.80
06742-MW70	8/12/2013	1010144.217	1402685.418	930.19	930.46	---	28.34	28.61	901.85	44.6	24.3 - 44.3	905.89 - 885.89
06742-MW1X	8/12/2013	1010194.680	1402736.821	931.89	932.10	---	30.73	30.94	900.53	NA	NA - NA	NA - NA
06742-MW2X	8/12/2013	1010162.316	1402659.631	929.72	930.08	---	20.42	20.78	909.30	NA	NA - NA	NA - NA
06742-MW3X	8/12/2013	1010157.903	1402710.922	930.86	931.35	---	Obstructed			NA	NA - NA	NA - NA
06742-MW4X	8/12/2013	1010232.689	1402799.773	931.52	931.86	---	Dry			NA	NA - NA	NA - NA
06742-MW5X	8/12/2013	1009906.391	1402736.730	913.60	913.95	---	Destroyed			NA	NA - NA	NA - NA
06742-MW6X	8/12/2013	1010093.376	1402671.590	927.72	928.16	---	26.23	26.67	901.49	NA	NA - NA	NA - NA

NOTES:

Groundwater levels were measured on August 12, 2013 and August 13, 2013.

Historical monitoring well construction and groundwater elevation data prior to 2013 were obtained from the *Report of Assessment Activities* and the *Report of Monitoring Well Installation* by Midlands Environmental Consultants, Inc. dated June 5, 2007 and September 5, 2008, respectively.

Measurements are in feet.

BTOC - below top of casing

BGS - below ground surface

* - Depth to groundwater has been corrected for the presence of free product using the specific gravity of 0.70 g/ml.

Prepared By: RAD
Checked By: DRM

TABLE 2A

Historical Laboratory Analytical Results
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)	EDB (µg/l)	1,2-DCA (µg/l)	Lead (µg/l)
SCDHEC RBSL		5	1,000	700	10,000	40	25	0.05	5	15
06742-MW1	01/25/99	**28,200**	**37,200**	**2,750**	**19,500**	**24,600**	**4,750**	NT	NT	NT
	12/09/99	Dry								
	05/08/07	Dry								
	08/13/13	Dry								
06742-MWR1	06/11/03	**19,200**	**24,900**	**2,750**	**19,500**	**28,600**	**805**	NT	NT	NT
	08/27/03	**37,200**	**45,800**	**3,740**	**19,500**	**32,200**	**1,560**	NT	NT	NT
	06/14/04	**226,000**	**301,000**	**280,000**	**278,000**	**5,110,000**	**2,000**	NT	NT	NT
	05/08/07	**Well not sampled due to the presence of 1.25-feet of free-product**								
	08/13/13	**38,000**	**48,000**	**3,500**	**19,000**	**45,000**	**1,000J**	**1.5**	<2,500	NT
06742-MWR1A	06/11/03	**185**	**22,164**	**1,700**	**13,500**	**187**	**554**	NT	NT	NT
	08/27/03	**111**	**22,164**	**1,700**	**13,500**	**187**	**554**	NT	NT	NT
	06/14/04	**111**	**22,164**	**1,700**	**13,500**	**187**	**554**	NT	NT	NT
	05/08/07	ND	ND	ND	**5.2**	ND	**10**	ND	ND	ND
	08/13/13	**38,000**	**63,000**	**3,300**	**30,000**	**250,000**	**1,000J**	**9.9**	<2,500	NT
06742-MWR1A DUP	08/13/13	**44,000**	**66,000**	**3,700**	**33,000**	**270,000**	**1,100J**	**12**	<2,500	NT
06742-MW2	01/25/99	**19**	**12**	**2**	**21.0**	**67**	**5**	NT	NT	NT
	12/09/99	Dry								
	04/04/00	Dry								
	05/08/07	Dry								
	08/15/13	**0.49J**	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020	<5.0	NT
06742-MWR2	06/11/03	**184**	**705**	**181**	**1,040**	**123**	**59**	NT	NT	NT
	08/27/03	**137**	**583**	**154**	**905**	**100**	**99**	NT	NT	NT
	06/14/04	**50**	**112**	**25**	**164**	**129**	**69**	NT	NT	NT
	05/08/07	**58**	**170**	**56**	**580**	ND	**16**	ND	ND	ND
	08/13/13	**7.2J**	**19J**	<50	**38J**	<50	<50	<0.019	<50	NT
06742-MW3	01/25/99	<1	<1	<1	<1	<1	<5	NT	NT	NT
	12/09/99	Dry								
	04/04/00	Dry								
	05/08/07	Dry								
	08/13/13	Dry								
06742-MWR3	06/11/03	**1**	**1**	**1**	**3**	<1	<5	NT	NT	NT
	08/26/03	**1**	**1**	**1**	**3**	**1**	**5**	NT	NT	NT
	06/14/04	**1**	**1**	**1**	**3**	**1**	**5**	NT	NT	NT
	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**27**
	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW4	01/25/99	Dry								
	12/9/999	Dry								
	12/09/01	Dry								
	05/08/07	**12,000**	**31,000**	**5,000**	**27,200**	**3,900**	**1,600**	ND	ND	**58**
	08/14/13	**8,500**	**4,900**	**650**	**4,600**	**8,300**	**300J**	**0.13**	**180J**	NT
06742-MWR4	04/23/01	**226,000**	**301,000**	**280,000**	**278,000**	**5,110,000**	**2,000**	NT	NT	NT
	07/19/01	**226,000**	**301,000**	**280,000**	**278,000**	**5,110,000**	**2,000**	NT	NT	NT
	10/09/01	**226,000**	**301,000**	**280,000**	**278,000**	**5,110,000**	**2,000**	NT	NT	NT
	05/08/07	**Well not sampled due to the presence of 0.58-feet of free-product**								
	08/13/13	**28,000**	**43,000**	**3,500**	**20,000**	**7,100**	**1,200J**	**0.81**	<2,500	NT
06742-MWR4 DUP	08/13/13	**29,000**	**44,000**	**3,500**	**20,000**	**7,100**	**1,100J**	**0.80**	<2,500	NT
06742-MWR4R	06/11/03	**13,700**	**16,700**	**2,080**	**11,200**	**11,600**	**1,010**	NT	NT	NT
	08/27/03	**24,800**	**31,900**	**2,500**	**12,300**	**16,000**	**985**	NT	NT	NT
	06/14/04	**226,000**	**301,000**	**280,000**	**278,000**	**5,110,000**	**2,000**	NT	NT	NT
	05/08/07	**Well not sampled due to the presence of 0.29-feet of free-product**								
	08/13/13	**13,000**	**24,000**	**2,400**	**14,000**	**540J**	**820J**	**0.41**	<1,000	NT
06742-MW5	04/23/01	**1**	**1**	**1**	**1**	**1**	**5**	NT	NT	NT
	07/19/01	**1**	**1**	**1**	**1**	**1**	**5**	NT	NT	NT
	10/09/01	Dry								
	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**6.3**
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.024	<5.0	NT
06742-MWR5	06/11/03	**3,280**	**96**	**256**	**786**	**4,640**	**201**	NT	NT	NT
	08/26/03	**2,990**	**68**	**160**	**526**	**2,320**	**106**	NT	NT	NT
	06/14/04	**1**	**1**	**1**	**3**	**1**	**5**	NT	NT	NT
	05/08/07	Not Located								
	08/13/13	Not Located								
06742-MW6	04/23/01	**2,000**	**9,600**	**1,080**	**7,460**	**2,510**	**500**	NT	NT	NT
	07/19/01	**4,820**	**9,600**	**1,080**	**7,460**	**5,200**	**500**	NT	NT	NT
	10/09/01	DRY								
	05/08/07	**18,000**	**14,000**	**3,800**	**25,000**	**850**	**1,800**	**0.26**	ND	**26**
	08/13/13	**5,000**	**9,200**	**470J**	**7,200**	<1,000	**350J**	<0.020	<1,000	NT
06742-MW6 DUP	08/13/13	**4,700**	**8,600**	**450J**	**6,700**	<1,000	<1,000	<0.020	<1,000	NT

Prepared By: RAD
Checked By: DRM

TABLE 2A

Historical Laboratory Analytical Results
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)	EDB (µg/l)	1,2-DCA (µg/l)	Lead (µg/l)
SCDHEC RBSL		5	1,000	700	10,000	40	25	0.05	5	15
06742-MW7	02/27/01	Dry								
	04/23/01	Dry								
	10/09/01	Dry								
	05/08/07	12,000	38,000	24,000	141,000	1,300	8,700	ND	ND	72
	08/13/13	1,300J	7,700	4,600	31,000	<2,500	1,500J	<0.020	<2,500	NT
06742-MW7 DUP	08/13/13	1,500J	6,400	3,400	25,000	<2,500	1,200J	<0.020	<2,500	NT
06742-MW7R	06/11/03	2,200	9,360	1,280	7,440	110	430	NT	NT	NT
	08/27/03	8,440	9,360	19,700	12,400	1,540	522	NT	NT	NT
	06/14/04	2,040	9,360	2,080	11,900	120	710	NT	NT	NT
	05/08/07	6,100	19,000	4,300	23,000	ND	1,600	ND	ND	ND
	08/13/13	270J	5,700	2,000	11,000	500	610	<0.019	<500	NT
06742-MW8	06/11/03	6,100	22,164	15,515	221,643	11,300	554	NT	NT	NT
	08/26/03	226,000	301,000	280,000	278,000	5,110,000	2,000	NT	NT	NT
	06/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	NT	NT	NT
	05/08/07	Well not sampled due to the presence of 0.44-feet of free-product								
	08/13/13	Well not sampled due to the presence of 0.58-feet of free-product								
06742-MW9	02/27/01	Dry								
	04/23/01	Dry								
	10/09/01	Dry								
	05/08/07	Dry								
	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW9R	06/11/03	108	36	30	130	52	50	NT	NT	NT
	08/26/03	68	31	21	91	38	59	NT	NT	NT
	06/14/04	46	20	22	107	81	134	NT	NT	NT
	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW10	06/11/03	1	1	1	1	1	5	NT	NT	NT
	08/26/03	1	1	1	1	1	5	NT	NT	NT
	06/14/04	3	71	26	154	1	48	NT	NT	NT
	05/08/07	Not Located								
	08/13/13	Not Located								
06742-MW11	01/25/99	24	106	189	825	10	731	NT	NT	NT
	12/09/99	Dry								
	04/04/00	Dry								
	05/08/07	88	430	340	2,000	ND	200	ND	ND	77
	08/14/13	13	22	7.2	110	<5.0	9.4	<0.020	<5.0	NT
06742-MWR11	06/11/03	173	889	496	2,600	54	408	NT	NT	NT
	08/26/03	150	637	401	2,250	58	369	NT	NT	NT
	06/14/04	138	412	324	2,130	70	448	NT	NT	NT
	05/08/07	NT	NT	NT	NT	NT	NT	NT	NT	NT
	8/14/123	10J	120J	360	2,500	<250	340	<0.019	<250	NT
06742-MW12	06/11/03	1	1	1	3	1	5	NT	NT	NT
	08/26/03	1	1	1	3	1	5	NT	NT	NT
	06/14/04	1	1	1	3	1	5	NT	NT	NT
	05/08/07	14	ND	ND	ND	ND	ND	ND	ND	37
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020	<5.0	NT
06742-MW13	02/27/01	Dry								
	04/23/01	Dry								
	10/09/01	Dry								
	05/08/07	Not Located								
	08/13/13	Not Located								
06742-MW13R	06/11/03	4,090	1,350	559	2,380	2,160	321	NT	NT	NT
	08/27/03	4,500	1,010	433	1,840	1,050	271	NT	NT	NT
	06/14/04	3,630	50	58	60	2,360	222	NT	NT	NT
	05/08/07	6,600	87	100	250	4,400	89	ND	ND	ND
	08/14/13	3,500	160J	240J	240J	2,500	100J	<0.020	75J	NT
06742-MW14	04/23/01	86	334	116	1,090	88	144	NT	NT	NT
	07/19/01	169	392	249	1,380	76	209	NT	NT	NT
	10/09/01	Dry								
	05/08/07	Not Located								
	08/13/13	Not Located								
06742-MW14R	06/11/03	32	33	50	334	7	83	NT	NT	NT
	08/26/03	10	21	50	334	7	83	NT	NT	NT
	06/14/04	10	21	50	334	7	83	NT	NT	NT
	05/08/07	ND	ND	ND	16	ND	ND	ND	ND	ND
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW14R2	05/08/07	1,100	1,800	1,000	7,300	92	650	ND	ND	24
	08/14/13	110	580	400	2,400	<100	250	<0.019	<100	NT

Prepared By: RAD
Checked By: DRM

TABLE 2A

Historical Laboratory Analytical Results
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)	EDB (µg/l)	1,2-DCA (µg/l)	Lead (µg/l)
SCDHEC RBSL		5	1,000	700	10,000	40	25	0.05	5	15
06742-MW15	02/27/01	Not Located								
	04/23/01	Not Located								
	10/09/01	Not Located								
	05/08/07	Not Located								
	08/13/13	Not Located								
06742-MW15R	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	11
	08/13/13	<50	<50	<50	<50	1,700	<50	<0.019	<50	NT
06742-MW16DD	03/30/07	36	260	94	610	7.4	30	NT	NT	NT
	05/08/07	ND	8.6	ND	ND	ND	ND	ND	ND	ND
	08/13/13	65	190	37	200	23J	9.2J	<0.019	<25	NT
06742-MW17I	05/08/07	7,900	14,000	3,700	20,600	2,800	1,300	ND	ND	12
	08/13/13	5,800	16,000	2,000	11,000	350J	500	<0.025	<500	NT
06742-MW18D	05/08/07	2,000	3,600	620	3,700	1,700	160	ND	ND	ND
	08/14/13	730	560	220	1,500	42J	100	<0.019	16J	NT
06742-MW19I	05/08/07	3,600	4,800	400	2,130	1,700	130	0.14	ND	5
	08/15/13	26,000	37,000	2,400	14,000	19,000	490J	6.3	<1,000	NT
06742-MW20D	05/08/07	430	570	41	240	570	21	0.24	ND	5.9
	08/15/13	270	<25	<25	<25	470	8.6J	<0.020	<25	NT
06742-MW21I	05/08/07	3,400	3,800	300	1,630	6,800	38	0.30	ND	9.5
	08/15/13	6,400	<1,000	540J	2,200	21,000	<1,000	0.091	<1,000	NT
06742-MW22D	05/08/07	82	81	7.9	53	530	6	ND	ND	6
	08/15/13	<5.0	<5.0	<5.0	<5.0	2.1J	<5.0	<0.019	<5.0	NT
06742-MW23	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	11
	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW24	05/08/07	160	ND	ND	28.6	ND	ND	ND	ND	7
	08/13/13	76	<5.0	<5.0	15	5.4	<5.0	<0.019	<5.0	NT
06742-MW25	05/08/07	3,100	490	36	850	1,300	21	ND	ND	6
	08/13/13	3,300	<100	<100	420	2,100	51J	<0.020	<100	NT
06742-MW25 DUP	08/13/13	3,300	<100	<100	420	1,700	58J	<0.019	<100	NT
06742-MW26I	05/08/07	9,800	890	730	4,300	2,900	130	ND	ND	ND
	08/14/13	790	<25	29	<25	560	14J	<0.025	17J	NT
06742-MW28DD	03/30/07	110	28	6.6	35	84	5.7	NT	NT	NT
	05/08/07	9.2	ND	ND	ND	28	ND	ND	ND	ND
	08/15/13	21	77	11	60	12	4.4J	<0.019	<5.0	NT
06742-MW29	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	33
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW30I	05/08/07	41	20	7.8	40	21	ND	ND	ND	5.8
	08/14/13	700	51	57	340	770	34J	0.037	<50	NT
06742-MW31D	05/08/07	570	260	31	182	350	9.1	ND	ND	ND
	08/15/13	97	17J	<25	28	1,100	<25	<0.019	<25	NT
06742-MW32	05/08/07	3,000	7.4	18	6.4	540	8.2	ND	ND	14
	08/14/13	20J	<100	<100	<100	180	<100	<0.019	<100	NT
06742-MW33I	05/08/07	860	ND	ND	28.2	50	12	ND	ND	ND
	08/15/13	2,500	2.7J	<5.0	3.5J	380	17	<0.020	<5.0	NT
06742-MW34D	05/08/07	380	ND	13	58	260	8.3	ND	ND	10
	08/15/13	2,700	57J	<100	330	1,300	54J	<0.019	<100	NT
06742-MW35I	05/08/07	1,900	83	180	1,087	83	440	ND	ND	12
	08/15/13	1,600	<250	130J	<250	110J	<250	<0.019	<250	NT
06742-MW36D	05/08/07	1,400	56	130	544	230	210	ND	ND	11
	08/15/13	1,300	<100	65J	50J	820	<100	<0.019	<100	NT
06742-MW37DD	03/30/07	ND	ND	ND	ND	ND	ND	NT	NT	NT
	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	9.6
	08/15/13	3.8J	22	3.1J	17	1.6J	<5.0	<0.020	<5.0	NT
06742-MW38	05/08/07	ND	ND	ND	ND	25	ND	ND	ND	88
	08/14/13	<5.0	<5.0	<5.0	<5.0	0.58J	<5.0	<0.019	<5.0	NT
06742-MW39I	05/08/07	61	ND	ND	ND	890	8	ND	ND	9.7
	08/14/13	36J	40J	29J	54	1,000	24J	<0.020	<50	NT
06742-MW40D	05/08/07	330	ND	ND	15	340	5.6	0.16	ND	9.8
	08/14/13	96	370	41	200	850	18J	0.029	<25	NT
06742-MW41I	05/08/07	ND	14	29	180	ND	7.5	ND	ND	11
	08/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW42D	05/08/07	7.6	46	40	241	ND	33	ND	ND	9.9
	08/15/13	3.3J	6.8	3.5J	8.0	<5.0	2.9J	<0.020	<5.0	NT
06742-MW43	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	13
	08/14/13	<5.0	<5.0	<5.0	<5.0	0.96J	<5.0	<0.019	<5.0	NT
06742-MW44I	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	12
	08/15/13	2.6J	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT

Prepared By: RAD
Checked By: DRM

TABLE 2A

Historical Laboratory Analytical Results
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)	EDB (µg/l)	1,2-DCA (µg/l)	Lead (µg/l)
SCDHEC RBSL		5	1,000	700	10,000	40	25	0.05	5	15
06742-MW46	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**10**
	08/14/13	<25	<25	<25	<25	**540**	<25	<0.019	<25	NT
06742-MW47	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**9.7**
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW49	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**120**
	08/14/13	<5.0	<5.0	<5.0	<5.0	**4.9J**	<5.0	<0.019	<5.0	NT
06742-MW50	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**19**
	08/13/13	Not Located								
06742-MW51	05/08/07	**27,000**	**37,000**	**3,800**	**19,100**	**31,000**	**820**	**0.23**	ND	**24**
	08/13/13	**Well not sampled due to the presence of 0.22-feet of free-product**								
06742-MW52	05/08/07	**11,000**	**23,000**	**3,000**	**16,000**	ND	**930**	ND	ND	**20**
	08/13/13	**3,000**	**11,000**	**1,700**	**7,200**	**84J**	**470J**	**0.16**	<500	NT
06742-MW53	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**10**
	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW54	05/08/07	**36,000**	**62,000**	**4,300**	**22,600**	ND	**890**	**0.32**	ND	**11**
	08/13/13	**28,000**	**62,000**	**4,600**	**24,000**	<2,500	<2,500	**3.9**	<2,500	NT
06742-MW55	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**10**
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW57I	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**13**
	08/14/13	**58**	**210**	**31**	**150**	<25	**16J**	<0.019	<25	NT
06742-MW58	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**11**
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW59	05/08/07	**9**	ND	ND	ND	**280**	ND	**0.065**	ND	**32**
	08/14/13	**2.5J**	<5.0	<5.0	<5.0	**89**	<5.0	<0.019	<5.0	NT
06742-MW60	08/13/13	**Well not sampled due to the presence of 0.01-feet of free-product**								
06742-MW61	08/13/13	**7,900**	**17,000**	**1,700**	**8,900**	**5,200**	**340J**	**1.8**	<1,000	NT
06742-MW62	08/14/13	**17,000**	**56,000**	**4,700**	**22,000**	<2,500	**1,600J**	**2.1**	<2,500	NT
06742-MW63	08/14/13	**8,300**	**45,000**	**4,000**	**21,000**	<1,000	**650J**	**0.96**	**180J**	NT
06742-MW64	08/14/13	**41,000**	**65,000**	**4,400**	**23,000**	<2,500	<2,500	**9.0**	**870J**	NT
06742-MW65	08/15/13	**16,000**	**32,000**	**2,500**	**13,000**	**4,400**	**650J**	**0.46**	<1,000	NT
06742-MW66	08/15/13	**8,000**	**30,000**	**2,500**	**16,000**	**4,300**	**820J**	**0.20**	<1,000	NT
06742-MW67	08/15/13	**25,000**	**39,000**	**3,300**	**17,000**	**26,000**	**810J**	**0.58**	<1,000	NT
06742-MW68	08/14/13	**43,000**	**77,000**	**5,200J**	**27,000**	**8,100J**	<10,000	**13**	<10,000	NT
06742-MW69	08/14/13	**18,000**	**39,000**	**3,700**	**21,000**	**2,700**	**780J**	**2.70**	**390J**	NT
06742-MW70	08/15/13	**19,000**	**30,000**	**2,900**	**15,000**	**30,000**	**870J**	**0.95**	<1,000	NT
06742-MW1X	08/13/13	**77**	**130**	**33**	**180**	**11**	**18**	<0.019	<5.0	NT
06742-MW2X	08/15/13	**24,000**	**41,000**	**2,600**	**15,000**	**3,400**	<2,500	**0.92**	**510J**	NT
06742-MW3X	08/13/13	Well obstructed at time of sampling event								
06742-MW4X	08/13/13	Dry								
06742-MW5X	08/13/13	Well destroyed prior to sampling event								
06742-MW6X	08/15/13	**16,000**	**34,000**	**2,300**	**13,000**	**270J**	**610J**	**0.56**	<1,000	NT
SW-1	05/08/07	ND	ND	ND	ND	**300**	ND	ND	NT	NT
	08/14/13	**2.6J**	<5.0	<5.0	<5.0	**210**	<5.0	<0.019	<5.0	NT
Field Blank 1	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
Field Blank 2	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020	<5.0	NT
Field Blank 3	08/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
Trip Blank 1	08/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
Trip Blank 2	08/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT

Notes:
Historical free-product thickness measurements and laboratory analytical data prior to 2013 were obtained from the *Report of Assessment Activities* by Midlands Environmental Consultants, Inc. dated June 5, 2007.
MTBE = Methyl tertiary butyl ether
EDB = 1,2-Dibromoethane
1,2-DCA = 1,2-Dichloroethane
µg/liter = micrograms/liter = approximate Parts Per Billion (ppb)
Bold cells indicate detections
Shaded cells indicate concentrations above RBSLs
ND = Not Detected at the Method Detection Limit
NT = Not Tested
J = estimated value between practical quantitative limit and method detection limit.
RBSL = Risk Based Screening Level

Prepared By: RAD
Checked By: DRM

TABLE 2B

Historical Laboratory Analytical Results - 8-Oxygenates
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Di-isopropyl Ether (IPE) (µg/L)	Ethanol (µg/L)	Ethyl-Tert-butyl Alcohol (ETBA) (µg/L)	Ethyl-tert-butyl ether (ETBE) (µg/L)	Tert-Amyl Alcohol (TAA) (µg/L)	Tert-Amyl Methyl Ether (TAME) (µg/L)	Tert-Butyl Alcohol (TBA) (µg/L)	Tert-Butyl Formate (TBF) (µg/L)
SC DHEC RBSL		150	10,000	NE	47	240	128	1,400	NE
06742-MW1	5/8/2007	Dry							
	8/12/2013	Dry							
06742-MWR1	5/8/2007	**Free-Product**							
	8/13/2013	<2,500	<50,000	<10,000	<500	**73,000**	**180J**	**10,000**	<2,500
06742-MWR1A	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	**1,800J**	<50,000	<10,000	<500	**66,000**	**1,400J**	**13,000**	<2,500
06742-MWR1A DUP	8/13/2013	**2,100J**	<50,000	**1,200J**	<500	**70,000**	**1,700J**	**13,000**	<2,500
06742-MW2	5/8/2007	Dry							
	8/15/2013	<5.0	<100	<20	<1.0	**23**	<10	**13J**	<5.0
06742-MWR2	5/8/2007	ND	ND	ND	ND	**540**	ND	ND	ND
	8/13/2013	<50	<1,000	<200	<10	**140J**	<100	<200	<50
06742-MW3	5/8/2007	Dry							
	8/12/2013	Dry							
06742-MWR3	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW4	5/8/2007	ND	ND	ND	ND	**16,000**	ND	ND	ND
	8/14/2013	<500	<10,000	<2,000	<100	**15,000**	**20J**	**3,200**	<500
06742-MWR4	5/8/2007	**Free-Product**							
	8/13/2013	<2,500	<50,000	<10,000	<500	**36,000**	<5,000	<10,000	<2,500
06742-MWR4 DUP	8/13/2013	<2,500	<50,000	<10,000	<500	**38,000**	<5,000	<10,000	<2,500
06742-MWR4R	5/8/2007	**Free-Product**							
	8/13/2013	<1,000	<20,000	<4,000	<200	**19,000**	<2,000	**1,400J**	<1,000
06742-MW5	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW6	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<1,000	<20,000	<4,000	<200	**1,400J**	<2,000	<4,000	<1,000
06742-MW6 DUP	8/13/2013	<1,000	<20,000	<4,000	<200	**1,500J**	<2,000	<4,000	<1,000
06742-MW7	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW7 DUP	8/13/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW7R	5/8/2007	ND	ND	ND	ND	**11,000**	ND	ND	ND
	8/13/2013	<500	<10,000	<2,000	<100	<2,000	<1,000	<2,000	<500
06742-MW8	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	**Well not sampled due to the presence of 0.58-feet of free-product**							
06742-MW9	5/8/2007	Dry							
	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW9R	5/8/2007	ND	ND	ND	ND	**390**	ND	ND	ND
	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW11	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	**170**	<10	**120**	<5.0
06742-MWR11	5/8/2007	NT	NT	NT	NT	NT	NT	NT	NT
	8/14/2013	<250	<5,000	<1,000	<50	<1,000	<500	<1,000	<250
06742-MW12	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW13R	5/8/2007	ND	ND	ND	ND	**4,600**	ND	ND	ND
	8/14/2013	<250	<5,000	<1,000	<50	**7,500**	**13J**	**1,000**	<250
06742-MW14R	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW14R2	5/8/2007	ND	ND	ND	ND	**6,300**	ND	ND	ND
	8/14/2013	<100	<2,000	<400	<20	<400	<200	<400	<100
06742-MW15R	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<50	<1,000	<200	<10	<200	**18J**	<200	<50
06742-MW16DD	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<25	**310J**	<100	<5.0	<100	<50	<100	<25
06742-MW17I	5/8/2007	ND	ND	ND	ND	**2,600**	ND	ND	ND
	8/13/2013	<500	<10,000	<2,000	<100	**3,900**	<1,000	<2,000	<500
06742-MW18D	5/8/2007	ND	ND	ND	ND	**2,000**	ND	ND	ND
	8/14/2013	<100	<2,000	<400	<20	**550**	<200	<400	<100

Prepared By: RAD
Checked By: DRM

TABLE 2B

Historical Laboratory Analytical Results - 8-Oxygenates
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Di-isopropyl Ether (IPE) (µg/L)	Ethanol (µg/L)	Ethyl-Tert-butyl Alcohol (ETBA) (µg/L)	Ethyl-tert-butyl ether (ETBE) (µg/L)	Tert-Amyl Alcohol (TAA) (µg/L)	Tert-Amyl Methyl Ether (TAME) (µg/L)	Tert-Butyl Alcohol (TBA) (µg/L)	Tert-Butyl Formate (TBF) (µg/L)
SC DHEC RBSL		150	10,000	NE	47	240	128	1,400	NE
06742-MW19I	5/8/2007	**40**	ND	ND	ND	ND	**26**	ND	ND
	8/15/2013	<1,000	<20,000	<4,000	<200	**37,000**	**310J**	**4,400**	<1,000
06742-MW20D	5/8/2007	**15**	ND	ND	ND	**2,200**	ND	ND	ND
	8/15/2013	**12J**	<500	<100	<5.0	**1,200**	**7.3J**	**220**	<25
06742-MW21I	5/8/2007	**84**	ND	ND	ND	**1,300**	**32**	ND	ND
	8/15/2013	**260J**	<20,000	<4,000	<200	**6,800**	**130J**	**1,400J**	<1,000
06742-MW22D	5/8/2007	**5.5**	ND	ND	ND	**970**	ND	ND	ND
	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW23	5/8/2007	ND	ND	ND	ND	**140**	ND	ND	ND
	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW24	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	**2.2J**	<100	<20	<1.0	**20**	<10	**9.4J**	<5.0
06742-MW25	5/8/2007	**40**	ND	ND	ND	**930**	ND	ND	ND
	8/13/2013	**78J**	<2,000	<400	<20	**1,900**	**36J**	**220J**	<100
06742-MW25 DUP	8/13/2013	**78J**	<2,000	<400	<20	**2,600**	**36J**	**250J**	<100
06742-MW26I	5/8/2007	ND	ND	**8,900**	ND	ND	ND	ND	ND
	8/14/2013	<25	<500	**13J**	<5.0	**1,100**	**2.0J**	**230**	<25
06742-MW28DD	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW29	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW30I	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	**18J**	<1,000	<200	<10	**460**	<100	**120J**	<50
06742-MW31D	5/8/2007	ND	ND	ND	ND	**830**	ND	ND	ND
	8/15/2013	**11J**	<500	<100	<5.0	**1,100**	**7.2J**	**250**	<25
06742-MW32	5/8/2007	ND	ND	ND	ND	**2,300**	ND	ND	ND
	8/14/2013	<100	<2,000	<400	<20	**620**	<200	<400	<100
06742-MW33I	5/8/2007	ND	ND	ND	ND	**1,500**	ND	ND	ND
	8/15/2013	**0.83J**	<100	<20	<1.0	**3,800**	**2.3J**	**350**	<5.0
06742-MW34D	5/8/2007	ND	ND	ND	ND	**630**	ND	ND	ND
	8/15/2013	<100	<2,000	<400	<20	**2,600**	**9.0J**	**510**	<100
06742-MW35I	5/8/2007	ND	ND	ND	ND	**1,400**	ND	ND	ND
	8/15/2013	<250	<5,000	<1,000	<50	**1,500**	<500	<1,000	<250
06742-MW36D	5/8/2007	ND	ND	ND	ND	**1,700**	ND	ND	ND
	8/15/2013	<100	<2,000	<400	<20	**2,800**	<200	**410**	<100
06742-MW37DD	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW38	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW39I	5/8/2007	ND	ND	ND	ND	**1,600**	ND	ND	ND
	8/14/2013	<50	<1,000	<200	<10	**2,500**	**8.4J**	**420**	<50
06742-MW40D	5/8/2007	ND	ND	ND	ND	**1,400**	ND	ND	ND
	8/14/2013	**3.9J**	<500	<100	<5.0	**270**	**6.7J**	**81J**	<25
06742-MW41I	5/8/2007	ND	ND	ND	ND	**250**	ND	ND	ND
	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW42D	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW43	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW44I	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW46	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<25	<500	<100	<5.0	<100	**6.0J**	<100	<25
06742-MW47	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW49	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0

Prepared By: RAD
Checked By: DRM

TABLE 2B

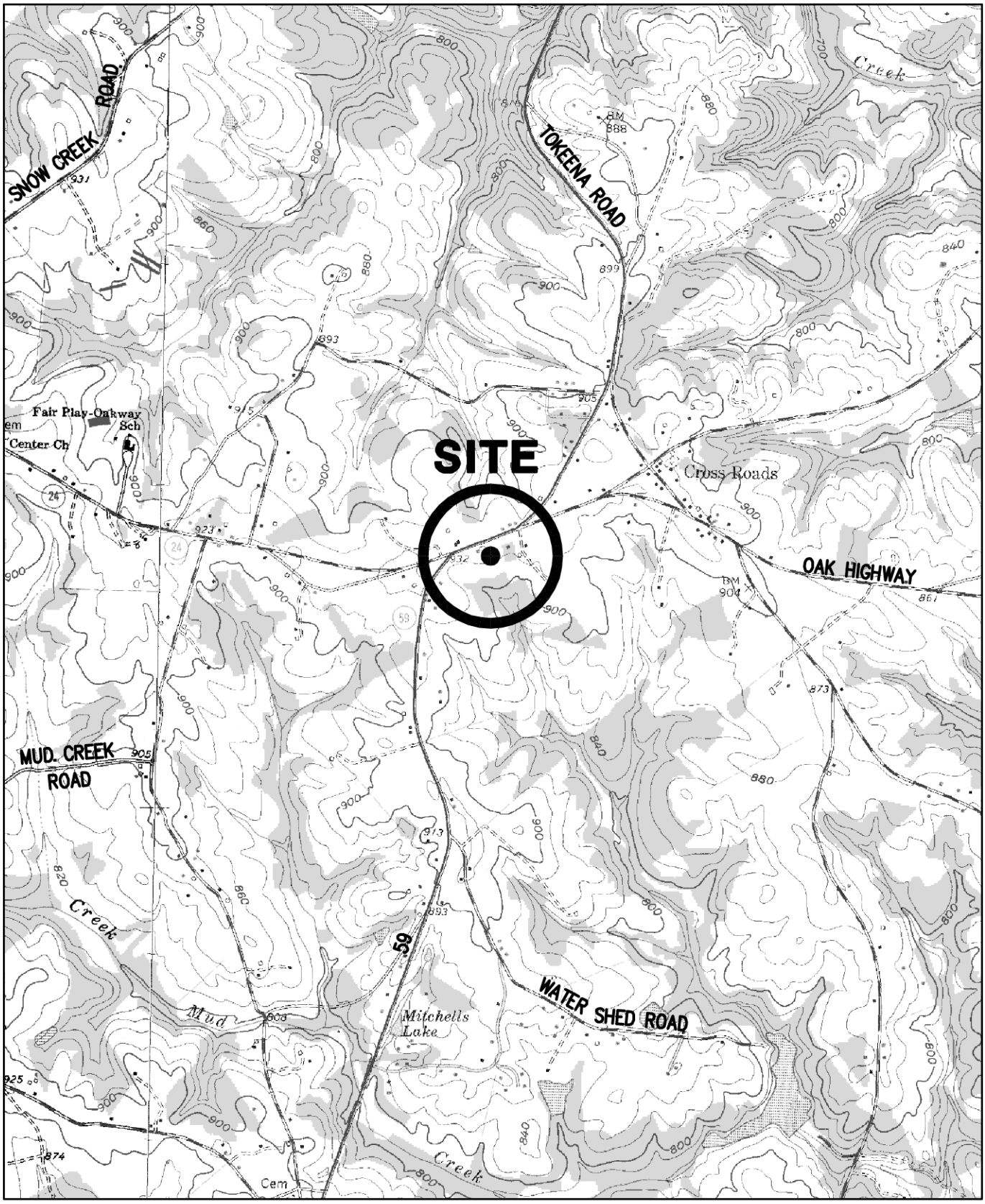
Historical Laboratory Analytical Results - 8-Oxygenates
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Di-isopropyl Ether (IPE) (µg/L)	Ethanol (µg/L)	Ethyl-Tert-butyl Alcohol (ETBA) (µg/L)	Ethyl-tert-butyl ether (ETBE) (µg/L)	Tert-Amyl Alcohol (TAA) (µg/L)	Tert-Amyl Methyl Ether (TAME) (µg/L)	Tert-Butyl Alcohol (TBA) (µg/L)	Tert-Butyl Formate (TBF) (µg/L)
SC DHEC RBSL		150	10,000	NE	47	240	128	1,400	NE
06742-MW50	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	Not Located							
06742-MW51	5/8/2007	ND	ND	**7,000**	ND	**28,000**	ND	ND	ND
	8/13/2013	**Well not sampled due to the presence of 0.22-feet of free-product**							
06742-MW52	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<500	<10,000	<2,000	<100	**4,100**	<1,000	<2,000	<500
06742-MW53	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW54	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW55	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW57I	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<25	<500	<100	<5.0	<100	<50	<100	<25
06742-MW58	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW59	5/8/2007	ND	ND	**69**	ND	**320**	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	**41**	**0.54J**	**11J**	<5.0
06742-MW60	8/13/2013	**Well not sampled due to the presence of 0.01-feet of free-product**							
06742-MW61	8/13/2013	**110J**	<20,000	<4,000	<200	**2,300J**	<2,000	<4,000	<1,000
06742-MW62	8/14/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW63	8/14/2013	<1,000	<20,000	<4,000	<200	**1,800J**	<2,000	<4,000	<1,000
06742-MW64	8/14/2013	**520J**	<50,000	<10,000	<500	**7,800J**	**340J**	<10,000	<2,500
06742-MW65	8/15/2013	<1,000	<20,000	<4,000	<200	**17,000**	<2,000	**1,300J**	<1,000
06742-MW66	8/15/2013	<1,000	<20,000	<4,000	<200	**6,400**	<2,000	<4,000	<1,000
06742-MW67	8/15/2013	<1,000	<20,000	<4,000	<200	**25,000**	<2,000	**3,500J**	<1,000
06742-MW68	8/14/2013	<10,000	<200,000	<40,000	<2,000	<40,000	<20,000	<40,000	<10,000
06742-MW69	8/14/2013	**81J**	<20,000	<4,000	<200	**8,300**	**52J**	<4,000	<1,000
06742-MW70	8/15/2013	<1,000	<20,000	<4,000	<200	**65,000**	**87J**	**7,500**	<1,000
06742-MW1X	8/13/2013	<5.0	<100	<20	<1.0	<20	**0.31J**	<20	<5.0
06742-MW2X	8/15/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW3X	8/12/2013	Well obstructed at time of sampling event							
06742-MW4X	8/12/2013	Dry							
06742-MW5X	8/12/2013	Well damaged prior to sampling event							
06742-MW6X	8/15/2013	<1,000	<20,000	<4,000	<200	**11,000**	<2,000	<4,000	<1,000
SW-1	5/8/2007	ND	ND	ND	ND	**220**	ND	ND	ND
	8/14/2013	**0.60J**	<100	<20	<1.0	**280**	**1.4J**	**62**	<5.0
FIELD BLANK 1	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
FIELD BLANK 2	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
FIELD BLANK 3	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
TRIP BLANK 1	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
TRIP BLANK 2	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0

NOTES:
Historical free-product thickness measurements and laboratory analytical data prior to 2013 were obtained from the *Report of Assessment Activities* by Midlands Environmental Consultants, Inc. dated June 5, 2007.
µg/liter = micrograms/liter = approximate Parts Per Billion (ppb)
Bold cells indicate detections
Shaded cells indicate concentrations above RBSLs
ND = Not Detected at the Method Detection Limit
NE = RBSL has not been established
NT = Not Tested
J = estimated value between practical quantitative limit and method detection limit.
RBSL = Risk Based Screening Level

Prepared By: RAD
Checked By: DRM

FIGURES

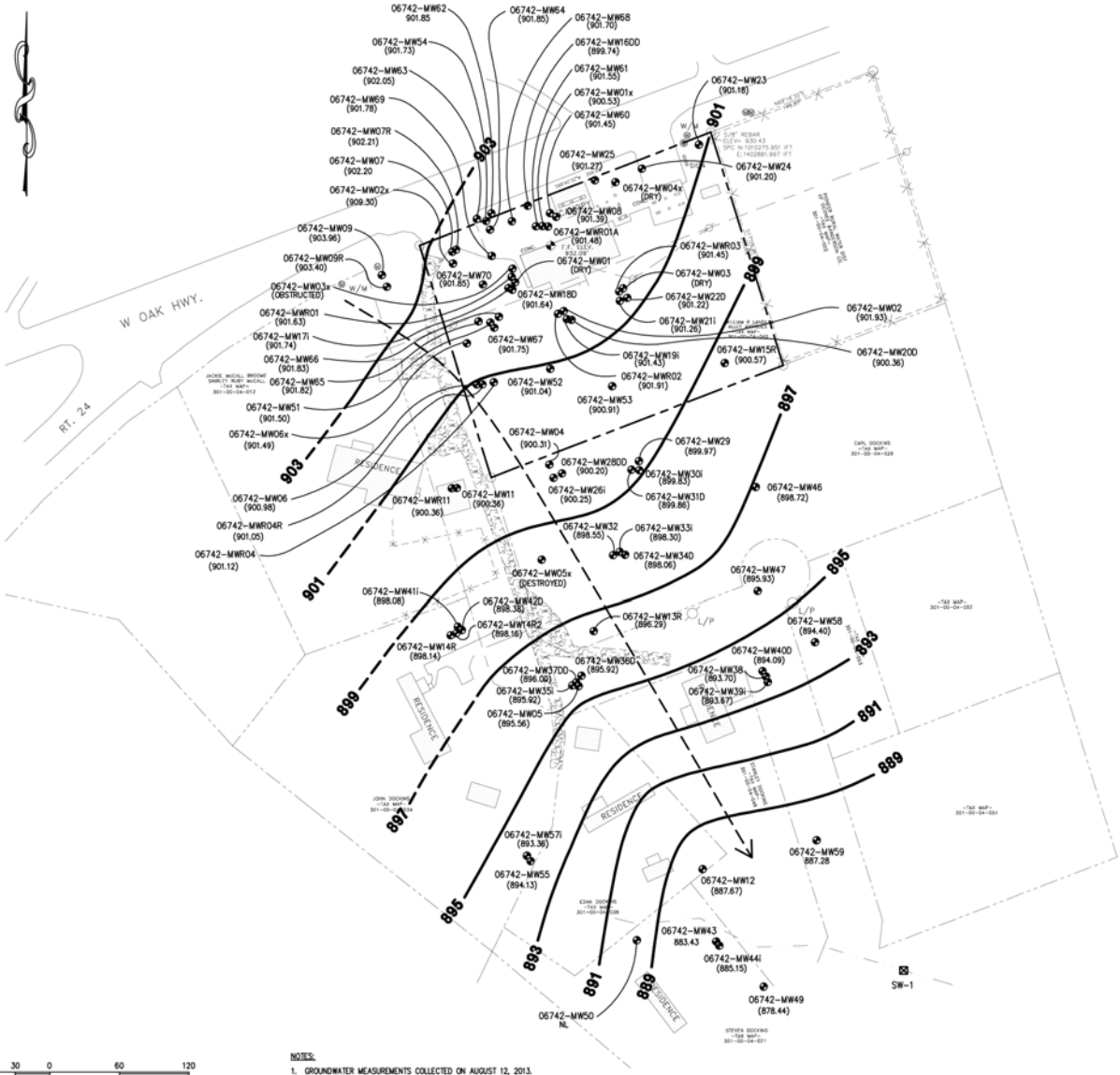


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, FAIR PLAY AND OAKWAY, S.C. QUADRANGLES, PHOTOREVISED 1979 AND 1985.

DRAWN: ACE	DATE: 05-28-13	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	FIGURE
CHECKED: RAD	CAD: FORMCRGROC-05SLM	SITE LOCATION MAP COUNTRY SIDE 2 UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA	1
APPROVED:	JOB NO: J13-6940-05		



LEGEND

- SURVEYED LOCATION OF GROUNDWATER MONITORING WELL
- APPROXIMATE LOCATION OF SURFACE WATER SAMPLING POINT
- 901.45 — GROUNDWATER ELEVATION (FEET)
- (901.91) — GROUNDWATER NOT BRACKETING SCREEN NOT USED FOR CONTOURING PURPOSES
- 895 — GROUNDWATER ELEVATION CONTOUR CONTOUR INTERVAL = 2 FEET DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION

60 30 0 60 120
APPROXIMATE SCALE IN FEET

NOTES:
1. GROUNDWATER MEASUREMENTS COLLECTED ON AUGUST 12, 2013.
2. ELEVATIONS ARE RELATIVE TO AN ARBITRARY SITE DATUM.

REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

REVISIONS			DRAWN: ACE	DATE: 09-24-13	BUNNELL-LAMMONS ENGINEERING, INC.	GROUNDWATER ELEVATION CONTOUR MAP – AUGUST 2013	FIGURE NO.
No.	DESCRIPTION	BY	CHECKED: RAD	CAD FILE: FORMCRGROC-05WTM	6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	COUNTRY SIDE 2 UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA	2
			APPROVED: DRM	JOB NO: J13-6940-05			

Well	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Naphthalene	EDB (µg/l)	1,2-DCA (µg/l)	Lead (µg/l)
SCDHEC RBSL		5	1,000	700	10,000	40	25	0.05	5	15
06742-MW1	08/12/13	Dry								
06742-MWR1	08/13/13	30,000	48,000	3,500	19,000	45,000	1,000J	1.5	<2,500	NT
06742-MWR1A	08/13/13	30,000	63,000	3,300	30,000	150,000	1,000J	9.9	<2,500	NT
06742-MW2	08/13/13	0.45J	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020	<5.0	NT
06742-MWR2	08/13/13	7.2J	19J	<50	28J	<50	<50	<0.019	<50	NT
06742-MW3	08/13/13	Dry								
06742-MWR3	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW4	08/14/13	8,500	4,900	450	4,600	8,300	200J	0.13	180J	NT
06742-MWR4	08/13/13	28,000	63,000	3,500	28,000	7,100	1,200J	0.81	<2,500	NT
06742-MWR4R	08/13/13	13,000	24,000	2,400	14,000	560J	820J	0.41	<1,000	NT
06742-MW5	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.024	<5.0	NT
06742-MWR5	08/13/13	Not Located								
06742-MW6	08/13/13	5,000	9,200	470J	7,200	<1,000	250J	<0.020	<1,000	NT
06742-MW7	08/13/13	1,200J	7,700	4,600	31,000	<2,500	1,500J	<0.020	<2,500	NT
06742-MW7R	08/13/13	270J	5,700	2,000	11,000	500	610	<0.019	<500	NT
06742-MW8	08/13/13	Well not sampled due to the presence of 0.58 feet of free product								
06742-MW9	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW9R	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW10	08/13/13	Not Located								
06742-MW11	08/14/13	13	22	7.2	110	<5.0	9.4	<0.020	<5.0	NT
06742-MWR11	08/14/13	18J	130J	340	3,500	<250	340	<0.019	<250	NT
06742-MW12	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020	<5.0	NT
06742-MW13	08/13/13	Not Located								
06742-MW13R	08/14/13	3,500	140J	140J	140J	2,500	100J	<0.020	75J	NT
06742-MW14	08/13/13	Not Located								
06742-MW14R	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW14R2	08/14/13	110	580	600	2,400	<100	250	<0.019	<100	NT
06742-MW15	08/13/13	Not Located								
06742-MW15R	08/13/13	<50	<50	<50	<50	1,700	<50	<0.019	<50	NT
06742-MW16DD	08/13/13	65	190	37	200	23J	9.2J	<0.019	<25	NT
06742-MW17I	08/13/13	5,800	16,000	2,000	11,000	370J	500	<0.023	<500	NT
06742-MW18D	08/14/13	730	560	220	1,500	42J	100	<0.019	16J	NT
06742-MW19I	08/13/13	16,000	27,000	2,400	14,000	19,000	490J	6.3	<1,000	NT
06742-MW20D	08/13/13	270	<25	<25	<25	470	6.6J	<0.020	<25	NT
06742-MW21I	08/13/13	4,600	<1,000	560J	2,200	21,000	<1,000	0.091	<1,000	NT
06742-MW22D	08/13/13	<5.0	<5.0	<5.0	<5.0	2.1J	<5.0	<0.019	<5.0	NT
06742-MW23	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW24	08/13/13	76	<5.0	<5.0	15	5.4	<5.0	<0.019	<5.0	NT
06742-MW25	08/13/13	3,200	<100	<100	420	2,100	51J	<0.020	<100	NT
06742-MW26I	08/14/13	790	<25	29	<25	560	14J	<0.023	17J	NT
06742-MW28DD	08/13/13	21	77	11	60	12	6.6J	<0.019	<5.0	NT
06742-MW29	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW30I	08/14/13	700	51	57	260	770	24J	0.037	<50	NT
06742-MW31D	08/13/13	97	17J	<25	28	1,100	<25	<0.019	<25	NT
06742-MW32	08/14/13	24J	<100	<100	<100	180	<100	<0.019	<100	NT
06742-MW33I	08/13/13	1,500	1.7J	<5.0	3.5J	280	17	<0.020	<5.0	NT
06742-MW34D	08/13/13	2,700	57J	<100	220	1,200	54J	<0.019	<100	NT
06742-MW35I	08/13/13	1,600	<250	130J	<250	110J	<250	<0.019	<250	NT
06742-MW36D	08/13/13	1,300	<100	45J	50J	820	<100	<0.019	<100	NT
06742-MW37DD	08/13/13	3.6J	22	3.4J	17	1.4J	<5.0	<0.020	<5.0	NT
06742-MW38	08/14/13	<5.0	<5.0	<5.0	<5.0	0.58J	<5.0	<0.019	<5.0	NT
06742-MW39I	08/14/13	26J	40J	29J	56	1,000	24J	<0.020	<50	NT
06742-MW40D	08/14/13	56	270	41	200	850	18J	0.029	<25	NT
06742-MW41I	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW42D	08/13/13	3.1J	6.8	3.5J	8.0	<5.0	1.8J	<0.020	<5.0	NT
06742-MW43	08/14/13	<5.0	<5.0	<5.0	<5.0	0.96J	<5.0	<0.019	<5.0	NT
06742-MW44I	08/13/13	2.6J	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW46	08/14/13	<25	<25	<25	<25	540	<25	<0.019	<25	NT
06742-MW47	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW49	08/14/13	<5.0	<5.0	<5.0	<5.0	4.5J	<5.0	<0.019	<5.0	NT
06742-MW50	08/13/13	Not Located								
06742-MW51	08/13/13	Well not sampled due to the presence of 0.22 feet of free product								
06742-MW52	08/13/13	3,000	11,000	1,700	7,200	84J	470J	0.16	<500	NT
06742-MW53	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW54	08/13/13	20,000	42,000	4,600	24,000	<2,500	<2,500	3.9	<2,500	NT
06742-MW55	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW57I	08/14/13	58	210	31	150	<25	16J	<0.019	<25	NT
06742-MW58	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW59	08/14/13	1.5J	<5.0	<5.0	<5.0	89	<5.0	<0.019	<5.0	NT
06742-MW60	08/13/13	Well not sampled due to the presence of 0.01 feet of free product								
06742-MW61	08/13/13	7,900	17,000	1,700	8,900	5,200	240J	1.8	<1,000	NT
06742-MW62	08/14/13	17,000	56,000	4,700	22,000	<2,500	1,600J	2.1	<2,500	NT
06742-MW63	08/14/13	8,300	45,000	4,000	21,000	<1,000	650J	0.56	180J	NT
06742-MW64	08/14/13	41,000	65,000	4,400	23,000	<2,500	<2,500	9.0	870J	NT
06742-MW65	08/13/13	16,000	32,000	2,500	13,000	4,400	650J	0.46	<1,000	NT
06742-MW66	08/13/13	8,000	20,000	2,500	16,000	4,300	820J	0.20	<1,000	NT
06742-MW67	08/13/13	25,000	29,000	3,300	17,000	24,000	810J	0.58	<1,000	NT
06742-MW68	08/14/13	43,000	77,000	5,300J	37,000	8,100J	<10,000	13	<10,000	NT
06742-MW69	08/14/13	18,000	29,000	3,700	21,000	2,700	780J	2.70	390J	NT
06742-MW70	08/13/13	19,000	30,000	2,900	15,000	30,000	870J	0.55	<1,000	NT
06742-MW1X	08/13/13	77	130	33	180	11	18	<0.019	<5.0	NT
06742-MW2X	08/13/13	14,000	41,000	3,600	15,000	3,400	<2,500	0.92	510J	NT
06742-MW3X	08/12/13	Well obstructed at time of sampling event								
06742-MW4X	08/12/13	Dry								
06742-MW5X	08/13/13	Well destroyed prior to sampling event								
06742-MW6X	08/13/13	16,000	34,000	3,300	13,000	270J	610J	0.56	<1,000	NT
SW-1	08/14/13	2.6J	<5.0	<5.0	<5.0	210	<5.0	<0.019	<5.0	NT

Well	Date Sampled	Di-isopropyl Ether (IPE) (µg/L)	Ethanol (µg/L)	Ethyl Tert-butyl Alcohol (ETBA) (µg/L)	Ethyl tert-butyl ether (ETBE) (µg/L)	Tert-Amyl Alcohol (TAA) (µg/L)	Tert-Amyl Methyl Ether (TAME) (µg/L)	Tert-Butyl Alcohol (TBA) (µg/L)	Tert-Butyl Formate (TBF) (µg/L)
SC DHEC RBSL		150	10,000	NE	47	240	128	1,400	NE
06742-MW1	8/12/2013	Dry							
06742-MWR1	8/13/2013	<2,500	<50,000	<10,000	<500	73,000	180J	20,000	<2,500
06742-MWR1A	8/13/2013	1,800J	<50,000	<10,000	<500	44,000	1,400J	13,000	<2,500
06742-MW2	8/13/2013	<5.0	<100	<20	<1.0	23	<10	13J	<5.0
06742-MWR2	8/13/2013	<50	<1,000	<200	<10	140J	<100	<200	<50
06742-MW3	8/13/2013	Dry							
06742-MWR3	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW4	8/14/2013	<500	<10,000	<2,000	<100	15,000	26J	3,200	<500
06742-MWR4	8/13/2013	<2,500	<50,000	<10,000	<500	34,000	<5,000	<10,000	<2,500
06742-MWR4R	8/13/2013	<1,000	<20,000	<4,000	<200	19,000	<2,000	1,400J	<1,000
06742-MW5	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW6	8/13/2013	<1,000	<20,000	<4,000	<200	1,400J	<2,000	<4,000	<1,000
06742-MW7	8/13/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW7R	8/13/2013	<500	<10,000	<2,000	<100	<2,000	<1,000	<2,000	<500
06742-MW8	8/13/2013	Well not sampled due to the presence of 0.58 feet of free product							
06742-MW9	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW9R	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW11	8/14/2013	<5.0	<100	<20	<1.0	170	<10	120	<5.0
06742-MWR11	8/14/2013	<250	<5,000	<1,000	<50	<1,000	<500	<1,000	<250
06742-MW12	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW13R	8/14/2013	<250	<5,000	<1,000	<50	7,500	11J	1,000	<250
06742-MW14R	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW14R2	8/14/2013	<100	<2,000	<400	<20	<400	<200	<400	<100
06742-MW15R	8/13/2013	<50	<1,000	<200	<10	<200	18J	<200	<50
06742-MW16DD	8/13/2013	<25	200J	<100	<5.0	<100	<50	<100	<25
06742-MW17I	8/13/2013	<500	<10,000	<2,000	<100	3,900	<1,000	<2,000	<500
06742-MW18D	8/14/2013	<100	<2,000	<400	<20	950	<200	<400	<100
06742-MW19I	8/13/2013	<1,000	<20,000	<4,000	<200	37,000	310J	4,400	<1,000
06742-MW20D	8/13/2013	12J	<500	<100	<5.0	1,200	7.3J	220	<25
06742-MW21I	8/13/2013	360J	<20,000	<4,000	<200	6,800	130J	1,400J	<1,000
06742-MW22D	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW23	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW24	8/13/2013	2.2J	<100	<20	<1.0	29	<10	9.4J	<5.0
06742-MW25	8/13/2013	76J	<2,000	<400	<20	1,900	34J	230J	<100
06742-MW26I	8/14/2013	<25	<500	13J	<5.0	1,100	2.6J	230	<25
06742-MW28DD	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW29	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW30I	8/14/2013	18J	<1,000	<200	<10	460	<100	120J	<50
06742-MW31D	8/13/2013	11J	<500	<100	<5.0	1,100	7.2J	270	<25
06742-MW32	8/14/2013	<100	<2,000	<400	<20	620	<200	<400	<100
06742-MW33I	8/13/2013	0.83J	<100	<20	<1.0	3,800	3.3J	350	<5.0
06742-MW34D	8/13/2013	<100	<2,000	<400	<20	2,600	9.6J	510	<100
06742-MW35I	8/13/2013	<250	<5,000	<1,000	<50	1,500	<500	<1,000	<250
06742-MW36D	8/13/2013	<100	<2,000	<400	<20	1,800	<200	410	<100
06742-MW37DD	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW38	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW39I	8/14/2013	<50	<1,000	<200	<10	1,500	8.6J	420	<50
06742-MW40D	8/14/2013	3.5J	<500	<100	<5.0	270	6.7J	81J	<25
06742-MW41I	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW42D	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW43	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW44I	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW46	8/14/2013	<25	<500	<100	<5.0	<100	6.0J	<100	<25
06742-MW47	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW49	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW50	8/13/2013	Not Located							
06742-MW51	8/13/2013	Well not sampled due to the presence of 0.22 feet of free product							
06742-MW52	8/13/2013	<500	<10,000	<2,000	<100	4,100	<1,000	<2,000	<500
06742-MW53	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW54	8/13/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW55	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW57I	8/14/2013	<25	<500	<100	<5.0	<100	<50	<100	<25
06742-MW58	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW59	8/14/2013	<5.0	<100	<20	<1.0	41	0.54J	11J	<5.0
06742-MW60	8/13/2013	Well not sampled due to the presence of 0.01 feet of free product							
06742-MW61	8/13/2013	110J	<20,000	<4,000	<200	3,300J	<2,000	<4,000	<1,000
06742-MW62	8/14/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW63	8/14/2013	<1,000	<20,000	<4,000	<200	1,800J	<2,000	<4,000	<1,000
06742-MW64	8/14/2013	520J	<50,000	<10,000	<500	7,800J	340J	<10,000	<2,500
06742-MW65	8/13/2013	<1,000	<20,000	<4,000	<200	17,000	<2,000	1,300J	<1,000
06742-MW66	8/13/2013	<1,000	<20,000	<4,000	<200	4,400	<2,000	<4,000	<1,000
06742-MW67	8/13/2013	<1,000	<20,000	<4,000	<200	25,000	<2,000	3,500J	<1,000
06742-MW68	8/14/2013	<10,000	<200,000	<40,000	<2,000	<40,000	<20,000	<40,000	<10,000
06742-MW69	8/14/2013	81J	<20,000	<4,000	<200	8,300	52J	<4,000	<1,000
06742-MW70	8/13/2013	<1,000	<20,000	<4,000	<200	65,000	87J	7,500	<1,000
06742-MW1X	8/13/2013	<5.0	<100	<20	<1.0	<20	0.21J	<20	<5.0
06742-MW2X	8/13/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW3X	8/12/2013	Well obstructed at time of sampling event							
06742-MW4X	8/12/2013	Dry							
06742-MW5X	8/13/2013	Well damaged prior to sampling event							
06742-MW6X	8/13/2013	<1,000	<20,000	<4,000	<200	11,000	<2,000	<4,000	<1,000
SW-1	8/14/2013	0.60J	<100	<20	<1.0	280	1.4J	62	<5.0

NOTES:

1. GROUNDWATER SAMPLES WERE COLLECTED ON AUGUST 13-15, 2013.
2. ANALYTICAL RESULTS ARE REPORTED IN MICROGRAMS PER LITER (µg/l) OR PARTS PER BILLION.
3. BOLD CELLS INDICATE DETECTION.
4. SHADED CELLS INDICATE CONCENTRATIONS ABOVE RBSL's.
5. J-ESTIMATED VALUE ABOVE ADJUSTED MDL AND ADJUSTED REPORTING LIMIT.

LEGEND

● SURVEYED LOCATION OF GROUNDWATER MONITORING WELL

⊠ APPROXIMATE LOCATION OF SURFACE WATER SAMPLING POINT

REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

REVISIONS		
No.	DESCRIPTION	BY

DRAWN: ACE
CHECKED: RAD
APPROVED: DRW

DATE: 09-24-13
CAD FILE: FORMCRGROC-05GWCOC
JOB NO: J13-6940-05

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.

GROUNDWATER COC MAP – AUGUST 2013
COUNTRY SIDE 2
UST PERMIT #06742
WESTMINSTER, SOUTH CAROLINA

FIGURE NO. 3

APPENDICES

APPENDIX A

MONITORING WELL SAMPLING PROCEDURES AND SAMPLING LOGS

APPENDIX A

MONITORING WELL PURGING AND SAMPLING PROCEDURES

Pursuant to SCDHEC's directive, monitoring wells were purged prior to sample collection to remove any stagnant water from the well so that the samples collected were representative of the groundwater quality in the vicinity of each well. For wells that recovered quickly, a minimum of three volumes of water were evacuated. Specific conductance, pH, turbidity, and water temperature were measured periodically during well evacuation using instruments which were calibrated daily. Wells that were evacuated to dryness with less than three well volumes being removed were sampled as soon as the well had recovered enough to yield sufficient volume for a sample.

The monitoring wells were purged using a 4-foot long by 1.6-inch diameter disposable polyethylene bailer attached to an unused polypropylene cord. The wells were also sampled using a bailer as described above. To minimize the potential for cross-contamination between wells, a new clean bailer was used at each well.

STREAM (SURFACE WATER) SAMPLING PROCEDURES

Surface water samples were collected using the following field procedure:

1. The sample handler donned a new pair of latex gloves prior to collection of each sample.

2. With the appropriate sample caps unscrewed the sample container was carefully lowered below the water level upstream from the sampler and without touching any floating material or dislodging Teflon® discs inside the caps.

3. The samples were collected into 40-ml VOC vials and were filled to the top without headspace. Care was taken so that the acids in the bottles did not contact the sampler's gloves and thus pass to other caps and bottles. The vials were recapped without touching the interior of the cap, and screwed down tightly. Samples were moved to an ice chest where they were labeled, placed in bubble pack bags, and iced down immediately upon collection.

Samples for VOC analysis were placed in laboratory prepared 40-milliliter glass vials with Teflon® lined lids and marked with identifying numbers. The VOC samples were preserved using hydrochloric acid (HCl). The sample containers were maintained at approximately 4° Celsius in a refrigerated sample cooler and shipped to Shealy Environmental Services, Inc. (SC#32010) in West Columbia, South Carolina via courier service for analysis.

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BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013
Field Personnel Reid A. Doherty
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**
serial no. serial no.
pH =4.0 Standard
pH = 7.0 Standard
pH = 10.0 Standard
DO Meter Standard
Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW1

Well Diameter (D) 2 inch of NA feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness --- ft
Total Well Depth (TWD) NA ft btoc
Depth to Groundwater (DGW) Dry ft btoc
Length of Water Colum (LWC = TWD-DGW) NA ft
1 Casing Volume (LWC*C) = NA X .17 = NA gals
3 Casing Volumes = 3 X NA = NA gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well dry at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MWR1				
Well Diameter (D)	2	inch of	45.54	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	45.54	ft btoc			
Depth to Groundwater (DGW)	29.65	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			15.89	ft	
1 Casing Volume (LWC*C) =	15.89	X .17	=	2.70	gals
3 Casing Volumes = 3 X	2.70	=		8.10	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 8.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	8.5						
Time (military)	1243	1250	1256	1305						
pH (s.u)	5.20	5.13	5.19	5.27						
Specific Conductivity (ΩS)	55	75	59	57						
Water Temperature (°C)	20.5	19.6	19.9	22.4						
Turbidity (NTU)	22.2	392	594	432						
Dissolved Oxygen (mg/l)	2.40									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1305 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MWR1A				
Well Diameter (D)	2	inch of	37.80	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness			Sheen	ft	
Total Well Depth (TWD)			37.80	ft btoc	
Depth to Groundwater (DGW)			30.05	ft btoc	
Length of Water Colum (LWC = TWD-DGW)				7.75	ft
1 Casing Volume (LWC*C) =	7.75	X .17 =		1.32	gals
3 Casing Volumes = 3 X	1.32	=		3.96	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.5	3.0	4.5						
Time (military)	1005	1010	1015	1020						
pH (s.u)	5.47	5.48	5.42	5.43						
Specific Conductivity (ΩS)	42	45	48	48						
Water Temperature (°C)	20.7	20.4	20.3	20.2						
Turbidity (NTU)	50	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	0.61									

Remarks: Sheen and strong petroleum odor noted at time of sampling. Well sampled at 1020 on August 13, 2013. Duplicate (06742-MWR1A DUP) sampled at 1022 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/15/2013
Field Personnel Reid A. Doherty
General Weather Conditions Cloudy
Ambient Air Temperature (°C) 19

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW2

Well Diameter (D) 2 inch of 29.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				---	ft
Total Well Depth (TWD)				29.70	ft btoc
Depth to Groundwater (DGW)				27.38	ft btoc
Length of Water Colum (LWC = TWD-DGW)				2.32	ft
1 Casing Volume (LWC*C) =	2.32	X .17	=	0.39	gals
3 Casing Volumes = 3 X	0.39	=		1.17	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 1.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	0.5								
Time (military)	1415	1417								
pH (s.u)	5.51	5.78								
Specific Conductivity (ΩS)	192	168								
Water Temperature (°C)	19.2	19.2								
Turbidity (NTU)	163	>1,100								
Dissolved Oxygen (mg/l)	1.20									

Remarks: Slight petroleum odor noted at time of sampling. Well purged dry after 1.0-gallons removed. Well sampled at 1425 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MWR2				
Well Diameter (D)	2	inch of	40.30	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	40.30	ft btoc			
Depth to Groundwater (DGW)	27.05	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			13.25	ft	
1 Casing Volume (LWC*C) =	13.25	X .17	=	2.25	gals
3 Casing Volumes = 3 X	2.25	=		6.75	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 7.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.5	5.0	7.0						
Time (military)	1330	1335	1340	1345						
pH (s.u)	5.51	5.54	5.65	5.81						
Specific Conductivity (ΩS)	109	119	128	143						
Water Temperature (°C)	20.0	19.7	19.8	19.8						
Turbidity (NTU)	55	400	850	1,000						
Dissolved Oxygen (mg/l)	1.52									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1345 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013
Field Personnel Reid A. Doherty
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:		**Conductivity Sensor:**	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	
DO Meter		Standard	
Standard		**Turbidity:**	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW3

Well Diameter (D) 2 inch of NA feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness NA ft
Total Well Depth (TWD) NA ft btoc
Depth to Groundwater (DGW) Dry ft btoc
Length of Water Colum (LWC = TWD-DGW) NA ft
1 Casing Volume (LWC*C) = NA X .17 = NA gals
3 Casing Volumes = 3 X NA = NA gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well dry at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MWR3				
Well Diameter (D)	2	inch of	40.04	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	40.04	ft btoc			
Depth to Groundwater (DGW)	27.51	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			12.53	ft	
1 Casing Volume (LWC*C) =	12.53	X .17	=	2.13	gals
3 Casing Volumes = 3 X	2.13	=		6.39	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 6.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.5	5.0	6.5						
Time (military)	1350	1356	1402	1410						
pH (s.u)	4.94	4.64	4.53	5.70						
Specific Conductivity (ΩS)	127	141	156	182						
Water Temperature (°C)	19.9	19.7	19.7	20.8						
Turbidity (NTU)	17.1	513	>1,100	>1,100						
Dissolved Oxygen (mg/l)	3.68									

Remarks: Well sampled at 1410 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW4				
Well Diameter (D)	2	inch of	35.58	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	35.58	ft btoc			
Depth to Groundwater (DGW)	18.40	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			17.18	ft	
1 Casing Volume (LWC*C) =	17.18	X .17 =	2.92	gals	
3 Casing Volumes = 3 X	2.92	=	8.76	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 9.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	9.0						
Time (military)	1115	1120	1127	1135						
pH (s.u)	6.37	6.42	6.44	6.44						
Specific Conductivity (ΩS)	115	156	169	176						
Water Temperature (°C)	18.5	18.0	18.0	18.0						
Turbidity (NTU)	158	158	158	165						
Dissolved Oxygen (mg/l)	1.23									

Remarks: Strong petroleum odor noted at time of sampling. Well sampled at 1135 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MWR4				
Well Diameter (D)	2	inch of	37.04	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	37.04	ft btoc			
Depth to Groundwater (DGW)	24.50	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			12.54	ft	
1 Casing Volume (LWC*C) =	12.54	X .17	=	2.13	gals
3 Casing Volumes = 3 X	2.13	=		6.39	gals
(Standard Purge Volume)					

Total Volume of Water Purged Before Sampling: 6.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.5	5.0	6.5						
Time (military)	1553	1600	1605	1615						
pH (s.u)	5.39	5.41	5.39	5.31						
Specific Conductivity (ΩS)	48	49	49	49						
Water Temperature (°C)	19.1	18.5	18.6	18.4						
Turbidity (NTU)	113	659	929	897						
Dissolved Oxygen (mg/l)	1.78									

Remarks: Sheen and strong petroleum odor noted at time of sampling. Well sampled at 1615 on August 13, 2013. Duplicate (06742-MWR4 DUP) sampled at 1616 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MWR4R				
Well Diameter (D)	2	inch of	38.94	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	38.94	ft btoc			
Depth to Groundwater (DGW)	24.52	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			14.42	ft	
1 Casing Volume (LWC*C) =	14.42	X .17	=	2.45	gals
3 Casing Volumes = 3 X	2.45	=		7.35	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 7.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.5	5.0	7.5						
Time (military)	1505	1520	1525	1535						
pH (s.u)	5.78	5.34	5.33	5.41						
Specific Conductivity (ΩS)	47	39	42	41						
Water Temperature (°C)	19.5	18.8	18.8	18.6						
Turbidity (NTU)	79.3	385	465	412						
Dissolved Oxygen (mg/l)	0.83									

Remarks: Sheen noted at time of sampling. Well sampled at 1535 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW5				
Well Diameter (D)	2	inch of	18.68	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	18.68	ft btoc			
Depth to Groundwater (DGW)	11.66	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			7.02	ft	
1 Casing Volume (LWC*C) =	7.02	X .17 =	1.19	gals	
3 Casing Volumes = 3 X	1.19	=	3.57	gals	
(Standard Purge Volume)					

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.5	3.0	4.5						
Time (military)	1345	1350	1355	1357						
pH (s.u)	5.27	5.37	5.47	5.42						
Specific Conductivity (ΩS)	41	48	43	49						
Water Temperature (°C)	20.5	17.6	19.7	19.7						
Turbidity (NTU)	982	374	759	640						
Dissolved Oxygen (mg/l)	3.03									

Remarks: Well sampled at 1357 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW6				
Well Diameter (D)	2	inch of	33.53	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	33.53	ft btoc			
Depth to Groundwater (DGW)	24.28	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			9.25	ft	
1 Casing Volume (LWC*C) =	9.25	X .17 =	1.57	gals	
3 Casing Volumes = 3 X	1.57	=	4.71	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 2.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.5								
Time (military)	1425	1430								
pH (s.u)	5.98	6.12								
Specific Conductivity (ΩS)	187	194								
Water Temperature (°C)	19.1	18.3								
Turbidity (NTU)	108	623								
Dissolved Oxygen (mg/l)	0.62									

Remarks: Well purged dry after 2.0-gallons removed. Well sampled at 1445 on August 13, 2013.
Duplicate (06742-MW6 DUP) sampled at 1446 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW7				
Well Diameter (D)	2	inch of	37.69	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	37.69	ft btoc			
Depth to Groundwater (DGW)	28.01	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			9.68	ft	
1 Casing Volume (LWC*C) =	9.68	X .17	=	1.65	gals
3 Casing Volumes = 3 X	1.65	=		4.95	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 5.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	5.0						
Time (military)	1115	1125	1128	1130						
pH (s.u)	5.24	5.39	5.52	5.41						
Specific Conductivity (ϑS)	51	91	60	54						
Water Temperature (°C)	21.2	20.1	20.2	20.0						
Turbidity (NTU)	71.1	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	4.80									

Remarks: Sheen and strong petroleum odor noted at time of sampling. Well sampled at 1130 on August 13, 2013. Duplicate (06742-MW7 DUP) sampled at 1131 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW7R				
Well Diameter (D)	2	inch of	44.44	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.44	ft btoc			
Depth to Groundwater (DGW)	28.41	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			16.03	ft	
1 Casing Volume (LWC*C) =	16.03	X .17	=	2.73	gals
3 Casing Volumes = 3 X	2.73	=		8.19	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 8.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	8.5						
Time (military)	1205	1215	1220	1230						
pH (s.u)	5.19	5.06	5.15	5.16						
Specific Conductivity (ΩS)	37	39	40	40						
Water Temperature (°C)	21.2	20.2	20.1	20.5						
Turbidity (NTU)	50.9	536	525	303						
Dissolved Oxygen (mg/l)	7.10									

Remarks: Well sampled at 1230 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013
Field Personnel Reid A. Doherty
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**
serial no. serial no.
pH =4.0 Standard
pH = 7.0 Standard
pH = 10.0 Standard
DO Meter Standard
Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW8

Well Diameter (D) 2 inch of 45.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness 0.58 ft
Total Well Depth (TWD) 45.00 ft btoc
Depth to Groundwater (DGW) 29.93 ft btoc
Length of Water Colum (LWC = TWD-DGW) 15.07 ft
1 Casing Volume (LWC*C) = 15.07 X .17 = 2.56 gals
3 Casing Volumes = 3 X 2.56 = 7.69 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well not sampled due to 0.58-feet of free-phase product present at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW9				
Well Diameter (D)	2	inch of	30.44	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	30.44	ft btoc			
Depth to Groundwater (DGW)	25.03	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			5.41	ft	
1 Casing Volume (LWC*C) =	5.41	X .17	=	0.92	gals
3 Casing Volumes = 3 X	0.92	=		2.76	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 3.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.0	2.0	3.0						
Time (military)	1215	1220	1225	1231						
pH (s.u)	7.31	5.91	5.55	5.41						
Specific Conductivity (ΩS)	48	23	24	22						
Water Temperature (°C)	20.9	19.8	19.7	19.7						
Turbidity (NTU)	33	270	130	180						
Dissolved Oxygen (mg/l)	1.95									

Remarks: Well sampled at 1231 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW9R				
Well Diameter (D)	2	inch of	45.13	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	45.13	ft btoc			
Depth to Groundwater (DGW)	25.40	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			19.73	ft	
1 Casing Volume (LWC*C) =	19.73	X .17	=	3.35	gals
3 Casing Volumes = 3 X	3.35	=		10.05	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 10.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.5	7.0	10.5						
Time (military)	1240	1248	1256	1304						
pH (s.u)	6.09	6.30	6.36	6.45						
Specific Conductivity (ΩS)	120	127	129	124						
Water Temperature (°C)	20.2	20.2	20.2	20.2						
Turbidity (NTU)	40	650	650	>1,100						
Dissolved Oxygen (mg/l)	0.94									

Remarks: Strong petroleum odor noted at time of sampling. Well sampled at 1304 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW11				
Well Diameter (D)	2	inch of	24.61	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	24.61	ft btoc			
Depth to Groundwater (DGW)	18.81	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			5.80	ft	
1 Casing Volume (LWC*C) =	5.80	X .17 =	0.99	gals	
3 Casing Volumes = 3 X	0.99	=	2.97	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 2.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.0	2.0							
Time (military)	1111	1116	1121							
pH (s.u)	6.18	6.35	6.34							
Specific Conductivity (ΩS)	545	637	638							
Water Temperature (°C)	18.5	18.5	19.4							
Turbidity (NTU)	210	295	330							
Dissolved Oxygen (mg/l)	1.81									

Remarks: Well purged dry after 2.0-gallons removed. Well sampled at 1123 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MWR11				
Well Diameter (D)	2	inch of	40.03	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	40.03	ft btoc			
Depth to Groundwater (DGW)	18.95	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			21.08	ft	
1 Casing Volume (LWC*C) =	21.08	X .17	=	3.58	gals
3 Casing Volumes = 3 X	3.58	=		10.74	gals
(Standard Purge Volume)					

Total Volume of Water Purged Before Sampling 11.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.0	8.0	11.0						
Time (military)	1029	1042	1049	1056						
pH (s.u)	5.75	5.82	5.87	5.86						
Specific Conductivity (ΩS)	114	128	128	127						
Water Temperature (°C)	18.7	18.6	18.5	18.2						
Turbidity (NTU)	27.1	285	472	375						
Dissolved Oxygen (mg/l)	2.71									

Remarks: Sheen noted at time of sampling. Well sampled at 1056 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW12				
Well Diameter (D)	2	inch of	11.78	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	11.78	ft btoc			
Depth to Groundwater (DGW)	7.09	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			4.69	ft	
1 Casing Volume (LWC*C) =	4.69	X .17	=	0.80	gals
3 Casing Volumes = 3 X	0.80	=		2.40	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 2.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.0	2.0							
Time (military)	1440	1445	1450							
pH (s.u)	5.27	5.12	5.29							
Specific Conductivity (ΩS)	57	42	45							
Water Temperature (°C)	21.6	19.7	21.2							
Turbidity (NTU)	63.8	887	>1,100							
Dissolved Oxygen (mg/l)	7.08									

Remarks: Well purged dry after 2.0-gallons removed. Well sampled at 1454 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW13R				
Well Diameter (D)	2	inch of	33.90	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	33.90	ft btoc			
Depth to Groundwater (DGW)	11.61	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			22.29	ft	
1 Casing Volume (LWC*C) =	22.29	X .17 =	3.79	gals	
3 Casing Volumes = 3 X	3.79	=	11.37	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 11.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.0	8.0	11.5						
Time (military)	1000	1010	1016	1025						
pH (s.u)	5.37	6.11	6.38	6.41						
Specific Conductivity (ΩS)	30	166	193	197						
Water Temperature (°C)	21.2	18.5	18.2	18.2						
Turbidity (NTU)	44.8	31.5	29.5	14.9						
Dissolved Oxygen (mg/l)	1.69									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1025 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW14R				
Well Diameter (D)	2	inch of	34.71	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	34.71	ft btoc			
Depth to Groundwater (DGW)	13.25	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			21.46	ft	
1 Casing Volume (LWC*C) =	21.46	X .17 =	3.65	gals	
3 Casing Volumes = 3 X	3.65	=	10.95	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 11.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.0	8.0	11.0						
Time (military)	1226	1237	1241	1251						
pH (s.u)	5.56	5.52	5.46	5.46						
Specific Conductivity (ΩS)	62	51	50	52						
Water Temperature (°C)	21.6	19.6	18.6	18.9						
Turbidity (NTU)	22.6	146	331	330						
Dissolved Oxygen (mg/l)	2.28									

Remarks: Well sampled at 1251 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW14R2			
Well Diameter (D)	2	inch of	24.95	feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2				
for a 2 inch well C = 0.163				
for a 4 inch well C = 0.652				
*Free Product Thickness	---			ft
Total Well Depth (TWD)	24.95			ft btoc
Depth to Groundwater (DGW)	13.20			ft btoc
Length of Water Colum (LWC = TWD-DGW)			11.75	ft
1 Casing Volume (LWC*C) =	11.75	X .17 =	2.00	gals
3 Casing Volumes = 3 X	2.00	=	6.00	gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	6.0						
Time (military)	1230	1235	1243	1245						
pH (s.u)	6.57	6.50	6.44	6.43						
Specific Conductivity (ΩS)	143	142	139	136						
Water Temperature (°C)	20.1	19.4	19.2	18.8						
Turbidity (NTU)	161	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	2.62									

Remarks: Strong petroleum odor noted at time of sampling. Well sampled at 1245 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW15R				
Well Diameter (D)	2	inch of	44.51	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness			---	ft	
Total Well Depth (TWD)			44.51	ft btoc	
Depth to Groundwater (DGW)			24.49	ft btoc	
Length of Water Colum (LWC = TWD-DGW)				20.02	ft
1 Casing Volume (LWC*C) =	20.02	X .17 =		3.40	gals
3 Casing Volumes = 3 X	3.40	=		10.20	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 10.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.5	7.0	10.5						
Time (military)	1545	1553	1600	1610						
pH (s.u)	5.19	5.14	5.17	5.20						
Specific Conductivity (ΩS)	53	76	82	86						
Water Temperature (°C)	18.6	18.7	18.8	18.8						
Turbidity (NTU)	28	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	7.01									

Remarks: Well sampled at 1610 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW16DD				
Well Diameter (D)	2	inch of	54.55	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness			---	ft	
Total Well Depth (TWD)			94.55	ft btoc	
Depth to Groundwater (DGW)			31.85	ft btoc	
Length of Water Colum (LWC = TWD-DGW)				62.70	ft
1 Casing Volume (LWC*C) =	62.70	X .17 =		10.66	gals
3 Casing Volumes = 3 X	10.66	=		31.98	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 32.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	11.0	22.0	32.0						
Time (military)	1035	1043	1051	1100						
pH (s.u)	11.96	12.13	12.16	12.19						
Specific Conductivity (ϑS)	3,920	4,590	4,660	4,640						
Water Temperature (°C)	21.2	20.7	20.2	20.2						
Turbidity (NTU)	500	270	260	240						
Dissolved Oxygen (mg/l)	0.82									

Remarks: Well sampled at 1100 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW17I				
Well Diameter (D)	2	inch of	49.36	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	49.36	ft btoc			
Depth to Groundwater (DGW)	28.80	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			20.56	ft	
1 Casing Volume (LWC*C) =	20.56	X .17	=	3.50	gals
3 Casing Volumes = 3 X	3.50	=		10.50	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.5								
Time (military)	1320	1330								
pH (s.u)	5.56	5.55								
Specific Conductivity (ΩS)	61	79								
Water Temperature (°C)	21.0	19.6								
Turbidity (NTU)	125	>1,100								
Dissolved Oxygen (mg/l)	11.50									

Remarks: Well purged dry after 4.5-gallons removed. Well sampled at 1335 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW18D				
Well Diameter (D)	2	inch of	58.60	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	58.60	ft btoc			
Depth to Groundwater (DGW)	28.87	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			29.73	ft	
1 Casing Volume (LWC*C) =	29.73	X .17	=	5.05	gals
3 Casing Volumes = 3 X	5.05	=		15.15	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 15.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	5.5	11.0	15.5						
Time (military)	1330	1336	1342	1350						
pH (s.u)	5.78	5.61	5.30	5.45						
Specific Conductivity (ΩS)	46	50	50	51						
Water Temperature (°C)	21.0	20.0	20.8	21.1						
Turbidity (NTU)	>1,100	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	2.53									

Remarks: Well sampled at 1350 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: 8/15/2013
Field Personnel: Ivan A. Irizarry
General Weather Conditions: Cloudy
Ambient Air Temperature (°C): 19

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW19I

Well Diameter (D): 2 inch of 55.29 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	---	ft			
Total Well Depth (TWD)	55.29	ft btoc			
Depth to Groundwater (DGW)	26.97	ft btoc			
Length of Water Colum (LWC = TWD-DGW)				28.32	ft
1 Casing Volume (LWC*C) =	28.32	X .17	=	4.81	gals
3 Casing Volumes = 3 X	4.81	=		14.43	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 6.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	5.0								
Time (military)	0853	0905								
pH (s.u)	5.84	5.68								
Specific Conductivity (ΩS)	66	57								
Water Temperature (°C)	18.7	18.7								
Turbidity (NTU)	55.3	88.7								
Dissolved Oxygen (mg/l)	0.91									

Remarks: Well purged dry after 6.0-gallons removed. Well sampled at 0910 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW20D				
Well Diameter (D)	2	inch of	75.24	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	75.24	ft btoc			
Depth to Groundwater (DGW)	27.87	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			47.37	ft	
1 Casing Volume (LWC*C) =	47.37	X .17	=	8.05	gals
3 Casing Volumes = 3 X	8.05	=		24.15	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 9.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	8.5								
Time (military)	1030	1040								
pH (s.u)	6.62	7.05								
Specific Conductivity (ΩS)	193	191								
Water Temperature (°C)	19.4	20.4								
Turbidity (NTU)	24.3	806								
Dissolved Oxygen (mg/l)	2.12									

Remarks: Well purged dry after 9.0-gallons removed. Well sampled at 1045 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW21I			
Well Diameter (D)	2	inch of	54.85	feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2				
for a 2 inch well C = 0.163				
for a 4 inch well C = 0.652				
*Free Product Thickness	---			ft
Total Well Depth (TWD)	54.85			ft btoc
Depth to Groundwater (DGW)	27.10			ft btoc
Length of Water Colum (LWC = TWD-DGW)			27.75	ft
1 Casing Volume (LWC*C) =	27.75	X .17 =	4.72	gals
3 Casing Volumes = 3 X	4.72	=	14.16	gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling: 5.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	5.0								
Time (military)	0923	0937								
pH (s.u)	6.13	6.37								
Specific Conductivity (ΩS)	192	188								
Water Temperature (°C)	18.8	19.0								
Turbidity (NTU)	35.6	857								
Dissolved Oxygen (mg/l)	1.32									

Remarks: Slight petroleum odor noted at time of sampling. Well purged dry after 5.5-gallons removed. Well sampled at 0945 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW22D				
Well Diameter (D)	2	inch of	73.71	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	73.71	ft btoc			
Depth to Groundwater (DGW)	27.38	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			46.33	ft	
1 Casing Volume (LWC*C) =	46.33	X .17	=	7.88	gals
3 Casing Volumes = 3 X	7.88	=		23.64	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 8.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	8.0								
Time (military)	1029	1050								
pH (s.u)	6.25	7.36								
Specific Conductivity (ΩS)	98	100								
Water Temperature (°C)	19.5	19.0								
Turbidity (NTU)	35.1	88.9								
Dissolved Oxygen (mg/l)	4.44									

Remarks: Well purged dry after 8.5-gallons removed. Well sampled at 1058 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW23				
Well Diameter (D)	2	inch of	39.70	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	39.70	ft btoc			
Depth to Groundwater (DGW)	29.11	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			10.59	ft	
1 Casing Volume (LWC*C) =	10.59	X .17	=	1.80	gals
3 Casing Volumes = 3 X	1.80	=		5.40	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 5.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	5.5						
Time (military)	0922	0928	0934	0945						
pH (s.u)	5.72	5.20	5.09	5.21						
Specific Conductivity (ΩS)	61	40	40	41						
Water Temperature (°C)	20.6	20.3	19.8	21.2						
Turbidity (NTU)	62.8	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	2.60									

Remarks: Well sampled at 0945 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW24				
Well Diameter (D)	2	inch of	40.17	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	40.17	ft btoc			
Depth to Groundwater (DGW)	29.83	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			10.34	ft	
1 Casing Volume (LWC*C) =	10.34	X .17	=	1.76	gals
3 Casing Volumes = 3 X	1.76	=		5.28	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	6.0						
Time (military)	0922	0929	0934	0940						
pH (s.u)	5.44	5.32	5.31	5.31						
Specific Conductivity (ΩS)	46	26	26	27						
Water Temperature (°C)	21.6	21.3	20.9	20.8						
Turbidity (NTU)	34	750	>1,100	>1,100						
Dissolved Oxygen (mg/l)	1.20									

Remarks: Well sampled at 0940 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW25				
Well Diameter (D)	2	inch of	44.80	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.80	ft btoc			
Depth to Groundwater (DGW)	30.33	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			14.47	ft	
1 Casing Volume (LWC*C) =	14.47	X .17 =	2.46	gals	
3 Casing Volumes = 3 X	2.46	=	7.38	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 7.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.5	5.0	7.5						
Time (military)	0957	1004	1012	1025						
pH (s.u)	5.78	6.44	6.50	6.54						
Specific Conductivity (ΩS)	159	171	179	166						
Water Temperature (°C)	20.8	20.5	20.6	22.7						
Turbidity (NTU)	47.9	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	5.70									

Remarks: Sheen noted at time of sampling. Well sampled at 1025 on August 13, 2013.
Duplicate (06742-MW25 DUP) sampled at 1026 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/14/2013
Field Personnel Reid A. Doherty
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 25

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW26I

Well Diameter (D) 2 inch of 44.57 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				---	ft
Total Well Depth (TWD)				44.57	ft btoc
Depth to Groundwater (DGW)				18.45	ft btoc
Length of Water Colum (LWC = TWD-DGW)				26.12	ft
1 Casing Volume (LWC*C) =	26.12	X .17	=	4.44	gals
3 Casing Volumes = 3 X	4.44	=		13.32	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 6.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.5	6.0							
Time (military)	1555	1604	1613							
pH (s.u)	6.31	6.41	6.77							
Specific Conductivity (ΩS)	237	240	238							
Water Temperature (°C)	19.1	18.2	17.9							
Turbidity (NTU)	89	>1,100	>1,100							
Dissolved Oxygen (mg/l)	5.14									

Remarks: Well purged dry after 6.0-gallons removed. Well sampled at 1620 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW28DD				
Well Diameter (D)	2	inch of	94.80	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	94.80	ft btoc			
Depth to Groundwater (DGW)	18.47	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			76.33	ft	
1 Casing Volume (LWC*C) =	76.33	X .17	=	12.98	gals
3 Casing Volumes = 3 X	12.98	=		38.94	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 20.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	13.0	20.0							
Time (military)	1148	1201	1213							
pH (s.u)	11.71	11.59	11.72							
Specific Conductivity (ϑS)	772	875	838							
Water Temperature (°C)	18.6	19.7	19.5							
Turbidity (NTU)	55	55	60							
Dissolved Oxygen (mg/l)	2.63									

Remarks: Well purged dry after 20.0-gallons removed. Well sampled at 1213 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW29				
Well Diameter (D)	2	inch of	34.96	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	34.96	ft btoc			
Depth to Groundwater (DGW)	18.52	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			16.44	ft	
1 Casing Volume (LWC*C) =	16.44	X .17 =	2.79	gals	
3 Casing Volumes = 3 X	2.79	=	8.37	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 9.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	9.0						
Time (military)	0910	0918	0924	0930						
pH (s.u)	5.74	6.10	5.75	5.71						
Specific Conductivity (ΩS)	142	121	108	104						
Water Temperature (°C)	19.0	18.3	18.4	18.6						
Turbidity (NTU)	129	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	6.11									

Remarks: Well sampled at 0930 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW30I				
Well Diameter (D)	2	inch of	44.66	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.66	ft btoc			
Depth to Groundwater (DGW)	18.19	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			26.47	ft	
1 Casing Volume (LWC*C) =	26.47	X .17	=	4.50	gals
3 Casing Volumes = 3 X	4.50	=		13.50	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 9.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.5	9.0							
Time (military)	1553	1600	1612							
pH (s.u)	5.59	6.81	6.80							
Specific Conductivity (ϑS)	72	81	81							
Water Temperature (°C)	19.2	18.7	18.7							
Turbidity (NTU)	35.6	187	213							
Dissolved Oxygen (mg/l)	7.97									

Remarks: Well purged dry after 9.0-gallons removed. Well sampled at 1612 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW31D				
Well Diameter (D)	2	inch of	65.56	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	65.56	ft btoc			
Depth to Groundwater (DGW)	18.33	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			47.23	ft	
1 Casing Volume (LWC*C) =	47.23	X .17	=	8.03	gals
3 Casing Volumes = 3 X	8.03	=		24.09	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 16.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	8.0	16.0							
Time (military)	1117	1121	1130							
pH (s.u)	6.77	6.82	6.92							
Specific Conductivity (ΩS)	133	136	135							
Water Temperature (°C)	18.4	18.4	18.3							
Turbidity (NTU)	33	55	24							
Dissolved Oxygen (mg/l)	5.42									

Remarks: Well purged dry after 16.0-gallons removed. Well sampled at 1130 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/14/2013
Field Personnel Ivan A. Irizarry
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 25

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW32

Well Diameter (D) 2 inch of 29.94 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				---	ft
Total Well Depth (TWD)				29.94	ft btoc
Depth to Groundwater (DGW)				13.94	ft btoc
Length of Water Colum (LWC = TWD-DGW)				16.00	ft
1 Casing Volume (LWC*C) =	16.00	X .17	=	2.72	gals
3 Casing Volumes = 3 X	2.72	=		8.16	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 9.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	9.0						
Time (military)	0944	0950	0958	1004						
pH (s.u)	5.30	5.44	5.71	5.84						
Specific Conductivity (ΩS)	58	82	89	91						
Water Temperature (°C)	18.3	18.2	18.2	18.0						
Turbidity (NTU)	26.1	>1,100	>1,100	887						
Dissolved Oxygen (mg/l)	3.53									

Remarks: Well sampled at 1004 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW33				
Well Diameter (D)	2	inch of	39.41	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	39.41	ft btoc			
Depth to Groundwater (DGW)	14.33	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			25.08	ft	
1 Casing Volume (LWC*C) =	25.08	X .17 =	4.26	gals	
3 Casing Volumes = 3 X	4.26	=	12.78	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 13.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.5	9.0	13.5						
Time (military)	1152	1155	1157	1200						
pH (s.u)	5.29	5.03	4.99	5.09						
Specific Conductivity (ϑS)	57	63	59	57						
Water Temperature (°C)	18.3	17.6	17.6	17.5						
Turbidity (NTU)	54.2	676	542	621						
Dissolved Oxygen (mg/l)	2.62									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1200 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW34D				
Well Diameter (D)	2	inch of	57.15	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	51.15	ft btoc			
Depth to Groundwater (DGW)	14.61	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			36.54	ft	
1 Casing Volume (LWC*C) =	36.54	X .17	=	6.21	gals
3 Casing Volumes = 3 X	6.21	=		18.63	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 10.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	6.5	10.0							
Time (military)	1046	1050	1054							
pH (s.u)	6.42	6.57	6.62							
Specific Conductivity (ΩS)	153	153	150							
Water Temperature (°C)	19.9	19.4	19.6							
Turbidity (NTU)	100	75	65							
Dissolved Oxygen (mg/l)	4.21									

Remarks: Well purged dry after 10.0-gallons removed. Well sampled at 1054 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW35I				
Well Diameter (D)	2	inch of	34.87	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	34.87	ft btoc			
Depth to Groundwater (DGW)	11.57	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			23.30	ft	
1 Casing Volume (LWC*C) =	23.30	X .17	=	3.96	gals
3 Casing Volumes = 3 X	3.96	=		11.88	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 12.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.0	8.0	12.0						
Time (military)	1220	1222	1224	1228						
pH (s.u)	6.24	6.35	6.26	6.40						
Specific Conductivity (ΩS)	204	208	199	202						
Water Temperature (°C)	18.3	17.8	17.7	17.7						
Turbidity (NTU)	27.3	237	186	92						
Dissolved Oxygen (mg/l)	3.91									

Remarks: Slight petroleum odor noted at time of sampling. Well sample at 1228 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW36D			
Well Diameter (D)	2	inch of	35.06	feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2				
for a 2 inch well C = 0.163				
for a 4 inch well C = 0.652				
*Free Product Thickness	---			ft
Total Well Depth (TWD)	35.06			ft btoc
Depth to Groundwater (DGW)	10.85			ft btoc
Length of Water Colum (LWC = TWD-DGW)			24.21	ft
1 Casing Volume (LWC*C) =	24.21	X .17 =	4.12	gals
3 Casing Volumes = 3 X	4.12	=	12.36	gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling 13.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.5	9.0	13.5						
Time (military)	1010	1017	1022	1029						
pH (s.u)	6.85	6.65	6.70	6.49						
Specific Conductivity (ΩS)	165	207	199	198						
Water Temperature (°C)	18.9	18.6	18.8	20.5						
Turbidity (NTU)	>1,100	290	160	240						
Dissolved Oxygen (mg/l)	4.39									

Remarks: Well sampled at 1029 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW37DD				
Well Diameter (D)	2	inch of	57.11	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2			11.33		
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness			---	ft	
Total Well Depth (TWD)			57.11	ft btoc	
Depth to Groundwater (DGW)			11.33	ft btoc	
Length of Water Colum (LWC = TWD-DGW)				45.78	ft
1 Casing Volume (LWC*C) =	45.78	X .17 =		7.78	gals
3 Casing Volumes = 3 X	7.78	=		23.34	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 24.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	8.0	16.0	24.0						
Time (military)	0936	0943	0949	0956						
pH (s.u)	8.72	8.86	8.64	7.89						
Specific Conductivity (ΩS)	174	177	150	119						
Water Temperature (°C)	18.7	18.5	18.9	19.0						
Turbidity (NTU)	35	27	30	13						
Dissolved Oxygen (mg/l)	6.84									

Remarks: Well sampled at 0956 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW38				
Well Diameter (D)	2	inch of	24.22	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	24.22	ft btoc			
Depth to Groundwater (DGW)	18.57	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			5.65	ft	
1 Casing Volume (LWC*C) =	5.65	X .17	=	0.96	gals
3 Casing Volumes = 3 X	0.96	=		2.88	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 3.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.0	2.0	3.0						
Time (military)	1310	1314	1318	1325						
pH (s.u)	5.56	5.42	5.34	5.31						
Specific Conductivity (ΩS)	52	49	44	44						
Water Temperature (°C)	19.8	18.2	18.0	17.8						
Turbidity (NTU)	>1,100	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	5.62									

Remarks: Well sampled at 1325 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW39I					
Well Diameter (D)	2	inch of	44.50	feet(ft) bgs		
conversion factor (C): 3.143*(D/2)^2						
for a 2 inch well C = 0.163						
for a 4 inch well C = 0.652						
*Free Product Thickness	---	ft				
Total Well Depth (TWD)	44.50	ft btoc				
Depth to Groundwater (DGW)	18.54	ft btoc				
Length of Water Colum (LWC = TWD-DGW)			25.96	ft		
1 Casing Volume (LWC*C) =	25.96	X .17	=	4.41	gals	
3 Casing Volumes = 3 X	4.41	=		13.23	gals	
(Standard Purge Volume)						

Total Volume of Water Purged Before Sampling 13.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.5	9.0	13.5						
Time (military)	1522	1527	1532	1540						
pH (s.u)	5.67	5.58	5.25	5.30						
Specific Conductivity (ϑS)	55	53	53	51						
Water Temperature (°C)	19.7	19.3	19.5	19.5						
Turbidity (NTU)	>1,100	>1,100	800	270						
Dissolved Oxygen (mg/l)	3.24									

Remarks: Well sampled at 1540 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW40D				
Well Diameter (D)	2	inch of	65.59	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	65.59	ft btoc			
Depth to Groundwater (DGW)	18.32	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			47.27	ft	
1 Casing Volume (LWC*C) =	47.27	X .17 =	8.04	gals	
3 Casing Volumes = 3 X	8.04	=	24.12	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 24.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	8.0	16.0	24.5						
Time (military)	1552	1602	1612	1621						
pH (s.u)	6.14	6.35	5.72	5.65						
Specific Conductivity (ϑS)	74	73	68	75						
Water Temperature (°C)	20.4	20.2	20.1	20.2						
Turbidity (NTU)	75	85	110	65						
Dissolved Oxygen (mg/l)	4.69									

Remarks: Well sampled at 1621 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW41I				
Well Diameter (D)	2	inch of	44.20	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness			---	ft	
Total Well Depth (TWD)			44.20	ft btoc	
Depth to Groundwater (DGW)			13.10	ft btoc	
Length of Water Colum (LWC = TWD-DGW)				31.10	ft
1 Casing Volume (LWC*C) =	31.10	X .17 =		5.30	gals
3 Casing Volumes = 3 X	5.30	=		15.90	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 16.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	5.5	11.0	16.5						
Time (military)	1156	1207	1217	1225						
pH (s.u)	4.84	5.44	5.80	6.50						
Specific Conductivity (ΩS)	185	49	47	68						
Water Temperature (°C)	19.0	18.0	18.5	17.8						
Turbidity (NTU)	55.6	231	210	212						
Dissolved Oxygen (mg/l)	8.13									

Remarks: Well sampled at 1225 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW42D				
Well Diameter (D)	2	inch of	57.68	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness			---	ft	
Total Well Depth (TWD)			57.68	ft btoc	
Depth to Groundwater (DGW)			12.81	ft btoc	
Length of Water Colum (LWC = TWD-DGW)				44.87	ft
1 Casing Volume (LWC*C) =	44.87	X .17 =		7.63	gals
3 Casing Volumes = 3 X	7.63	=		22.89	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 23.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	8.0	16.0	23.0						
Time (military)	0900	0906	0912	0918						
pH (s.u)	6.69	6.58	6.54	6.45						
Specific Conductivity (ΩS)	105	69	67	64						
Water Temperature (°C)	19.3	17.9	17.8	17.8						
Turbidity (NTU)	29	200	600	35						
Dissolved Oxygen (mg/l)	5.21									

Remarks: Well sampled at 0918 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW43				
Well Diameter (D)	2	inch of	18.03	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	18.03	ft btoc			
Depth to Groundwater (DGW)	9.14	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			8.89	ft	
1 Casing Volume (LWC*C) =	8.89	X .17	=	1.51	gals
3 Casing Volumes = 3 X	1.51	=		4.53	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 5.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	5.0						
Time (military)	1500	1513	1517	1522						
pH (s.u)	5.16	5.17	5.19	5.30						
Specific Conductivity (ΩS)	77	68	66	62						
Water Temperature (°C)	19.4	19.2	18.6	19.0						
Turbidity (NTU)	631	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	2.45									

Remarks: Well sampled at 1522 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW44I				
Well Diameter (D)	2	inch of	27.85	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	27.85	ft btoc			
Depth to Groundwater (DGW)	7.25	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			20.60	ft	
1 Casing Volume (LWC*C) =	20.60	X .17	=	3.50	gals
3 Casing Volumes = 3 X	3.50	=		10.50	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 10.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.5	7.0	10.5						
Time (military)	1249	1251	1253	1255						
pH (s.u)	6.43	6.37	6.05	5.78						
Specific Conductivity (ϑS)	57	52	52	51						
Water Temperature (°C)	18.7	17.3	16.9	16.6						
Turbidity (NTU)	15.4	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	5.93									

Remarks: Well sampled at 1255 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW46				
Well Diameter (D)	2	inch of	34.98	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	34.98	ft btoc			
Depth to Groundwater (DGW)	19.47	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			15.51	ft	
1 Casing Volume (LWC*C) =	15.51	X .17 =	2.64	gals	
3 Casing Volumes = 3 X	2.64	=	7.92	gals	
(Standard Purge Volume)					

Total Volume of Water Purged Before Sampling 8.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	8.0						
Time (military)	0925	0931	0940	0948						
pH (s.u)	5.71	5.50	5.38	5.36						
Specific Conductivity (ΩS)	52	28	26	26						
Water Temperature (°C)	18.8	18.3	17.8	18.1						
Turbidity (NTU)	45.5	974	>1,100	>1,100						
Dissolved Oxygen (mg/l)	5.50									

Remarks: Well sampled at 0948 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW47					
Well Diameter (D)	2	inch of	30.03	feet(ft) bgs		
conversion factor (C): 3.143*(D/2)^2						
for a 2 inch well C = 0.163						
for a 4 inch well C = 0.652						
*Free Product Thickness			---	ft		
Total Well Depth (TWD)			30.03	ft btoc		
Depth to Groundwater (DGW)			18.89	ft btoc		
Length of Water Colum (LWC = TWD-DGW)				11.14	ft	
1 Casing Volume (LWC*C) =	11.14	X .17	=	1.89	gals	
3 Casing Volumes = 3 X	1.89	=		5.67	gals	
(Standard Purge Volume)						

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	6.0						
Time (military)	1040	1047	1054	1102						
pH (s.u)	5.85	5.61	5.41	5.41						
Specific Conductivity (ΩS)	55	51	47	46						
Water Temperature (°C)	19.0	18.3	18.2	18.3						
Turbidity (NTU)	94.3	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	4.77									

Remarks: Well sampled at 1102 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW49				
Well Diameter (D)	2	inch of	22.57	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	22.57	ft btoc			
Depth to Groundwater (DGW)	14.06	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			8.51	ft	
1 Casing Volume (LWC*C) =	8.51	X .17	=	1.45	gals
3 Casing Volumes = 3 X	1.45	=		4.35	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.5	3.0	4.5						
Time (military)	1505	1510	1515	1520						
pH (s.u)	5.14	5.14	5.15	5.17						
Specific Conductivity (ΩS)	46	45	45	45						
Water Temperature (°C)	19.5	18.7	18.8	18.8						
Turbidity (NTU)	427	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	1.57									

Remarks: Well sampled at 1520 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013

Field Personnel Reid A. Doherty

General Weather Conditions Partly Cloudy

Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**

serial no. serial no.

pH =4.0 Standard

pH = 7.0 Standard

pH = 10.0 Standard

DO Meter Standard

Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW50

Well Diameter (D) inch of feet(ft) bgs

conversion factor (C): 3.143*(D/2)^2

for a 2 inch well C = 0.163

for a 4 inch well C = 0.652

*Free Product Thickness ft

Total Well Depth (TWD) ft btoc

Depth to Groundwater (DGW) ft btoc

Length of Water Colum (LWC = TWD-DGW) ft

1 Casing Volume (LWC*C) = X .17 = gals

3 Casing Volumes = 3 X = gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well not located at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013
Field Personnel Reid A. Doherty
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**
serial no. serial no.
pH =4.0 Standard
pH = 7.0 Standard
pH = 10.0 Standard
DO Meter Standard
Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW51

Well Diameter (D) 2 inch of 45.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness 0.22 ft
Total Well Depth (TWD) 45.00 ft btoc
Depth to Groundwater (DGW) 27.77 ft btoc
Length of Water Colum (LWC = TWD-DGW) 17.23 ft
1 Casing Volume (LWC*C) = 17.23 X .17 = 2.93 gals
3 Casing Volumes = 3 X 2.93 = 8.79 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well not sampled due to 0.22-feet of free-phase product at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW52				
Well Diameter (D)	2	inch of	40.87	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	40.87	ft btoc			
Depth to Groundwater (DGW)	22.85	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			18.02	ft	
1 Casing Volume (LWC*C) =	18.02	X .17	=	3.06	gals
3 Casing Volumes = 3 X	3.06	=		9.18	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 9.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.5	7.0	9.5						
Time (military)	1415	1423	1431	1440						
pH (s.u)	5.68	5.70	5.68	5.69						
Specific Conductivity (ΩS)	188	194	192	192						
Water Temperature (°C)	19.2	19.1	19.2	18.9						
Turbidity (NTU)	55	900	550	550						
Dissolved Oxygen (mg/l)	0.98									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1440 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW53				
Well Diameter (D)	2	inch of	45.00	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	45.00	ft btoc			
Depth to Groundwater (DGW)	22.85	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			22.15	ft	
1 Casing Volume (LWC*C) =	22.15	X .17	=	3.77	gals
3 Casing Volumes = 3 X	3.77	=		11.31	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 11.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.0	8.0	11.5						
Time (military)	1500	1508	1516	1524						
pH (s.u)	5.49	5.24	5.22	5.22						
Specific Conductivity (ΩS)	32	28	28	28						
Water Temperature (°C)	18.5	18.6	18.5	17.8						
Turbidity (NTU)	65	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	5.61									

Remarks: Well sampled at 1524 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: 8/13/2013
Field Personnel: Dan R. Matz
General Weather Conditions: Partly Cloudy
Ambient Air Temperature (°C): 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW54

Well Diameter (D) 2 inch of 45.13 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	---	ft		
Total Well Depth (TWD)	45.13	ft btoc		
Depth to Groundwater (DGW)	29.57	ft btoc		
Length of Water Colum (LWC = TWD-DGW)			15.56	ft
1 Casing Volume (LWC*C) =	15.56	X .17 =	2.65	gals
3 Casing Volumes = 3 X	2.65	=	7.95	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 8.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	8.0						
Time (military)	1040	1047	1055	1100						
pH (s.u)	5.79	5.51	5.29	5.25						
Specific Conductivity (ΩS)	46	375	36	36						
Water Temperature (°C)	21.3	21.3	20.4	20.6						
Turbidity (NTU)	18.2	866	>1,100	>1,100						
Dissolved Oxygen (mg/l)	3.10									

Remarks: Well sampled at 1105 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW55				
Well Diameter (D)	2	inch of	19.78	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	19.78	ft btoc			
Depth to Groundwater (DGW)	7.61	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			12.17	ft	
1 Casing Volume (LWC*C) =	12.17	X .17	=	2.07	gals
3 Casing Volumes = 3 X	2.07	=		6.21	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 6.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.5	5.0	6.5						
Time (military)	1432	1437	1442	1450						
pH (s.u)	5.01	4.95	4.88	4.93						
Specific Conductivity (ΩS)	42	42	41	43						
Water Temperature (°C)	21.0	18.9	18.5	18.0						
Turbidity (NTU)	485	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	4.02									

Remarks: Well sampled at 1450 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW57I					
Well Diameter (D)	2	inch of	29.87	feet(ft) bgs		
conversion factor (C): 3.143*(D/2)^2						
for a 2 inch well C = 0.163						
for a 4 inch well C = 0.652						
*Free Product Thickness	---	ft				
Total Well Depth (TWD)	29.87	ft btoc				
Depth to Groundwater (DGW)	9.24	ft btoc				
Length of Water Colum (LWC = TWD-DGW)					20.63	ft
1 Casing Volume (LWC*C) =	20.63	X	.17	=	3.51	gals
3 Casing Volumes = 3 X	3.51	=			10.53	gals
(Standard Purge Volume)						

Total Volume of Water Purged Before Sampling 7.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.0	7.0							
Time (military)	1451	1454	1458							
pH (s.u)	5.16	5.25	5.28							
Specific Conductivity (ΩS)	56	55	55							
Water Temperature (°C)	20.2	19.2	18.7							
Turbidity (NTU)	900	110	90							
Dissolved Oxygen (mg/l)	6.52									

Remarks: Well purged dry after 7.0-gallons removed. Well sampled at 1458 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW58				
Well Diameter (D)	2	inch of	29.92	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	29.92	ft btoc			
Depth to Groundwater (DGW)	19.15	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			10.77	ft	
1 Casing Volume (LWC*C) =	10.77	X .17	=	1.83	gals
3 Casing Volumes = 3 X	1.83	=		5.49	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	6.0						
Time (military)	1314	1322	1327	1330						
pH (s.u)	5.32	5.24	5.17	5.19						
Specific Conductivity (ΩS)	30	29	30	29						
Water Temperature (°C)	19.8	18.5	17.8	19.4						
Turbidity (NTU)	16.6	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	4.79									

Remarks: Well sampled at 1330 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW59				
Well Diameter (D)	2	inch of	24.69	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	24.69	ft btoc			
Depth to Groundwater (DGW)	16.76	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			7.93	ft	
1 Casing Volume (LWC*C) =	7.93	X .17	=	1.35	gals
3 Casing Volumes = 3 X	1.35	=		4.05	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.5	3.0	4.5						
Time (military)	1335	1342	1349	1355						
pH (s.u)	5.29	5.33	5.47	5.47						
Specific Conductivity (ΩS)	58	47	46	47						
Water Temperature (°C)	19.6	17.6	17.2	17.3						
Turbidity (NTU)	50	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	1.62									

Remarks: Well sampled at 1355 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013
Field Personnel Reid A Doherty
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**
serial no. serial no.
pH =4.0 Standard
pH = 7.0 Standard
pH = 10.0 Standard
DO Meter Standard
Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW60

Well Diameter (D) 4 inch of 45.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness 0.01 ft
Total Well Depth (TWD) 45.00 ft btoc
Depth to Groundwater (DGW) 30.20 ft btoc
Length of Water Colum (LWC = TWD-DGW) 14.80 ft
1 Casing Volume (LWC*C) = 14.80 X .65 = 9.62 gals
3 Casing Volumes = 3 X 9.62 = 28.86 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well not sampled due to 0.01-feet of free-phase product present at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW61				
Well Diameter (D)	4	inch of	45.36	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	45.36	ft btoc			
Depth to Groundwater (DGW)	29.40	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			15.96	ft	
1 Casing Volume (LWC*C) =	15.96	X .65	=	10.41	gals
3 Casing Volumes = 3 X	10.41	=		31.23	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 31.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	10.5	21.0	31.5						
Time (military)	1410	1425	1440	1455						
pH (s.u)	6.19	5.63	5.37	5.54						
Specific Conductivity (ΩS)	94	57	41	49						
Water Temperature (°C)	22.3	21.3	20.8	20.8						
Turbidity (NTU)	161	178	98.2	76.4						
Dissolved Oxygen (mg/l)	1.75									

Remarks: Well sampled at 1455 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW62				
Well Diameter (D)	4	inch of	44.79	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.79	ft btoc			
Depth to Groundwater (DGW)	29.40	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			15.39	ft	
1 Casing Volume (LWC*C) =	15.39	X .65 =	10.03	gals	
3 Casing Volumes = 3 X	10.03	=	30.09	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 30.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	10.5	21.0	30.5						
Time (military)	0958	1009	1015	1022						
pH (s.u)	5.49	5.43	5.23	5.11						
Specific Conductivity (ΩS)	36	36	34	33						
Water Temperature (°C)	21.1	20.9	20.9	20.9						
Turbidity (NTU)	50	34	170	90						
Dissolved Oxygen (mg/l)	2.39									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1022 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW63				
Well Diameter (D)	4	inch of	45.35	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	45.35	ft btoc			
Depth to Groundwater (DGW)	28.84	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			16.51	ft	
1 Casing Volume (LWC*C) =	16.51	X .65 =	10.77	gals	
3 Casing Volumes = 3 X	10.77	=	32.31	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 32.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	11.0	22.0	32.5						
Time (military)	1045	1057	1110	1127						
pH (s.u)	5.26	5.46	5.32	5.09						
Specific Conductivity (ΩS)	43	41	38	37						
Water Temperature (°C)	23.4	21.3	21.4	20.5						
Turbidity (NTU)	38	33	29	22						
Dissolved Oxygen (mg/l)	5.12									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1127 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW64				
Well Diameter (D)	4	inch of	44.16	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.16	ft btoc			
Depth to Groundwater (DGW)	29.30	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			14.86	ft	
1 Casing Volume (LWC*C) =	14.86	X .65	=	9.69	gals
3 Casing Volumes = 3 X	9.69	=		29.07	gals
(Standard Purge Volume)					

Total Volume of Water Purged Before Sampling 29.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	10.0	20.0	29.5						
Time (military)	1140	1156	1207	1220						
pH (s.u)	5.26	5.16	5.34	5.21						
Specific Conductivity (ϑS)	416	38	35	36						
Water Temperature (°C)	21.9	21.1	21.7	21.7						
Turbidity (NTU)	23	26	160	50						
Dissolved Oxygen (mg/l)	3.94									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1220 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW65					
Well Diameter (D)	4	inch of	45.31	feet(ft) bgs		
conversion factor (C): 3.143*(D/2)^2						
for a 2 inch well C = 0.163						
for a 4 inch well C = 0.652						
*Free Product Thickness	---	ft				
Total Well Depth (TWD)	45.31	ft btoc				
Depth to Groundwater (DGW)	26.70	ft btoc				
Length of Water Colum (LWC = TWD-DGW)			18.61	ft		
1 Casing Volume (LWC*C) =	18.61	X .65	=	12.13	gals	
3 Casing Volumes = 3 X	12.13	=	36.39	gals		
(Standard Purge Volume)						

Total Volume of Water Purged Before Sampling 36.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	12.5	25.0	26.5						
Time (military)	1318	1325	1335	1345						
pH (s.u)	5.31	5.67	5.31	5.46						
Specific Conductivity (ΩS)	52	52	49	47						
Water Temperature (°C)	19.5	19.4	19.2	19.4						
Turbidity (NTU)	27	30	33	40						
Dissolved Oxygen (mg/l)	2.81									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW66			
Well Diameter (D)	4	inch of	44.93	feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2				
for a 2 inch well C = 0.163				
for a 4 inch well C = 0.652				
*Free Product Thickness	---			ft
Total Well Depth (TWD)	44.93			ft btoc
Depth to Groundwater (DGW)	27.29			ft btoc
Length of Water Colum (LWC = TWD-DGW)			17.64	ft
1 Casing Volume (LWC*C) =	17.64	X .65 =	11.50	gals
3 Casing Volumes = 3 X	11.50	=	34.50	gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling 34.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	11.5	23.0	34.5						
Time (military)	1319	1323	1327	1337						
pH (s.u)	5.59	5.37	5.33	5.47						
Specific Conductivity (ΩS)	62	59	56	52						
Water Temperature (°C)	19.6	19.4	19.1	19.5						
Turbidity (NTU)	883	>1,100	931	>1,100						
Dissolved Oxygen (mg/l)	3.49									

Remarks: Well sampled at 1337 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/15/2013
Field Personnel Ivan A. Irizarry
General Weather Conditions Cloudy
Ambient Air Temperature (°C) 19

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW67

Well Diameter (D) 4 inch of 44.97 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness --- ft
Total Well Depth (TWD) 44.97 ft btoc
Depth to Groundwater (DGW) 27.28 ft btoc
Length of Water Colum (LWC = TWD-DGW) 17.69 ft
1 Casing Volume (LWC*C) = 17.69 X .65 = 11.53 gals
3 Casing Volumes = 3 X 11.53 = 34.59 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 35.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	12.0	24.0	35.0						
Time (military)	1350	1353	1359	1402						
pH (s.u)	5.37	5.31	5.26	5.25						
Specific Conductivity (ΩS)	58	58	58	55						
Water Temperature (°C)	19.0	18.5	20.1	18.8						
Turbidity (NTU)	81.6	231	312	321						
Dissolved Oxygen (mg/l)	1.80									

Remarks: Well sampled at 1402 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW68				
Well Diameter (D)	4	inch of	45.64	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	45.64	ft btoc			
Depth to Groundwater (DGW)	29.95	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			15.69	ft	
1 Casing Volume (LWC*C) =	15.69	X .65 =	10.23	gals	
3 Casing Volumes = 3 X	10.23	=	30.69	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 31.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	10.5	21.0	31.5						
Time (military)	0900	0918	0927	0940						
pH (s.u)	7.21	5.67	5.59	5.43						
Specific Conductivity (ϑS)	54	40	35	35						
Water Temperature (°C)	22.1	21.1	21.3	21.2						
Turbidity (NTU)	59	80	1,000	>1,100						
Dissolved Oxygen (mg/l)	2.79									

Remarks: Sheen and slight petroleum odor noted at time of sampling. Well sampled at 0940 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: 8/14/2013
Field Personnel: W. Sloan Click
General Weather Conditions: Partly Cloudy
Ambient Air Temperature (°C): 25

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW69

Well Diameter (D) 4 inch of 44.14 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.14	ft btoc			
Depth to Groundwater (DGW)	29.42	ft btoc			
Length of Water Colum (LWC = TWD-DGW)				14.72	ft
1 Casing Volume (LWC*C) =	14.72	X .65	=	9.60	gals
3 Casing Volumes = 3 X	9.60	=		28.80	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 29.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	10.0	20.0	29.0						
Time (military)	1234	1246	1257	1310						
pH (s.u)	5.78	5.72	5.54	5.52						
Specific Conductivity (ΩS)	148	112	78	72						
Water Temperature (°C)	21.3	20.6	21.0	20.8						
Turbidity (NTU)	45	140	120	110						
Dissolved Oxygen (mg/l)	2.11									

Remarks: Well sampled at 1310 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW70				
Well Diameter (D)	4	inch of	44.49	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.49	ft btoc			
Depth to Groundwater (DGW)	28.34	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			16.15	ft	
1 Casing Volume (LWC*C) =	16.15	X .65	=	10.53	gals
3 Casing Volumes = 3 X	10.53	=		31.59	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 32.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	11.0	22.0	32.0						
Time (military)	1239	1246	1254	1302						
pH (s.u)	8.47	6.03	5.94	5.37						
Specific Conductivity (ΩS)	53	47	41	41						
Water Temperature (°C)	19.3	19.6	19.9	19.4						
Turbidity (NTU)	50	29	80	55						
Dissolved Oxygen (mg/l)	3.71									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1302 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW1X					
Well Diameter (D)	2	inch of	63.07	feet(ft) bgs		
conversion factor (C): 3.143*(D/2)^2						
for a 2 inch well C = 0.163						
for a 4 inch well C = 0.652						
*Free Product Thickness	---	ft				
Total Well Depth (TWD)	63.07	ft btoc				
Depth to Groundwater (DGW)	30.73	ft btoc				
Length of Water Colum (LWC = TWD-DGW)			32.34	ft		
1 Casing Volume (LWC*C) =	32.34	X .17	=	5.50	gals	
3 Casing Volumes = 3 X	5.50	=		16.50	gals	
(Standard Purge Volume)						

Total Volume of Water Purged Before Sampling 11.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	5.5	11.0							
Time (military)	1545	1552	1601							
pH (s.u)	6.13	5.94	5.90							
Specific Conductivity (ΩS)	92	92	92							
Water Temperature (°C)	21.2	21.2	21.2							
Turbidity (NTU)	80.4	98.6	76.4							
Dissolved Oxygen (mg/l)	3.56									

Remarks: Well purged dry after 11.0-gallons removed. Well sampled at 1601 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/15/2013
Field Personnel Ivan A. Irizarry
General Weather Conditions Cloudy
Ambient Air Temperature (°C) 19

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:		**Conductivity Sensor:**	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	
DO Meter		Standard	
Standard		**Turbidity:**	

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW2X

Well Diameter (D) 1 inch of 63.85 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				---	ft
Total Well Depth (TWD)				43.85	ft btoc
Depth to Groundwater (DGW)				20.42	ft btoc
Length of Water Colum (LWC = TWD-DGW)				23.43	ft
1 Casing Volume (LWC*C) =	23.43	X	.041 =	0.96	gals
3 Casing Volumes = 3 X	0.96		=	2.88	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---									
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Not enough water present for groundwater quality readings. Well sampled at 1410 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: 8/15/2013
Field Personnel: Ivan A. Irizarry
General Weather Conditions: Cloudy
Ambient Air Temperature (°C): 19

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**
serial no. serial no.
pH =4.0 Standard
pH = 7.0 Standard
pH = 10.0 Standard
DO Meter Standard
Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW3X

Well Diameter (D) 1 inch of 44.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness --- ft
Total Well Depth (TWD) 44.50 ft btoc
Depth to Groundwater (DGW) 29.35 ft btoc
Length of Water Colum (LWC = TWD-DGW) 15.15 ft
1 Casing Volume (LWC*C) = 15.15 X .041 = 0.62 gals
3 Casing Volumes = 3 X 0.62 = 1.86 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well not sampled due to being obstructed by organic debris at time of the sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013

Field Personnel Dan R. Matz

General Weather Conditions Partly Cloudy

Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**

serial no. serial no.

pH =4.0 Standard

pH = 7.0 Standard

pH = 10.0 Standard

DO Meter Standard

Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW4X

Well Diameter (D) 2 inch of 11.40 feet(ft) bgs

conversion factor (C): 3.143*(D/2)^2

for a 2 inch well C = 0.163

for a 4 inch well C = 0.652

*Free Product Thickness NA ft

Total Well Depth (TWD) 11.40 ft btoc

Depth to Groundwater (DGW) Dry ft btoc

Length of Water Colum (LWC = TWD-DGW) NA ft

1 Casing Volume (LWC*C) = NA X .17 = NA gals

3 Casing Volumes = 3 X NA = NA gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well dry at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013

Field Personnel Dan R. Matz

General Weather Conditions Partly Cloudy

Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**

serial no. serial no.

pH =4.0 Standard

pH = 7.0 Standard

pH = 10.0 Standard

DO Meter Standard

Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW5X

Well Diameter (D) inch of feet(ft) bgs

conversion factor (C): 3.143*(D/2)^2

for a 2 inch well C = 0.163

for a 4 inch well C = 0.652

*Free Product Thickness ft

Total Well Depth (TWD) ft btoc

Depth to Groundwater (DGW) ft btoc

Length of Water Colum (LWC = TWD-DGW) ft

1 Casing Volume (LWC*C) = X .17 = gals

3 Casing Volumes = 3 X = gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well destroyed prior to sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/15/2013
Field Personnel Ivan A. Irizarry
General Weather Conditions Cloudy
Ambient Air Temperature (°C) 19

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW6X

Well Diameter (D) 1 inch of 39.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				---	ft
Total Well Depth (TWD)				39.50	ft btoc
Depth to Groundwater (DGW)				26.23	ft btoc
Length of Water Colum (LWC = TWD-DGW)				13.27	ft
1 Casing Volume (LWC*C) =	13.27	X	.041 =	0.54	gals
3 Casing Volumes = 3 X	0.54		=	1.62	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 1.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.0								
Time (military)	1330	1340								
pH (s.u)	5.67	5.66								
Specific Conductivity (ΩS)	121	122								
Water Temperature (°C)	19.6	19.4								
Turbidity (NTU)	81.8	>1,100								
Dissolved Oxygen (mg/l)	1.31									

Remarks: Well purged dry after 1.0-gallons removed. Well sampled at 1340 on August 15, 2013.

APPENDIX B

WASTE TRANSPORTATION AND DISPOSAL RECORDS

VLS recovery services, llc

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number

GENERATOR

5. Generator's Name and Mailing Address

BUNNELL-LAMMON ENG, INC
6004 FONDERS COURT
GREENVILLE, SC 29615

Generator's Phone:

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name

PLE

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

VLS RECOVERY SERVICES, LLC
306 S. MAIN STREET
MAULDIN, SC 29662

U.S. EPA ID Number

Facility's Phone:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON HAZ NON REG WELL WATER #11512 County Side 2 Westminster SC US-06742			809	L	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Brian K White	Brian K White	9	20	13

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year

Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)	Month	Day	Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name	Signature	Month	Day	Year
Steven Loan		9	20	13

APPENDIX C

LABORATORY ANALYTICAL DATA SHEETS

Report of Analysis

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615
Attention: Dan Osbourne

Project Name: **Country Side 2**

Project Number: **J13-6940-05**

Lot Number: **OH17005**

Date Completed: **09/03/2013**

Lucas Odom
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

Case Narrative
Bunnell-Lammons Engineering, Inc.
Lot Number: OH17005

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

EDB by Microextraction

Sample -030 recovered the surrogate above method criteria. No corrective action was required as the sample was non-detect for the target compound.

Samples -034 and -061 were qualified with a "P" as the relative percent difference (RPD) between the two GC columns exceeded method criteria. Per SCDHEC, the lower of the two values has been reported.

Samples -063 and -075 were diluted 10X and 20X respectively due to large detections of the target compound. No corrective action was required as it is known that dilutions of 5X and greater may impact surrogate recoveries.

Sample Summary

Bunnell-Lammons Engineering, Inc.

Lot Number: OH17005

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	06742-MWR-1	Aqueous	08/13/2013 1305	08/16/2013
002	06742-MWR-1A	Aqueous	08/13/2013 1020	08/16/2013
003	06742-MWR-1A DUP	Aqueous	08/13/2013 1022	08/16/2013
004	06742-MW-1X	Aqueous	08/13/2013 1601	08/16/2013
005	06742-MW-2	Aqueous	08/15/2013 1425	08/16/2013
006	06742-MWR-2	Aqueous	08/13/2013 1345	08/16/2013
007	06742-MW-2X	Aqueous	08/15/2013 1410	08/16/2013
008	06742-MWR-3	Aqueous	08/13/2013 1410	08/16/2013
009	06742-MW-4	Aqueous	08/14/2013 1135	08/16/2013
010	06742-MWR-4	Aqueous	08/13/2013 1615	08/16/2013
011	06742-MWR-4DUP	Aqueous	08/13/2013 1616	08/16/2013
012	06742-MWR-4R	Aqueous	08/13/2013 1535	08/16/2013
013	06742-MW-5	Aqueous	08/14/2013 1357	08/16/2013
014	06742-MW-6	Aqueous	08/13/2013 1445	08/16/2013
015	06742-MW-6 DUP	Aqueous	08/13/2013 1446	08/16/2013
016	06742-MW-6X	Aqueous	08/15/2013 1340	08/16/2013
017	06742-MW-7	Aqueous	08/13/2013 1130	08/16/2013
018	06742-MW-7 DUP	Aqueous	08/13/2013 1131	08/16/2013
019	06742-MW-7R	Aqueous	08/13/2013 1230	08/16/2013
020	06742-MW-9	Aqueous	08/13/2013 1231	08/16/2013
021	06742-MW-9R	Aqueous	08/13/2013 1304	08/16/2013
022	06742-MW-11	Aqueous	08/14/2013 1123	08/16/2013
023	06742-MWR-11	Aqueous	08/14/2013 1056	08/16/2013
024	06742-MW-12	Aqueous	08/14/2013 1454	08/16/2013
025	06742-MW-13R	Aqueous	08/14/2013 1025	08/16/2013
026	06742-MW-14R	Aqueous	08/14/2013 1251	08/16/2013
027	06742-MW-14R2	Aqueous	08/14/2013 1245	08/16/2013
028	06742-MW-15R	Aqueous	08/13/2013 1610	08/16/2013
029	06742-MW-16DD	Aqueous	08/13/2013 1100	08/16/2013
030	06742-MW-17I	Aqueous	08/13/2013 1335	08/16/2013
031	06742-MW-18D	Aqueous	08/14/2013 1350	08/16/2013
032	06742-MW-19I	Aqueous	08/15/2013 0910	08/16/2013
033	06742-MW-20D	Aqueous	08/15/2013 1045	08/16/2013
034	06742-MW-21I	Aqueous	08/15/2013 0945	08/16/2013
035	06742-MW-22D	Aqueous	08/15/2013 1058	08/16/2013
036	06742-MW-23	Aqueous	08/13/2013 0945	08/16/2013
037	06742-MW-24	Aqueous	08/13/2013 0940	08/16/2013
038	06742-MW-25	Aqueous	08/13/2013 1025	08/16/2013
039	06742-MW-25 DUP	Aqueous	08/13/2013 1026	08/16/2013
040	06742-MW-26I	Aqueous	08/14/2013 1620	08/16/2013
041	06742-MW-28DD	Aqueous	08/15/2013 1213	08/16/2013
042	06742-MW-29	Aqueous	08/14/2013 0930	08/16/2013
043	06742-MW-30I	Aqueous	08/14/2013 1612	08/16/2013
044	06742-MW-31D	Aqueous	08/15/2013 1130	08/16/2013
045	06742-MW-32	Aqueous	08/14/2013 1004	08/16/2013

Sample Summary (Continued)

Lot Number: OH17005

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
046	06742-MW-33I	Aqueous	08/15/2013 1200	08/16/2013
047	06742-MW-34D	Aqueous	08/15/2013 1054	08/16/2013
048	06742-MW-35I	Aqueous	08/15/2013 1228	08/16/2013
049	06742-MW-36D	Aqueous	08/15/2013 1029	08/16/2013
050	06742-MW-37DD	Aqueous	08/15/2013 0956	08/16/2013
051	06742-MW-38	Aqueous	08/14/2013 1325	08/16/2013
052	06742-MW-39I	Aqueous	08/14/2013 1540	08/16/2013
053	06742-MW-40D	Aqueous	08/14/2013 1621	08/16/2013
054	06742-MW-41I	Aqueous	08/15/2013 1225	08/16/2013
055	06742-MW-42D	Aqueous	08/15/2013 0918	08/16/2013
056	06742-MW-43	Aqueous	08/14/2013 1522	08/16/2013
057	06742-MW-44I	Aqueous	08/15/2013 1255	08/16/2013
058	06742-MW-46	Aqueous	08/14/2013 0948	08/16/2013
059	06742-MW-47	Aqueous	08/14/2013 1102	08/16/2013
060	06742-MW-49	Aqueous	08/14/2013 1520	08/16/2013
061	06742-MW-52	Aqueous	08/13/2013 1440	08/16/2013
062	06742-MW-53	Aqueous	08/13/2013 1524	08/16/2013
063	06742-MW-54	Aqueous	08/13/2013 1105	08/16/2013
064	06742-MW-55	Aqueous	08/14/2013 1450	08/16/2013
065	06742-MW-57I	Aqueous	08/14/2013 1458	08/16/2013
066	06742-MW-58	Aqueous	08/14/2013 1330	08/16/2013
067	06742-MW-59	Aqueous	08/14/2013 1355	08/16/2013
068	06742-MW-61	Aqueous	08/13/2013 1455	08/16/2013
069	06742-MW-62	Aqueous	08/14/2013 1022	08/16/2013
070	06742-MW-63	Aqueous	08/14/2013 1127	08/16/2013
071	06742-MW-64	Aqueous	08/14/2013 1220	08/16/2013
072	06742-MW-65	Aqueous	08/15/2013 1345	08/16/2013
073	06742-MW-66	Aqueous	08/15/2013 1337	08/16/2013
074	06742-MW-67	Aqueous	08/15/2013 1402	08/16/2013
075	06742-MW-68	Aqueous	08/14/2013 0940	08/16/2013
076	06742-MW-69	Aqueous	08/14/2013 1310	08/16/2013
077	06742-MW-70	Aqueous	08/15/2013 1302	08/16/2013
078	SW-1	Aqueous	08/14/2013 1540	08/16/2013
079	FIELD BLANK 1	Aqueous	08/13/2013 1630	08/16/2013
080	FIELD BLANK 2	Aqueous	08/14/2013 1630	08/16/2013
081	FIELD BLANK 3	Aqueous	08/15/2013 1500	08/16/2013
082	Trip Blank 1	Aqueous	08/14/2013 1500	08/16/2013
083	Trip Blank 2	Aqueous	08/14/2013 1500	08/16/2013

(83 samples)

Executive Summary
Bunnell-Lammons Engineering, Inc.
Lot Number: OH17005

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	06742-MWR-1	Aqueous	tert-Amyl alcohol (TAA)	8260B	73000		ug/L	15
001	06742-MWR-1	Aqueous	tert-Amyl methyl ether (TAME)	8260B	180	J	ug/L	15
001	06742-MWR-1	Aqueous	Benzene	8260B	38000		ug/L	15
001	06742-MWR-1	Aqueous	Ethylbenzene	8260B	3500		ug/L	15
001	06742-MWR-1	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	45000		ug/L	15
001	06742-MWR-1	Aqueous	Naphthalene	8260B	1000	J	ug/L	15
001	06742-MWR-1	Aqueous	tert-butyl alcohol (TBA)	8260B	10000		ug/L	15
001	06742-MWR-1	Aqueous	Toluene	8260B	48000		ug/L	15
001	06742-MWR-1	Aqueous	Xylenes (total)	8260B	19000		ug/L	15
001	06742-MWR-1	Aqueous	1,2-Dibromoethane (EDB)	8011	1.5		ug/L	15
002	06742-MWR-1A	Aqueous	tert-Amyl alcohol (TAA)	8260B	66000		ug/L	16
002	06742-MWR-1A	Aqueous	tert-Amyl methyl ether (TAME)	8260B	1400	J	ug/L	16
002	06742-MWR-1A	Aqueous	Benzene	8260B	38000		ug/L	16
002	06742-MWR-1A	Aqueous	Diisopropyl ether (IPE)	8260B	1800	J	ug/L	16
002	06742-MWR-1A	Aqueous	Ethylbenzene	8260B	3300		ug/L	16
002	06742-MWR-1A	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	250000		ug/L	16
002	06742-MWR-1A	Aqueous	Naphthalene	8260B	1000	J	ug/L	16
002	06742-MWR-1A	Aqueous	tert-butyl alcohol (TBA)	8260B	13000		ug/L	16
002	06742-MWR-1A	Aqueous	Toluene	8260B	63000		ug/L	16
002	06742-MWR-1A	Aqueous	Xylenes (total)	8260B	30000		ug/L	16
002	06742-MWR-1A	Aqueous	1,2-Dibromoethane (EDB)	8011	9.9		ug/L	16
003	06742-MWR-1A DUP	Aqueous	tert-Amyl alcohol (TAA)	8260B	70000		ug/L	17
003	06742-MWR-1A DUP	Aqueous	tert-Amyl methyl ether (TAME)	8260B	1700	J	ug/L	17
003	06742-MWR-1A DUP	Aqueous	Benzene	8260B	44000		ug/L	17
003	06742-MWR-1A DUP	Aqueous	Diisopropyl ether (IPE)	8260B	2100	J	ug/L	17
003	06742-MWR-1A DUP	Aqueous	3,3-Dimethyl-1-butanol	8260B	1200	J	ug/L	17
003	06742-MWR-1A DUP	Aqueous	Ethylbenzene	8260B	3700		ug/L	17
003	06742-MWR-1A DUP	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	270000		ug/L	17
003	06742-MWR-1A DUP	Aqueous	Naphthalene	8260B	1100	J	ug/L	17
003	06742-MWR-1A DUP	Aqueous	tert-butyl alcohol (TBA)	8260B	13000		ug/L	17
003	06742-MWR-1A DUP	Aqueous	Toluene	8260B	66000		ug/L	17
003	06742-MWR-1A DUP	Aqueous	Xylenes (total)	8260B	33000		ug/L	17
003	06742-MWR-1A DUP	Aqueous	1,2-Dibromoethane (EDB)	8011	12		ug/L	17
004	06742-MW-1X	Aqueous	tert-Amyl methyl ether (TAME)	8260B	0.31	J	ug/L	18
004	06742-MW-1X	Aqueous	Benzene	8260B	77		ug/L	18
004	06742-MW-1X	Aqueous	Ethylbenzene	8260B	33		ug/L	18
004	06742-MW-1X	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	11		ug/L	18
004	06742-MW-1X	Aqueous	Naphthalene	8260B	18		ug/L	18
004	06742-MW-1X	Aqueous	Toluene	8260B	130		ug/L	18
004	06742-MW-1X	Aqueous	Xylenes (total)	8260B	180		ug/L	18
005	06742-MW-2	Aqueous	tert-Amyl alcohol (TAA)	8260B	23		ug/L	19
005	06742-MW-2	Aqueous	Benzene	8260B	0.49	J	ug/L	19
005	06742-MW-2	Aqueous	tert-butyl alcohol (TBA)	8260B	13	J	ug/L	19
006	06742-MWR-2	Aqueous	tert-Amyl alcohol (TAA)	8260B	140	J	ug/L	20
006	06742-MWR-2	Aqueous	Benzene	8260B	7.2	J	ug/L	20

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
006	06742-MWR-2	Aqueous	Toluene	8260B	19	J	ug/L	20
006	06742-MWR-2	Aqueous	Xylenes (total)	8260B	38	J	ug/L	20
007	06742-MW-2X	Aqueous	Benzene	8260B	24000		ug/L	21
007	06742-MW-2X	Aqueous	1,2-Dichloroethane	8260B	510	J	ug/L	21
007	06742-MW-2X	Aqueous	Ethylbenzene	8260B	2600		ug/L	21
007	06742-MW-2X	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	3400		ug/L	21
007	06742-MW-2X	Aqueous	Toluene	8260B	41000		ug/L	21
007	06742-MW-2X	Aqueous	Xylenes (total)	8260B	15000		ug/L	21
007	06742-MW-2X	Aqueous	1,2-Dibromoethane (EDB)	8011	0.92		ug/L	21
009	06742-MW-4	Aqueous	tert-Amyl alcohol (TAA)	8260B	15000		ug/L	23
009	06742-MW-4	Aqueous	tert-Amyl methyl ether (TAME)	8260B	20	J	ug/L	23
009	06742-MW-4	Aqueous	Benzene	8260B	8500		ug/L	23
009	06742-MW-4	Aqueous	1,2-Dichloroethane	8260B	180	J	ug/L	23
009	06742-MW-4	Aqueous	Ethylbenzene	8260B	650		ug/L	23
009	06742-MW-4	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	8300		ug/L	23
009	06742-MW-4	Aqueous	Naphthalene	8260B	300	J	ug/L	23
009	06742-MW-4	Aqueous	tert-butyl alcohol (TBA)	8260B	3200		ug/L	23
009	06742-MW-4	Aqueous	Toluene	8260B	4900		ug/L	23
009	06742-MW-4	Aqueous	Xylenes (total)	8260B	4600		ug/L	23
009	06742-MW-4	Aqueous	1,2-Dibromoethane (EDB)	8011	0.13		ug/L	23
010	06742-MWR-4	Aqueous	tert-Amyl alcohol (TAA)	8260B	36000		ug/L	24
010	06742-MWR-4	Aqueous	Benzene	8260B	28000		ug/L	24
010	06742-MWR-4	Aqueous	Ethylbenzene	8260B	3500		ug/L	24
010	06742-MWR-4	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	7100		ug/L	24
010	06742-MWR-4	Aqueous	Naphthalene	8260B	1200	J	ug/L	24
010	06742-MWR-4	Aqueous	Toluene	8260B	43000		ug/L	24
010	06742-MWR-4	Aqueous	Xylenes (total)	8260B	20000		ug/L	24
010	06742-MWR-4	Aqueous	1,2-Dibromoethane (EDB)	8011	0.81		ug/L	24
011	06742-MWR-4DUP	Aqueous	tert-Amyl alcohol (TAA)	8260B	38000		ug/L	25
011	06742-MWR-4DUP	Aqueous	Benzene	8260B	29000		ug/L	25
011	06742-MWR-4DUP	Aqueous	Ethylbenzene	8260B	3500		ug/L	25
011	06742-MWR-4DUP	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	7100		ug/L	25
011	06742-MWR-4DUP	Aqueous	Naphthalene	8260B	1100	J	ug/L	25
011	06742-MWR-4DUP	Aqueous	Toluene	8260B	44000		ug/L	25
011	06742-MWR-4DUP	Aqueous	Xylenes (total)	8260B	20000		ug/L	25
011	06742-MWR-4DUP	Aqueous	1,2-Dibromoethane (EDB)	8011	0.80		ug/L	25
012	06742-MWR-4R	Aqueous	tert-Amyl alcohol (TAA)	8260B	19000		ug/L	26
012	06742-MWR-4R	Aqueous	Benzene	8260B	13000		ug/L	26
012	06742-MWR-4R	Aqueous	Ethylbenzene	8260B	2400		ug/L	26
012	06742-MWR-4R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	540	J	ug/L	26
012	06742-MWR-4R	Aqueous	Naphthalene	8260B	820	J	ug/L	26
012	06742-MWR-4R	Aqueous	tert-butyl alcohol (TBA)	8260B	1400	J	ug/L	26
012	06742-MWR-4R	Aqueous	Toluene	8260B	24000		ug/L	26
012	06742-MWR-4R	Aqueous	Xylenes (total)	8260B	14000		ug/L	26
012	06742-MWR-4R	Aqueous	1,2-Dibromoethane (EDB)	8011	0.41		ug/L	26
014	06742-MW-6	Aqueous	tert-Amyl alcohol (TAA)	8260B	1400	J	ug/L	28
014	06742-MW-6	Aqueous	Benzene	8260B	5000		ug/L	28
014	06742-MW-6	Aqueous	Ethylbenzene	8260B	470	J	ug/L	28

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
014	06742-MW-6	Aqueous	Naphthalene	8260B	350	J	ug/L	28
014	06742-MW-6	Aqueous	Toluene	8260B	9200		ug/L	28
014	06742-MW-6	Aqueous	Xylenes (total)	8260B	7200		ug/L	28
015	06742-MW-6 DUP	Aqueous	tert-Amyl alcohol (TAA)	8260B	1500	J	ug/L	29
015	06742-MW-6 DUP	Aqueous	Benzene	8260B	4700		ug/L	29
015	06742-MW-6 DUP	Aqueous	Ethylbenzene	8260B	450	J	ug/L	29
015	06742-MW-6 DUP	Aqueous	Toluene	8260B	8600		ug/L	29
015	06742-MW-6 DUP	Aqueous	Xylenes (total)	8260B	6700		ug/L	29
016	06742-MW-6X	Aqueous	tert-Amyl alcohol (TAA)	8260B	11000		ug/L	30
016	06742-MW-6X	Aqueous	Benzene	8260B	16000		ug/L	30
016	06742-MW-6X	Aqueous	Ethylbenzene	8260B	2300		ug/L	30
016	06742-MW-6X	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	270	J	ug/L	30
016	06742-MW-6X	Aqueous	Naphthalene	8260B	610	J	ug/L	30
016	06742-MW-6X	Aqueous	Toluene	8260B	34000		ug/L	30
016	06742-MW-6X	Aqueous	Xylenes (total)	8260B	13000		ug/L	30
016	06742-MW-6X	Aqueous	1,2-Dibromoethane (EDB)	8011	0.56		ug/L	30
017	06742-MW-7	Aqueous	Benzene	8260B	1300	J	ug/L	31
017	06742-MW-7	Aqueous	Ethylbenzene	8260B	4600		ug/L	31
017	06742-MW-7	Aqueous	Naphthalene	8260B	1500	J	ug/L	31
017	06742-MW-7	Aqueous	Toluene	8260B	7700		ug/L	31
017	06742-MW-7	Aqueous	Xylenes (total)	8260B	31000		ug/L	31
018	06742-MW-7 DUP	Aqueous	Benzene	8260B	1500	J	ug/L	32
018	06742-MW-7 DUP	Aqueous	Ethylbenzene	8260B	3400		ug/L	32
018	06742-MW-7 DUP	Aqueous	Naphthalene	8260B	1200	J	ug/L	32
018	06742-MW-7 DUP	Aqueous	Toluene	8260B	6400		ug/L	32
018	06742-MW-7 DUP	Aqueous	Xylenes (total)	8260B	25000		ug/L	32
019	06742-MW-7R	Aqueous	Benzene	8260B	270	J	ug/L	33
019	06742-MW-7R	Aqueous	Ethylbenzene	8260B	2000		ug/L	33
019	06742-MW-7R	Aqueous	Naphthalene	8260B	610		ug/L	33
019	06742-MW-7R	Aqueous	Toluene	8260B	5700		ug/L	33
019	06742-MW-7R	Aqueous	Xylenes (total)	8260B	11000		ug/L	33
022	06742-MW-11	Aqueous	tert-Amyl alcohol (TAA)	8260B	170		ug/L	36
022	06742-MW-11	Aqueous	Benzene	8260B	13		ug/L	36
022	06742-MW-11	Aqueous	Ethylbenzene	8260B	7.2		ug/L	36
022	06742-MW-11	Aqueous	Naphthalene	8260B	9.4		ug/L	36
022	06742-MW-11	Aqueous	tert-butyl alcohol (TBA)	8260B	120		ug/L	36
022	06742-MW-11	Aqueous	Toluene	8260B	22		ug/L	36
022	06742-MW-11	Aqueous	Xylenes (total)	8260B	110		ug/L	36
023	06742-MWR-11	Aqueous	Benzene	8260B	10	J	ug/L	37
023	06742-MWR-11	Aqueous	Ethylbenzene	8260B	360		ug/L	37
023	06742-MWR-11	Aqueous	Naphthalene	8260B	340		ug/L	37
023	06742-MWR-11	Aqueous	Toluene	8260B	120	J	ug/L	37
023	06742-MWR-11	Aqueous	Xylenes (total)	8260B	2500		ug/L	37
025	06742-MW-13R	Aqueous	tert-Amyl alcohol (TAA)	8260B	7500		ug/L	39
025	06742-MW-13R	Aqueous	tert-Amyl methyl ether (TAME)	8260B	13	J	ug/L	39
025	06742-MW-13R	Aqueous	Benzene	8260B	3500		ug/L	39
025	06742-MW-13R	Aqueous	1,2-Dichloroethane	8260B	75	J	ug/L	39
025	06742-MW-13R	Aqueous	Ethylbenzene	8260B	240	J	ug/L	39

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
025	06742-MW-13R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2500		ug/L	39
025	06742-MW-13R	Aqueous	Naphthalene	8260B	100	J	ug/L	39
025	06742-MW-13R	Aqueous	tert-butyl alcohol (TBA)	8260B	1000		ug/L	39
025	06742-MW-13R	Aqueous	Toluene	8260B	160	J	ug/L	39
025	06742-MW-13R	Aqueous	Xylenes (total)	8260B	240	J	ug/L	39
027	06742-MW-14R2	Aqueous	Benzene	8260B	110		ug/L	41
027	06742-MW-14R2	Aqueous	Ethylbenzene	8260B	400		ug/L	41
027	06742-MW-14R2	Aqueous	Naphthalene	8260B	250		ug/L	41
027	06742-MW-14R2	Aqueous	Toluene	8260B	580		ug/L	41
027	06742-MW-14R2	Aqueous	Xylenes (total)	8260B	2400		ug/L	41
028	06742-MW-15R	Aqueous	tert-Amyl methyl ether (TAME)	8260B	18	J	ug/L	42
028	06742-MW-15R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1700		ug/L	42
029	06742-MW-16DD	Aqueous	Benzene	8260B	65		ug/L	43
029	06742-MW-16DD	Aqueous	Ethanol	8260B	310	J	ug/L	43
029	06742-MW-16DD	Aqueous	Ethylbenzene	8260B	37		ug/L	43
029	06742-MW-16DD	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	23	J	ug/L	43
029	06742-MW-16DD	Aqueous	Naphthalene	8260B	9.2	J	ug/L	43
029	06742-MW-16DD	Aqueous	Toluene	8260B	190		ug/L	43
029	06742-MW-16DD	Aqueous	Xylenes (total)	8260B	200		ug/L	43
030	06742-MW-17I	Aqueous	tert-Amyl alcohol (TAA)	8260B	3900		ug/L	44
030	06742-MW-17I	Aqueous	Benzene	8260B	5800		ug/L	44
030	06742-MW-17I	Aqueous	Ethylbenzene	8260B	2000		ug/L	44
030	06742-MW-17I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	350	J	ug/L	44
030	06742-MW-17I	Aqueous	Naphthalene	8260B	500		ug/L	44
030	06742-MW-17I	Aqueous	Toluene	8260B	16000		ug/L	44
030	06742-MW-17I	Aqueous	Xylenes (total)	8260B	11000		ug/L	44
031	06742-MW-18D	Aqueous	tert-Amyl alcohol (TAA)	8260B	550		ug/L	45
031	06742-MW-18D	Aqueous	Benzene	8260B	730		ug/L	45
031	06742-MW-18D	Aqueous	1,2-Dichloroethane	8260B	16	J	ug/L	45
031	06742-MW-18D	Aqueous	Ethylbenzene	8260B	220		ug/L	45
031	06742-MW-18D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	42	J	ug/L	45
031	06742-MW-18D	Aqueous	Naphthalene	8260B	100		ug/L	45
031	06742-MW-18D	Aqueous	Toluene	8260B	560		ug/L	45
031	06742-MW-18D	Aqueous	Xylenes (total)	8260B	1500		ug/L	45
032	06742-MW-19I	Aqueous	tert-Amyl alcohol (TAA)	8260B	37000		ug/L	46
032	06742-MW-19I	Aqueous	tert-Amyl methyl ether (TAME)	8260B	310	J	ug/L	46
032	06742-MW-19I	Aqueous	Benzene	8260B	26000		ug/L	46
032	06742-MW-19I	Aqueous	Ethylbenzene	8260B	2400		ug/L	46
032	06742-MW-19I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	19000		ug/L	46
032	06742-MW-19I	Aqueous	Naphthalene	8260B	490	J	ug/L	46
032	06742-MW-19I	Aqueous	tert-butyl alcohol (TBA)	8260B	4400		ug/L	46
032	06742-MW-19I	Aqueous	Toluene	8260B	37000		ug/L	46
032	06742-MW-19I	Aqueous	Xylenes (total)	8260B	14000		ug/L	46
032	06742-MW-19I	Aqueous	1,2-Dibromoethane (EDB)	8011	6.3		ug/L	46
033	06742-MW-20D	Aqueous	tert-Amyl alcohol (TAA)	8260B	1200		ug/L	47
033	06742-MW-20D	Aqueous	tert-Amyl methyl ether (TAME)	8260B	7.3	J	ug/L	47
033	06742-MW-20D	Aqueous	Benzene	8260B	270		ug/L	47
033	06742-MW-20D	Aqueous	Diisopropyl ether (IPE)	8260B	12	J	ug/L	47

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
033	06742-MW-20D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	470		ug/L	47
033	06742-MW-20D	Aqueous	Naphthalene	8260B	8.6	J	ug/L	47
033	06742-MW-20D	Aqueous	tert-butyl alcohol (TBA)	8260B	220		ug/L	47
034	06742-MW-21I	Aqueous	tert-Amyl alcohol (TAA)	8260B	6800		ug/L	48
034	06742-MW-21I	Aqueous	tert-Amyl methyl ether (TAME)	8260B	130	J	ug/L	48
034	06742-MW-21I	Aqueous	Benzene	8260B	6400		ug/L	48
034	06742-MW-21I	Aqueous	Diisopropyl ether (IPE)	8260B	260	J	ug/L	48
034	06742-MW-21I	Aqueous	Ethylbenzene	8260B	540	J	ug/L	48
034	06742-MW-21I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	21000		ug/L	48
034	06742-MW-21I	Aqueous	tert-butyl alcohol (TBA)	8260B	1400	J	ug/L	48
034	06742-MW-21I	Aqueous	Xylenes (total)	8260B	2200		ug/L	48
034	06742-MW-21I	Aqueous	1,2-Dibromoethane (EDB)	8011	0.091	P	ug/L	48
035	06742-MW-22D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2.1	J	ug/L	49
037	06742-MW-24	Aqueous	tert-Amyl alcohol (TAA)	8260B	20		ug/L	51
037	06742-MW-24	Aqueous	Benzene	8260B	76		ug/L	51
037	06742-MW-24	Aqueous	Diisopropyl ether (IPE)	8260B	2.2	J	ug/L	51
037	06742-MW-24	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	5.4		ug/L	51
037	06742-MW-24	Aqueous	tert-butyl alcohol (TBA)	8260B	9.4	J	ug/L	51
037	06742-MW-24	Aqueous	Xylenes (total)	8260B	15		ug/L	51
038	06742-MW-25	Aqueous	tert-Amyl alcohol (TAA)	8260B	1900		ug/L	52
038	06742-MW-25	Aqueous	tert-Amyl methyl ether (TAME)	8260B	36	J	ug/L	52
038	06742-MW-25	Aqueous	Benzene	8260B	3300		ug/L	52
038	06742-MW-25	Aqueous	Diisopropyl ether (IPE)	8260B	78	J	ug/L	52
038	06742-MW-25	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2100		ug/L	52
038	06742-MW-25	Aqueous	Naphthalene	8260B	51	J	ug/L	52
038	06742-MW-25	Aqueous	tert-butyl alcohol (TBA)	8260B	220	J	ug/L	52
038	06742-MW-25	Aqueous	Xylenes (total)	8260B	420		ug/L	52
039	06742-MW-25 DUP	Aqueous	tert-Amyl alcohol (TAA)	8260B	2600		ug/L	53
039	06742-MW-25 DUP	Aqueous	tert-Amyl methyl ether (TAME)	8260B	36	J	ug/L	53
039	06742-MW-25 DUP	Aqueous	Benzene	8260B	3300		ug/L	53
039	06742-MW-25 DUP	Aqueous	Diisopropyl ether (IPE)	8260B	78	J	ug/L	53
039	06742-MW-25 DUP	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1700		ug/L	53
039	06742-MW-25 DUP	Aqueous	Naphthalene	8260B	58	J	ug/L	53
039	06742-MW-25 DUP	Aqueous	tert-butyl alcohol (TBA)	8260B	250	J	ug/L	53
039	06742-MW-25 DUP	Aqueous	Xylenes (total)	8260B	420		ug/L	53
040	06742-MW-26I	Aqueous	tert-Amyl alcohol (TAA)	8260B	1100		ug/L	54
040	06742-MW-26I	Aqueous	tert-Amyl methyl ether (TAME)	8260B	2.0	J	ug/L	54
040	06742-MW-26I	Aqueous	Benzene	8260B	790		ug/L	54
040	06742-MW-26I	Aqueous	1,2-Dichloroethane	8260B	17	J	ug/L	54
040	06742-MW-26I	Aqueous	3,3-Dimethyl-1-butanol	8260B	13	J	ug/L	54
040	06742-MW-26I	Aqueous	Ethylbenzene	8260B	29		ug/L	54
040	06742-MW-26I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	560		ug/L	54
040	06742-MW-26I	Aqueous	Naphthalene	8260B	14	J	ug/L	54
040	06742-MW-26I	Aqueous	tert-butyl alcohol (TBA)	8260B	230		ug/L	54
041	06742-MW-28DD	Aqueous	Benzene	8260B	21		ug/L	55
041	06742-MW-28DD	Aqueous	Ethylbenzene	8260B	11		ug/L	55
041	06742-MW-28DD	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	12		ug/L	55
041	06742-MW-28DD	Aqueous	Naphthalene	8260B	4.4	J	ug/L	55

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
041	06742-MW-28DD	Aqueous	Toluene	8260B	77		ug/L	55
041	06742-MW-28DD	Aqueous	Xylenes (total)	8260B	60		ug/L	55
043	06742-MW-30I	Aqueous	tert-Amyl alcohol (TAA)	8260B	460		ug/L	57
043	06742-MW-30I	Aqueous	Benzene	8260B	700		ug/L	57
043	06742-MW-30I	Aqueous	Diisopropyl ether (IPE)	8260B	18	J	ug/L	57
043	06742-MW-30I	Aqueous	Ethylbenzene	8260B	57		ug/L	57
043	06742-MW-30I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	770		ug/L	57
043	06742-MW-30I	Aqueous	Naphthalene	8260B	34	J	ug/L	57
043	06742-MW-30I	Aqueous	tert-butyl alcohol (TBA)	8260B	120	J	ug/L	57
043	06742-MW-30I	Aqueous	Toluene	8260B	51		ug/L	57
043	06742-MW-30I	Aqueous	Xylenes (total)	8260B	340		ug/L	57
043	06742-MW-30I	Aqueous	1,2-Dibromoethane (EDB)	8011	0.037		ug/L	57
044	06742-MW-31D	Aqueous	tert-Amyl alcohol (TAA)	8260B	1100		ug/L	58
044	06742-MW-31D	Aqueous	tert-Amyl methyl ether (TAME)	8260B	7.2	J	ug/L	58
044	06742-MW-31D	Aqueous	Benzene	8260B	97		ug/L	58
044	06742-MW-31D	Aqueous	Diisopropyl ether (IPE)	8260B	11	J	ug/L	58
044	06742-MW-31D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1100		ug/L	58
044	06742-MW-31D	Aqueous	tert-butyl alcohol (TBA)	8260B	250		ug/L	58
044	06742-MW-31D	Aqueous	Toluene	8260B	17	J	ug/L	58
044	06742-MW-31D	Aqueous	Xylenes (total)	8260B	28		ug/L	58
045	06742-MW-32	Aqueous	tert-Amyl alcohol (TAA)	8260B	620		ug/L	59
045	06742-MW-32	Aqueous	Benzene	8260B	20	J	ug/L	59
045	06742-MW-32	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	180		ug/L	59
046	06742-MW-33I	Aqueous	tert-Amyl alcohol (TAA)	8260B	3800		ug/L	60
046	06742-MW-33I	Aqueous	tert-Amyl methyl ether (TAME)	8260B	2.3	J	ug/L	60
046	06742-MW-33I	Aqueous	Benzene	8260B	2500		ug/L	60
046	06742-MW-33I	Aqueous	Diisopropyl ether (IPE)	8260B	0.83	J	ug/L	60
046	06742-MW-33I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	380		ug/L	60
046	06742-MW-33I	Aqueous	Naphthalene	8260B	17		ug/L	60
046	06742-MW-33I	Aqueous	tert-butyl alcohol (TBA)	8260B	350		ug/L	60
046	06742-MW-33I	Aqueous	Toluene	8260B	2.7	J	ug/L	60
046	06742-MW-33I	Aqueous	Xylenes (total)	8260B	3.5	J	ug/L	60
047	06742-MW-34D	Aqueous	tert-Amyl alcohol (TAA)	8260B	2600		ug/L	61
047	06742-MW-34D	Aqueous	tert-Amyl methyl ether (TAME)	8260B	9.0	J	ug/L	61
047	06742-MW-34D	Aqueous	Benzene	8260B	2700		ug/L	61
047	06742-MW-34D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1300		ug/L	61
047	06742-MW-34D	Aqueous	Naphthalene	8260B	54	J	ug/L	61
047	06742-MW-34D	Aqueous	tert-butyl alcohol (TBA)	8260B	510		ug/L	61
047	06742-MW-34D	Aqueous	Toluene	8260B	57	J	ug/L	61
047	06742-MW-34D	Aqueous	Xylenes (total)	8260B	330		ug/L	61
048	06742-MW-35I	Aqueous	tert-Amyl alcohol (TAA)	8260B	1500		ug/L	62
048	06742-MW-35I	Aqueous	Benzene	8260B	1600		ug/L	62
048	06742-MW-35I	Aqueous	Ethylbenzene	8260B	130	J	ug/L	62
048	06742-MW-35I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	110	J	ug/L	62
049	06742-MW-36D	Aqueous	tert-Amyl alcohol (TAA)	8260B	2800		ug/L	63
049	06742-MW-36D	Aqueous	Benzene	8260B	1300		ug/L	63
049	06742-MW-36D	Aqueous	Ethylbenzene	8260B	65	J	ug/L	63
049	06742-MW-36D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	820		ug/L	63

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
049	06742-MW-36D	Aqueous	tert-butyl alcohol (TBA)	8260B	410		ug/L	63
049	06742-MW-36D	Aqueous	Xylenes (total)	8260B	50	J	ug/L	63
050	06742-MW-37DD	Aqueous	Benzene	8260B	3.8	J	ug/L	64
050	06742-MW-37DD	Aqueous	Ethylbenzene	8260B	3.1	J	ug/L	64
050	06742-MW-37DD	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1.6	J	ug/L	64
050	06742-MW-37DD	Aqueous	Toluene	8260B	22		ug/L	64
050	06742-MW-37DD	Aqueous	Xylenes (total)	8260B	17		ug/L	64
051	06742-MW-38	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	0.58	J	ug/L	65
052	06742-MW-39I	Aqueous	tert-Amyl alcohol (TAA)	8260B	2500		ug/L	66
052	06742-MW-39I	Aqueous	tert-Amyl methyl ether (TAME)	8260B	8.4	J	ug/L	66
052	06742-MW-39I	Aqueous	Benzene	8260B	36	J	ug/L	66
052	06742-MW-39I	Aqueous	Ethylbenzene	8260B	29	J	ug/L	66
052	06742-MW-39I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1000		ug/L	66
052	06742-MW-39I	Aqueous	Naphthalene	8260B	24	J	ug/L	66
052	06742-MW-39I	Aqueous	tert-butyl alcohol (TBA)	8260B	420		ug/L	66
052	06742-MW-39I	Aqueous	Toluene	8260B	40	J	ug/L	66
052	06742-MW-39I	Aqueous	Xylenes (total)	8260B	54		ug/L	66
053	06742-MW-40D	Aqueous	tert-Amyl alcohol (TAA)	8260B	270		ug/L	67
053	06742-MW-40D	Aqueous	tert-Amyl methyl ether (TAME)	8260B	6.7	J	ug/L	67
053	06742-MW-40D	Aqueous	Benzene	8260B	96		ug/L	67
053	06742-MW-40D	Aqueous	Diisopropyl ether (IPE)	8260B	3.9	J	ug/L	67
053	06742-MW-40D	Aqueous	Ethylbenzene	8260B	41		ug/L	67
053	06742-MW-40D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	850		ug/L	67
053	06742-MW-40D	Aqueous	Naphthalene	8260B	18	J	ug/L	67
053	06742-MW-40D	Aqueous	tert-butyl alcohol (TBA)	8260B	81	J	ug/L	67
053	06742-MW-40D	Aqueous	Toluene	8260B	370		ug/L	67
053	06742-MW-40D	Aqueous	Xylenes (total)	8260B	200		ug/L	67
053	06742-MW-40D	Aqueous	1,2-Dibromoethane (EDB)	8011	0.029		ug/L	67
055	06742-MW-42D	Aqueous	Benzene	8260B	3.3	J	ug/L	69
055	06742-MW-42D	Aqueous	Ethylbenzene	8260B	3.5	J	ug/L	69
055	06742-MW-42D	Aqueous	Naphthalene	8260B	2.9	J	ug/L	69
055	06742-MW-42D	Aqueous	Toluene	8260B	6.8		ug/L	69
055	06742-MW-42D	Aqueous	Xylenes (total)	8260B	8.0		ug/L	69
056	06742-MW-43	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	0.96	J	ug/L	70
057	06742-MW-44I	Aqueous	Benzene	8260B	2.6	J	ug/L	71
058	06742-MW-46	Aqueous	tert-Amyl methyl ether (TAME)	8260B	6.0	J	ug/L	72
058	06742-MW-46	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	540		ug/L	72
060	06742-MW-49	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	4.9	J	ug/L	74
061	06742-MW-52	Aqueous	tert-Amyl alcohol (TAA)	8260B	4100		ug/L	75
061	06742-MW-52	Aqueous	Benzene	8260B	3000		ug/L	75
061	06742-MW-52	Aqueous	Ethylbenzene	8260B	1700		ug/L	75
061	06742-MW-52	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	84	J	ug/L	75
061	06742-MW-52	Aqueous	Naphthalene	8260B	470	J	ug/L	75
061	06742-MW-52	Aqueous	Toluene	8260B	11000		ug/L	75
061	06742-MW-52	Aqueous	Xylenes (total)	8260B	7200		ug/L	75
061	06742-MW-52	Aqueous	1,2-Dibromoethane (EDB)	8011	0.16	P	ug/L	75
063	06742-MW-54	Aqueous	Benzene	8260B	28000		ug/L	77
063	06742-MW-54	Aqueous	Ethylbenzene	8260B	4600		ug/L	77

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
063	06742-MW-54	Aqueous	Toluene	8260B	62000		ug/L	77
063	06742-MW-54	Aqueous	Xylenes (total)	8260B	24000		ug/L	77
063	06742-MW-54	Aqueous	1,2-Dibromoethane (EDB)	8011	3.9		ug/L	77
065	06742-MW-57I	Aqueous	Benzene	8260B	58		ug/L	79
065	06742-MW-57I	Aqueous	Ethylbenzene	8260B	31		ug/L	79
065	06742-MW-57I	Aqueous	Naphthalene	8260B	16	J	ug/L	79
065	06742-MW-57I	Aqueous	Toluene	8260B	210		ug/L	79
065	06742-MW-57I	Aqueous	Xylenes (total)	8260B	150		ug/L	79
067	06742-MW-59	Aqueous	tert-Amyl alcohol (TAA)	8260B	41		ug/L	81
067	06742-MW-59	Aqueous	tert-Amyl methyl ether (TAME)	8260B	0.54	J	ug/L	81
067	06742-MW-59	Aqueous	Benzene	8260B	2.5	J	ug/L	81
067	06742-MW-59	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	89		ug/L	81
067	06742-MW-59	Aqueous	tert-butyl alcohol (TBA)	8260B	11	J	ug/L	81
068	06742-MW-61	Aqueous	tert-Amyl alcohol (TAA)	8260B	2300	J	ug/L	82
068	06742-MW-61	Aqueous	Benzene	8260B	7900		ug/L	82
068	06742-MW-61	Aqueous	Diisopropyl ether (IPE)	8260B	110	J	ug/L	82
068	06742-MW-61	Aqueous	Ethylbenzene	8260B	1700		ug/L	82
068	06742-MW-61	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	5200		ug/L	82
068	06742-MW-61	Aqueous	Naphthalene	8260B	340	J	ug/L	82
068	06742-MW-61	Aqueous	Toluene	8260B	17000		ug/L	82
068	06742-MW-61	Aqueous	Xylenes (total)	8260B	8900		ug/L	82
068	06742-MW-61	Aqueous	1,2-Dibromoethane (EDB)	8011	1.8		ug/L	82
069	06742-MW-62	Aqueous	Benzene	8260B	17000		ug/L	83
069	06742-MW-62	Aqueous	Ethylbenzene	8260B	4700		ug/L	83
069	06742-MW-62	Aqueous	Naphthalene	8260B	1600	J	ug/L	83
069	06742-MW-62	Aqueous	Toluene	8260B	56000		ug/L	83
069	06742-MW-62	Aqueous	Xylenes (total)	8260B	22000		ug/L	83
069	06742-MW-62	Aqueous	1,2-Dibromoethane (EDB)	8011	2.1		ug/L	83
070	06742-MW-63	Aqueous	tert-Amyl alcohol (TAA)	8260B	1800	J	ug/L	84
070	06742-MW-63	Aqueous	Benzene	8260B	8300		ug/L	84
070	06742-MW-63	Aqueous	1,2-Dichloroethane	8260B	180	J	ug/L	84
070	06742-MW-63	Aqueous	Ethylbenzene	8260B	4000		ug/L	84
070	06742-MW-63	Aqueous	Naphthalene	8260B	650	J	ug/L	84
070	06742-MW-63	Aqueous	Toluene	8260B	45000		ug/L	84
070	06742-MW-63	Aqueous	Xylenes (total)	8260B	21000		ug/L	84
070	06742-MW-63	Aqueous	1,2-Dibromoethane (EDB)	8011	0.96		ug/L	84
071	06742-MW-64	Aqueous	tert-Amyl alcohol (TAA)	8260B	7800	J	ug/L	85
071	06742-MW-64	Aqueous	tert-Amyl methyl ether (TAME)	8260B	340	J	ug/L	85
071	06742-MW-64	Aqueous	Benzene	8260B	41000		ug/L	85
071	06742-MW-64	Aqueous	1,2-Dichloroethane	8260B	870	J	ug/L	85
071	06742-MW-64	Aqueous	Diisopropyl ether (IPE)	8260B	520	J	ug/L	85
071	06742-MW-64	Aqueous	Ethylbenzene	8260B	4400		ug/L	85
071	06742-MW-64	Aqueous	Toluene	8260B	65000		ug/L	85
071	06742-MW-64	Aqueous	Xylenes (total)	8260B	23000		ug/L	85
071	06742-MW-64	Aqueous	1,2-Dibromoethane (EDB)	8011	9.0		ug/L	85
072	06742-MW-65	Aqueous	tert-Amyl alcohol (TAA)	8260B	17000		ug/L	86
072	06742-MW-65	Aqueous	Benzene	8260B	16000		ug/L	86
072	06742-MW-65	Aqueous	Ethylbenzene	8260B	2500		ug/L	86

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
072	06742-MW-65	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	4400		ug/L	86
072	06742-MW-65	Aqueous	Naphthalene	8260B	650	J	ug/L	86
072	06742-MW-65	Aqueous	tert-butyl alcohol (TBA)	8260B	1300	J	ug/L	86
072	06742-MW-65	Aqueous	Toluene	8260B	32000		ug/L	86
072	06742-MW-65	Aqueous	Xylenes (total)	8260B	13000		ug/L	86
072	06742-MW-65	Aqueous	1,2-Dibromoethane (EDB)	8011	0.46		ug/L	86
073	06742-MW-66	Aqueous	tert-Amyl alcohol (TAA)	8260B	6400		ug/L	87
073	06742-MW-66	Aqueous	Benzene	8260B	8000		ug/L	87
073	06742-MW-66	Aqueous	Ethylbenzene	8260B	2500		ug/L	87
073	06742-MW-66	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	4300		ug/L	87
073	06742-MW-66	Aqueous	Naphthalene	8260B	820	J	ug/L	87
073	06742-MW-66	Aqueous	Toluene	8260B	30000		ug/L	87
073	06742-MW-66	Aqueous	Xylenes (total)	8260B	16000		ug/L	87
073	06742-MW-66	Aqueous	1,2-Dibromoethane (EDB)	8011	0.20		ug/L	87
074	06742-MW-67	Aqueous	tert-Amyl alcohol (TAA)	8260B	25000		ug/L	88
074	06742-MW-67	Aqueous	Benzene	8260B	25000		ug/L	88
074	06742-MW-67	Aqueous	Ethylbenzene	8260B	3300		ug/L	88
074	06742-MW-67	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	26000		ug/L	88
074	06742-MW-67	Aqueous	Naphthalene	8260B	810	J	ug/L	88
074	06742-MW-67	Aqueous	tert-butyl alcohol (TBA)	8260B	3500	J	ug/L	88
074	06742-MW-67	Aqueous	Toluene	8260B	39000		ug/L	88
074	06742-MW-67	Aqueous	Xylenes (total)	8260B	17000		ug/L	88
074	06742-MW-67	Aqueous	1,2-Dibromoethane (EDB)	8011	0.58		ug/L	88
075	06742-MW-68	Aqueous	Benzene	8260B	43000		ug/L	89
075	06742-MW-68	Aqueous	Ethylbenzene	8260B	5200	J	ug/L	89
075	06742-MW-68	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	8100	J	ug/L	89
075	06742-MW-68	Aqueous	Toluene	8260B	77000		ug/L	89
075	06742-MW-68	Aqueous	Xylenes (total)	8260B	27000		ug/L	89
075	06742-MW-68	Aqueous	1,2-Dibromoethane (EDB)	8011	13		ug/L	89
076	06742-MW-69	Aqueous	tert-Amyl alcohol (TAA)	8260B	8300		ug/L	90
076	06742-MW-69	Aqueous	tert-Amyl methyl ether (TAME)	8260B	52	J	ug/L	90
076	06742-MW-69	Aqueous	Benzene	8260B	18000		ug/L	90
076	06742-MW-69	Aqueous	1,2-Dichloroethane	8260B	390	J	ug/L	90
076	06742-MW-69	Aqueous	Diisopropyl ether (IPE)	8260B	81	J	ug/L	90
076	06742-MW-69	Aqueous	Ethylbenzene	8260B	3700		ug/L	90
076	06742-MW-69	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2700		ug/L	90
076	06742-MW-69	Aqueous	Naphthalene	8260B	780	J	ug/L	90
076	06742-MW-69	Aqueous	Toluene	8260B	39000		ug/L	90
076	06742-MW-69	Aqueous	Xylenes (total)	8260B	21000		ug/L	90
076	06742-MW-69	Aqueous	1,2-Dibromoethane (EDB)	8011	2.7		ug/L	90
077	06742-MW-70	Aqueous	tert-Amyl alcohol (TAA)	8260B	65000		ug/L	91
077	06742-MW-70	Aqueous	tert-Amyl methyl ether (TAME)	8260B	87	J	ug/L	91
077	06742-MW-70	Aqueous	Benzene	8260B	19000		ug/L	91
077	06742-MW-70	Aqueous	Ethylbenzene	8260B	2900		ug/L	91
077	06742-MW-70	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	30000		ug/L	91
077	06742-MW-70	Aqueous	Naphthalene	8260B	870	J	ug/L	91
077	06742-MW-70	Aqueous	tert-butyl alcohol (TBA)	8260B	7500		ug/L	91
077	06742-MW-70	Aqueous	Toluene	8260B	30000		ug/L	91

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
077	06742-MW-70	Aqueous	Xylenes (total)	8260B	15000		ug/L	91
077	06742-MW-70	Aqueous	1,2-Dibromoethane (EDB)	8011	0.95		ug/L	91
078	SW-1	Aqueous	tert-Amyl alcohol (TAA)	8260B	280		ug/L	92
078	SW-1	Aqueous	tert-Amyl methyl ether (TAME)	8260B	1.4	J	ug/L	92
078	SW-1	Aqueous	Benzene	8260B	2.6	J	ug/L	92
078	SW-1	Aqueous	Diisopropyl ether (IPE)	8260B	0.60	J	ug/L	92
078	SW-1	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	210		ug/L	92
078	SW-1	Aqueous	tert-butyl alcohol (TBA)	8260B	62		ug/L	92

(437 detections)

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MWR-1
Date Sampled: 08/13/2013 1305
Date Received: 08/16/2013

Laboratory ID: OH17005-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 0422	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**73000**		**10000**	**3400**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**180**	**J**	**5000**	**100**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**38000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3500**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**45000**		**2500**	**200**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**1000**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**10000**		**10000**	**3400**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**48000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**19000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		119	70-130
Bromofluorobenzene		123	70-130
Toluene-d8		124	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	2	08/22/2013 1856	AMY	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**1.5**		**0.039**	**0.039**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		114	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-002
Description: 06742-MWR-1A
Matrix: Aqueous
Date Sampled: 08/13/2013 1020
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/26/2013 1858	RGB		27965
2	5030B	8260B	2000	08/27/2013 1201	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**66000**		**10000**	**3400**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**1400**	**J**	**5000**	**100**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**38000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**1800**	**J**	**2500**	**200**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3300**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**250000**		**10000**	**800**	**ug/L**	**2**
Naphthalene	**91-20-3**	**8260B**	**1000**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**13000**		**10000**	**3400**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**63000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**30000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130		113	70-130
Bromofluorobenzene		97	70-130		118	70-130
Toluene-d8		101	70-130		118	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	20	08/22/2013 1917	AMY	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**9.9**		**0.39**	**0.39**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-003
Description: 06742-MWR-1A DUP
Matrix: Aqueous
Date Sampled: 08/13/2013 1022
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 0444	TAF		28086
2	5030B	8260B	2000	08/27/2013 1222	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**70000**		**10000**	**3400**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**1700**	**J**	**5000**	**100**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**44000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**2100**	**J**	**2500**	**200**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	**624-95-3**	**8260B**	**1200**	**J**	**10000**	**500**	**ug/L**	**1**
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3700**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**270000**		**10000**	**800**	**ug/L**	**2**
Naphthalene	**91-20-3**	**8260B**	**1100**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**13000**		**10000**	**3400**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**66000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**33000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		119	70-130		115	70-130
Bromofluorobenzene		124	70-130		119	70-130
Toluene-d8		121	70-130		116	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	20	08/22/2013 1730	AMY	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**12**		**0.39**	**0.39**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		67	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-004
Description: 06742-MW-1X
Matrix: Aqueous
Date Sampled: 08/13/2013 1601
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/26/2013 2338	TAF		28086
2	5030B	8260B	5	08/27/2013 1055	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**0.31**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**77**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**33**		**5.0**	**1.7**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**11**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**18**		**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	**108-88-3**	**8260B**	**130**		**25**	**8.5**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**180**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130		107	70-130
Bromofluorobenzene		116	70-130		110	70-130
Toluene-d8		116	70-130		111	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 1942	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		75	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-2
Date Sampled: 08/15/2013 1425
Date Received: 08/16/2013

Laboratory ID: OH17005-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/28/2013 1228	AAC		28291

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**23**		**20**	**6.7**	**ug/L**	**2**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
Benzene	**71-43-2**	**8260B**	**0.49**	**J**	**5.0**	**0.20**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND		100	33	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	2
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**13**	**J**	**20**	**6.7**	**ug/L**	**2**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2003	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		97	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MWR-2
Date Sampled: 08/13/2013 1345
Date Received: 08/16/2013

Laboratory ID: OH17005-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	08/27/2013 0227	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**140**	**J**	**200**	**67**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		100	2.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**7.2**	**J**	**50**	**2.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		50	10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		50	4.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		200	10	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	330	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	4.0	ug/L	1
Naphthalene	91-20-3	8260B	ND		50	17	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		200	67	ug/L	1
Toluene	**108-88-3**	**8260B**	**19**	**J**	**50**	**17**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**38**	**J**	**50**	**17**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		115	70-130
Toluene-d8		115	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2024	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		97	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc. | Laboratory ID: OH17005-007
Description: 06742-MW-2X | Matrix: Aqueous
Date Sampled: 08/15/2013 1410
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/28/2013 0406	TAF		28203

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	3400	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**24000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**510**	**J**	**2500**	**150**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2600**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**3400**		**2500**	**200**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		2500	850	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**41000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**15000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		110	70-130
Toluene-d8		111	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	2	08/22/2013 1752	AMY	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.92**		**0.039**	**0.039**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time
ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MWR-3
Date Sampled: 08/13/2013 1410
Date Received: 08/16/2013

Laboratory ID: OH17005-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/26/2013 2359	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		115	70-130
Toluene-d8		115	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2107	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-009
Description: 06742-MW-4
Matrix: Aqueous
Date Sampled: 08/14/2013 1135
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/27/2013 1733	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**15000**		**2000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**20**	**J**	**1000**	**20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**8500**		**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	100	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**180**	**J**	**500**	**30**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	3300	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**650**		**500**	**170**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**8300**		**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**300**	**J**	**500**	**170**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**3200**		**2000**	**670**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**4900**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**4600**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		108	70-130
Bromofluorobenzene		111	70-130
Toluene-d8		113	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2128	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.13**		**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MWR-4
Date Sampled: 08/13/2013 1615
Date Received: 08/16/2013

Laboratory ID: OH17005-010
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 0512	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**36000**		**10000**	**3400**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**28000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3500**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**7100**		**2500**	**200**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**1200**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**43000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**20000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		118	70-130
Toluene-d8		118	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2149	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.81**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MWR-4DUP
Date Sampled: 08/13/2013 1616
Date Received: 08/16/2013

Laboratory ID: OH17005-011
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 0533	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**38000**		**10000**	**3400**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**29000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3500**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**7100**		**2500**	**200**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**1100**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**44000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**20000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		117	70-130
Bromofluorobenzene		118	70-130
Toluene-d8		120	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2210	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.80**		**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		131	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MWR-4R
Date Sampled: 08/13/2013 1535
Date Received: 08/16/2013

Laboratory ID: OH17005-012
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/27/2013 0319	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**19000**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**13000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2400**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**540**	**J**	**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**820**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1400**	**J**	**4000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**24000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**14000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		116	70-130
Bromofluorobenzene		121	70-130
Toluene-d8		120	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2231	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.41**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		126	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-5
Date Sampled: 08/14/2013 1357
Date Received: 08/16/2013

Laboratory ID: OH17005-013
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1445	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		119	70-130
Toluene-d8		118	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2252	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.024	0.024	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		75	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-014
Description: 06742-MW-6
Matrix: Aqueous
Date Sampled: 08/13/2013 1445
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/27/2013 0340	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1400**	**J**	**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**5000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**470**	**J**	**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1000	80	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**350**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**9200**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**7200**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	70-130
Bromofluorobenzene		119	70-130
Toluene-d8		119	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2313	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		106	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-015
Description: 06742-MW-6 DUP
Matrix: Aqueous
Date Sampled: 08/13/2013 1446
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/27/2013 0401	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1500**	**J**	**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**4700**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**450**	**J**	**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1000	80	ug/L	1
Naphthalene	91-20-3	8260B	ND		1000	340	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**8600**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**6700**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		113	70-130
Toluene-d8		113	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2334	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		122	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-016
Description: 06742-MW-6X
Matrix: Aqueous
Date Sampled: 08/15/2013 1340
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0355	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**11000**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**16000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2300**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**270**	**J**	**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**610**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**34000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**13000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0840	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.56**		**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		128	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-017
Description: 06742-MW-7
Matrix: Aqueous
Date Sampled: 08/13/2013 1130
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 0553	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	3400	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**1300**	**J**	**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**4600**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		2500	200	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**1500**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**7700**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**31000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		108	70-130
Bromofluorobenzene		114	70-130
Toluene-d8		112	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0901	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		136	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-018
Description: 06742-MW-7 DUP
Matrix: Aqueous
Date Sampled: 08/13/2013 1131
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 0614	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	3400	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**1500**	**J**	**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3400**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		2500	200	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**1200**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**6400**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**25000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	70-130
Bromofluorobenzene		116	70-130
Toluene-d8		116	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0922	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-7R**
Date Sampled: **08/13/2013 1230**
Date Received: **08/16/2013**

Laboratory ID: **OH17005-019**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/26/2013 1702	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		2000	670	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
Benzene	**71-43-2**	**8260B**	**270**	**J**	**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	100	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	3300	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2000**		**500**	**170**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		500	40	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**610**		**500**	**170**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		2000	670	ug/L	1
Toluene	**108-88-3**	**8260B**	**5700**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**11000**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0943	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-9
Date Sampled: 08/13/2013 1231
Date Received: 08/16/2013

Laboratory ID: OH17005-020
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/27/2013 1138	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND		100	33	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	2
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		111	70-130
Toluene-d8		108	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1004	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		84	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-021
Description: 06742-MW-9R
Matrix: Aqueous
Date Sampled: 08/13/2013 1304
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/27/2013 1117	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND		100	33	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	2
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		115	70-130
Toluene-d8		113	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1108	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		86	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-11**
Date Sampled: **08/14/2013 1123**
Date Received: **08/16/2013**

Laboratory ID: OH17005-022
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/28/2013 1048	ALL		28289

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**170**		**20**	**6.7**	**ug/L**	**2**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
Benzene	**71-43-2**	**8260B**	**13**		**5.0**	**0.20**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND		100	33	ug/L	2
Ethylbenzene	**100-41-4**	**8260B**	**7.2**		**5.0**	**1.7**	**ug/L**	**2**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
Naphthalene	**91-20-3**	**8260B**	**9.4**		**5.0**	**1.7**	**ug/L**	**2**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**120**		**20**	**6.7**	**ug/L**	**2**
Toluene	**108-88-3**	**8260B**	**22**		**5.0**	**1.7**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**110**		**5.0**	**1.7**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		122	70-130
Bromofluorobenzene		125	70-130
Toluene-d8		125	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1129	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		85	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MWR-11**
Date Sampled: **08/14/2013 1056**
Date Received: **08/16/2013**

Laboratory ID: **OH17005-023**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	08/27/2013 1652	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		1000	340	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		500	10	ug/L	1
Benzene	**71-43-2**	**8260B**	**10**	**J**	**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		250	20	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	1700	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**360**		**250**	**85**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	10	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		250	20	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**340**		**250**	**85**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		1000	340	ug/L	1
Toluene	**108-88-3**	**8260B**	**120**	**J**	**250**	**85**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**2500**		**250**	**85**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		122	70-130
Bromofluorobenzene		122	70-130
Toluene-d8		123	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1150	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		117	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-12**
Date Sampled: **08/14/2013 1454**
Date Received: **08/16/2013**

Laboratory ID: **OH17005-024**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1354	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	70-130
Bromofluorobenzene		119	70-130
Toluene-d8		119	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1211	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		86	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-13R
Date Sampled: 08/14/2013 1025
Date Received: 08/16/2013

Laboratory ID: OH17005-025
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	08/27/2013 1712	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**7500**		**1000**	**340**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**13**	**J**	**500**	**10**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**3500**		**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	50	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**75**	**J**	**250**	**15**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		250	20	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	1700	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**240**	**J**	**250**	**85**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	10	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2500**		**250**	**20**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**100**	**J**	**250**	**85**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1000**		**1000**	**340**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**160**	**J**	**250**	**85**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**240**	**J**	**250**	**85**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		120	70-130
Bromofluorobenzene		122	70-130
Toluene-d8		122	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1232	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		121	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-14R
Date Sampled: 08/14/2013 1251
Date Received: 08/16/2013

Laboratory ID: OH17005-026
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1415	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		112	70-130
Toluene-d8		109	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1254	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		90	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-14R2**
Date Sampled: **08/14/2013 1245**
Date Received: **08/16/2013**

Laboratory ID: **OH17005-027**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/27/2013 1549	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		400	130	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		200	4.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**110**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**400**		**100**	**34**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	8.0	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**250**		**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		400	130	ug/L	1
Toluene	**108-88-3**	**8260B**	**580**		**100**	**34**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**2400**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		126	70-130
Bromofluorobenzene		127	70-130
Toluene-d8		130	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1315	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		107	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-15R**
Date Sampled: **08/13/2013 1610**
Date Received: **08/16/2013**

Laboratory ID: **OH17005-028**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	08/26/2013 1639	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		200	67	ug/L	1
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**18**	**J**	**100**	**2.0**	**ug/L**	**1**
Benzene	71-43-2	8260B	ND		50	2.0	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		50	10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		50	4.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		200	10	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	330	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1700**		**50**	**4.0**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		50	17	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		200	67	ug/L	1
Toluene	108-88-3	8260B	ND		50	17	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		97	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1336	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		88	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-16DD**
Date Sampled: **08/13/2013 1100**
Date Received: **08/16/2013**

Laboratory ID: OH17005-029
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/26/2013 1552	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	34	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**65**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	2.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	**64-17-5**	**8260B**	**310**	**J**	**500**	**170**	**ug/L**	**1**
Ethylbenzene	**100-41-4**	**8260B**	**37**		**25**	**8.5**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**23**	**J**	**25**	**2.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**9.2**	**J**	**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	34	ug/L	1
Toluene	**108-88-3**	**8260B**	**190**		**25**	**8.5**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**200**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1357	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		114	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-17I**
Date Sampled: **08/13/2013 1335**
Date Received: **08/16/2013**

Laboratory ID: OH17005-030
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/26/2013 1725	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**3900**		**2000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
Benzene	**71-43-2**	**8260B**	**5800**		**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	100	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	3300	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2000**		**500**	**170**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**350**	**J**	**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**500**		**500**	**170**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		2000	670	ug/L	1
Toluene	**108-88-3**	**8260B**	**16000**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**11000**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1419	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.025	0.025	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane	N	179	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-18D
Date Sampled: 08/14/2013 1350
Date Received: 08/16/2013

Laboratory ID: OH17005-031
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/27/2013 1610	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**550**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		200	4.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**730**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**16**	**J**	**100**	**6.0**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**220**		**100**	**34**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**42**	**J**	**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**100**		**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		400	130	ug/L	1
Toluene	**108-88-3**	**8260B**	**560**		**100**	**34**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**1500**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	70-130
Bromofluorobenzene		115	70-130
Toluene-d8		119	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1440	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		116	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-19I
Date Sampled: 08/15/2013 0910
Date Received: 08/16/2013

Laboratory ID: OH17005-032
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0418	TAF		28205
2	5030B	8260B	500	08/29/2013 0909	TAF		28304

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**37000**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**310**	**J**	**2000**	**40**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**26000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2400**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**19000**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**490**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**4400**		**4000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**37000**		**2500**	**850**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**14000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		98	70-130		102	70-130
Bromofluorobenzene		100	70-130		100	70-130
Toluene-d8		101	70-130		103	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	10	08/22/2013 2000	AMY	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**6.3**		**0.19**	**0.19**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,1,1,2-Tetrachloroethane		102	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-033
Description: **06742-MW-20D**
Matrix: **Aqueous**
Date Sampled: **08/15/2013 1045**
Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/28/2013 0158	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1200**		**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**7.3**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**270**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**12**	**J**	**25**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**470**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**8.6**	**J**	**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**220**		**100**	**34**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1522	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-034
Description: 06742-MW-21I
Matrix: Aqueous
Date Sampled: 08/15/2013 0945
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0441	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**6800**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**130**	**J**	**2000**	**40**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**6400**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**260**	**J**	**1000**	**80**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**540**	**J**	**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**21000**		**1000**	**80**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		1000	340	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1400**	**J**	**4000**	**1300**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		1000	340	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**2200**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1544	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.091**	**P**	**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-035
Description: 06742-MW-22D
Matrix: Aqueous
Date Sampled: 08/15/2013 1058
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 2316	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2.1**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1605	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		84	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc. Laboratory ID: OH17005-036

Description: **06742-MW-23** Matrix: **Aqueous**

Date Sampled: **08/13/2013 0945**

Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/24/2013 1518	RGB		27954

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1625	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-24
Date Sampled: 08/13/2013 0940
Date Received: 08/16/2013

Laboratory ID: OH17005-037
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/24/2013 1540	RGB		27954

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**20**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**76**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**2.2**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**5.4**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**9.4**	**J**	**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**15**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1646	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-038
Description: 06742-MW-25
Matrix: Aqueous
Date Sampled: 08/13/2013 1025
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/24/2013 1707	RGB		27954

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1900**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**36**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**3300**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**78**	**J**	**100**	**8.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2100**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**51**	**J**	**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**220**	**J**	**400**	**130**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**420**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1708	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		75	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-25 DUP
Date Sampled: 08/13/2013 1026
Date Received: 08/16/2013

Laboratory ID: OH17005-039
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/26/2013 1921	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2600**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**36**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**3300**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**78**	**J**	**100**	**8.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1700**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**58**	**J**	**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**250**	**J**	**400**	**130**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**420**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1729	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		76	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-26I
Date Sampled: 08/14/2013 1620
Date Received: 08/16/2013

Laboratory ID: OH17005-040
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/28/2013 0113	TAF		28203

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1100**		**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**2.0**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**790**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**17**	**J**	**25**	**1.5**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	2.0	ug/L	1
3,3-Dimethyl-1-butanol	**624-95-3**	**8260B**	**13**	**J**	**100**	**5.0**	**ug/L**	**1**
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**29**		**25**	**8.5**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**560**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**14**	**J**	**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**230**		**100**	**34**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		114	70-130
Toluene-d8		115	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1750	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.025	0.025	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		86	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-041
Description: **06742-MW-28DD**
Matrix: **Aqueous**
Date Sampled: **08/15/2013 1213**
Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 2339	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**21**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**11**		**5.0**	**1.7**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**12**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**4.4**	**J**	**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	**108-88-3**	**8260B**	**77**		**5.0**	**1.7**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**60**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1812	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		128	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-042
Description: 06742-MW-29
Matrix: Aqueous
Date Sampled: 08/14/2013 0930
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1312	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		107	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1916	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-043
Description: 06742-MW-30I
Matrix: Aqueous
Date Sampled: 08/14/2013 1612
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	08/27/2013 2103	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**460**		**200**	**67**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		100	2.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**700**		**50**	**2.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		50	10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**18**	**J**	**50**	**4.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		200	10	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	330	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**57**		**50**	**17**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**770**		**50**	**4.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**34**	**J**	**50**	**17**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**120**	**J**	**200**	**67**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**51**		**50**	**17**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**340**		**50**	**17**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		86	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1937	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.037**		**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-31D
Date Sampled: 08/15/2013 1130
Date Received: 08/16/2013

Laboratory ID: OH17005-044
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/28/2013 0222	TAF		28205
2	5030B	8260B	10	08/29/2013 0805	TAF		28304

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1100**		**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**7.2**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**97**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**11**	**J**	**25**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1100**		**50**	**4.0**	**ug/L**	**2**
Naphthalene	91-20-3	8260B	ND		25	8.5	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**250**		**100**	**34**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**17**	**J**	**25**	**8.5**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**28**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		98	70-130		98	70-130
Bromofluorobenzene		96	70-130		98	70-130
Toluene-d8		101	70-130		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1958	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-045
Description: **06742-MW-32**
Matrix: **Aqueous**
Date Sampled: **08/14/2013 1004**
Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/27/2013 1631	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**620**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		200	4.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**20**	**J**	**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**180**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		100	34	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		400	130	ug/L	1
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		100	34	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		120	70-130
Bromofluorobenzene		122	70-130
Toluene-d8		124	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2020	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-046
Description: 06742-MW-33I
Matrix: Aqueous
Date Sampled: 08/15/2013 1200
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2013 0135	TAF		28205
2	5030B	8260B	50	08/29/2013 1347	JAC		28355

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**3800**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**2.3**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**2500**		**250**	**10**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**0.83**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**380**		**250**	**20**	**ug/L**	**2**
Naphthalene	**91-20-3**	**8260B**	**17**		**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**350**		**20**	**6.7**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**2.7**	**J**	**5.0**	**1.7**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**3.5**	**J**	**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130		102	70-130
Bromofluorobenzene		98	70-130		107	70-130
Toluene-d8		98	70-130		105	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2041	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-047
Description: 06742-MW-34D
Matrix: Aqueous
Date Sampled: 08/15/2013 1054
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/28/2013 0245	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2600**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**9.0**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**2700**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1300**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**54**	**J**	**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**510**		**400**	**130**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**57**	**J**	**100**	**34**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**330**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2102	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-048
Description: 06742-MW-35I
Matrix: Aqueous
Date Sampled: 08/15/2013 1228
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	08/28/2013 0332	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1500**		**1000**	**340**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		500	10	ug/L	1
Benzene	**71-43-2**	**8260B**	**1600**		**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		250	20	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	1700	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**130**	**J**	**250**	**85**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	10	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**110**	**J**	**250**	**20**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		250	85	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		1000	340	ug/L	1
Toluene	108-88-3	8260B	ND		250	85	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		250	85	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2123	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		121	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-049
Description: 06742-MW-36D
Matrix: Aqueous
Date Sampled: 08/15/2013 1029
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/28/2013 0308	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2800**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		200	4.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**1300**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**65**	**J**	**100**	**34**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**820**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		100	34	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**410**		**400**	**130**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**50**	**J**	**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2144	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		112	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-37DD
Date Sampled: 08/15/2013 0956
Date Received: 08/16/2013

Laboratory ID: OH17005-050
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2013 0003	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**3.8**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3.1**	**J**	**5.0**	**1.7**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.6**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	**108-88-3**	**8260B**	**22**		**5.0**	**1.7**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**17**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2205	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc. Laboratory ID: OH17005-051

Description: **06742-MW-38** Matrix: **Aqueous**

Date Sampled: **08/14/2013 1325**

Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1333	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.58**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		117	70-130
Toluene-d8		114	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2226	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-39I
Date Sampled: 08/14/2013 1540
Date Received: 08/16/2013

Laboratory ID: OH17005-052
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	08/27/2013 2017	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2500**		**200**	**67**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**8.4**	**J**	**100**	**2.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**36**	**J**	**50**	**2.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		50	10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		50	4.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		200	10	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	330	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**29**	**J**	**50**	**17**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1000**		**50**	**4.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**24**	**J**	**50**	**17**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**420**		**200**	**67**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**40**	**J**	**50**	**17**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**54**		**50**	**17**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2248	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-053
Description: 06742-MW-40D
Matrix: Aqueous
Date Sampled: 08/14/2013 1621
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/27/2013 1954	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**270**		**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**6.7**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**96**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**3.9**	**J**	**25**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**41**		**25**	**8.5**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**850**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**18**	**J**	**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**81**	**J**	**100**	**34**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**370**		**25**	**8.5**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**200**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2309	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.029**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		110	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-054
Description: 06742-MW-41I
Matrix: Aqueous
Date Sampled: 08/15/2013 1225
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1710	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		84	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		87	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2330	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-055
Description: 06742-MW-42D
Matrix: Aqueous
Date Sampled: 08/15/2013 0918
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1733	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**3.3**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3.5**	**J**	**5.0**	**1.7**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**2.9**	**J**	**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	**108-88-3**	**8260B**	**6.8**		**5.0**	**1.7**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**8.0**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		83	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2351	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-43
Date Sampled: 08/14/2013 1522
Date Received: 08/16/2013

Laboratory ID: OH17005-056
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1757	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.96**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		84	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0115	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		80	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-057
Description: 06742-MW-44I
Matrix: Aqueous
Date Sampled: 08/15/2013 1255
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1821	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**2.6**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0136	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-058
Description: 06742-MW-46
Matrix: Aqueous
Date Sampled: 08/14/2013 0948
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/27/2013 1506	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	34	ug/L	1
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**6.0**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	71-43-2	8260B	ND		25	1.0	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	2.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**540**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		25	8.5	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	34	ug/L	1
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		112	70-130
Toluene-d8		112	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0157	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		96	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1811	ALL		28164

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0218	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-060
Description: 06742-MW-49
Matrix: Aqueous
Date Sampled: 08/14/2013 1520
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1834	ALL		28164

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**4.9**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		102	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0239	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-52
Date Sampled: 08/13/2013 1440
Date Received: 08/16/2013

Laboratory ID: OH17005-061
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/26/2013 1749	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**4100**		**2000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
Benzene	**71-43-2**	**8260B**	**3000**		**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	100	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	3300	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**1700**		**500**	**170**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**84**	**J**	**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**470**	**J**	**500**	**170**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		2000	670	ug/L	1
Toluene	**108-88-3**	**8260B**	**11000**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**7200**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0300	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.16**	**P**	**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		124	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-53
Date Sampled: 08/13/2013 1524
Date Received: 08/16/2013

Laboratory ID: OH17005-062
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/26/2013 1615	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		97	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0321	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-54
Date Sampled: 08/13/2013 1105
Date Received: 08/16/2013

Laboratory ID: OH17005-063
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/26/2013 1835	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	3400	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**28000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**4600**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		2500	200	ug/L	1
Naphthalene	91-20-3	8260B	ND		2500	850	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**62000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**24000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0342	AMY	08/20/2013 2125	27653
2	8011	8011	10	08/24/2013 0920	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**3.9**		**0.19**	**0.19**	**ug/L**	**2**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		109	57-137	N	257	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-064
Description: 06742-MW-55
Matrix: Aqueous
Date Sampled: 08/14/2013 1450
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1857	ALL		28164

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0404	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		85	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-065
Description: 06742-MW-57I
Matrix: Aqueous
Date Sampled: 08/14/2013 1458
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/27/2013 1932	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	34	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**58**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	2.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**31**		**25**	**8.5**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**16**	**J**	**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	34	ug/L	1
Toluene	**108-88-3**	**8260B**	**210**		**25**	**8.5**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**150**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0425	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-066
Description: 06742-MW-58
Matrix: Aqueous
Date Sampled: 08/14/2013 1330
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1846	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		86	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0528	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-59
Date Sampled: 08/14/2013 1355
Date Received: 08/16/2013

Laboratory ID: OH17005-067
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1908	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**41**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**0.54**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**2.5**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**89**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**11**	**J**	**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0549	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		96	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-068
Description: 06742-MW-61
Matrix: Aqueous
Date Sampled: 08/13/2013 1455
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/26/2013 1812	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2300**	**J**	**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**7900**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**110**	**J**	**1000**	**80**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**1700**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**5200**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**340**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**17000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**8900**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	5	08/24/2013 0941	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**1.8**		**0.096**	**0.096**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		75	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-069
Description: 06742-MW-62
Matrix: Aqueous
Date Sampled: 08/14/2013 1022
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 2040	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	3400	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**17000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**4700**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		2500	200	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**1600**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**56000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**22000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	5	08/24/2013 1002	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**2.1**		**0.097**	**0.097**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		129	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-070
Description: 06742-MW-63
Matrix: Aqueous
Date Sampled: 08/14/2013 1127
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0220	TAF		28203
2	5030B	8260B	500	08/28/2013 1110	ALL		28289

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1800**	**J**	**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**8300**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**180**	**J**	**1000**	**60**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**4000**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1000	80	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**650**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**45000**		**2500**	**850**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**21000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		107	70-130		112	70-130
Bromofluorobenzene		112	70-130		115	70-130
Toluene-d8		113	70-130		116	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0652	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.96**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits
1,1,1,2-Tetrachloroethane		104	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **OH17005-071**

Description: **06742-MW-64** Matrix: **Aqueous**

Date Sampled: **08/14/2013 1220**

Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/28/2013 0428	TAF		28203

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**7800**	**J**	**10000**	**3400**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**340**	**J**	**5000**	**100**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**41000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**870**	**J**	**2500**	**150**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**520**	**J**	**2500**	**200**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**4400**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		2500	200	ug/L	1
Naphthalene	91-20-3	8260B	ND		2500	850	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**65000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**23000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		122	70-130
Bromofluorobenzene		126	70-130
Toluene-d8		127	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	10	08/24/2013 1023	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**9.0**		**0.19**	**0.19**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-072
Description: **06742-MW-65**
Matrix: **Aqueous**
Date Sampled: **08/15/2013 1345**
Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0505	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**17000**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**16000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2500**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**4400**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**650**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1300**	**J**	**4000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**32000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**13000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0734	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.46**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		132	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-66
Date Sampled: 08/15/2013 1337
Date Received: 08/16/2013

Laboratory ID: OH17005-073
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0528	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**6400**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**8000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2500**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**4300**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**820**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**30000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**16000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0755	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.20**		**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-074
Description: 06742-MW-67
Matrix: Aqueous
Date Sampled: 08/15/2013 1402
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0551	TAF		28205
2	5030B	8260B	500	08/29/2013 0939	TAF		28304

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**25000**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**25000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3300**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**26000**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**810**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**3500**	**J**	**4000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**39000**		**2500**	**850**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**17000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130		96	70-130
Bromofluorobenzene		98	70-130		98	70-130
Toluene-d8		100	70-130		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0816	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.58**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-075
Description: **06742-MW-68**
Matrix: **Aqueous**
Date Sampled: **08/14/2013 0940**
Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	2000	08/27/2013 1754	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		40000	13000	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		20000	400	ug/L	1
Benzene	**71-43-2**	**8260B**	**43000**		**10000**	**400**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		10000	2000	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		10000	600	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10000	800	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		40000	2000	ug/L	1
Ethanol	64-17-5	8260B	ND		200000	66000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**5200**	**J**	**10000**	**3400**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		2000	400	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**8100**	**J**	**10000**	**800**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		10000	3400	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		40000	13000	ug/L	1
Toluene	**108-88-3**	**8260B**	**77000**		**10000**	**3400**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**27000**		**10000**	**3400**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		116	70-130
Toluene-d8		117	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0838	AMY	08/20/2013 2125	27653
2	8011	8011	20	08/24/2013 1044	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**13**		**0.39**	**0.39**	**ug/L**	**2**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137	N	149	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-076
Description: 06742-MW-69
Matrix: Aqueous
Date Sampled: 08/14/2013 1310
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0241	TAF		28203
2	5030B	8260B	500	08/28/2013 1131	ALL		28289

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**8300**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**52**	**J**	**2000**	**40**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**18000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**390**	**J**	**1000**	**60**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**81**	**J**	**1000**	**80**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3700**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2700**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**780**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**39000**		**2500**	**850**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**21000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		116	70-130		111	70-130
Bromofluorobenzene		118	70-130		113	70-130
Toluene-d8		121	70-130		116	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	5	08/22/2013 1813	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**2.7**		**0.097**	**0.097**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,1,1,2-Tetrachloroethane		115	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-077
Description: 06742-MW-70
Matrix: Aqueous
Date Sampled: 08/15/2013 1302
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0303	TAF		28203

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**65000**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**87**	**J**	**2000**	**40**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**19000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2900**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**30000**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**870**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**7500**		**4000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**30000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**15000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		119	70-130
Bromofluorobenzene		120	70-130
Toluene-d8		122	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	2	08/22/2013 1835	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.95**		**0.038**	**0.038**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		116	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc. Laboratory ID: OH17005-078

Description: SW-1 Matrix: Aqueous

Date Sampled: 08/14/2013 1540

Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1539	JAC		28193
2	5030B	8260B	5	08/28/2013 1417	AAC		28286

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**280**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**1.4**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**2.6**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**0.60**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**210**		**25**	**2.0**	**ug/L**	**2**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**62**		**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130		88	70-130
Bromofluorobenzene		89	70-130		87	70-130
Toluene-d8		90	70-130		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0305	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: FIELD BLANK 1
Date Sampled: 08/13/2013 1630
Date Received: 08/16/2013

Laboratory ID: OH17005-079
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/24/2013 1456	RGB		27954

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0327	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: FIELD BLANK 2
Date Sampled: 08/14/2013 1630
Date Received: 08/16/2013

Laboratory ID: OH17005-080
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1406	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		87	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0348	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		103	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: FIELD BLANK 3
Date Sampled: 08/15/2013 1500
Date Received: 08/16/2013

Laboratory ID: OH17005-081
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1429	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		86	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0409	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-082
Description: **Trip Blank 1**
Matrix: **Aqueous**
Date Sampled: **08/14/2013 1500**
Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1451	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0430	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-083
Description: Trip Blank 2
Matrix: Aqueous
Date Sampled: 08/14/2013 1500
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1516	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		87	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0451	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ27954-001
Batch: 27954
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/24/2013 1202
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/24/2013 1202
Benzene	ND		1	5.0	0.20	ug/L	08/24/2013 1202
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/24/2013 1202
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/24/2013 1202
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/24/2013 1202
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/24/2013 1202
Ethanol	ND		1	100	33	ug/L	08/24/2013 1202
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/24/2013 1202
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/24/2013 1202
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/24/2013 1202
Naphthalene	ND		1	5.0	1.7	ug/L	08/24/2013 1202
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/24/2013 1202
Toluene	ND		1	5.0	1.7	ug/L	08/24/2013 1202
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/24/2013 1202

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ27954-002
Batch: 27954
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	900		1	90	70-130	08/24/2013 1033
tert-Amyl methyl ether (TAME)	50	51		1	102	70-130	08/24/2013 1033
Benzene	50	49		1	98	70-130	08/24/2013 1033
tert-Butyl formate (TBF)	250	220		1	88	70-130	08/24/2013 1033
1,2-Dichloroethane	50	51		1	101	70-130	08/24/2013 1033
Diisopropyl ether (IPE)	50	50		1	101	70-130	08/24/2013 1033
3,3-Dimethyl-1-butanol	1000	870		1	87	70-130	08/24/2013 1033
Ethanol	5000	5800		1	116	70-130	08/24/2013 1033
Ethylbenzene	50	51		1	102	70-130	08/24/2013 1033
Ethyl-tert-butyl ether (ETBE)	50	56		1	113	70-130	08/24/2013 1033
Methyl tertiary butyl ether (MTBE)	50	54		1	108	70-130	08/24/2013 1033
Naphthalene	50	49		1	98	70-130	08/24/2013 1033
tert-butyl alcohol (TBA)	1000	1000		1	100	70-130	08/24/2013 1033
Toluene	50	50		1	101	70-130	08/24/2013 1033
Xylenes (total)	100	100		1	102	70-130	08/24/2013 1033

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ27954-003
Batch: 27954
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	920		1	92	1.7	70-130	20	08/24/2013 1055
tert-Amyl methyl ether (TAME)	50	53		1	106	3.3	70-130	20	08/24/2013 1055
Benzene	50	51		1	102	4.3	70-130	20	08/24/2013 1055
tert-Butyl formate (TBF)	250	230		1	92	4.3	70-130	20	08/24/2013 1055
1,2-Dichloroethane	50	52		1	103	1.9	70-130	20	08/24/2013 1055
Diisopropyl ether (IPE)	50	52		1	103	2.8	70-130	20	08/24/2013 1055
3,3-Dimethyl-1-butanol	1000	930		1	93	6.0	70-130	20	08/24/2013 1055
Ethanol	5000	6300		1	125	7.9	70-130	20	08/24/2013 1055
Ethylbenzene	50	52		1	103	1.5	70-130	20	08/24/2013 1055
Ethyl-tert-butyl ether (ETBE)	50	59		1	117	3.8	70-130	20	08/24/2013 1055
Methyl tertiary butyl ether (MTBE)	50	57		1	115	5.5	70-130	20	08/24/2013 1055
Naphthalene	50	55		1	111	13	70-130	20	08/24/2013 1055
tert-butyl alcohol (TBA)	1000	1100		1	107	6.3	70-130	20	08/24/2013 1055
Toluene	50	53		1	105	4.1	70-130	20	08/24/2013 1055
Xylenes (total)	100	100		1	104	2.6	70-130	20	08/24/2013 1055

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OH17005-038MS
Batch: 27954
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1900	20000	20000		20	91	70-130	08/24/2013 1939
tert-Amyl methyl ether (TAME)	36	1000	1200		20	112	70-130	08/24/2013 1939
Benzene	3300	1000	3800	N	20	56	70-130	08/24/2013 1939
tert-Butyl formate (TBF)	ND	5000	3300	N	20	66	70-130	08/24/2013 1939
1,2-Dichloroethane	ND	1000	1100		20	113	70-130	08/24/2013 1939
Diisopropyl ether (IPE)	78	1000	1200		20	111	70-130	08/24/2013 1939
3,3-Dimethyl-1-butanol	ND	20000	17000		20	87	70-130	08/24/2013 1939
Ethanol	ND	100000	43000	N	20	43	70-130	08/24/2013 1939
Ethylbenzene	ND	1000	1000		20	102	70-130	08/24/2013 1939
Ethyl-tert-butyl ether (ETBE)	ND	1000	1100		20	115	70-130	08/24/2013 1939
Methyl tertiary butyl ether (MTBE)	2100	1000	2900		20	76	70-130	08/24/2013 1939
Naphthalene	51	1000	920		20	87	70-130	08/24/2013 1939
tert-butyl alcohol (TBA)	220	20000	20000		20	99	70-130	08/24/2013 1939
Toluene	ND	1000	1100		20	108	70-130	08/24/2013 1939
Xylenes (total)	420	2000	2400		20	101	70-130	08/24/2013 1939

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OH17005-038MD
Batch: 27954
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1900	20000	23000		20	103	12	70-130	20	08/24/2013 2001
tert-Amyl methyl ether (TAME)	36	1000	1200		20	119	6.2	70-130	20	08/24/2013 2001
Benzene	3300	1000	3900	N	20	67	2.7	70-130	20	08/24/2013 2001
tert-Butyl formate (TBF)	ND	5000	3500	N	20	69	4.7	70-130	20	08/24/2013 2001
1,2-Dichloroethane	ND	1000	1100		20	114	1.3	70-130	20	08/24/2013 2001
Diisopropyl ether (IPE)	78	1000	1200		20	115	3.0	70-130	20	08/24/2013 2001
3,3-Dimethyl-1-butanol	ND	20000	19000		20	97	11	70-130	20	08/24/2013 2001
Ethanol	ND	100000	80000	+	20	80	60	70-130	20	08/24/2013 2001
Ethylbenzene	ND	1000	1000		20	103	0.56	70-130	20	08/24/2013 2001
Ethyl-tert-butyl ether (ETBE)	ND	1000	1200		20	121	5.3	70-130	20	08/24/2013 2001
Methyl tertiary butyl ether (MTBE)	2100	1000	3100		20	94	6.3	70-130	20	08/24/2013 2001
Naphthalene	51	1000	980		20	93	6.3	70-130	20	08/24/2013 2001
tert-butyl alcohol (TBA)	220	20000	24000		20	121	19	70-130	20	08/24/2013 2001
Toluene	ND	1000	1100		20	110	1.4	70-130	20	08/24/2013 2001
Xylenes (total)	420	2000	2500		20	103	1.4	70-130	20	08/24/2013 2001

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ27965-001
Batch: 27965
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/26/2013 1429
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/26/2013 1429
Benzene	ND		1	5.0	0.20	ug/L	08/26/2013 1429
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/26/2013 1429
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/26/2013 1429
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/26/2013 1429
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/26/2013 1429
Ethanol	ND		1	100	33	ug/L	08/26/2013 1429
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/26/2013 1429
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/26/2013 1429
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/26/2013 1429
Naphthalene	ND		1	5.0	1.7	ug/L	08/26/2013 1429
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/26/2013 1429
Toluene	ND		1	5.0	1.7	ug/L	08/26/2013 1429
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/26/2013 1429

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ27965-002
Batch: 27965
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	107	70-130	08/26/2013 1320
tert-Amyl methyl ether (TAME)	50	52		1	104	70-130	08/26/2013 1320
Benzene	50	53		1	107	70-130	08/26/2013 1320
tert-Butyl formate (TBF)	250	270		1	107	70-130	08/26/2013 1320
1,2-Dichloroethane	50	53		1	106	70-130	08/26/2013 1320
Diisopropyl ether (IPE)	50	53		1	106	70-130	08/26/2013 1320
3,3-Dimethyl-1-butanol	1000	1100		1	110	70-130	08/26/2013 1320
Ethanol	5000	5200		1	104	70-130	08/26/2013 1320
Ethylbenzene	50	55		1	110	70-130	08/26/2013 1320
Ethyl-tert-butyl ether (ETBE)	50	56		1	113	70-130	08/26/2013 1320
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	08/26/2013 1320
Naphthalene	50	54		1	107	70-130	08/26/2013 1320
tert-butyl alcohol (TBA)	1000	1000		1	103	70-130	08/26/2013 1320
Toluene	50	55		1	110	70-130	08/26/2013 1320
Xylenes (total)	100	110		1	109	70-130	08/26/2013 1320

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ27965-003
Batch: 27965
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	106	0.78	70-130	20	08/26/2013 1343
tert-Amyl methyl ether (TAME)	50	52		1	104	0.16	70-130	20	08/26/2013 1343
Benzene	50	52		1	105	1.7	70-130	20	08/26/2013 1343
tert-Butyl formate (TBF)	250	270		1	107	0.50	70-130	20	08/26/2013 1343
1,2-Dichloroethane	50	52		1	105	1.5	70-130	20	08/26/2013 1343
Diisopropyl ether (IPE)	50	53		1	106	0.16	70-130	20	08/26/2013 1343
3,3-Dimethyl-1-butanol	1000	1100		1	109	0.70	70-130	20	08/26/2013 1343
Ethanol	5000	5200		1	103	0.32	70-130	20	08/26/2013 1343
Ethylbenzene	50	54		1	107	2.5	70-130	20	08/26/2013 1343
Ethyl-tert-butyl ether (ETBE)	50	57		1	113	0.42	70-130	20	08/26/2013 1343
Methyl tertiary butyl ether (MTBE)	50	51		1	102	2.8	70-130	20	08/26/2013 1343
Naphthalene	50	54		1	108	0.35	70-130	20	08/26/2013 1343
tert-butyl alcohol (TBA)	1000	1000		1	105	1.7	70-130	20	08/26/2013 1343
Toluene	50	53		1	106	3.1	70-130	20	08/26/2013 1343
Xylenes (total)	100	110		1	106	2.7	70-130	20	08/26/2013 1343

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OH17005-039MS
Batch: 27965
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	2600	20000	25000		20	112	70-130	08/26/2013 1944
tert-Amyl methyl ether (TAME)	36	1000	1100		20	109	70-130	08/26/2013 1944
Benzene	3300	1000	4100	E	20	79	70-130	08/26/2013 1944
tert-Butyl formate (TBF)	ND	5000	4300		20	86	70-130	08/26/2013 1944
1,2-Dichloroethane	ND	1000	1200		20	119	70-130	08/26/2013 1944
Diisopropyl ether (IPE)	78	1000	1200		20	114	70-130	08/26/2013 1944
3,3-Dimethyl-1-butanol	ND	20000	22000		20	111	70-130	08/26/2013 1944
Ethanol	ND	100000	92000		20	92	70-130	08/26/2013 1944
Ethylbenzene	ND	1000	1200		20	118	70-130	08/26/2013 1944
Ethyl-tert-butyl ether (ETBE)	ND	1000	1200		20	115	70-130	08/26/2013 1944
Methyl tertiary butyl ether (MTBE)	1700	1000	2700		20	96	70-130	08/26/2013 1944
Naphthalene	58	1000	1200		20	113	70-130	08/26/2013 1944
tert-butyl alcohol (TBA)	250	20000	22000		20	109	70-130	08/26/2013 1944
Toluene	ND	1000	1200		20	115	70-130	08/26/2013 1944
Xylenes (total)	420	2000	2700		20	115	70-130	08/26/2013 1944

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OH17005-039MD
Batch: 27965
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	2600	20000	24000		20	106	4.8	70-130	20	08/26/2013 2008
tert-Amyl methyl ether (TAME)	36	1000	1100		20	107	1.8	70-130	20	08/26/2013 2008
Benzene	3300	1000	4100	E	20	73	1.4	70-130	20	08/26/2013 2008
tert-Butyl formate (TBF)	ND	5000	4100		20	81	5.8	70-130	20	08/26/2013 2008
1,2-Dichloroethane	ND	1000	1200		20	116	2.3	70-130	20	08/26/2013 2008
Diisopropyl ether (IPE)	78	1000	1200		20	111	2.8	70-130	20	08/26/2013 2008
3,3-Dimethyl-1-butanol	ND	20000	22000		20	110	1.5	70-130	20	08/26/2013 2008
Ethanol	ND	100000	91000		20	91	1.0	70-130	20	08/26/2013 2008
Ethylbenzene	ND	1000	1200		20	116	1.9	70-130	20	08/26/2013 2008
Ethyl-tert-butyl ether (ETBE)	ND	1000	1100		20	113	1.7	70-130	20	08/26/2013 2008
Methyl tertiary butyl ether (MTBE)	1700	1000	2700		20	95	0.17	70-130	20	08/26/2013 2008
Naphthalene	58	1000	1200		20	111	1.3	70-130	20	08/26/2013 2008
tert-butyl alcohol (TBA)	250	20000	21000		20	103	5.4	70-130	20	08/26/2013 2008
Toluene	ND	1000	1200		20	114	0.84	70-130	20	08/26/2013 2008
Xylenes (total)	420	2000	2700		20	112	2.3	70-130	20	08/26/2013 2008

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28086-001
Batch: 28086
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/26/2013 2256
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/26/2013 2256
Benzene	ND		1	5.0	0.20	ug/L	08/26/2013 2256
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/26/2013 2256
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/26/2013 2256
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/26/2013 2256
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/26/2013 2256
Ethanol	ND		1	100	33	ug/L	08/26/2013 2256
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/26/2013 2256
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/26/2013 2256
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/26/2013 2256
Naphthalene	ND		1	5.0	1.7	ug/L	08/26/2013 2256
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/26/2013 2256
Toluene	ND		1	5.0	1.7	ug/L	08/26/2013 2256
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/26/2013 2256

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		119	70-130
1,2-Dichloroethane-d4		114	70-130
Toluene-d8		116	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28086-002
Batch: 28086
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	106	70-130	08/26/2013 2153
tert-Amyl methyl ether (TAME)	50	49		1	99	70-130	08/26/2013 2153
Benzene	50	49		1	98	70-130	08/26/2013 2153
tert-Butyl formate (TBF)	250	250		1	101	70-130	08/26/2013 2153
1,2-Dichloroethane	50	50		1	100	70-130	08/26/2013 2153
Diisopropyl ether (IPE)	50	49		1	99	70-130	08/26/2013 2153
3,3-Dimethyl-1-butanol	1000	1100		1	106	70-130	08/26/2013 2153
Ethanol	5000	5000		1	100	70-130	08/26/2013 2153
Ethylbenzene	50	50		1	101	70-130	08/26/2013 2153
Ethyl-tert-butyl ether (ETBE)	50	55		1	109	70-130	08/26/2013 2153
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	08/26/2013 2153
Naphthalene	50	48		1	97	70-130	08/26/2013 2153
tert-butyl alcohol (TBA)	1000	1100		1	107	70-130	08/26/2013 2153
Toluene	50	50		1	100	70-130	08/26/2013 2153
Xylenes (total)	100	99		1	99	70-130	08/26/2013 2153

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28086-003
Batch: 28086
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	107	1.2	70-130	20	08/26/2013 2214
tert-Amyl methyl ether (TAME)	50	50		1	100	0.79	70-130	20	08/26/2013 2214
Benzene	50	49		1	99	0.23	70-130	20	08/26/2013 2214
tert-Butyl formate (TBF)	250	250		1	101	0.13	70-130	20	08/26/2013 2214
1,2-Dichloroethane	50	50		1	101	0.64	70-130	20	08/26/2013 2214
Diisopropyl ether (IPE)	50	50		1	100	1.5	70-130	20	08/26/2013 2214
3,3-Dimethyl-1-butanol	1000	1100		1	107	1.4	70-130	20	08/26/2013 2214
Ethanol	5000	5100		1	101	1.6	70-130	20	08/26/2013 2214
Ethylbenzene	50	51		1	102	1.7	70-130	20	08/26/2013 2214
Ethyl-tert-butyl ether (ETBE)	50	55		1	111	1.1	70-130	20	08/26/2013 2214
Methyl tertiary butyl ether (MTBE)	50	52		1	105	2.5	70-130	20	08/26/2013 2214
Naphthalene	50	50		1	99	2.2	70-130	20	08/26/2013 2214
tert-butyl alcohol (TBA)	1000	1100		1	107	0.82	70-130	20	08/26/2013 2214
Toluene	50	50		1	100	0.17	70-130	20	08/26/2013 2214
Xylenes (total)	100	100		1	101	1.6	70-130	20	08/26/2013 2214

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OH17005-006MS
Batch: 28086
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	140	10000	13000		10	129	70-130	08/27/2013 0635
tert-Amyl methyl ether (TAME)	ND	500	620		10	124	70-130	08/27/2013 0635
Benzene	7.2	500	660		10	130	70-130	08/27/2013 0635
tert-Butyl formate (TBF)	ND	2500	2300		10	92	70-130	08/27/2013 0635
1,2-Dichloroethane	ND	500	630		10	127	70-130	08/27/2013 0635
Diisopropyl ether (IPE)	ND	500	640		10	128	70-130	08/27/2013 0635
3,3-Dimethyl-1-butanol	ND	10000	13000	N	10	132	70-130	08/27/2013 0635
Ethanol	ND	50000	52000		10	104	70-130	08/27/2013 0635
Ethylbenzene	ND	500	670	N	10	133	70-130	08/27/2013 0635
Ethyl-tert-butyl ether (ETBE)	ND	500	690	N	10	139	70-130	08/27/2013 0635
Methyl tertiary butyl ether (MTBE)	ND	500	630		10	126	70-130	08/27/2013 0635
Naphthalene	ND	500	610		10	122	70-130	08/27/2013 0635
tert-butyl alcohol (TBA)	ND	10000	13000	N	10	133	70-130	08/27/2013 0635
Toluene	19	500	680	N	10	132	70-130	08/27/2013 0635
Xylenes (total)	38	1000	1300		10	128	70-130	08/27/2013 0635

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		118	70-130
Bromofluorobenzene		123	70-130
Toluene-d8		125	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OH17005-006MD
Batch: 28086
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	140	10000	13000		10	128	0.91	70-130	20	08/27/2013 0656
tert-Amyl methyl ether (TAME)	ND	500	610		10	123	1.3	70-130	20	08/27/2013 0656
Benzene	7.2	500	650		10	128	1.1	70-130	20	08/27/2013 0656
tert-Butyl formate (TBF)	ND	2500	2300		10	92	0.045	70-130	20	08/27/2013 0656
1,2-Dichloroethane	ND	500	630		10	127	0.021	70-130	20	08/27/2013 0656
Diisopropyl ether (IPE)	ND	500	630		10	125	2.6	70-130	20	08/27/2013 0656
3,3-Dimethyl-1-butanol	ND	10000	13000	N	10	131	0.78	70-130	20	08/27/2013 0656
Ethanol	ND	50000	53000		10	105	1.3	70-130	20	08/27/2013 0656
Ethylbenzene	ND	500	660		10	130	1.8	70-130	20	08/27/2013 0656
Ethyl-tert-butyl ether (ETBE)	ND	500	680	N	10	136	2.5	70-130	20	08/27/2013 0656
Methyl tertiary butyl ether (MTBE)	ND	500	630		10	126	0.36	70-130	20	08/27/2013 0656
Naphthalene	ND	500	610		10	121	0.70	70-130	20	08/27/2013 0656
tert-butyl alcohol (TBA)	ND	10000	13000	N	10	133	0.0079	70-130	20	08/27/2013 0656
Toluene	19	500	670	N	10	131	0.86	70-130	20	08/27/2013 0656
Xylenes (total)	38	1000	1300		10	127	1.4	70-130	20	08/27/2013 0656

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		116	70-130
Bromofluorobenzene		123	70-130
Toluene-d8		124	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28164-001
Batch: 28164
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/27/2013 1015
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/27/2013 1015
Benzene	ND		1	5.0	0.20	ug/L	08/27/2013 1015
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/27/2013 1015
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/27/2013 1015
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/27/2013 1015
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/27/2013 1015
Ethanol	ND		1	100	33	ug/L	08/27/2013 1015
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/27/2013 1015
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/27/2013 1015
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/27/2013 1015
Naphthalene	ND		1	5.0	1.7	ug/L	08/27/2013 1015
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/27/2013 1015
Toluene	ND		1	5.0	1.7	ug/L	08/27/2013 1015
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/27/2013 1015

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28164-002
Batch: 28164
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	105	70-130	08/27/2013 0842
tert-Amyl methyl ether (TAME)	50	49		1	98	70-130	08/27/2013 0842
Benzene	50	51		1	103	70-130	08/27/2013 0842
tert-Butyl formate (TBF)	250	270		1	106	70-130	08/27/2013 0842
1,2-Dichloroethane	50	52		1	104	70-130	08/27/2013 0842
Diisopropyl ether (IPE)	50	53		1	107	70-130	08/27/2013 0842
3,3-Dimethyl-1-butanol	1000	1100		1	108	70-130	08/27/2013 0842
Ethanol	5000	5200		1	103	70-130	08/27/2013 0842
Ethylbenzene	50	52		1	105	70-130	08/27/2013 0842
Ethyl-tert-butyl ether (ETBE)	50	54		1	107	70-130	08/27/2013 0842
Methyl tertiary butyl ether (MTBE)	50	48		1	96	70-130	08/27/2013 0842
Naphthalene	50	53		1	105	70-130	08/27/2013 0842
tert-butyl alcohol (TBA)	1000	1000		1	102	70-130	08/27/2013 0842
Toluene	50	53		1	105	70-130	08/27/2013 0842
Xylenes (total)	100	100		1	103	70-130	08/27/2013 0842

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28164-003
Batch: 28164
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	106	0.93	70-130	20	08/27/2013 0906
tert-Amyl methyl ether (TAME)	50	50		1	99	0.84	70-130	20	08/27/2013 0906
Benzene	50	52		1	103	0.51	70-130	20	08/27/2013 0906
tert-Butyl formate (TBF)	250	270		1	107	1.1	70-130	20	08/27/2013 0906
1,2-Dichloroethane	50	52		1	104	0.33	70-130	20	08/27/2013 0906
Diisopropyl ether (IPE)	50	54		1	108	1.3	70-130	20	08/27/2013 0906
3,3-Dimethyl-1-butanol	1000	1100		1	111	2.5	70-130	20	08/27/2013 0906
Ethanol	5000	5200		1	105	1.8	70-130	20	08/27/2013 0906
Ethylbenzene	50	53		1	106	1.1	70-130	20	08/27/2013 0906
Ethyl-tert-butyl ether (ETBE)	50	57		1	113	5.3	70-130	20	08/27/2013 0906
Methyl tertiary butyl ether (MTBE)	50	50		1	101	4.3	70-130	20	08/27/2013 0906
Naphthalene	50	54		1	108	2.9	70-130	20	08/27/2013 0906
tert-butyl alcohol (TBA)	1000	1000		1	101	1.7	70-130	20	08/27/2013 0906
Toluene	50	54		1	107	1.5	70-130	20	08/27/2013 0906
Xylenes (total)	100	100		1	104	1.3	70-130	20	08/27/2013 0906

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28165-001
Batch: 28165
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/27/2013 1033
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/27/2013 1033
Benzene	ND		1	5.0	0.20	ug/L	08/27/2013 1033
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/27/2013 1033
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/27/2013 1033
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/27/2013 1033
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/27/2013 1033
Ethanol	ND		1	100	33	ug/L	08/27/2013 1033
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/27/2013 1033
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/27/2013 1033
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/27/2013 1033
Naphthalene	ND		1	5.0	1.7	ug/L	08/27/2013 1033
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/27/2013 1033
Toluene	ND		1	5.0	1.7	ug/L	08/27/2013 1033
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/27/2013 1033

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		116	70-130
1,2-Dichloroethane-d4		112	70-130
Toluene-d8		116	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28165-002
Batch: 28165
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	111	70-130	08/27/2013 0929
tert-Amyl methyl ether (TAME)	50	52		1	104	70-130	08/27/2013 0929
Benzene	50	52		1	104	70-130	08/27/2013 0929
tert-Butyl formate (TBF)	250	270		1	108	70-130	08/27/2013 0929
1,2-Dichloroethane	50	51		1	102	70-130	08/27/2013 0929
Diisopropyl ether (IPE)	50	53		1	105	70-130	08/27/2013 0929
3,3-Dimethyl-1-butanol	1000	1200		1	116	70-130	08/27/2013 0929
Ethanol	5000	5600		1	111	70-130	08/27/2013 0929
Ethylbenzene	50	55		1	110	70-130	08/27/2013 0929
Ethyl-tert-butyl ether (ETBE)	50	57		1	115	70-130	08/27/2013 0929
Methyl tertiary butyl ether (MTBE)	50	52		1	104	70-130	08/27/2013 0929
Naphthalene	50	54		1	109	70-130	08/27/2013 0929
tert-butyl alcohol (TBA)	1000	1100		1	115	70-130	08/27/2013 0929
Toluene	50	54		1	108	70-130	08/27/2013 0929
Xylenes (total)	100	110		1	108	70-130	08/27/2013 0929

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28165-003
Batch: 28165
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	114	3.2	70-130	20	08/27/2013 0949
tert-Amyl methyl ether (TAME)	50	54		1	107	2.8	70-130	20	08/27/2013 0949
Benzene	50	53		1	106	2.2	70-130	20	08/27/2013 0949
tert-Butyl formate (TBF)	250	280		1	111	2.2	70-130	20	08/27/2013 0949
1,2-Dichloroethane	50	53		1	107	4.2	70-130	20	08/27/2013 0949
Diisopropyl ether (IPE)	50	54		1	108	2.8	70-130	20	08/27/2013 0949
3,3-Dimethyl-1-butanol	1000	1200		1	120	3.7	70-130	20	08/27/2013 0949
Ethanol	5000	5600		1	112	1.2	70-130	20	08/27/2013 0949
Ethylbenzene	50	56		1	112	1.9	70-130	20	08/27/2013 0949
Ethyl-tert-butyl ether (ETBE)	50	59		1	117	2.2	70-130	20	08/27/2013 0949
Methyl tertiary butyl ether (MTBE)	50	56		1	112	7.4	70-130	20	08/27/2013 0949
Naphthalene	50	56		1	112	2.4	70-130	20	08/27/2013 0949
tert-butyl alcohol (TBA)	1000	1200		1	120	4.6	70-130	20	08/27/2013 0949
Toluene	50	56		1	112	2.9	70-130	20	08/27/2013 0949
Xylenes (total)	100	110		1	110	1.5	70-130	20	08/27/2013 0949

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		113	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28193-001
Batch: 28193
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/27/2013 1335
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/27/2013 1335
Benzene	ND		1	5.0	0.20	ug/L	08/27/2013 1335
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/27/2013 1335
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/27/2013 1335
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/27/2013 1335
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/27/2013 1335
Ethanol	ND		1	100	33	ug/L	08/27/2013 1335
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/27/2013 1335
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/27/2013 1335
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/27/2013 1335
Naphthalene	ND		1	5.0	1.7	ug/L	08/27/2013 1335
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/27/2013 1335
Toluene	ND		1	5.0	1.7	ug/L	08/27/2013 1335
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/27/2013 1335

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		87	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28193-002
Batch: 28193
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	100	70-130	08/27/2013 1204
tert-Amyl methyl ether (TAME)	50	47		1	94	70-130	08/27/2013 1204
Benzene	50	44		1	89	70-130	08/27/2013 1204
tert-Butyl formate (TBF)	250	240		1	95	70-130	08/27/2013 1204
1,2-Dichloroethane	50	51		1	101	70-130	08/27/2013 1204
Diisopropyl ether (IPE)	50	49		1	98	70-130	08/27/2013 1204
3,3-Dimethyl-1-butanol	1000	920		1	92	70-130	08/27/2013 1204
Ethanol	5000	4000		1	80	70-130	08/27/2013 1204
Ethylbenzene	50	44		1	89	70-130	08/27/2013 1204
Ethyl-tert-butyl ether (ETBE)	50	51		1	102	70-130	08/27/2013 1204
Methyl tertiary butyl ether (MTBE)	50	52		1	104	70-130	08/27/2013 1204
Naphthalene	50	40		1	81	70-130	08/27/2013 1204
tert-butyl alcohol (TBA)	1000	960		1	96	70-130	08/27/2013 1204
Toluene	50	49		1	98	70-130	08/27/2013 1204
Xylenes (total)	100	95		1	95	70-130	08/27/2013 1204

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		88	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28193-003
Batch: 28193
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	103	3.6	70-130	20	08/27/2013 1227
tert-Amyl methyl ether (TAME)	50	46		1	92	1.8	70-130	20	08/27/2013 1227
Benzene	50	43		1	86	2.9	70-130	20	08/27/2013 1227
tert-Butyl formate (TBF)	250	230		1	93	2.6	70-130	20	08/27/2013 1227
1,2-Dichloroethane	50	50		1	99	2.0	70-130	20	08/27/2013 1227
Diisopropyl ether (IPE)	50	47		1	95	3.9	70-130	20	08/27/2013 1227
3,3-Dimethyl-1-butanol	1000	960		1	96	4.0	70-130	20	08/27/2013 1227
Ethanol	5000	5500	+	1	110	32	70-130	20	08/27/2013 1227
Ethylbenzene	50	43		1	86	3.1	70-130	20	08/27/2013 1227
Ethyl-tert-butyl ether (ETBE)	50	50		1	101	1.3	70-130	20	08/27/2013 1227
Methyl tertiary butyl ether (MTBE)	50	51		1	102	2.1	70-130	20	08/27/2013 1227
Naphthalene	50	43		1	86	5.8	70-130	20	08/27/2013 1227
tert-butyl alcohol (TBA)	1000	1000		1	101	5.1	70-130	20	08/27/2013 1227
Toluene	50	48		1	96	1.6	70-130	20	08/27/2013 1227
Xylenes (total)	100	94		1	94	0.82	70-130	20	08/27/2013 1227

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		91	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		89	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OH17005-043MS
Batch: 28193
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	460	10000	9500		10	90	70-130	08/27/2013 2130
tert-Amyl methyl ether (TAME)	ND	500	490		10	98	70-130	08/27/2013 2130
Benzene	700	500	1100		10	83	70-130	08/27/2013 2130
tert-Butyl formate (TBF)	ND	2500	1300	N	10	54	70-130	08/27/2013 2130
1,2-Dichloroethane	ND	500	560		10	113	70-130	08/27/2013 2130
Diisopropyl ether (IPE)	18	500	540		10	104	70-130	08/27/2013 2130
3,3-Dimethyl-1-butanol	ND	10000	8600		10	86	70-130	08/27/2013 2130
Ethanol	ND	50000	31000	N	10	63	70-130	08/27/2013 2130
Ethylbenzene	57	500	540		10	96	70-130	08/27/2013 2130
Ethyl-tert-butyl ether (ETBE)	ND	500	540		10	107	70-130	08/27/2013 2130
Methyl tertiary butyl ether (MTBE)	770	500	1200		10	90	70-130	08/27/2013 2130
Naphthalene	34	500	450		10	82	70-130	08/27/2013 2130
tert-butyl alcohol (TBA)	120	10000	9400		10	92	70-130	08/27/2013 2130
Toluene	51	500	610		10	112	70-130	08/27/2013 2130
Xylenes (total)	340	1000	1300		10	99	70-130	08/27/2013 2130

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		85	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		92	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OH17005-043MD
Batch: 28193
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	460	10000	9900		10	94	4.3	70-130	20	08/27/2013 2153
tert-Amyl methyl ether (TAME)	ND	500	510		10	101	2.9	70-130	20	08/27/2013 2153
Benzene	700	500	1100		10	72	4.8	70-130	20	08/27/2013 2153
tert-Butyl formate (TBF)	ND	2500	1300	N	10	51	4.4	70-130	20	08/27/2013 2153
1,2-Dichloroethane	ND	500	560		10	112	0.45	70-130	20	08/27/2013 2153
Diisopropyl ether (IPE)	18	500	550		10	105	1.6	70-130	20	08/27/2013 2153
3,3-Dimethyl-1-butanol	ND	10000	9000		10	90	3.6	70-130	20	08/27/2013 2153
Ethanol	ND	50000	37000		10	75	17	70-130	20	08/27/2013 2153
Ethylbenzene	57	500	520		10	92	3.7	70-130	20	08/27/2013 2153
Ethyl-tert-butyl ether (ETBE)	ND	500	540		10	107	0.028	70-130	20	08/27/2013 2153
Methyl tertiary butyl ether (MTBE)	770	500	1200		10	91	0.48	70-130	20	08/27/2013 2153
Naphthalene	34	500	430		10	79	3.6	70-130	20	08/27/2013 2153
tert-butyl alcohol (TBA)	120	10000	10000		10	99	7.1	70-130	20	08/27/2013 2153
Toluene	51	500	590		10	108	3.6	70-130	20	08/27/2013 2153
Xylenes (total)	340	1000	1300		10	95	2.8	70-130	20	08/27/2013 2153

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		83	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		88	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28203-001
Batch: 28203
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/27/2013 2120
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/27/2013 2120
Benzene	ND		1	5.0	0.20	ug/L	08/27/2013 2120
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/27/2013 2120
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/27/2013 2120
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/27/2013 2120
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/27/2013 2120
Ethanol	ND		1	100	33	ug/L	08/27/2013 2120
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/27/2013 2120
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/27/2013 2120
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/27/2013 2120
Naphthalene	ND		1	5.0	1.7	ug/L	08/27/2013 2120
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/27/2013 2120
Toluene	ND		1	5.0	1.7	ug/L	08/27/2013 2120
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/27/2013 2120

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		121	70-130
1,2-Dichloroethane-d4		117	70-130
Toluene-d8		122	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28203-002
Batch: 28203
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	102	70-130	08/27/2013 2016
tert-Amyl methyl ether (TAME)	50	49		1	98	70-130	08/27/2013 2016
Benzene	50	51		1	102	70-130	08/27/2013 2016
tert-Butyl formate (TBF)	250	250		1	101	70-130	08/27/2013 2016
1,2-Dichloroethane	50	49		1	97	70-130	08/27/2013 2016
Diisopropyl ether (IPE)	50	51		1	101	70-130	08/27/2013 2016
3,3-Dimethyl-1-butanol	1000	1100		1	107	70-130	08/27/2013 2016
Ethanol	5000	5000		1	100	70-130	08/27/2013 2016
Ethylbenzene	50	54		1	107	70-130	08/27/2013 2016
Ethyl-tert-butyl ether (ETBE)	50	53		1	107	70-130	08/27/2013 2016
Methyl tertiary butyl ether (MTBE)	50	48		1	97	70-130	08/27/2013 2016
Naphthalene	50	53		1	106	70-130	08/27/2013 2016
tert-butyl alcohol (TBA)	1000	1000		1	101	70-130	08/27/2013 2016
Toluene	50	53		1	106	70-130	08/27/2013 2016
Xylenes (total)	100	100		1	105	70-130	08/27/2013 2016

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		111	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28203-003
Batch: 28203
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1200		1	118	15	70-130	20	08/27/2013 2037
tert-Amyl methyl ether (TAME)	50	58		1	115	16	70-130	20	08/27/2013 2037
Benzene	50	59		1	118	15	70-130	20	08/27/2013 2037
tert-Butyl formate (TBF)	250	300		1	118	15	70-130	20	08/27/2013 2037
1,2-Dichloroethane	50	58		1	115	17	70-130	20	08/27/2013 2037
Diisopropyl ether (IPE)	50	59		1	117	15	70-130	20	08/27/2013 2037
3,3-Dimethyl-1-butanol	1000	1200		1	124	15	70-130	20	08/27/2013 2037
Ethanol	5000	5900		1	117	16	70-130	20	08/27/2013 2037
Ethylbenzene	50	61		1	123	13	70-130	20	08/27/2013 2037
Ethyl-tert-butyl ether (ETBE)	50	63		1	126	16	70-130	20	08/27/2013 2037
Methyl tertiary butyl ether (MTBE)	50	58		1	116	18	70-130	20	08/27/2013 2037
Naphthalene	50	62		1	124	16	70-130	20	08/27/2013 2037
tert-butyl alcohol (TBA)	1000	1200		1	123	20	70-130	20	08/27/2013 2037
Toluene	50	60		1	120	13	70-130	20	08/27/2013 2037
Xylenes (total)	100	120		1	120	13	70-130	20	08/27/2013 2037

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		124	70-130
1,2-Dichloroethane-d4		119	70-130
Toluene-d8		126	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OH17005-005MS
Batch: 28203
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	23	5000	5500		5	110	70-130	08/28/2013 0449
tert-Amyl methyl ether (TAME)	ND	250	280		5	113	70-130	08/28/2013 0449
Benzene	0.49	250	300		5	120	70-130	08/28/2013 0449
tert-Butyl formate (TBF)	ND	1300	220	N	5	18	70-130	08/28/2013 0449
1,2-Dichloroethane	ND	250	280		5	113	70-130	08/28/2013 0449
Diisopropyl ether (IPE)	ND	250	290		5	115	70-130	08/28/2013 0449
3,3-Dimethyl-1-butanol	ND	5000	5900		5	117	70-130	08/28/2013 0449
Ethanol	ND	25000	27000		5	106	70-130	08/28/2013 0449
Ethylbenzene	ND	250	310		5	124	70-130	08/28/2013 0449
Ethyl-tert-butyl ether (ETBE)	ND	250	310		5	125	70-130	08/28/2013 0449
Methyl tertiary butyl ether (MTBE)	ND	250	290		5	115	70-130	08/28/2013 0449
Naphthalene	ND	250	290		5	116	70-130	08/28/2013 0449
tert-butyl alcohol (TBA)	13	5000	6600	N	5	131	70-130	08/28/2013 0449
Toluene	ND	250	300		5	121	70-130	08/28/2013 0449
Xylenes (total)	ND	500	610		5	122	70-130	08/28/2013 0449

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		115	70-130
Bromofluorobenzene		121	70-130
Toluene-d8		120	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OH17005-005MD
Batch: 28203
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	23	5000	5700		5	112	2.4	70-130	20	08/28/2013 0510
tert-Amyl methyl ether (TAME)	ND	250	290		5	114	1.2	70-130	20	08/28/2013 0510
Benzene	0.49	250	310		5	122	1.3	70-130	20	08/28/2013 0510
tert-Butyl formate (TBF)	ND	1300	210	N	5	17	4.2	70-130	20	08/28/2013 0510
1,2-Dichloroethane	ND	250	290		5	115	2.3	70-130	20	08/28/2013 0510
Diisopropyl ether (IPE)	ND	250	290		5	117	1.8	70-130	20	08/28/2013 0510
3,3-Dimethyl-1-butanol	ND	5000	6000		5	119	1.5	70-130	20	08/28/2013 0510
Ethanol	ND	25000	25000		5	100	5.9	70-130	20	08/28/2013 0510
Ethylbenzene	ND	250	320		5	128	3.4	70-130	20	08/28/2013 0510
Ethyl-tert-butyl ether (ETBE)	ND	250	310		5	124	0.12	70-130	20	08/28/2013 0510
Methyl tertiary butyl ether (MTBE)	ND	250	290		5	116	1.1	70-130	20	08/28/2013 0510
Naphthalene	ND	250	300		5	120	3.4	70-130	20	08/28/2013 0510
tert-butyl alcohol (TBA)	13	5000	6500		5	129	1.7	70-130	20	08/28/2013 0510
Toluene	ND	250	310		5	125	3.2	70-130	20	08/28/2013 0510
Xylenes (total)	ND	500	620		5	125	2.2	70-130	20	08/28/2013 0510

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		116	70-130
Bromofluorobenzene		122	70-130
Toluene-d8		123	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28205-001
Batch: 28205
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/27/2013 2207
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/27/2013 2207
Benzene	ND		1	5.0	0.20	ug/L	08/27/2013 2207
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/27/2013 2207
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/27/2013 2207
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/27/2013 2207
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/27/2013 2207
Ethanol	ND		1	100	33	ug/L	08/27/2013 2207
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/27/2013 2207
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/27/2013 2207
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/27/2013 2207
Naphthalene	ND		1	5.0	1.7	ug/L	08/27/2013 2207
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/27/2013 2207
Toluene	ND		1	5.0	1.7	ug/L	08/27/2013 2207
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/27/2013 2207

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28205-002
Batch: 28205
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	108	70-130	08/27/2013 2056
tert-Amyl methyl ether (TAME)	50	52		1	105	70-130	08/27/2013 2056
Benzene	50	53		1	106	70-130	08/27/2013 2056
tert-Butyl formate (TBF)	250	270		1	106	70-130	08/27/2013 2056
1,2-Dichloroethane	50	54		1	107	70-130	08/27/2013 2056
Diisopropyl ether (IPE)	50	54		1	108	70-130	08/27/2013 2056
3,3-Dimethyl-1-butanol	1000	1100		1	111	70-130	08/27/2013 2056
Ethanol	5000	5300		1	107	70-130	08/27/2013 2056
Ethylbenzene	50	53		1	107	70-130	08/27/2013 2056
Ethyl-tert-butyl ether (ETBE)	50	56		1	112	70-130	08/27/2013 2056
Methyl tertiary butyl ether (MTBE)	50	51		1	101	70-130	08/27/2013 2056
Naphthalene	50	55		1	109	70-130	08/27/2013 2056
tert-butyl alcohol (TBA)	1000	1000		1	103	70-130	08/27/2013 2056
Toluene	50	54		1	107	70-130	08/27/2013 2056
Xylenes (total)	100	110		1	106	70-130	08/27/2013 2056

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28205-003
Batch: 28205
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	106	2.0	70-130	20	08/27/2013 2120
tert-Amyl methyl ether (TAME)	50	53		1	105	0.40	70-130	20	08/27/2013 2120
Benzene	50	53		1	106	0.12	70-130	20	08/27/2013 2120
tert-Butyl formate (TBF)	250	270		1	107	0.93	70-130	20	08/27/2013 2120
1,2-Dichloroethane	50	54		1	107	0.077	70-130	20	08/27/2013 2120
Diisopropyl ether (IPE)	50	54		1	108	0.17	70-130	20	08/27/2013 2120
3,3-Dimethyl-1-butanol	1000	1100		1	112	0.51	70-130	20	08/27/2013 2120
Ethanol	5000	4900		1	97	9.4	70-130	20	08/27/2013 2120
Ethylbenzene	50	54		1	108	0.99	70-130	20	08/27/2013 2120
Ethyl-tert-butyl ether (ETBE)	50	58		1	115	2.6	70-130	20	08/27/2013 2120
Methyl tertiary butyl ether (MTBE)	50	52		1	105	3.0	70-130	20	08/27/2013 2120
Naphthalene	50	53		1	106	2.4	70-130	20	08/27/2013 2120
tert-butyl alcohol (TBA)	1000	1000		1	101	1.8	70-130	20	08/27/2013 2120
Toluene	50	53		1	106	0.97	70-130	20	08/27/2013 2120
Xylenes (total)	100	110		1	107	0.46	70-130	20	08/27/2013 2120

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OH17005-047MS
Batch: 28205
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	2600	20000	25000		20	114	70-130	08/28/2013 0614
tert-Amyl methyl ether (TAME)	9.0	1000	1100		20	110	70-130	08/28/2013 0614
Benzene	2700	1000	3500		20	82	70-130	08/28/2013 0614
tert-Butyl formate (TBF)	ND	5000	2700	N	20	55	70-130	08/28/2013 0614
1,2-Dichloroethane	ND	1000	1200		20	116	70-130	08/28/2013 0614
Diisopropyl ether (IPE)	ND	1000	1100		20	114	70-130	08/28/2013 0614
3,3-Dimethyl-1-butanol	ND	20000	23000		20	116	70-130	08/28/2013 0614
Ethanol	ND	100000	110000		20	113	70-130	08/28/2013 0614
Ethylbenzene	ND	1000	1200		20	116	70-130	08/28/2013 0614
Ethyl-tert-butyl ether (ETBE)	ND	1000	1200		20	116	70-130	08/28/2013 0614
Methyl tertiary butyl ether (MTBE)	1300	1000	2300		20	101	70-130	08/28/2013 0614
Naphthalene	54	1000	1200		20	110	70-130	08/28/2013 0614
tert-butyl alcohol (TBA)	510	20000	24000		20	116	70-130	08/28/2013 0614
Toluene	57	1000	1200		20	114	70-130	08/28/2013 0614
Xylenes (total)	330	2000	2600		20	113	70-130	08/28/2013 0614

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OH17005-047MD
Batch: 28205
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	2600	20000	24000		20	108	4.8	70-130	20	08/28/2013 0637
tert-Amyl methyl ether (TAME)	9.0	1000	1100		20	107	3.6	70-130	20	08/28/2013 0637
Benzene	2700	1000	3500		20	80	0.77	70-130	20	08/28/2013 0637
tert-Butyl formate (TBF)	ND	5000	2600	N	20	52	6.1	70-130	20	08/28/2013 0637
1,2-Dichloroethane	ND	1000	1100		20	114	1.9	70-130	20	08/28/2013 0637
Diisopropyl ether (IPE)	ND	1000	1100		20	109	4.2	70-130	20	08/28/2013 0637
3,3-Dimethyl-1-butanol	ND	20000	22000		20	110	5.1	70-130	20	08/28/2013 0637
Ethanol	ND	100000	110000		20	108	4.7	70-130	20	08/28/2013 0637
Ethylbenzene	ND	1000	1100		20	113	2.2	70-130	20	08/28/2013 0637
Ethyl-tert-butyl ether (ETBE)	ND	1000	1200		20	115	1.0	70-130	20	08/28/2013 0637
Methyl tertiary butyl ether (MTBE)	1300	1000	2300		20	96	2.0	70-130	20	08/28/2013 0637
Naphthalene	54	1000	1100		20	108	1.9	70-130	20	08/28/2013 0637
tert-butyl alcohol (TBA)	510	20000	23000		20	114	1.9	70-130	20	08/28/2013 0637
Toluene	57	1000	1200		20	113	1.2	70-130	20	08/28/2013 0637
Xylenes (total)	330	2000	2500		20	111	1.8	70-130	20	08/28/2013 0637

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28286-001
Batch: 28286
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/28/2013 1331

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		85	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28286-002
Batch: 28286
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Methyl tertiary butyl ether (MTBE)	50	54		1	108	70-130	08/28/2013 1200

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		88	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28286-003
Batch: 28286
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Methyl tertiary butyl ether (MTBE)	50	53		1	106	2.1	70-130	20	08/28/2013 1222

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28289-001
Batch: 28289
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/28/2013 1027
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/28/2013 1027
Benzene	ND		1	5.0	0.20	ug/L	08/28/2013 1027
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/28/2013 1027
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/28/2013 1027
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/28/2013 1027
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/28/2013 1027
Ethanol	ND		1	100	33	ug/L	08/28/2013 1027
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/28/2013 1027
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/28/2013 1027
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/28/2013 1027
Naphthalene	ND		1	5.0	1.7	ug/L	08/28/2013 1027
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/28/2013 1027
Toluene	ND		1	5.0	1.7	ug/L	08/28/2013 1027
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/28/2013 1027

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28289-002
Batch: 28289
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1200		1	122	70-130	08/28/2013 0924
tert-Amyl methyl ether (TAME)	50	56		1	113	70-130	08/28/2013 0924
Benzene	50	57		1	114	70-130	08/28/2013 0924
tert-Butyl formate (TBF)	250	290		1	117	70-130	08/28/2013 0924
1,2-Dichloroethane	50	57		1	113	70-130	08/28/2013 0924
Diisopropyl ether (IPE)	50	57		1	115	70-130	08/28/2013 0924
3,3-Dimethyl-1-butanol	1000	1200		1	120	70-130	08/28/2013 0924
Ethanol	5000	5800		1	116	70-130	08/28/2013 0924
Ethylbenzene	50	60		1	119	70-130	08/28/2013 0924
Ethyl-tert-butyl ether (ETBE)	50	63		1	126	70-130	08/28/2013 0924
Methyl tertiary butyl ether (MTBE)	50	59		1	117	70-130	08/28/2013 0924
Naphthalene	50	55		1	110	70-130	08/28/2013 0924
tert-butyl alcohol (TBA)	1000	1200		1	122	70-130	08/28/2013 0924
Toluene	50	58		1	117	70-130	08/28/2013 0924
Xylenes (total)	100	120		1	117	70-130	08/28/2013 0924

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		124	70-130
1,2-Dichloroethane-d4		118	70-130
Toluene-d8		125	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28289-003
Batch: 28289
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	107	13	70-130	20	08/28/2013 0945
tert-Amyl methyl ether (TAME)	50	53		1	107	5.1	70-130	20	08/28/2013 0945
Benzene	50	54		1	108	4.6	70-130	20	08/28/2013 0945
tert-Butyl formate (TBF)	250	280		1	111	5.7	70-130	20	08/28/2013 0945
1,2-Dichloroethane	50	52		1	104	8.0	70-130	20	08/28/2013 0945
Diisopropyl ether (IPE)	50	55		1	109	4.7	70-130	20	08/28/2013 0945
3,3-Dimethyl-1-butanol	1000	1100		1	113	6.5	70-130	20	08/28/2013 0945
Ethanol	5000	5400		1	108	7.4	70-130	20	08/28/2013 0945
Ethylbenzene	50	57		1	113	5.3	70-130	20	08/28/2013 0945
Ethyl-tert-butyl ether (ETBE)	50	58		1	116	7.8	70-130	20	08/28/2013 0945
Methyl tertiary butyl ether (MTBE)	50	56		1	113	3.9	70-130	20	08/28/2013 0945
Naphthalene	50	52		1	103	6.6	70-130	20	08/28/2013 0945
tert-butyl alcohol (TBA)	1000	1100		1	111	9.8	70-130	20	08/28/2013 0945
Toluene	50	56		1	111	4.6	70-130	20	08/28/2013 0945
Xylenes (total)	100	110		1	111	5.2	70-130	20	08/28/2013 0945

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		116	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		118	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28291-001
Batch: 28291
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/28/2013 1035
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/28/2013 1035
Benzene	ND		1	5.0	0.20	ug/L	08/28/2013 1035
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/28/2013 1035
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/28/2013 1035
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/28/2013 1035
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/28/2013 1035
Ethanol	ND		1	100	33	ug/L	08/28/2013 1035
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/28/2013 1035
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/28/2013 1035
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/28/2013 1035
Naphthalene	ND		1	5.0	1.7	ug/L	08/28/2013 1035
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/28/2013 1035
Toluene	ND		1	5.0	1.7	ug/L	08/28/2013 1035
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/28/2013 1035

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28291-002
Batch: 28291
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	108	70-130	08/28/2013 0902
tert-Amyl methyl ether (TAME)	50	52		1	103	70-130	08/28/2013 0902
Benzene	50	50		1	100	70-130	08/28/2013 0902
tert-Butyl formate (TBF)	250	260		1	103	70-130	08/28/2013 0902
1,2-Dichloroethane	50	51		1	102	70-130	08/28/2013 0902
Diisopropyl ether (IPE)	50	52		1	104	70-130	08/28/2013 0902
3,3-Dimethyl-1-butanol	1000	1100		1	112	70-130	08/28/2013 0902
Ethanol	5000	5800		1	116	70-130	08/28/2013 0902
Ethylbenzene	50	51		1	102	70-130	08/28/2013 0902
Ethyl-tert-butyl ether (ETBE)	50	56		1	113	70-130	08/28/2013 0902
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	08/28/2013 0902
Naphthalene	50	52		1	105	70-130	08/28/2013 0902
tert-butyl alcohol (TBA)	1000	1000		1	105	70-130	08/28/2013 0902
Toluene	50	53		1	105	70-130	08/28/2013 0902
Xylenes (total)	100	100		1	101	70-130	08/28/2013 0902

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28291-003
Batch: 28291
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	105	2.1	70-130	20	08/28/2013 0925
tert-Amyl methyl ether (TAME)	50	53		1	105	1.5	70-130	20	08/28/2013 0925
Benzene	50	50		1	100	0.68	70-130	20	08/28/2013 0925
tert-Butyl formate (TBF)	250	260		1	103	0.041	70-130	20	08/28/2013 0925
1,2-Dichloroethane	50	51		1	103	0.61	70-130	20	08/28/2013 0925
Diisopropyl ether (IPE)	50	52		1	104	0.067	70-130	20	08/28/2013 0925
3,3-Dimethyl-1-butanol	1000	1100		1	111	0.80	70-130	20	08/28/2013 0925
Ethanol	5000	5600		1	112	3.7	70-130	20	08/28/2013 0925
Ethylbenzene	50	51		1	102	0.069	70-130	20	08/28/2013 0925
Ethyl-tert-butyl ether (ETBE)	50	57		1	114	1.5	70-130	20	08/28/2013 0925
Methyl tertiary butyl ether (MTBE)	50	52		1	104	4.4	70-130	20	08/28/2013 0925
Naphthalene	50	53		1	106	0.91	70-130	20	08/28/2013 0925
tert-butyl alcohol (TBA)	1000	1100		1	105	0.68	70-130	20	08/28/2013 0925
Toluene	50	50		1	100	4.9	70-130	20	08/28/2013 0925
Xylenes (total)	100	100		1	101	0.088	70-130	20	08/28/2013 0925

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28304-001
Batch: 28304
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/29/2013 0233
Toluene	ND		1	5.0	1.7	ug/L	08/29/2013 0233

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		112	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28304-002
Batch: 28304
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	08/29/2013 0124
Toluene	50	50		1	101	70-130	08/29/2013 0124

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28304-003
Batch: 28304
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Methyl tertiary butyl ether (MTBE)	50	56		1	111	12	70-130	20	08/29/2013 0146
Toluene	50	56		1	112	11	70-130	20	08/29/2013 0146

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		118	70-130
1,2-Dichloroethane-d4		111	70-130
Toluene-d8		118	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28355-001
Batch: 28355
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		1	5.0	0.20	ug/L	08/29/2013 1326
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/29/2013 1326

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28355-002
Batch: 28355
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	49		1	99	70-130	08/29/2013 1221
Methyl tertiary butyl ether (MTBE)	50	48		1	96	70-130	08/29/2013 1221

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		109	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28355-003
Batch: 28355
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	50	49		1	98	0.76	70-130	20	08/29/2013 1242
Methyl tertiary butyl ether (MTBE)	50	48		1	95	1.3	70-130	20	08/29/2013 1242

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		109	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: OQ27586-001
Batch: 27586
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	08/21/2013 0409

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		88	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: OQ27586-002
Batch: 27586
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.25		1	101	60-140	08/21/2013 0430

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: OH17005-002MS
Batch: 27586
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	9.9	0.25	9.2		1	137	60-140	08/21/2013 0723

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		118	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: OH17005-002MD
Batch: 27586
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	9.9	0.24	8.7	N	1	-49	5.1	60-140	20	08/21/2013 0744

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		117	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: OQ27588-001
Batch: 27588
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	08/22/2013 0740

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: OQ27588-002
Batch: 27588
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.27		1	108	60-140	08/22/2013 0801

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: OH17005-020MS
Batch: 27588
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.25	0.24		1	100	60-140	08/22/2013 1025

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: OH17005-020MD
Batch: 27588
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.25		1	102	1.7	60-140	20	08/22/2013 1047

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: OQ27652-001
Batch: 27652
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	08/23/2013 1542

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		78	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: OQ27652-002
Batch: 27652
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.26		1	104	60-140	08/23/2013 1604

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: OH17005-041MS
Batch: 27652
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.29		1	118	60-140	08/23/2013 1833

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: OH17005-041MD
Batch: 27652
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.21	+	1	87	31	60-140	20	08/23/2013 1854

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		70	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: OQ27653-001
Batch: 27653
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	08/24/2013 0033

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: OQ27653-002
Batch: 27653
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.28		1	111	60-140	08/24/2013 0054

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: OH17005-065MS
Batch: 27653
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.37	N	1	151	60-140	08/24/2013 0446

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		117	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: OH17005-065MD
Batch: 27653
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.25	0.28	+	1	113	26	60-140	20	08/24/2013 0507

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: OQ27698-001
Batch: 27698
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/21/2013 1150

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	08/22/2013 0017

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: OQ27698-002
Batch: 27698
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/21/2013 1150

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.27		1	107	60-140	08/22/2013 0038

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: OH17005-076MS
Batch: 27698
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/21/2013 1150

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	2.7	0.24	2.8	N	1	21	60-140	08/22/2013 0202

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		110	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: OH17005-076MD
Batch: 27698
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/21/2013 1150

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	2.7	0.25	2.8	N	1	4.3	1.4	60-140	20	08/22/2013 0223

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Chain of Custody Record

Number 33366

Client: BLE	Report to Contact: Dan Osbourne	Sampler (Printed Name): Dan Osbourne, Jr. Steven Clark, Reid A. Debnam & Jason A. Ingram
Address: 6084 Fairview Court	Telephone No. / Fax No. / Email: dan.osbourne@bleengr.com	Waybill No.
City: Greenville / State: SC / Zip Code: 29615		
Project Name: Country Side 2		
Project Number: 313-6940-05	P.O. Number:	

Preservative: 1. Unpres 4. HNO3 7. NaOH; 2. NaOH/ZnA 5. HCl; 3. H2SO4 6. Na Thio

Matrix: GW, DW, WW, S, Other

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab	Composite	GW	DW	WW	S	Other	Analysis: 8260B/CLP (Pace)	8260B/CLP (TCL)	Remarks / Cooler ID
06742-MW2-1	3/13/13	1305	G	X						X	X	
06742-MW2-1A	3/13/13	1020										Temp blk received w/ MW-1A on 3/14/13
06742-MW3-1A DUP	3/13/13	1022										Temp blk labeled w/ MW-1A Dup on COC
06742-MW-1X	3/13/13	1601										
06742-MW-2	3/13/13	1425										
06742-MW2-2	3/13/13	1305										
06742-MW-2X	3/13/13	1410										
06742-MW2-3	3/13/13	1410										
06742-MW-4	3/14/13	1135										
06742-MW2-4	3/13/13	1615	↓	↓						↓	↓	* Sheen noted.

Turn Around Time Required (Prior lab approval required for expedited TAT): Standard / Rush (Please Specify)

Sample Disposal: Return to Client / Dispose by Lab

QC Requirements (Specify)

Possible Hazard Identification: Non-Hazard / Flammable / Skin Irritant / Poison / Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	3/14/13	1337	1. Received by	3/14/13	1337
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	3/14/13	1633	4. Laboratory Received by	3/14/13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Circle) Y / N; Custody Seal Y / N / NA; Receipt Temp. 1.0 °C; Temp. Blank Y / N

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Level 1 Report v2.1

SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 11

Page 1 of 1
Replaces Date: 01/28/13
Effective Date: 04/18/13

Sample Receipt Checklist (SRC)

Client: BLE Cooler Inspected by/date: EA 8/17/13 Lot #: OH A005

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Airborne Exp ☐ Other

Yes ☐	No ☑		1. Were custody seals present on the cooler?
Yes ☐	No ☐		2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt: 1459/1.0 °C 1163/1.0 °C ___/___ °C ___/___ °C
Method: ☐ Temperature Blank ☑ Against Bottles
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed?
Yes ☑	No ☐		7. Was collection date & time listed?
Yes ☑	No ☐		8. Were tests to be performed listed on the COC?
Yes ☑	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☐	No ☑		10. Did all container label information (ID, date, time) agree with COC? -041
Yes ☑	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		12. Was adequate sample volume available?
Yes ☐	No ☑		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		14. Were any samples containers missing?
Yes ☐	No ☑		15. Were there any excess samples not listed on COC?
Yes ☑	No ☐	NA ☐	16. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)
-045 (3) -060 (3) -065 (1) -069 (2)

Sample(s) -013 (2), -024 (1), -042 (1), were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/phenol

Sample labels verified by: _____ Date: _____

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐

SESI employee: _____ Date of response: _____

Comments: -041 vials labelled "MW-26 DD" but time of collection same as on COC
-061 (3) vials labelled MW-53 but time of collection same as MW52

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Chain of Custody Record

Number 33367

Client: BLE	Report to Contact: Don Ushmorine	Sampler (Printed Name): Don A. Ushmorine, Brian A. Shealy, Reid A. Abernathy	Quote No.
Address: 6004 Market Court	Telephone No. / Fax No. / Email: dushmorine@bleinc.com	Waybill No.	Page: 2 of 3
City: Greenville	State: SC	Zip Code: 29605	
Project Name: County Site 2			
Project Number: J13-09410-05	P.O. Number:		

Preservative: 1. Unpres. 2. NaOH/ZnAc 3. H2SO4 4. HNO3 5. HCl 6. Na Thio. 7. NaOH

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab	Composite	Matrix: GW	DW	WW	S	Other	Analysis: 8260B/8260B PH+Lead Scan	BTEX (8260)	Number of Containers	Bottle (See Instructions on back)	Preservative	Lot No.	Remarks / Cooler ID
06742-MW2-7DUP	8/13/13	1414	G	X						X	X	3	4	5	OH 17005	* Sheen noted
06742-MW2-4R	8/13/13	1535														* Sheen noted
06742-MW-5	8/14/13	1357														
06742-MW-6	8/13/13	1445														
06742-MW-6 DUP	8/13/13	1446														
06742-MW-6X	8/15/13	1340														
06742-MW-7	8/13/13	1130														* Sheen noted
06742-MW-7 DUP	8/13/13	1131														* Sheen noted
06742-MW-7R	8/13/13	1230														
06742-MW-9	8/13/13	1231	↓	↓						↓	↓					

Turn Around Time Required (Prior lab approval required for expedited TAT): ☑ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

QC Requirements (Specify):

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	8/16/13	1338	1. Received by	8/16/13	1338
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	8/16/13	1633	4. Laboratory Received by	8/13/13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Circle) ☑ Yes ☐ No ☐ Ice Pack | Receipt Temp: 1-0 °C | Temp. Blank: ☐ Y / ☐ N

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Level 1 Report v2.1

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Chain of Custody Record

Number 33368

Client	Report to Contact	Sampler (Printed Name)	Quote No.
BLE	Dan Osborne	NAD, FAJ, DRM, WSC	
Address	Telephone No. / Fax No. / Email	Waybill No.	Page 3 of 4
City / State / Zip Code	Preservative: 1. Ascorbic 2. NaOH/ZnA 3. HCL 4. H2SO4 5. HNO3 6. NaThio.		Number of Containers / Bottle (See instructions on back) / Preservative
Project Name: Country Site 2			Lot No. 01 17005
Project Number: TB-6510-05	P.O. Number	Matrix: GW DW WW S Other	Analysis: 8260B (Full List + MNA + Ethanol + 1,4-Dioxane) (Bottle #3) / Ethanol (Bottle #4)
Sample ID / Description (Containers for each sample may be combined on one line)	Date / Time / G-Grab C-Composite		Remarks / Cooler ID
06742 - MW-9R	8/13/13 1304	G X	X X
06742 - MW-11	8/14/13 1123		
06742 - MW12-11	8/14/13 1056		
06742 - MW-12	8/14/13 1454		
06742 - MW-13R	8/14/13 1625		
06742 - MW-14R	8/14/13 1251		
06742 - MW-14R2	8/14/13 1245		
06742 - MW-15R	8/13/13 1610		
06742 - MW-16DD	8/13/13 1100		
06742 - MW-17R	8/13/13 1335	G G	X X

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Dispose by Lab

QC Requirements (Specify):

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	8/16/13	1332	1. Received by	8/16/13	1838
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	8/16/13	1933	4. Laboratory Received by	8-16-13	1933

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Check): ☐ Yes ☐ No ☐ Ice Pack — Receipt Temp: 1.0 °C — Temp. Blank: ☐ Y / ☐ N

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Chain of Custody Record

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Number 33369

Client: DLE	Report to Contact: Don Osborne	Sampler (Printed Name): RAD, IAI, DRM, WSC	Quote No
Address	Telephone No. / Fax No. / Email	Waybill No.	Page 4 of 9
City / State / Zip Code	Preservative: 1. Unpres 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCl 6. Na Thio. 7. NaOH		Number of Containers
Project Name: Country Side 2			Bottle (See instructions on back)
Project Number: JTI-6940-05	P.O Number		Preservative
			Lot No: 0H17005

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis	8/16 (8/16 TEX + MTBE + Cond. 3 ...)	8/16 (8/16 TEX)	Remarks / Cooler ID
06742-MW-18D	8/14/13	1350	G	X						X	X	
06742-MW-19I	8/15/13	0910										
06742-MW-20D	8/15/13	1045										
06742-MW-21I	8/15/13	0945										
06742-MW-22D	8/15/13	1058										
06742-MW-23	8/13/13	0945										
06742-MW-24	8/13/13	0940										
06742-MW-25	8/13/13	1025										* Sheen noted
06742-MW-25 DUP	8/13/13	1026										* Sheen noted
06742-MW-26I	8/14/13	1620	↓	↓						↓	↓	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☑ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☑ Non Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: [signature]	8/16/13	1338	1. Received by: [signature]	8/16/13	1338
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by	8/16/13	
4. Relinquished by: [signature]	8/16/13	1633	4. Laboratory Received by: [signature]	8/16/13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check) ☑ Yes ☐ No Ice Pack | Receipt Temp 1.0 °C | Temp. Blank ☐ Y / ☐ N

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Chain of Custody Record

Number 33370

Client: RE	Report to Contact: Dan Osborne	Sampler (Printed Name): RAB, JH-T, DMS, BRAH	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page: 5 of 9
City / State / Zip Code	Preservative: 1. Unpres. 2. NaOH/ZnA 3. NaOH 4. HNO3 5. HCl 6. Na2S2O3		Number of Containers
Project Name: Country Side Z			Bottle (See Instructions on back)
Project Number: 713-6749-05	P.O. Number		Preservative
			Lot No.: 0417005

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab	Composite	Matrix: GW	DW	WW	S	Other	Analysis: 8260B/BTEX + MTBE + Naphthalene + 2-MeNaph	MNA (full)		Remarks / Cooler ID
06742-MW-28D	8/15/13	1213	G		X					X	X		MS/MSD for 3rd qtr MW-28D, MW-31D
06742-MW-29	8/14/13	0930											
06742-MW-30I	8/14/13	1412											
06742-MW-31D	8/15/13	1130											
06742-MW-32	8/14/13	1004											
06742-MW-35I	8/15/13	1200											
06742-MW-36D	8/15/13	1054											
06742-MW-39I	8/15/13	1228											
06742-MW-40D	8/15/13	1029											
06742-MW-99DD	8/15/13	0956	↓	↓	↓					↓	↓		

Turn Around Time Required (Prior lab approval required for expedited TAT): ☑ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Samples	8/16/13	1338	1. Received by	8/16/13	1338
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date 8/16/13	Time 1633	4. Laboratory Received by	Date 8-16-13	Time 1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack | Receipt Temp: 1.0 °C | Temp. Blank ☐ Y / ☐ N

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Chain of Custody Record

Number 33371

Client: BLC	Report to Contact: Don Osbourne	Sampler (Printed Name): RAB, JAT, HCC, DRM	Quote No.
Address	Telephone No. / Fax No. / Email:	Waybill No.	Page: 6 of 9
City / State / Zip Code	Preservative: 1. Cool 2. $NaOH/ZnAc$ 3. H_2SO_4 4. HNO_3 5. HCL 6. Na Thio. 7. NaOH		Number of Containers / Bottle (See Instructions on back) / Preservative
Project Name: County Sub 2			Lot No.: 0H17005
Project Number: JIB - 69498 - 05	P.O. Number	Matrix: GW, DW, WW, S, Other	Analysis: Pb, SO_4, Br, Cl, F, NO_3, NO_2, PO_4, Specific Conductance (EC); Total (EC)

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab/Comp	GW	DW	WW	S	Other	Pb, SO_4, Br, Cl, F, NO_3, NO_2, PO_4, Specific Conductance (EC)	Total (EC)	Remarks / Cooler ID
06742 - MW - 38	8/14/13	1126	G	X					X	X	
06742 - MW - 39 I	8/14/13	1540									
06742 - MW - 40D	8/14/13	1621									
06742 - MW - 41I	8/15/13	1225									
06742 - MW - 42D	8/15/13	0918									
06742 - MW - 43	8/14/13	1522									
06742 - MW - 44I	8/15/13	1259									
06742 - MW - 46	8/14/13	0945									
06742 - MW - 47	8/14/13	1102									
06742 - MW - 49	8/14/13	1320	↓	↓					↓	↓	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☒ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposed by Lab

QC Requirements (Specify):

Possible Hazard Identification: ☐ Non Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	8/16/13	1378	1. Received by	8/16/13	1378
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	8/16/13	1633	4. Laboratory Received by	8-16-13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Circle): ☐ Yes ☐ No ☐ Ice Pack — Receipt Temp. 1.0 °C — Temp. Blank ☐ Y / ☐ N

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Chain of Custody Record

Number 33372

Client: BLE	Report to Contact: Dan Gsheume	Sampler (Printed Name): ZAD, USL, IMS, LMW	Quote No:
Address:	Telephone No. / Fax No. / Email:	Waybill No:	Page: 7 of 9
City:	State:	Zip Code:	Number of Containers
Project Name: County Site 2	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCl 6. Na2S2O3 7. NaOH		Bottle (See instructions on back)
Project Number: J13-6940-05	P.O. Number:		Preservative

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab or Composite	Matrix: GW	DW	WW	S	Other	Analysis: Chloride (EPA 300.0)	Nitrate-Nitrite (as N) (EPA 353.2)	Lot No. / Remarks / Cooler ID
06742-MW-52	8/13/13	1440	G	X					X	X	OH17005
06742-MW-53	8/13/13	1524									
06742-MW-54	8/13/13	1105									
06742-MW-55	8/14/13	1450									
06742-MW-57I	8/14/13	1458									
06742-MW-58	8/14/13	1330									
06742-MW-59	8/14/13	1355									
06742-MW-61	8/13/13	1455									
06742-MW-62	8/13/13	1022									
06742-MW-63	8/14/13	1127	↓	↓					↓	↓	

Some wells may be labeled as MW-57

Turn Around Time Required (Prior lab approval required for expedited TAT): ☑ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify):

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	8/16/13	1332	1. Received by	8/16/13	1332
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	8/16/13	1633	4. Laboratory Received by	8/16/13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check): ☐ Yes ☐ No ☐ Ice Pack | Receipt Temp. 1.2 °C | Temp. Blank ☐ Y / ☐ N

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Chain of Custody Record

Number 33373

Client	Report to Contact	Sampler (Printed Name)	Quote No.
BLE	Dan Osborne	ZAB, JAT, JDC, DRW	
Address	Telephone No. / Fax No. / Email	Waybill No.	Page 8 of 9
City / State / Zip Code	Preservative: 1. Ungres 4. HNO3 7. NaOH; 2. NaOH/ZnA 5. HCL; 3. H2SO4 6. Na Thio.		Number of Containers / Bottle (See instructions on back) / Preservative
Project Name: Country Side 2			Lot No. OH170005

Project Number	P.O. Number	Grab/Comp	Matrix	Analysis	Remarks / Cooler ID
Sample ID / Description (Containers for each sample may be combined on one line)	Date / Time	G=Grab C=Composite	GW / DW / WW / S / Oil	Volatiles (8260 HHS List) / dBH (EDB)	
06742-MW-64	8/4/13 1220	G	X	X	
06742-MW-65	8/5/13 1345				
06742-MW-66	8/5/13 1357				
06742-MW-67	8/5/13 1402				
06742-MW-68	8/6/13 0940				
06742-MW-69	8/4/13 1310				
06742-MW-70	8/5/13 1302				
SW-1	8/4/13 1340				
Field Blank 1	8/3/13 1020				
Field Blank 2	8/4/13 1030	↓	↓	↓	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	8/6/13	1238	1. Received by	8/6/13	13:38
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	8/6/13	1633	4. Laboratory Received by	8/6/13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Circle): ☐ Yes ☐ No ☐ Ice Pack — Receipt Temp. 1.2 °C — Temp. Blank ☐ Y / ☐ N

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Number 33374

Client: BLE	Report to Contact: Don Osbourne	Sampler (Printed Name): RAD, IAI, HSL, DRM	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page 9 of 9
City / State / Zip Code	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. NaThio 7. NaOH		Number of Containers
Project Name: Country Side 2			Bottle (See Instructions on back)
Project Number: J13-6940 05	P.O Number		Preservative
			Lot No. OH 17005

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	S=Grab C=Composite	Matrix: SW	DW	WW	S	Other	Analysis	8/1/13 (8/3/13+8/4+8/5)	8011 (EDB)	Remarks / Cooler ID
Field Blank 3	8/15/13	1500	G	X						X	X	
Trip Blank 1	—	—	—							↓	↓	
Trip Blank 2	—	—	—							↓	↓	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☑ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: [signature]	8/16/13	1338	1. Received by: [signature]	8/16/13	1338
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by: [signature]	8/16/13	1633	4. Laboratory Received by: [signature]	8-16-13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack | Receipt Temp. 1-4 °C | Temp. Blank ☐ Y / ☐ N

APPENDIX D

SCDHEC CONTRACTOR CHECKLIST

Contractor Checklist

For each report submitted to the UST Management Division, the contractor will be required to verify that all data elements for the required scope of work have been provided. For items not required for the scope of work, the N/A box should be checked. For items required and not completed or provided, the No box should be checked and a thorough description of the reason must be provided.

Item #	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	✓		
2	Is UST Owner/Operator name, address, & phone number provided?	✓		
3	Is name, address, & phone number of current property owner provided?	✓		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	✓		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			✓
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	✓		
7	Has the facility history been summarized?	✓		
8	Has the regional geology and hydrogeology been described?			✓
9	Are the receptor survey results provided as required?			✓
10	Has current use of the site and adjacent land been described?	✓		
11	Has the site-specific geology and hydrogeology been described?			✓
12	Has the primary soil type been described?			✓
13	Have field screening results been described?			✓
14	Has a description of the soil sample collection and preservation been detailed?			✓
15	Has the field screening methodology and procedure been detailed?			✓
16	Has the monitoring well installation and development dates been provided?			✓
17	Has the method of well development been detailed?			✓
18	Has justification been provided for the locations of the monitoring wells?			✓
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			✓
20	Has the groundwater sampling methodology been detailed?	✓		
21	Have the groundwater sampling dates and groundwater measurements been provided?	✓		
22	Has the purging methodology been detailed?	✓		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete?	✓		
24	If free-product is present, has the thickness been provided?	✓		
25	Does the report include a brief discussion of the assessment done and the results?	✓		
26	Does the report include a brief discussion of the aquifer evaluation and results?			✓
27	Does the report include a brief discussion of the fate & transport models used?			✓

Item #	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			✓
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			✓
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			✓
31	Have recommendations for further action been provided and explained?	✓		
32	Has the soil analytical data for the site been provided in tabular format?			✓
33	Has the potentiometric data for the site been provided in tabular format?	✓		
34	Has the current and historical laboratory data been provided in tabular format?	✓		
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			✓
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			✓
37	Has the topographic map been provided with all required elements? (Figure 1)	✓		
38	Has the site base map been provided with all required elements? (Figure 2)	✓		
39	Have the CoC site maps been provided?	✓		
40	Has the site potentiometric map been provided?	✓		
41	Have the geologic cross-sections been provided?			✓
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			✓
43	Has the site survey been provided and include all necessary elements? (Appendix A)			✓
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements?	✓		
45	Is the laboratory performing the analyses properly certified?	✓		
46	Has the tax map been included with all necessary elements? (Appendix C)			✓
47	Have the soil boring/field screening logs been provided?			✓
48	Have the well completion logs and SCDHEC Form 1903 been provided?			✓
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			✓
50	Have the disposal manifests been provided?	✓		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			✓
52	Has all fate and transport modeling been provided? (Appendix I)			
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			✓
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided?	✓		

Explanation for missing and incomplete information?

Document Receipt Information

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Date Received 9 Dec 2013

Permit Number 06742

Project Manager Joel Padgett

Name of Contractor BLE

UST Certification Number UCC-0010

Docket Number 56 tech

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BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF COMPREHENSIVE GROUNDWATER SAMPLING EVENT – AUGUST 2013

Country Side 2
8050 West Oak Highway
Westminster, Oconee County, South Carolina
UST Permit #06742; Cost Agreement #45513

Prepared For:

Mr. Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693-5534

Prepared By:

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, South Carolina 29615
SCDHEC Certified Contractor No. UCC-010

November 26, 2013

BLE Project Number J13-6940-05

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

November 26, 2013

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
Underground Storage Tank Program
2600 Bull Street
Columbia, South Carolina 29201-1708

Attention: Mr. Joel P. Padgett, P.G., Geologist/Hydrologist

Subject: **Report of Comprehensive Groundwater Sampling Event – August 2013**
Country Side 2
8050 West Oak Highway
Westminster, Oconee County, South Carolina
UST Permit #06742; CA #45513
BLE Project No. J13-6940-05

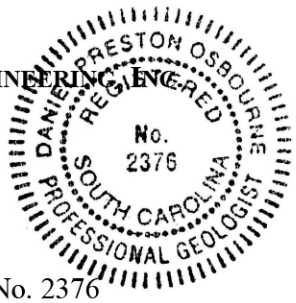
Dear Mr. Padgett:

On behalf of Mr. Neil Alexander, Bunnell-Lammons Engineering, Inc. (BLE) has completed a comprehensive groundwater sampling event at the subject site. This scope of work was performed in response to the South Carolina Department of Health and Environmental Control's (SCDHEC) directive dated June 26, 2013 and in accordance with BLE's Quality Assurance Project Plan (QAPP) Addendum dated June 11, 2013. The results of our activities are provided herein.

The Assessment Component Invoice will be submitted under separate cover to Ms. Robertha Dorsey of the SCDHEC, Bureau of Business Management, Division of Procurement Services for payment. Please do not hesitate to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.



Daniel P. Osbourne, P.G.
Senior Hydrogeologist
Registered, South Carolina No. 2376

Thomas L. Lammons, P.G., CHMM
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Neil Alexander C/O Alley Antiques, 8050 West Oak Hwy, Westminster, SC 29693-5534

6004 PONDERS COURT
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BACKGROUND INFORMATION

The subject property is located at 8050 West Oak Highway in Westminster, Oconee County, South Carolina (Figure 1). The site currently operates as Country Side 2, an active automobile fueling station and convenience store. We understand that five underground storage tanks (USTs) and associated piping and fueling dispensers were removed from the site in June 1990: two 1,000-gallon gasoline, one 550-gallon gasoline, one 550-gallon diesel, and one 550-gallon kerosene. Five USTs are currently in use at the site: one 10,000-gallon off-road diesel, one 10,000-gallon kerosene, one 8,000-gallon "regular" gasoline, one 6,000-gallon "plus" gasoline, and one 6,000-gallon diesel, and associated equipment were installed in their place. In January 1993, during the UST removal activities, a release of petroleum from the UST system was reported. Numerous environmental assessments have been conducted at the site by various consultants since 1993, including the installation of over eighty-one groundwater monitoring/recovery/injection wells to assess the horizontal and vertical extent of petroleum hydrocarbons in groundwater beneath the site. Additionally, petroleum free-product recovery has been conducted via multiple Aggressive Fluid Vapor Recovery (AFVR) events and a 96-hour Mobile Multi-Phase Extraction (MMPE) event. BLE also understands the site was previously in active corrective action utilizing a form of injection technology. Several injection wells associated with the prior remedial activities are still present on the property.

On June 26, 2013, in an effort to determine what risk the release may pose to the environment and to evaluate current groundwater chemical of concern (CoC) data, the SCDHEC issued a directive for the completion of a comprehensive groundwater sampling event at the subject site. The directive was submitted upon approval of BLE's Quality Assurance Program Plan (QAPP) Addendum dated June 11, 2013. This report documents the results of these activities.

GROUNDWATER WATER SAMPLING

From August 12, 2013 to August 15, 2013, BLE personnel mobilized to the site to measure groundwater levels and collect groundwater and surface water samples. The subject site contains eighty-one groundwater access points, consisting of the following:

- Seventy 2-inch diameter monitoring wells:
    - Forty-two shallow monitoring wells (MW-1 through MW-7, MW-7R, MW-8, MW-9, MW-9R, MW-11, MW-12, MW-13R, MW-14R, MW-14R2, MW-15R, MW-23 through MW-25, MW-29, MW-32, MW38, MW-43, MW46, MW-47, MW-49 through MW-55, MW-58, MW-59, MWR-1 through MWR-4, MWR-11, MWR-1A, and MWR-4R)
    - Two intermediate single-cased wells (MW-44I and MW-57I),
    - Nine intermediate double-cased wells (MW-17I, MW-19I, MW-21I, MW-26I, MW-30I, MW-33I, MW-35I, MW-39I, and MW-41I),
    - Eight deep-penetrating double-cased wells emplaced on the top of rock (MW-18D, MW-20D, MW-22D, MW-31D, MW-34D, MW-36D, MW-40D, and MW-42D),
    - Three deep-penetrating double-cased wells advanced into rock (MW-16DD, MW-28DD, and MW-37DD), and
    - Six injection wells (MW-1X through MW-6X).
- Eleven 4-inch diameter recovery wells (MW-60 through MW-70)

Additionally, one surface water sampling point (SW-1) is located down-gradient of the subject site.

The following monitoring wells were not able to be sampled during the current scope of work:

- MW-1, MW-3, and MW-4X were dry;
- MW-8 (0.58-feet), MW-51 (0.22-feet), and MW-60 (0.01-feet) contained free-phase product;
- MW-50 was not able to be located, and is thought to be under a pile of lumber;
- MW-3X was obstructed by organic debris, and;
- MW-5X has been destroyed.

Groundwater level measurements are summarized on Table 1. Monitoring well locations and a groundwater elevation contour map, which shows the occurrence and direction of groundwater flow in the uppermost aquifer, are provided in Figure 2. Groundwater flow is generally to the south/southeast from the site.

Pursuant to the SCDHEC's directive and the site specific QAPP, monitoring wells associated with the site were purged prior to groundwater sample collection. Petroleum-impacted purge-water generated during the sampling event was contained in sealed 55-gallon drums on-site and later transported off-site for disposal. Monitoring well purging and sampling procedures are described in Appendix A and a disposal manifest for the purge-water is included as Appendix B.

Seventy-two groundwater monitoring wells (MWR-1, MWR-1A, MW-2, MWR-2, MWR-3, MW-4, MWR-4, MWR-4R, MW-5 through MW-7, MW-7R, MW-9, MW-9R, MW-11, MWR-11, MW-12, MW-13R, MW-14R, MW-14R2, MW-15R, MW-16DD, MW17I, MW-18D, MW-19I, MW-20D, MW-21I, MW-22D, MW-23 through MW-25, MW-26I, MW-28DD, MW-29, MW-30I, MW-31D, MW-32, MW-33I, MW-34D, MW-35I, MW-36D, MW-37DD, MW38, MW-39I, MW-40D, MW-41I, MW-42D, MW-43, MW-44I, MW-46, MW-47, MW-49, MW-52 through MW-55, MW-57I, MW-58, MW-59, MW-61 through MW-70, MW-1X, MW-2X, and MW-6X) were sampled for laboratory analyses from August 13, 2013 to August 15, 2013. Additionally, one surface water location (SW-1) was sampled on August 14, 2013. Sample containers were marked in the field with identifying numbers, properly preserved, placed into sample coolers, secured, and maintained at less than 4 degrees Celsius. The samples and chain-of-custody records were delivered to Shealy Environmental Services, Inc. in West Columbia, South Carolina for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX), naphthalene, MTBE, 1,2-dichloroethane (1,2 DCA), and 8-oxygenates by Environmental Protection Agency (EPA) Method 8260B and 1,2-dibromoethane (EDB) by EPA Method 8011. Additionally, as required by the SCDHEC's Master QAPP Revision 2.0, dated April 2013, four field duplicates (denoted by the suffix DUP), three field blanks, and two trip blanks were collected and submitted for the appropriate laboratory analyses. Monitoring well sampling procedures and logs are provided in Appendix A.

GROUNDWATER SAMPLING RESULTS

Of the seventy-two groundwater monitoring wells and one surface water point sampled for laboratory analysis, fifty-one monitoring wells and the surface water point detected petroleum

hydrocarbon chemicals of concern (CoCs) above South Carolina Risk-Based Screening Levels[1] (RBSLs). Concentrations exceeding RBSLs are as follows:

Benzene: MWR-1, MWR-1A, MWR-2, MW-4, MWR-4, MWR-4R, MW-6, MW-7, MW-7R, MW-11, MWR-11, MW-13R, MW-14R2, MW-16DD, MW-17I, MW-18D, MW-19I, MW-20D, MW-21I, MW-24, MW-25, MW-26I, MW-28DD, MW-30I, MW-31D, MW-32, MW-33I, MW-34D, MW-35I, MW-36D, MW-39I, MW-40D, MW-52, MW-54, MW-57I, MW-61 through MW-70, MW-1X, MW-2X, and MW-6X;

Toluene: MWR-1, MWR-1A, MW-4, MWR-4, MWR-4R, MW-6, MW-7, MW-7R, MW-17I, MW-19I, MW-52, MW-54, MW-61 through MW-70, MW-2X, and MW-6X;

Ethylbenzene: MWR-1, MWR-1A, MWR-4, MWR-4R, MW-7, MW-7R, MW-17I, MW-19I, MW-52, MW-54, MW-62 through MW-70, MW-2X, and MW-6X;

Xylenes: MWR-1, MWR-1A, MWR-4, MWR-4R, MW-7, MW-7R, MW-17I, MW-19I, MW-54, MW-61 through MW-70, MW-2X, and MW-6X;

MTBE: MWR-1, MWR-1A, MW-4, MWR-4, MWR-4R, MW-7R, MW-13R, MW-15R, MW-17I, MW-18D, MW-19I, MW-20D, MW-21I, MW-25, MW-26I, MW-30I, MW-31D, MW-32, MW-33I, MW-34D, MW-35I, MW-36D, MW-39I, MW-40D, MW-46, MW-52, MW-59, MW-61, MW-65 through MW-70, MW-2X, MW-6X, and SW-1;

Naphthalene: MWR-1, MWR-1A, MW-4, MWR-4, MWR-4R, MW-6, MW-7, MW-7R, MWR-11, MW-13R, MW-14R2, MW-17I, MW-18D, MW-19I, MW-25, MW-30I, MW-34D, MW-52, MW-61, MW-62, MW-63, MW-65 through MW-67, MW-69, MW-70, and MW-6X;

EDB: MWR-1, MWR-1A, MW-4, MWR-4, MWR-4R, MW-19I, MW-21I, MW-52, MW-54, MW-61 through MW-70, MW-2X, and MW-6X;

1,2-DCA: MW-4, MW-13R, MW-18D, MW-26I, MW-63, MW-64, MW-69, and MW-2X;

Diisopropyl Ether (IPE): MWR-1A, MW-21I, and MW-64;

[1] South Carolina Risk-Based Corrective Action for Petroleum Releases, Bureau of Land and Waste Management, Underground Storage Tank Program, May 15, 2001.

Tert-amyl alcohol (TAA): MWR-1, MWR-1A, MW-4, MWR-4, MWR-4R, MW-6, MW-13R, MW-17I, MW-18D, MW-19I, MW-20D, MW-21I, MW-25, MW-26I, MW-30I, MW-31D, MW-32, MW-33I, MW-34D, MW-35I, MW-36D, MW-39I, MW-40D, MW-52, MW-61, MW-63 through MW-67, MW-69, MW-70, MW-6X, and SW-1;
Tert-amyl methyl ether (TAME): MWR-1, MWR-1A, MW-19I, MW-21I, and MW-64;
Tert-butyl alcohol (TBA): MWR-1, MWR-1A, MW-4, MW-19I, MW-67, and MW-70.

Various petroleum hydrocarbons were also detected in groundwater monitoring wells MW-2, MW-22D, MW-37DD, MW-38, MW-42D, MW-43, MW-44I, and MW-49, however, the concentrations did not exceed South Carolina established RBSLs. Additionally, free-phase petroleum product was discovered in monitoring wells MW-8 (0.58-feet), MW-51 (0.22-feet), and MW-60 (0.01-feet). Historical groundwater analytical results from the groundwater monitoring wells and surface water sampling point associated with the facility are summarized in Tables 2A and 2B and current groundwater CoC concentrations are shown on Figure 3. Laboratory data sheets are provided in Appendix C.

CONCLUSIONS AND RECOMMENDATIONS

Based on the groundwater elevation data obtained during this sampling event, groundwater appears to flow south/southeast from the area of the UST system release. The depth to groundwater in the unconfined aquifer ranges from 7.49-feet bgs (MW-43) to 30.60-feet bgs (MW-25) across the study area. Petroleum constituents detected in the groundwater above RBSLs during the August 2013 groundwater sampling event include: BTEX, MTBE, naphthalene, EDB, 1,2-DCA, IPE, TAA, TAME, and TBA. Free-phase petroleum product was also detected in monitoring wells MW-8 (0.58-feet), MW-51 (0.22-feet), and MW-60 (0.01-feet).

Based on current groundwater CoC concentrations, it appears that the contamination plume is not currently defined horizontally or vertically; therefore, BLE recommends the installation of eight additional shallow groundwater monitoring wells. The proposed locations of the new groundwater monitoring wells are depicted on Figure 4.

Additionally, BLE recommends a 96-hour MMPE event be conducted to 1) remove residual free-phase product from the area around each extraction point, 2) remove petroleum hydrocarbon vapors from the unsaturated zone, and 3) remove petroleum-impacted groundwater (mass) from the subsurface. We recommend performing the MMPE event on the following wells: MWR-4R, MW-52, MW-61, MW-62, MW-63, MW-64, MW-65, MW-66, MW-67, MW-68, MW-69, and MW-70. Temporary vacuum will be applied to the remaining monitoring wells exhibiting free-product during the MMPE event on an as-needed basis.

Approximately 30 days after completion of the MMPE event, we recommend a comprehensive groundwater sampling event be performed to evaluate contaminant trends on the site and to evaluate the effectiveness of the MMPE event at removing free-phase petroleum product and reducing concentrations of petroleum compounds in the groundwater.

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Mr. Neil Alexander. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

TABLES

TABLE 1

Monitoring Well and Groundwater Elevation Data
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Monitoring Well	Date	Northing	Easting	TOC Elev.	Ground Elev.	Free-Product Thickness	GW Depth BTOC	GW Depth BGS	Groundwater Elev.	Well Depth	Screened Interval Depth	Screened Interval Elevation
06742-MW1	5/8/2007	1010146.123	1402713.112	931.72	932.02	DRY				NA	NA - NA	NA - NA
	8/12/2013					DRY						
06742-MWR1	5/8/2007	1010150.732	1402710.184	931.28	931.48	**1.25**	33.65	33.85	897.63	45.0	30.0 - 45.0	901.28 - 886.28
	8/12/2013					---	29.65	29.85	901.63			
06742-MWR1A	5/8/2007	1010194.305	1402741.665	931.53	931.98	---	33.23	33.68	898.30	70.0	65.0 - 70.0	866.53 - 861.53
	8/12/2013					---	30.05	30.50	901.48			
06742-MW2	5/8/2007	1010121.417	1402755.213	929.31	929.67	DRY				NA	NA - NA	NA - NA
	8/12/2013					**---**	27.38	27.74	901.93			
06742-MWR2	5/8/2007	1010118.884	1402750.226	928.96	929.35	---	30.63	31.02	898.33	40.0	25.0 - 40.0	903.96 - 888.96
	8/12/2013					---	27.05	27.44	901.91			
06742-MW3	5/8/2007	1010140.621	1402806.266	929.27	929.41	DRY				NA	NA - NA	NA - NA
	8/12/2013					DRY						
06742-MWR3	5/8/2007	1010138.197	1402803.015	928.96	929.24	---	30.81	31.09	898.15	40.0	30.0 - 40.0	898.96 - 888.96
	8/12/2013					---	27.51	27.79	901.45			
06742-MW4	5/8/2007	1009988.570	1402742.705	918.71	919.10	---	25.74	26.13	892.97	25.0	15.0 - 25.0	903.71 - 893.71
	8/12/2013					---	18.40	18.79	900.31			
06742-MWR4	5/8/2007	1010059.602	1402694.449	925.62	925.86	**0.29**	28.05	28.29	897.57	38.0	28.0 - 38.0	897.62 - 887.62
	8/12/2013					---	24.50	24.74	901.12			
06742-MWR4R	5/8/2007	1010057.835	1402684.903	925.57	925.88	**0.58**	28.42	28.73	897.15	40.0	25.0 - 40.0	900.57 - 885.57
	8/12/2013					---	24.52	24.83	901.05			
06742-MW5	5/8/2007	1009797.504	1402767.973	907.22	907.50	---	14.51	14.79	892.71	20.0	10.0 - 20.0	897.22 - 887.22
	8/12/2013					---	11.66	11.94	895.56			
06742-MW6	5/8/2007	1010057.793	1402680.138	925.26	925.97	---	27.49	28.20	897.77	35.0	20.0 - 35.0	905.26 - 890.26
	8/12/2013					---	24.28	24.99	900.98			
06742-MW7	5/8/2007	1010172.567	1402658.959	930.21	930.71	---	31.14	31.64	899.07	39.0	24.0 - 39.0	906.21 - 891.21
	8/12/2013					---	28.01	28.51	902.20			
06742-MW7R	5/8/2007	1010174.294	1402662.125	930.62	930.99	---	31.57	31.94	899.05	45.0	35.0 - 45.0	895.62 - 885.62
	8/12/2013					---	28.41	28.78	902.21			
06742-MW8*	5/8/2007	1010205.854	1402743.366	931.32	931.91	**0.44**	33.26	33.85	898.06	45.0	25.0 - 45.0	906.32 - 886.32
	8/12/2013					**0.58**	29.93	30.52	901.39			
06742-MW9	5/8/2007	1010152.373	1402598.121	928.99	929.38	---	29.12	29.51	899.87	32.0	17.0 - 32.0	911.99 - 896.99
	8/12/2013					---	25.03	25.42	903.96			
06742-MW9R	5/8/2007	1010142.202	1402602.580	928.80	929.38	---	29.47	30.05	899.33	45.0	35.0 - 45.0	893.80 - 883.80
	8/12/2013					---	25.40	25.98	903.40			
06742-MW11	5/8/2007	1009968.189	1402662.895	919.17	919.46	---	22.35	22.64	896.82	35.0	22.0 - 35.0	897.17 - 884.17
	8/12/2013					---	18.81	19.10	900.36			
06742-MWR11	5/8/2007	1009968.046	1402658.467	919.26	919.46	---	22.42	22.62	896.84	40.0	30.0 - 40.0	889.26 - 879.26
	8/12/2013					---	18.90	19.10	900.36			
06742-MW12	5/8/2007	1009639.295	1402874.982	894.76	895.11	---	9.62	9.97	885.14	12.0	7.0 - 12.0	887.76 - 882.76
	8/12/2013					---	7.09	7.44	887.67			
06742-MW13R	5/8/2007	1009845.121	1402780.931	907.90	908.27	---	14.87	15.24	893.03	35.0	25.0 - 35.0	882.90 - 872.90
	8/12/2013					---	11.61	11.98	896.29			
06742-MW14R	5/8/2007	1009841.526	1402657.499	911.39	911.93	---	16.80	17.34	894.59	35.0	25.0 - 35.0	886.39 - 876.39
	8/12/2013					---	13.25	13.79	898.14			
06742-MW14R2	5/8/2007	1009843.200	1402662.489	911.36	911.64	---	16.73	17.01	894.63	25.0	10.0 - 25.0	901.36 - 886.36
	8/12/2013					---	13.20	13.48	898.16			
06742-MW15R	5/8/2007	1010076.320	1402894.087	925.06	925.44	---	27.74	28.12	897.32	45.0	30.0 - 45.0	895.06 - 880.06
	8/12/2013					---	24.49	24.87	900.57			
06742-MW16DD	5/8/2007	1010212.278	1402724.071	931.59	931.97	---	37.86	38.24	893.73	95.0	90.0 - 95.0	841.59 - 836.59
	8/12/2013					---	31.85	32.23	899.74			
06742-MW17I	5/8/2007	1010141.227	1402707.453	930.54	930.73	---	31.93	32.12	898.61	52.0	47.0 - 52.0	883.54 - 878.54
	8/12/2013					---	28.80	28.99	901.74			
06742-MW18D	5/8/2007	1010139.698	1402710.802	930.51	930.94	---	31.99	32.42	898.52	61.0	56.0 - 61.0	874.51 - 869.51
	8/12/2013					---	28.87	29.30	901.64			
06742-MW19I	5/8/2007	1010114.270	1402757.799	928.40	928.68	---	30.37	30.65	898.03	55.0	50.0 - 55.0	878.40 - 873.40
	8/12/2013					---	26.97	27.25	901.43			
06742-MW20D	5/8/2007	1010113.624	1402761.889	928.23	928.61	---	30.32	30.70	897.91	76.0	71.0 - 76.0	857.23 - 852.23
	8/12/2013					---	27.87	27.87	900.36			
06742-MW21I	5/8/2007	1010130.105	1402803.526	928.36	928.92	---	30.36	30.92	898.00	55.0	50.0 - 55.0	878.36 - 873.36
	8/12/2013					---	27.10	27.66	901.26			
06742-MW22D	5/8/2007	1010132.684	1402809.944	928.60	929.03	---	32.13	32.56	896.47	75.0	70.0 - 75.0	858.60 - 853.60
	8/12/2013					---	27.38	27.81	901.22			
06742-MW23	5/8/2007	1010265.124	1402871.734	930.29	930.61	---	32.02	32.34	898.27	40.0	25.0 - 40.0	905.29 - 890.29
	8/12/2013					---	29.11	29.43	901.18			
06742-MW24	5/8/2007	1010244.335	1402822.506	931.03	931.39	---	32.64	33.00	898.39	40.0	25.0 - 40.0	906.03 - 891.03
	8/12/2013					---	29.83	30.19	901.20			
06742-MW25	5/8/2007	1010234.378	1402782.032	931.60	931.87	---	33.05	33.32	898.55	45.0	30.0 - 45.0	901.60 - 886.60
	8/12/2013					---	30.33	30.60	901.27			
06742-MW26I	5/8/2007	1009977.110	1402746.321	918.70	919.01	---	21.85	22.16	896.85	45.0	40.0 - 45.0	878.70 - 873.70
	8/13/2013					---	18.45	18.76	900.25			
06742-MW28DD	5/8/2007	1009980.837	1402753.664	918.67	919.07	---	21.98	22.38	896.69	96.0	91.0 - 96.0	827.67 - 822.67
	8/13/2013					---	18.47	18.87	900.20			
06742-MW29	5/8/2007	1009991.462	1402820.031	918.49	919.01	---	21.90	22.42	896.59	33.0	20.0 - 33.0	898.49 - 885.49
	8/13/2013					---	18.52	19.04	899.97			
06742-MW30I	5/8/2007	1009983.663	1402820.347	918.02	918.58	---	21.59	22.15	896.43	45.0	40.0 - 45.0	878.02 - 873.02
	8/13/2013					---	18.19	18.75	899.83			
06742-MW31D	5/8/2007	1009984.132	1402813.507	918.19	918.68	---	21.71	22.20	896.48	66.0	61.0 - 66.0	857.19 - 852.19
	8/13/2013					---	18.33	18.82	899.86			
06742-MW32	5/8/2007	1009910.263	1402797.728	912.46	913.04	---	17.55	18.13	894.94	30.0	15.0 - 30.0	897.46 - 882.46
	8/13/2013					---	13.94	14.52	898.55			
06742-MW33I	5/8/2007	1009913.080	1402803.447	912.63	913.14	---	17.90	18.41	894.73	40.0	35.0 - 40.0	877.63 - 872.63
	8/13/2013					---	14.33	14.84	898.30			
06742-MW34D	5/8/2007	1009910.561	1402808.067	912.67	913.18	---	18.12	18.63	894.55	51.0	46.0 - 51.0	866.67 - 861.67
	8/13/2013					---	14.61	15.12	898.06			
06742-MW35I	5/8/2007	1009798.091	1402762.605	907.49	907.84	---	14.62	14.97	892.87	35.0	30.0 - 35.0	877.49 - 872.49
	8/13/2013					---	11.57	11.57	895.92			

Prepared By: RAD
Checked By: DRM

TABLE 1

Monitoring Well and Groundwater Elevation Data
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Monitoring Well	Date	Northing	Easting	TOC Elev.	Ground Elev.	Free-Product Thickness	GW Depth BTOC	GW Depth BGS	Groundwater Elev.	Well Depth	Screened Interval Depth	Screened Interval Elevation
06742-MW36D	5/8/2007	1009806.435	1402770.405	906.77	907.41	---	13.98	14.62	892.79	36.0	31.0 - 36.0	875.77 - 870.77
	8/13/2013					---	10.85	11.49	895.92			
06742-MW37DD	5/8/2007	1009800.764	1402765.809	907.33	907.66	---	14.39	14.72	892.94	57.0	52.0 - 57.0	855.33 - 850.33
	8/13/2013					---	11.33	11.66	896.00			
06742-MW38	5/8/2007	1009805.925	1402929.577	912.27	912.78	---	21.53	22.04	890.74	25.0	15.0 - 25.0	897.27 - 887.27
	8/13/2013					---	18.57	19.08	893.70			
06742-MW39I	5/8/2007	1009800.997	1402931.204	912.21	912.59	---	21.51	21.89	890.70	45.0	40.0 - 45.0	872.21 - 867.21
	8/13/2013					---	18.54	18.92	893.67			
06742-MW40D	5/8/2007	1009810.503	1402926.686	912.41	912.89	---	21.49	21.97	890.92	66.0	61.0 - 66.0	851.41 - 846.41
	8/13/2013					---	18.32	18.80	894.09			
06742-MW41I	5/8/2007	1009848.861	1402663.695	911.18	911.71	---	16.50	17.03	894.68	45.0	40.0 - 45.0	871.18 - 866.18
	8/13/2013					---	13.10	13.63	898.08			
06742-MW42D	5/8/2007	1009845.947	1402667.212	911.19	911.41	---	16.35	16.57	894.84	60.0	55.0 - 60.0	856.19 - 851.19
	8/13/2013					---	12.81	13.03	898.38			
06742-MW43	5/8/2007	1009576.742	1402886.676	892.57	890.92	---	11.60	9.95	880.97	15.0	5.0 - 15.0	887.57 - 877.57
	8/13/2013					---	9.14	7.49	883.43			
06742-MW44I	5/8/2007	1009573.105	1402889.357	892.40	890.79	---	9.11	7.50	883.29	25.0	20.0 - 25.0	872.40 - 867.40
	8/13/2013					---	7.25	5.64	885.15			
06742-MW46	5/8/2007	1009969.138	1402920.764	918.19	918.39	---	23.02	23.22	895.17	35.0	20.0 - 35.0	898.19 - 883.19
	8/13/2013					---	19.47	19.67	898.72			
06742-MW47	5/8/2007	1009879.269	1402922.497	914.82	915.24	---	22.12	22.54	892.70	30.0	15.0 - 30.0	899.82 - 884.82
	8/13/2013					---	18.89	19.31	895.93			
06742-MW49	5/8/2007	1009537.695	1402927.670	892.50	890.06	---	14.92	12.48	877.58	20.0	5.0 - 20.0	887.50 - 872.50
	8/13/2013					---	14.06	11.62	878.44			
06742-MW50	5/8/2007	1009577.839	1402818.145	896.01	896.53	---	10.95	11.47	885.06	20.0	5.0 - 20.0	891.01 - 876.01
	8/12/2013					---	Not Located					
06742-MW51	5/8/2007	1010111.264	1402691.845	929.27	929.79	---	30.85	31.37	898.42	45.0	30.0 - 45.0	899.27 - 884.27
	8/12/2013					**0.22**	27.77	28.29	901.50			
06742-MW52	5/8/2007	1010071.220	1402743.587	925.01	925.50	---	27.22	27.71	897.79	45.0	30.0 - 45.0	895.01 - 880.01
	8/12/2013					---	23.97	24.46	901.04			
06742-MW53	5/8/2007	1010056.265	1402796.930	923.76	924.25	---	26.22	26.71	897.54	45.0	25.0 - 45.0	898.76 - 878.76
	8/12/2013					---	22.85	23.34	900.91			
06742-MW54	5/8/2007	1010199.153	1402688.209	931.30	931.75	---	32.31	32.76	898.99	45.0	30.0 - 45.0	901.30 - 886.30
	8/12/2013					---	29.57	30.02	901.73			
06742-MW55	5/8/2007	1009646.174	1402726.631	901.74	902.22	---	11.23	11.71	890.51	20.0	5.0 - 20.0	896.74 - 881.74
	8/12/2013					---	7.61	8.09	894.13			
06742-MW57I	5/8/2007	1009650.798	1402723.427	902.60	902.73	---	12.05	12.18	890.55	30.0	25.0 - 30.0	877.60 - 872.60
	8/13/2013					---	9.24	9.37	893.36			
06742-MW58	5/8/2007	1009835.484	1402971.937	913.55	914.31	---	22.16	22.92	891.39	30.0	20.0 - 30.0	893.55 - 883.55
	8/13/2013					---	19.15	19.91	894.40			
06742-MW59	5/8/2007	1009664.204	1402973.343	904.04	901.19	---	16.08	13.23	887.96	22.0	7.0 - 22.0	897.04 - 882.04
	8/13/2013					---	16.76	13.91	887.28			
06742-MW60	8/20/2008	1010202.726	1402748.581	931.65	931.94	**0.38**	37.47	37.76	894.18	45.0	25.0 - 45.0	906.65 - 886.65
	8/12/2013					**0.01**	30.20	30.49	901.45			
06742-MW61	8/20/2008	1010194.576	1402731.220	930.95	931.88	---	36.92	37.85	894.03	45.0	25.0 - 45.0	905.95 - 885.95
	8/12/2013					---	29.40	30.33	901.55			
06742-MW62	8/20/2008	1010205.795	1402692.653	931.25	931.90	---	37.97	38.62	893.28	45.0	25.0 - 45.0	906.25 - 886.25
	8/12/2013					---	29.40	30.05	901.85			
06742-MW63	8/20/2008	1010200.863	1402680.095	930.89	931.61	---	36.61	37.33	894.28	45.0	25.0 - 45.0	905.89 - 885.89
	8/12/2013					---	28.84	29.56	902.05			
06742-MW64	8/20/2008	1010191.655	1402691.533	931.15	931.65	---	36.90	37.40	894.25	45.0	25.0 - 45.0	906.15 - 886.15
	8/12/2013					---	29.30	29.80	901.85			
06742-MW65	8/20/2008	1010112.377	1402681.567	928.52	929.45	---	34.77	35.70	893.75	45.0	25.0 - 45.0	903.52 - 883.52
	8/12/2013					---	26.70	27.63	901.82			
06742-MW66	8/20/2008	1010116.345	1402699.233	929.12	929.82	**0.07**	35.38	36.08	893.74	45.0	25.0 - 45.0	904.12 - 884.12
	8/12/2013					---	27.29	27.99	901.83			
06742-MW67	8/20/2008	1010106.814	1402695.195	929.03	929.62	---	35.38	35.97	893.65	45.0	25.0 - 45.0	904.03 - 884.03
	8/12/2013					---	27.28	27.87	901.75			
06742-MW68	8/12/2013	1010198.905	1402710.451	931.65	931.92	---	29.95	30.22	901.70	46.0	25.7 - 45.7	905.95 - 885.95
06742-MW69	8/12/2013	1010168.966	1402692.953	931.20	931.42	---	29.42	29.64	901.78	44.7	24.4 - 44.4	906.80 - 886.80
06742-MW70	8/12/2013	1010144.217	1402685.418	930.19	930.46	---	28.34	28.61	901.85	44.6	24.3 - 44.3	905.89 - 885.89
06742-MW1X	8/12/2013	1010194.680	1402736.821	931.89	932.10	---	30.73	30.94	900.53	NA	NA - NA	NA - NA
06742-MW2X	8/12/2013	1010162.316	1402659.631	929.72	930.08	---	20.42	20.78	909.30	NA	NA - NA	NA - NA
06742-MW3X	8/12/2013	1010157.903	1402710.922	930.86	931.35	---	Obstructed			NA	NA - NA	NA - NA
06742-MW4X	8/12/2013	1010232.689	1402799.773	931.52	931.86	---	Dry			NA	NA - NA	NA - NA
06742-MW5X	8/12/2013	1009906.391	1402736.730	913.60	913.95	---	Destroyed			NA	NA - NA	NA - NA
06742-MW6X	8/12/2013	1010093.376	1402671.590	927.72	928.16	---	26.23	26.67	901.49	NA	NA - NA	NA - NA

NOTES:

Groundwater levels were measured on August 12, 2013 and August 13, 2013.

Historical monitoring well construction and groundwater elevation data prior to 2013 were obtained from the *Report of Assessment Activities* and the *Report of Monitoring Well Installation* by Midlands Environmental Consultants, Inc. dated June 5, 2007 and September 5, 2008, respectively.

Measurements are in feet.

BTOC - below top of casing

BGS - below ground surface

* - Depth to groundwater has been corrected for the presence of free product using the specific gravity of 0.70 g/ml.

Prepared By: RAD
Checked By: DRM

TABLE 2A

Historical Laboratory Analytical Results
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)	EDB (µg/l)	1,2-DCA (µg/l)	Lead (µg/l)
SCDHEC RBSL		5	1,000	700	10,000	40	25	0.05	5	15
06742-MW1	01/25/99	**28,200**	**37,200**	**2,750**	**19,500**	**24,600**	**4,750**	NT	NT	NT
	12/09/99	Dry								
	05/08/07	Dry								
	08/13/13	Dry								
06742-MWR1	06/11/03	**19,200**	**24,900**	**2,750**	**19,500**	**28,600**	**805**	NT	NT	NT
	08/27/03	**37,200**	**45,800**	**3,740**	**19,500**	**32,200**	**1,560**	NT	NT	NT
	06/14/04	**226,000**	**301,000**	**280,000**	**278,000**	**5,110,000**	**2,000**	NT	NT	NT
	05/08/07	**Well not sampled due to the presence of 1.25-feet of free-product**								
	08/13/13	**38,000**	**48,000**	**3,500**	**19,000**	**45,000**	**1,000J**	**1.5**	<2,500	NT
06742-MWR1A	06/11/03	**185**	**22,164**	**1,700**	**13,500**	**187**	**554**	NT	NT	NT
	08/27/03	**111**	**22,164**	**1,700**	**13,500**	**187**	**554**	NT	NT	NT
	06/14/04	**111**	**22,164**	**1,700**	**13,500**	**187**	**554**	NT	NT	NT
	05/08/07	ND	ND	ND	**5.2**	ND	**10**	ND	ND	ND
	08/13/13	**38,000**	**63,000**	**3,300**	**30,000**	**250,000**	**1,000J**	**9.9**	<2,500	NT
06742-MWR1A DUP	08/13/13	**44,000**	**66,000**	**3,700**	**33,000**	**270,000**	**1,100J**	**12**	<2,500	NT
06742-MW2	01/25/99	**19**	**12**	**2**	**21.0**	**67**	**5**	NT	NT	NT
	12/09/99	Dry								
	04/04/00	Dry								
	05/08/07	Dry								
	08/15/13	**0.49J**	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020	<5.0	NT
06742-MWR2	06/11/03	**184**	**705**	**181**	**1,040**	**123**	**59**	NT	NT	NT
	08/27/03	**137**	**583**	**154**	**905**	**100**	**99**	NT	NT	NT
	06/14/04	**50**	**112**	**25**	**164**	**129**	**69**	NT	NT	NT
	05/08/07	**58**	**170**	**56**	**580**	ND	**16**	ND	ND	ND
	08/13/13	**7.2J**	**19J**	<50	**38J**	<50	<50	<0.019	<50	NT
06742-MW3	01/25/99	<1	<1	<1	<1	<1	<5	NT	NT	NT
	12/09/99	Dry								
	04/04/00	Dry								
	05/08/07	Dry								
	08/13/13	Dry								
06742-MWR3	06/11/03	**1**	**1**	**1**	**3**	<1	<5	NT	NT	NT
	08/26/03	**1**	**1**	**1**	**3**	**1**	**5**	NT	NT	NT
	06/14/04	**1**	**1**	**1**	**3**	**1**	**5**	NT	NT	NT
	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**27**
	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW4	01/25/99	Dry								
	12/9/999	Dry								
	12/09/01	Dry								
	05/08/07	**12,000**	**31,000**	**5,000**	**27,200**	**3,900**	**1,600**	ND	ND	**58**
	08/14/13	**8,500**	**4,900**	**650**	**4,600**	**8,300**	**300J**	**0.13**	**180J**	NT
06742-MWR4	04/23/01	**226,000**	**301,000**	**280,000**	**278,000**	**5,110,000**	**2,000**	NT	NT	NT
	07/19/01	**226,000**	**301,000**	**280,000**	**278,000**	**5,110,000**	**2,000**	NT	NT	NT
	10/09/01	**226,000**	**301,000**	**280,000**	**278,000**	**5,110,000**	**2,000**	NT	NT	NT
	05/08/07	**Well not sampled due to the presence of 0.58-feet of free-product**								
	08/13/13	**28,000**	**43,000**	**3,500**	**20,000**	**7,100**	**1,200J**	**0.81**	<2,500	NT
06742-MWR4 DUP	08/13/13	**29,000**	**44,000**	**3,500**	**20,000**	**7,100**	**1,100J**	**0.80**	<2,500	NT
06742-MWR4R	06/11/03	**13,700**	**16,700**	**2,080**	**11,200**	**11,600**	**1,010**	NT	NT	NT
	08/27/03	**24,800**	**31,900**	**2,500**	**12,300**	**16,000**	**985**	NT	NT	NT
	06/14/04	**226,000**	**301,000**	**280,000**	**278,000**	**5,110,000**	**2,000**	NT	NT	NT
	05/08/07	**Well not sampled due to the presence of 0.29-feet of free-product**								
	08/13/13	**13,000**	**24,000**	**2,400**	**14,000**	**540J**	**820J**	**0.41**	<1,000	NT
06742-MW5	04/23/01	**1**	**1**	**1**	**1**	**1**	**5**	NT	NT	NT
	07/19/01	**1**	**1**	**1**	**1**	**1**	**5**	NT	NT	NT
	10/09/01	Dry								
	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**6.3**
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.024	<5.0	NT
06742-MWR5	06/11/03	**3,280**	**96**	**256**	**786**	**4,640**	**201**	NT	NT	NT
	08/26/03	**2,990**	**68**	**160**	**526**	**2,320**	**106**	NT	NT	NT
	06/14/04	**1**	**1**	**1**	**3**	**1**	**5**	NT	NT	NT
	05/08/07	Not Located								
	08/13/13	Not Located								
06742-MW6	04/23/01	**2,000**	**9,600**	**1,080**	**7,460**	**2,510**	**500**	NT	NT	NT
	07/19/01	**4,820**	**9,600**	**1,080**	**7,460**	**5,200**	**500**	NT	NT	NT
	10/09/01	DRY								
	05/08/07	**18,000**	**14,000**	**3,800**	**25,000**	**850**	**1,800**	**0.26**	ND	**26**
	08/13/13	**5,000**	**9,200**	**470J**	**7,200**	<1,000	**350J**	<0.020	<1,000	NT
06742-MW6 DUP	08/13/13	**4,700**	**8,600**	**450J**	**6,700**	<1,000	<1,000	<0.020	<1,000	NT

Prepared By: RAD
Checked By: DRM

TABLE 2A

Historical Laboratory Analytical Results
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)	EDB (µg/l)	1,2-DCA (µg/l)	Lead (µg/l)
SCDHEC RBSL		5	1,000	700	10,000	40	25	0.05	5	15
06742-MW7	02/27/01	Dry								
	04/23/01	Dry								
	10/09/01	Dry								
	05/08/07	12,000	38,000	24,000	141,000	1,300	8,700	ND	ND	72
	08/13/13	1,300J	7,700	4,600	31,000	<2,500	1,500J	<0.020	<2,500	NT
06742-MW7 DUP	08/13/13	1,500J	6,400	3,400	25,000	<2,500	1,200J	<0.020	<2,500	NT
06742-MW7R	06/11/03	2,200	9,360	1,280	7,440	110	430	NT	NT	NT
	08/27/03	8,440	9,360	19,700	12,400	1,540	522	NT	NT	NT
	06/14/04	2,040	9,360	2,080	11,900	120	710	NT	NT	NT
	05/08/07	6,100	19,000	4,300	23,000	ND	1,600	ND	ND	ND
	08/13/13	270J	5,700	2,000	11,000	500	610	<0.019	<500	NT
06742-MW8	06/11/03	6,100	22,164	15,515	221,643	11,300	554	NT	NT	NT
	08/26/03	226,000	301,000	280,000	278,000	5,110,000	2,000	NT	NT	NT
	06/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	NT	NT	NT
	05/08/07	Well not sampled due to the presence of 0.44-feet of free-product								
	08/13/13	Well not sampled due to the presence of 0.58-feet of free-product								
06742-MW9	02/27/01	Dry								
	04/23/01	Dry								
	10/09/01	Dry								
	05/08/07	Dry								
	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW9R	06/11/03	108	36	30	130	52	50	NT	NT	NT
	08/26/03	68	31	21	91	38	59	NT	NT	NT
	06/14/04	46	20	22	107	81	134	NT	NT	NT
	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW10	06/11/03	1	1	1	1	1	5	NT	NT	NT
	08/26/03	1	1	1	1	1	5	NT	NT	NT
	06/14/04	3	71	26	154	1	48	NT	NT	NT
	05/08/07	Not Located								
	08/13/13	Not Located								
06742-MW11	01/25/99	24	106	189	825	10	731	NT	NT	NT
	12/09/99	Dry								
	04/04/00	Dry								
	05/08/07	88	430	340	2,000	ND	200	ND	ND	77
	08/14/13	13	22	7.2	110	<5.0	9.4	<0.020	<5.0	NT
06742-MWR11	06/11/03	173	889	496	2,600	54	408	NT	NT	NT
	08/26/03	150	637	401	2,250	58	369	NT	NT	NT
	06/14/04	138	412	324	2,130	70	448	NT	NT	NT
	05/08/07	NT	NT	NT	NT	NT	NT	NT	NT	NT
	8/14/123	10J	120J	360	2,500	<250	340	<0.019	<250	NT
06742-MW12	06/11/03	1	1	1	3	1	5	NT	NT	NT
	08/26/03	1	1	1	3	1	5	NT	NT	NT
	06/14/04	1	1	1	3	1	5	NT	NT	NT
	05/08/07	14	ND	ND	ND	ND	ND	ND	ND	37
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020	<5.0	NT
06742-MW13	02/27/01	Dry								
	04/23/01	Dry								
	10/09/01	Dry								
	05/08/07	Not Located								
	08/13/13	Not Located								
06742-MW13R	06/11/03	4,090	1,350	559	2,380	2,160	321	NT	NT	NT
	08/27/03	4,500	1,010	433	1,840	1,050	271	NT	NT	NT
	06/14/04	3,630	50	58	60	2,360	222	NT	NT	NT
	05/08/07	6,600	87	100	250	4,400	89	ND	ND	ND
	08/14/13	3,500	160J	240J	240J	2,500	100J	<0.020	75J	NT
06742-MW14	04/23/01	86	334	116	1,090	88	144	NT	NT	NT
	07/19/01	169	392	249	1,380	76	209	NT	NT	NT
	10/09/01	Dry								
	05/08/07	Not Located								
	08/13/13	Not Located								
06742-MW14R	06/11/03	32	33	50	334	7	83	NT	NT	NT
	08/26/03	10	21	50	334	7	83	NT	NT	NT
	06/14/04	10	21	50	334	7	83	NT	NT	NT
	05/08/07	ND	ND	ND	16	ND	ND	ND	ND	ND
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW14R2	05/08/07	1,100	1,800	1,000	7,300	92	650	ND	ND	24
	08/14/13	110	580	400	2,400	<100	250	<0.019	<100	NT

Prepared By: RAD
Checked By: DRM

TABLE 2A

Historical Laboratory Analytical Results
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)	EDB (µg/l)	1,2-DCA (µg/l)	Lead (µg/l)
SCDHEC RBSL		5	1,000	700	10,000	40	25	0.05	5	15
06742-MW15	02/27/01	Not Located								
	04/23/01	Not Located								
	10/09/01	Not Located								
	05/08/07	Not Located								
	08/13/13	Not Located								
06742-MW15R	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	11
	08/13/13	<50	<50	<50	<50	1,700	<50	<0.019	<50	NT
06742-MW16DD	03/30/07	36	260	94	610	7.4	30	NT	NT	NT
	05/08/07	ND	8.6	ND	ND	ND	ND	ND	ND	ND
	08/13/13	65	190	37	200	23J	9.2J	<0.019	<25	NT
06742-MW17I	05/08/07	7,900	14,000	3,700	20,600	2,800	1,300	ND	ND	12
	08/13/13	5,800	16,000	2,000	11,000	350J	500	<0.025	<500	NT
06742-MW18D	05/08/07	2,000	3,600	620	3,700	1,700	160	ND	ND	ND
	08/14/13	730	560	220	1,500	42J	100	<0.019	16J	NT
06742-MW19I	05/08/07	3,600	4,800	400	2,130	1,700	130	0.14	ND	5
	08/15/13	26,000	37,000	2,400	14,000	19,000	490J	6.3	<1,000	NT
06742-MW20D	05/08/07	430	570	41	240	570	21	0.24	ND	5.9
	08/15/13	270	<25	<25	<25	470	8.6J	<0.020	<25	NT
06742-MW21I	05/08/07	3,400	3,800	300	1,630	6,800	38	0.30	ND	9.5
	08/15/13	6,400	<1,000	540J	2,200	21,000	<1,000	0.091	<1,000	NT
06742-MW22D	05/08/07	82	81	7.9	53	530	6	ND	ND	6
	08/15/13	<5.0	<5.0	<5.0	<5.0	2.1J	<5.0	<0.019	<5.0	NT
06742-MW23	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	11
	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW24	05/08/07	160	ND	ND	28.6	ND	ND	ND	ND	7
	08/13/13	76	<5.0	<5.0	15	5.4	<5.0	<0.019	<5.0	NT
06742-MW25	05/08/07	3,100	490	36	850	1,300	21	ND	ND	6
	08/13/13	3,300	<100	<100	420	2,100	51J	<0.020	<100	NT
06742-MW25 DUP	08/13/13	3,300	<100	<100	420	1,700	58J	<0.019	<100	NT
06742-MW26I	05/08/07	9,800	890	730	4,300	2,900	130	ND	ND	ND
	08/14/13	790	<25	29	<25	560	14J	<0.025	17J	NT
06742-MW28DD	03/30/07	110	28	6.6	35	84	5.7	NT	NT	NT
	05/08/07	9.2	ND	ND	ND	28	ND	ND	ND	ND
	08/15/13	21	77	11	60	12	4.4J	<0.019	<5.0	NT
06742-MW29	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	33
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW30I	05/08/07	41	20	7.8	40	21	ND	ND	ND	5.8
	08/14/13	700	51	57	340	770	34J	0.037	<50	NT
06742-MW31D	05/08/07	570	260	31	182	350	9.1	ND	ND	ND
	08/15/13	97	17J	<25	28	1,100	<25	<0.019	<25	NT
06742-MW32	05/08/07	3,000	7.4	18	6.4	540	8.2	ND	ND	14
	08/14/13	20J	<100	<100	<100	180	<100	<0.019	<100	NT
06742-MW33I	05/08/07	860	ND	ND	28.2	50	12	ND	ND	ND
	08/15/13	2,500	2.7J	<5.0	3.5J	380	17	<0.020	<5.0	NT
06742-MW34D	05/08/07	380	ND	13	58	260	8.3	ND	ND	10
	08/15/13	2,700	57J	<100	330	1,300	54J	<0.019	<100	NT
06742-MW35I	05/08/07	1,900	83	180	1,087	83	440	ND	ND	12
	08/15/13	1,600	<250	130J	<250	110J	<250	<0.019	<250	NT
06742-MW36D	05/08/07	1,400	56	130	544	230	210	ND	ND	11
	08/15/13	1,300	<100	65J	50J	820	<100	<0.019	<100	NT
06742-MW37DD	03/30/07	ND	ND	ND	ND	ND	ND	NT	NT	NT
	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	9.6
	08/15/13	3.8J	22	3.1J	17	1.6J	<5.0	<0.020	<5.0	NT
06742-MW38	05/08/07	ND	ND	ND	ND	25	ND	ND	ND	88
	08/14/13	<5.0	<5.0	<5.0	<5.0	0.58J	<5.0	<0.019	<5.0	NT
06742-MW39I	05/08/07	61	ND	ND	ND	890	8	ND	ND	9.7
	08/14/13	36J	40J	29J	54	1,000	24J	<0.020	<50	NT
06742-MW40D	05/08/07	330	ND	ND	15	340	5.6	0.16	ND	9.8
	08/14/13	96	370	41	200	850	18J	0.029	<25	NT
06742-MW41I	05/08/07	ND	14	29	180	ND	7.5	ND	ND	11
	08/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW42D	05/08/07	7.6	46	40	241	ND	33	ND	ND	9.9
	08/15/13	3.3J	6.8	3.5J	8.0	<5.0	2.9J	<0.020	<5.0	NT
06742-MW43	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	13
	08/14/13	<5.0	<5.0	<5.0	<5.0	0.96J	<5.0	<0.019	<5.0	NT
06742-MW44I	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	12
	08/15/13	2.6J	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT

Prepared By: RAD
Checked By: DRM

TABLE 2A

Historical Laboratory Analytical Results
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)	EDB (µg/l)	1,2-DCA (µg/l)	Lead (µg/l)
SCDHEC RBSL		5	1,000	700	10,000	40	25	0.05	5	15
06742-MW46	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**10**
	08/14/13	<25	<25	<25	<25	**540**	<25	<0.019	<25	NT
06742-MW47	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**9.7**
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW49	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**120**
	08/14/13	<5.0	<5.0	<5.0	<5.0	**4.9J**	<5.0	<0.019	<5.0	NT
06742-MW50	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**19**
	08/13/13	Not Located								
06742-MW51	05/08/07	**27,000**	**37,000**	**3,800**	**19,100**	**31,000**	**820**	**0.23**	ND	**24**
	08/13/13	**Well not sampled due to the presence of 0.22-feet of free-product**								
06742-MW52	05/08/07	**11,000**	**23,000**	**3,000**	**16,000**	ND	**930**	ND	ND	**20**
	08/13/13	**3,000**	**11,000**	**1,700**	**7,200**	**84J**	**470J**	**0.16**	<500	NT
06742-MW53	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**10**
	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW54	05/08/07	**36,000**	**62,000**	**4,300**	**22,600**	ND	**890**	**0.32**	ND	**11**
	08/13/13	**28,000**	**62,000**	**4,600**	**24,000**	<2,500	<2,500	**3.9**	<2,500	NT
06742-MW55	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**10**
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW57I	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**13**
	08/14/13	**58**	**210**	**31**	**150**	<25	**16J**	<0.019	<25	NT
06742-MW58	05/08/07	ND	ND	ND	ND	ND	ND	ND	ND	**11**
	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW59	05/08/07	**9**	ND	ND	ND	**280**	ND	**0.065**	ND	**32**
	08/14/13	**2.5J**	<5.0	<5.0	<5.0	**89**	<5.0	<0.019	<5.0	NT
06742-MW60	08/13/13	**Well not sampled due to the presence of 0.01-feet of free-product**								
06742-MW61	08/13/13	**7,900**	**17,000**	**1,700**	**8,900**	**5,200**	**340J**	**1.8**	<1,000	NT
06742-MW62	08/14/13	**17,000**	**56,000**	**4,700**	**22,000**	<2,500	**1,600J**	**2.1**	<2,500	NT
06742-MW63	08/14/13	**8,300**	**45,000**	**4,000**	**21,000**	<1,000	**650J**	**0.96**	**180J**	NT
06742-MW64	08/14/13	**41,000**	**65,000**	**4,400**	**23,000**	<2,500	<2,500	**9.0**	**870J**	NT
06742-MW65	08/15/13	**16,000**	**32,000**	**2,500**	**13,000**	**4,400**	**650J**	**0.46**	<1,000	NT
06742-MW66	08/15/13	**8,000**	**30,000**	**2,500**	**16,000**	**4,300**	**820J**	**0.20**	<1,000	NT
06742-MW67	08/15/13	**25,000**	**39,000**	**3,300**	**17,000**	**26,000**	**810J**	**0.58**	<1,000	NT
06742-MW68	08/14/13	**43,000**	**77,000**	**5,200J**	**27,000**	**8,100J**	<10,000	**13**	<10,000	NT
06742-MW69	08/14/13	**18,000**	**39,000**	**3,700**	**21,000**	**2,700**	**780J**	**2.70**	**390J**	NT
06742-MW70	08/15/13	**19,000**	**30,000**	**2,900**	**15,000**	**30,000**	**870J**	**0.95**	<1,000	NT
06742-MW1X	08/13/13	**77**	**130**	**33**	**180**	**11**	**18**	<0.019	<5.0	NT
06742-MW2X	08/15/13	**24,000**	**41,000**	**2,600**	**15,000**	**3,400**	<2,500	**0.92**	**510J**	NT
06742-MW3X	08/13/13	Well obstructed at time of sampling event								
06742-MW4X	08/13/13	Dry								
06742-MW5X	08/13/13	Well destroyed prior to sampling event								
06742-MW6X	08/15/13	**16,000**	**34,000**	**2,300**	**13,000**	**270J**	**610J**	**0.56**	<1,000	NT
SW-1	05/08/07	ND	ND	ND	ND	**300**	ND	ND	NT	NT
	08/14/13	**2.6J**	<5.0	<5.0	<5.0	**210**	<5.0	<0.019	<5.0	NT
Field Blank 1	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
Field Blank 2	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020	<5.0	NT
Field Blank 3	08/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
Trip Blank 1	08/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
Trip Blank 2	08/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT

Notes:
Historical free-product thickness measurements and laboratory analytical data prior to 2013 were obtained from the *Report of Assessment Activities* by Midlands Environmental Consultants, Inc. dated June 5, 2007.
MTBE = Methyl tertiary butyl ether
EDB = 1,2-Dibromoethane
1,2-DCA = 1,2-Dichloroethane
µg/liter = micrograms/liter = approximate Parts Per Billion (ppb)
Bold cells indicate detections
Shaded cells indicate concentrations above RBSLs
ND = Not Detected at the Method Detection Limit
NT = Not Tested
J = estimated value between practical quantitative limit and method detection limit.
RBSL = Risk Based Screening Level

Prepared By: RAD
Checked By: DRM

TABLE 2B

Historical Laboratory Analytical Results - 8-Oxygenates
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Di-isopropyl Ether (IPE) (µg/L)	Ethanol (µg/L)	Ethyl-Tert-butyl Alcohol (ETBA) (µg/L)	Ethyl-tert-butyl ether (ETBE) (µg/L)	Tert-Amyl Alcohol (TAA) (µg/L)	Tert-Amyl Methyl Ether (TAME) (µg/L)	Tert-Butyl Alcohol (TBA) (µg/L)	Tert-Butyl Formate (TBF) (µg/L)
SC DHEC RBSL		150	10,000	NE	47	240	128	1,400	NE
06742-MW1	5/8/2007	Dry							
	8/12/2013	Dry							
06742-MWR1	5/8/2007	**Free-Product**							
	8/13/2013	<2,500	<50,000	<10,000	<500	**73,000**	**180J**	**10,000**	<2,500
06742-MWR1A	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	**1,800J**	<50,000	<10,000	<500	**66,000**	**1,400J**	**13,000**	<2,500
06742-MWR1A DUP	8/13/2013	**2,100J**	<50,000	**1,200J**	<500	**70,000**	**1,700J**	**13,000**	<2,500
06742-MW2	5/8/2007	Dry							
	8/15/2013	<5.0	<100	<20	<1.0	**23**	<10	**13J**	<5.0
06742-MWR2	5/8/2007	ND	ND	ND	ND	**540**	ND	ND	ND
	8/13/2013	<50	<1,000	<200	<10	**140J**	<100	<200	<50
06742-MW3	5/8/2007	Dry							
	8/12/2013	Dry							
06742-MWR3	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW4	5/8/2007	ND	ND	ND	ND	**16,000**	ND	ND	ND
	8/14/2013	<500	<10,000	<2,000	<100	**15,000**	**20J**	**3,200**	<500
06742-MWR4	5/8/2007	**Free-Product**							
	8/13/2013	<2,500	<50,000	<10,000	<500	**36,000**	<5,000	<10,000	<2,500
06742-MWR4 DUP	8/13/2013	<2,500	<50,000	<10,000	<500	**38,000**	<5,000	<10,000	<2,500
06742-MWR4R	5/8/2007	**Free-Product**							
	8/13/2013	<1,000	<20,000	<4,000	<200	**19,000**	<2,000	**1,400J**	<1,000
06742-MW5	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW6	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<1,000	<20,000	<4,000	<200	**1,400J**	<2,000	<4,000	<1,000
06742-MW6 DUP	8/13/2013	<1,000	<20,000	<4,000	<200	**1,500J**	<2,000	<4,000	<1,000
06742-MW7	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW7 DUP	8/13/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW7R	5/8/2007	ND	ND	ND	ND	**11,000**	ND	ND	ND
	8/13/2013	<500	<10,000	<2,000	<100	<2,000	<1,000	<2,000	<500
06742-MW8	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	**Well not sampled due to the presence of 0.58-feet of free-product**							
06742-MW9	5/8/2007	Dry							
	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW9R	5/8/2007	ND	ND	ND	ND	**390**	ND	ND	ND
	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW11	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	**170**	<10	**120**	<5.0
06742-MWR11	5/8/2007	NT	NT	NT	NT	NT	NT	NT	NT
	8/14/2013	<250	<5,000	<1,000	<50	<1,000	<500	<1,000	<250
06742-MW12	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW13R	5/8/2007	ND	ND	ND	ND	**4,600**	ND	ND	ND
	8/14/2013	<250	<5,000	<1,000	<50	**7,500**	**13J**	**1,000**	<250
06742-MW14R	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW14R2	5/8/2007	ND	ND	ND	ND	**6,300**	ND	ND	ND
	8/14/2013	<100	<2,000	<400	<20	<400	<200	<400	<100
06742-MW15R	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<50	<1,000	<200	<10	<200	**18J**	<200	<50
06742-MW16DD	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<25	**310J**	<100	<5.0	<100	<50	<100	<25
06742-MW17I	5/8/2007	ND	ND	ND	ND	**2,600**	ND	ND	ND
	8/13/2013	<500	<10,000	<2,000	<100	**3,900**	<1,000	<2,000	<500
06742-MW18D	5/8/2007	ND	ND	ND	ND	**2,000**	ND	ND	ND
	8/14/2013	<100	<2,000	<400	<20	**550**	<200	<400	<100

Prepared By: RAD
Checked By: DRM

TABLE 2B

Historical Laboratory Analytical Results - 8-Oxygenates
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Di-isopropyl Ether (IPE) (µg/L)	Ethanol (µg/L)	Ethyl-Tert-butyl Alcohol (ETBA) (µg/L)	Ethyl-tert-butyl ether (ETBE) (µg/L)	Tert-Amyl Alcohol (TAA) (µg/L)	Tert-Amyl Methyl Ether (TAME) (µg/L)	Tert-Butyl Alcohol (TBA) (µg/L)	Tert-Butyl Formate (TBF) (µg/L)
SC DHEC RBSL		150	10,000	NE	47	240	128	1,400	NE
06742-MW19I	5/8/2007	**40**	ND	ND	ND	ND	**26**	ND	ND
	8/15/2013	<1,000	<20,000	<4,000	<200	**37,000**	**310J**	**4,400**	<1,000
06742-MW20D	5/8/2007	**15**	ND	ND	ND	**2,200**	ND	ND	ND
	8/15/2013	**12J**	<500	<100	<5.0	**1,200**	**7.3J**	**220**	<25
06742-MW21I	5/8/2007	**84**	ND	ND	ND	**1,300**	**32**	ND	ND
	8/15/2013	**260J**	<20,000	<4,000	<200	**6,800**	**130J**	**1,400J**	<1,000
06742-MW22D	5/8/2007	**5.5**	ND	ND	ND	**970**	ND	ND	ND
	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW23	5/8/2007	ND	ND	ND	ND	**140**	ND	ND	ND
	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW24	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	**2.2J**	<100	<20	<1.0	**20**	<10	**9.4J**	<5.0
06742-MW25	5/8/2007	**40**	ND	ND	ND	**930**	ND	ND	ND
	8/13/2013	**78J**	<2,000	<400	<20	**1,900**	**36J**	**220J**	<100
06742-MW25 DUP	8/13/2013	**78J**	<2,000	<400	<20	**2,600**	**36J**	**250J**	<100
06742-MW26I	5/8/2007	ND	ND	**8,900**	ND	ND	ND	ND	ND
	8/14/2013	<25	<500	**13J**	<5.0	**1,100**	**2.0J**	**230**	<25
06742-MW28DD	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW29	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW30I	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	**18J**	<1,000	<200	<10	**460**	<100	**120J**	<50
06742-MW31D	5/8/2007	ND	ND	ND	ND	**830**	ND	ND	ND
	8/15/2013	**11J**	<500	<100	<5.0	**1,100**	**7.2J**	**250**	<25
06742-MW32	5/8/2007	ND	ND	ND	ND	**2,300**	ND	ND	ND
	8/14/2013	<100	<2,000	<400	<20	**620**	<200	<400	<100
06742-MW33I	5/8/2007	ND	ND	ND	ND	**1,500**	ND	ND	ND
	8/15/2013	**0.83J**	<100	<20	<1.0	**3,800**	**2.3J**	**350**	<5.0
06742-MW34D	5/8/2007	ND	ND	ND	ND	**630**	ND	ND	ND
	8/15/2013	<100	<2,000	<400	<20	**2,600**	**9.0J**	**510**	<100
06742-MW35I	5/8/2007	ND	ND	ND	ND	**1,400**	ND	ND	ND
	8/15/2013	<250	<5,000	<1,000	<50	**1,500**	<500	<1,000	<250
06742-MW36D	5/8/2007	ND	ND	ND	ND	**1,700**	ND	ND	ND
	8/15/2013	<100	<2,000	<400	<20	**2,800**	<200	**410**	<100
06742-MW37DD	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW38	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW39I	5/8/2007	ND	ND	ND	ND	**1,600**	ND	ND	ND
	8/14/2013	<50	<1,000	<200	<10	**2,500**	**8.4J**	**420**	<50
06742-MW40D	5/8/2007	ND	ND	ND	ND	**1,400**	ND	ND	ND
	8/14/2013	**3.9J**	<500	<100	<5.0	**270**	**6.7J**	**81J**	<25
06742-MW41I	5/8/2007	ND	ND	ND	ND	**250**	ND	ND	ND
	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW42D	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW43	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW44I	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW46	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<25	<500	<100	<5.0	<100	**6.0J**	<100	<25
06742-MW47	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW49	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0

Prepared By: RAD
Checked By: DRM

TABLE 2B

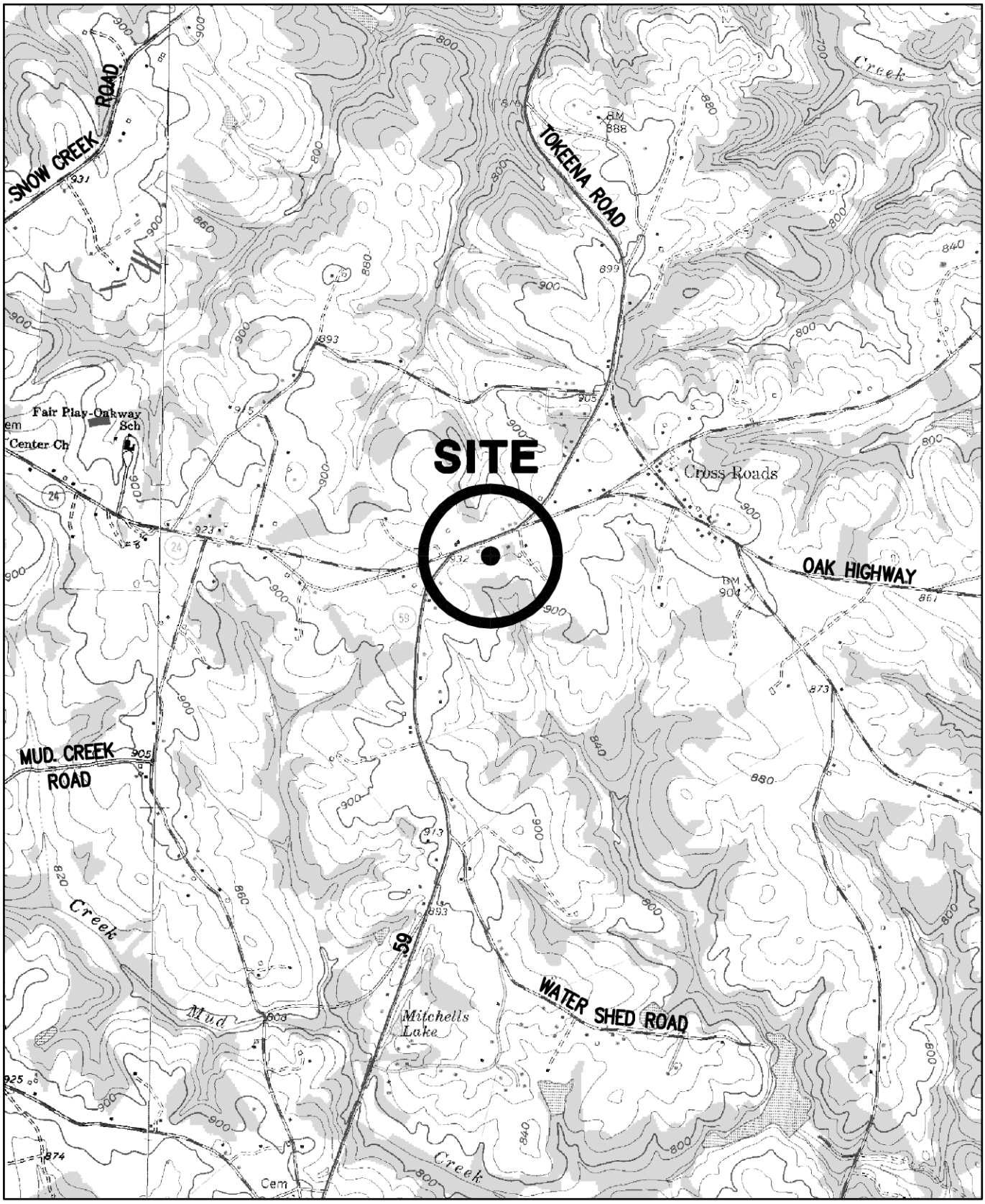
Historical Laboratory Analytical Results - 8-Oxygenates
Country Side 2
Westminister, Anderson County, South Carolina
SCDHEC UST Permit #06742; Cost Agreement #45513
BLE Project Number: J13-6940-05

Well	Date Sampled	Di-isopropyl Ether (IPE) (µg/L)	Ethanol (µg/L)	Ethyl-Tert-butyl Alcohol (ETBA) (µg/L)	Ethyl-tert-butyl ether (ETBE) (µg/L)	Tert-Amyl Alcohol (TAA) (µg/L)	Tert-Amyl Methyl Ether (TAME) (µg/L)	Tert-Butyl Alcohol (TBA) (µg/L)	Tert-Butyl Formate (TBF) (µg/L)
SC DHEC RBSL		150	10,000	NE	47	240	128	1,400	NE
06742-MW50	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	Not Located							
06742-MW51	5/8/2007	ND	ND	**7,000**	ND	**28,000**	ND	ND	ND
	8/13/2013	**Well not sampled due to the presence of 0.22-feet of free-product**							
06742-MW52	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<500	<10,000	<2,000	<100	**4,100**	<1,000	<2,000	<500
06742-MW53	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW54	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/13/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW55	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW57I	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<25	<500	<100	<5.0	<100	<50	<100	<25
06742-MW58	5/8/2007	ND	ND	ND	ND	ND	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW59	5/8/2007	ND	ND	**69**	ND	**320**	ND	ND	ND
	8/14/2013	<5.0	<100	<20	<1.0	**41**	**0.54J**	**11J**	<5.0
06742-MW60	8/13/2013	**Well not sampled due to the presence of 0.01-feet of free-product**							
06742-MW61	8/13/2013	**110J**	<20,000	<4,000	<200	**2,300J**	<2,000	<4,000	<1,000
06742-MW62	8/14/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW63	8/14/2013	<1,000	<20,000	<4,000	<200	**1,800J**	<2,000	<4,000	<1,000
06742-MW64	8/14/2013	**520J**	<50,000	<10,000	<500	**7,800J**	**340J**	<10,000	<2,500
06742-MW65	8/15/2013	<1,000	<20,000	<4,000	<200	**17,000**	<2,000	**1,300J**	<1,000
06742-MW66	8/15/2013	<1,000	<20,000	<4,000	<200	**6,400**	<2,000	<4,000	<1,000
06742-MW67	8/15/2013	<1,000	<20,000	<4,000	<200	**25,000**	<2,000	**3,500J**	<1,000
06742-MW68	8/14/2013	<10,000	<200,000	<40,000	<2,000	<40,000	<20,000	<40,000	<10,000
06742-MW69	8/14/2013	**81J**	<20,000	<4,000	<200	**8,300**	**52J**	<4,000	<1,000
06742-MW70	8/15/2013	<1,000	<20,000	<4,000	<200	**65,000**	**87J**	**7,500**	<1,000
06742-MW1X	8/13/2013	<5.0	<100	<20	<1.0	<20	**0.31J**	<20	<5.0
06742-MW2X	8/15/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW3X	8/12/2013	Well obstructed at time of sampling event							
06742-MW4X	8/12/2013	Dry							
06742-MW5X	8/12/2013	Well damaged prior to sampling event							
06742-MW6X	8/15/2013	<1,000	<20,000	<4,000	<200	**11,000**	<2,000	<4,000	<1,000
SW-1	5/8/2007	ND	ND	ND	ND	**220**	ND	ND	ND
	8/14/2013	**0.60J**	<100	<20	<1.0	**280**	**1.4J**	**62**	<5.0
FIELD BLANK 1	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
FIELD BLANK 2	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
FIELD BLANK 3	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
TRIP BLANK 1	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
TRIP BLANK 2	8/15/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0

NOTES:
Historical free-product thickness measurements and laboratory analytical data prior to 2013 were obtained from the *Report of Assessment Activities* by Midlands Environmental Consultants, Inc. dated June 5, 2007.
µg/liter = micrograms/liter = approximate Parts Per Billion (ppb)
Bold cells indicate detections
Shaded cells indicate concentrations above RBSLs
ND = Not Detected at the Method Detection Limit
NE = RBSL has not been established
NT = Not Tested
J = estimated value between practical quantitative limit and method detection limit.
RBSL = Risk Based Screening Level

Prepared By: RAD
Checked By: DRM

FIGURES

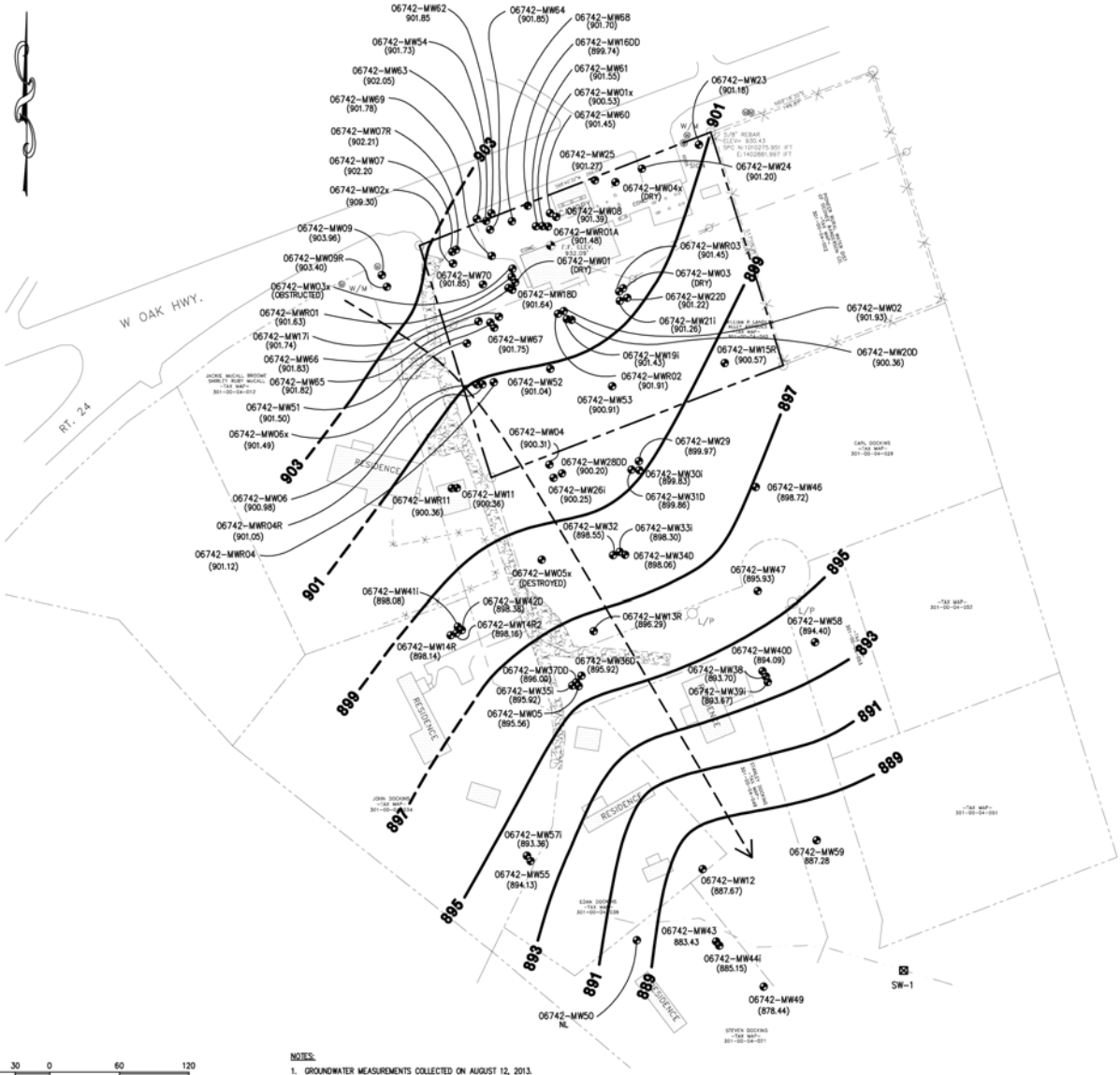


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, FAIR PLAY AND OAKWAY, S.C. QUADRANGLES, PHOTOREVISED 1979 AND 1985.

DRAWN: ACE	DATE: 05-28-13	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	FIGURE
CHECKED: RAD	CAD: FORMCRGROC-05SLM	SITE LOCATION MAP COUNTRY SIDE 2 UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA	1
APPROVED:	JOB NO: J13-6940-05		



LEGEND

- SURVEYED LOCATION OF GROUNDWATER MONITORING WELL
- APPROXIMATE LOCATION OF SURFACE WATER SAMPLING POINT
- 901.45 — GROUNDWATER ELEVATION (FEET)
- (901.91) — GROUNDWATER NOT BRACKETING SCREEN NOT USED FOR CONTOURING PURPOSES
- 895 — GROUNDWATER ELEVATION CONTOUR CONTOUR INTERVAL = 2 FEET DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION

60 30 0 60 120
APPROXIMATE SCALE IN FEET

NOTES:
1. GROUNDWATER MEASUREMENTS COLLECTED ON AUGUST 12, 2013.
2. ELEVATIONS ARE RELATIVE TO AN ARBITRARY SITE DATUM.

REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

REVISIONS			DRAWN: ACE	DATE: 09-24-13	BUNNELL-LAMMONS ENGINEERING, INC.	GROUNDWATER ELEVATION CONTOUR MAP – AUGUST 2013	FIGURE NO.
No.	DESCRIPTION	BY	CHECKED: RAD	CAD FILE: FORMCRGROC-05WTM	6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	COUNTRY SIDE 2 UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA	2
			APPROVED: DRM	JOB NO: J13-6940-05			

Well	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)	EDB (µg/l)	1,2-DCA (µg/l)	Lead (µg/l)
SCDHEC RBSL		5	1,000	700	10,000	40	25	0.05	5	15
06742-MW1	08/13/13	Dry								
06742-MWR1	08/13/13	28,000	48,000	2,500	19,000	45,000	1,000J	1.5	<2,500	NT
06742-MWR1A	08/13/13	38,000	43,000	3,300	30,000	150,000	1,000J	9.9	<2,500	NT
06742-MW2	08/13/13	0.49J	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020	<5.0	NT
06742-MWR2	08/13/13	7.2J	19J	<50	38J	<50	<50	<0.019	<50	NT
06742-MW3	08/13/13	Dry								
06742-MWR3	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW4	08/14/13	8,500	4,900	450	4,600	8,300	300J	0.13	180J	NT
06742-MWR4	08/13/13	28,000	43,000	3,500	20,000	7,100	1,200J	0.81	<2,500	NT
06742-MWR4R	08/13/13	13,000	24,000	2,400	14,000	560J	820J	0.41	<1,000	NT
06742-MW5	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.024	<5.0	NT
06742-MWR5	08/13/13	Not Located								
06742-MW6	08/13/13	5,000	9,200	470J	7,200	<1,000	350J	<0.020	<1,000	NT
06742-MW7	08/13/13	1,200J	7,700	4,600	31,000	<2,500	1,500J	<0.020	<2,500	NT
06742-MW7R	08/13/13	270J	5,700	2,000	11,000	500	610	<0.019	<500	NT
06742-MW8	08/13/13	Well not sampled due to the presence of 0.58 feet of free product								
06742-MW9	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW9R	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW10	08/13/13	Not Located								
06742-MW11	08/14/13	13	22	7.3	110	<5.0	9.4	<0.020	<5.0	NT
06742-MWR11	08/14/13	18J	130J	360	3,500	<250	340	<0.019	<250	NT
06742-MW12	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020	<5.0	NT
06742-MW13	08/13/13	Not Located								
06742-MW13R	08/14/13	3,500	140J	140J	140J	2,500	100J	<0.020	75J	NT
06742-MW14	08/13/13	Not Located								
06742-MW14R	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW14R2	08/14/13	110	580	400	2,400	<100	250	<0.019	<100	NT
06742-MW15	08/13/13	Not Located								
06742-MW15R	08/13/13	<50	<50	<50	<50	1,700	<50	<0.019	<50	NT
06742-MW16DD	08/13/13	65	190	37	200	23J	9.2J	<0.019	<25	NT
06742-MW17I	08/13/13	5,800	16,000	2,000	11,000	370J	500	<0.023	<500	NT
06742-MW18D	08/14/13	730	560	220	1,500	42J	100	<0.019	16J	NT
06742-MW19I	08/15/13	16,000	37,000	2,400	14,000	19,000	490J	6.3	<1,000	NT
06742-MW20D	08/14/13	270	<25	<25	<25	470	6.6J	<0.020	<25	NT
06742-MW21I	08/13/13	6,400	<1,000	560J	2,200	21,000	<1,000	0.091	<1,000	NT
06742-MW22D	08/13/13	<5.0	<5.0	<5.0	<5.0	2.1J	<5.0	<0.019	<5.0	NT
06742-MW23	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW24	08/13/13	76	<5.0	<5.0	15	5.4	<5.0	<0.019	<5.0	NT
06742-MW25	08/13/13	3,200	<100	<100	620	2,100	51J	<0.020	<100	NT
06742-MW26I	08/14/13	790	<25	29	<25	560	14J	<0.023	17J	NT
06742-MW28DD	08/13/13	21	77	11	60	12	6.6J	<0.019	<5.0	NT
06742-MW29	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW30I	08/14/13	700	51	57	240	770	24J	0.037	<50	NT
06742-MW31D	08/13/13	97	17J	<25	28	1,100	<25	<0.019	<25	NT
06742-MW32	08/14/13	28J	<100	<100	<100	180	<100	<0.019	<100	NT
06742-MW33I	08/13/13	1,500	3.7J	<5.0	3.5J	280	17	<0.020	<5.0	NT
06742-MW34D	08/13/13	2,700	97J	<100	320	1,200	54J	<0.019	<100	NT
06742-MW35I	08/13/13	1,600	<250	130J	<250	110J	<250	<0.019	<250	NT
06742-MW36D	08/13/13	1,200	<100	45J	59J	820	<100	<0.019	<100	NT
06742-MW37DD	08/13/13	3.6J	22	3.1J	17	1.4J	<5.0	<0.020	<5.0	NT
06742-MW38	08/14/13	<5.0	<5.0	<5.0	<5.0	0.58J	<5.0	<0.019	<5.0	NT
06742-MW39I	08/14/13	26J	40J	29J	56	1,000	24J	<0.020	<50	NT
06742-MW40D	08/14/13	56	270	41	200	850	18J	0.029	<25	NT
06742-MW41I	08/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW42D	08/13/13	3.1J	6.8	3.5J	8.0	<5.0	1.9J	<0.020	<5.0	NT
06742-MW43	08/14/13	<5.0	<5.0	<5.0	<5.0	0.96J	<5.0	<0.019	<5.0	NT
06742-MW44I	08/15/13	2.6J	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW46	08/14/13	<25	<25	<25	<25	540	<25	<0.019	<25	NT
06742-MW47	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW49	08/14/13	<5.0	<5.0	<5.0	<5.0	4.5J	<5.0	<0.019	<5.0	NT
06742-MW50	08/13/13	Not Located								
06742-MW51	08/13/13	Well not sampled due to the presence of 0.22 feet of free product								
06742-MW52	08/13/13	3,000	11,000	1,700	7,200	86J	470J	0.16	<500	NT
06742-MW53	08/13/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW54	08/13/13	38,000	62,000	4,600	34,000	<2,500	<2,500	3.9	<2,500	NT
06742-MW55	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW57I	08/14/13	58	210	31	150	<25	16J	<0.019	<25	NT
06742-MW58	08/14/13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019	<5.0	NT
06742-MW59	08/14/13	1.5J	<5.0	<5.0	<5.0	89	<5.0	<0.019	<5.0	NT
06742-MW60	08/13/13	Well not sampled due to the presence of 0.01 feet of free product								
06742-MW61	08/13/13	7,900	17,000	1,700	8,900	5,200	240J	1.8	<1,000	NT
06742-MW62	08/14/13	17,000	56,000	4,700	22,000	<2,500	1,600J	2.1	<2,500	NT
06742-MW63	08/14/13	8,300	45,000	4,000	21,000	<1,000	650J	0.56	180J	NT
06742-MW64	08/14/13	41,000	65,000	4,400	33,000	<2,500	<2,500	9.0	870J	NT
06742-MW65	08/15/13	16,000	32,000	2,500	13,000	4,400	650J	0.46	<1,000	NT
06742-MW66	08/13/13	8,000	20,000	2,500	16,000	4,300	820J	0.20	<1,000	NT
06742-MW67	08/15/13	25,000	39,000	3,300	17,000	26,000	810J	0.58	<1,000	NT
06742-MW68	08/14/13	43,000	77,000	5,200J	37,000	8,100J	<10,000	13	<10,000	NT
06742-MW69	08/14/13	18,000	29,000	3,700	21,000	2,700	780J	2.70	290J	NT
06742-MW70	08/15/13	19,000	30,000	2,900	15,000	30,000	870J	0.95	<1,000	NT
06742-MW1X	08/15/13	77	130	33	180	11	18	<0.019	<5.0	NT
06742-MW2X	08/15/13	24,000	41,000	3,600	15,000	3,400	<2,500	0.92	510J	NT
06742-MW3X	08/13/13	Well obstructed at time of sampling event								
06742-MW4X	08/13/13	Dry								
06742-MW5X	08/13/13	Well destroyed prior to sampling event								
06742-MW6X	08/15/13	16,000	34,000	3,300	13,000	270J	610J	0.56	<1,000	NT
SW-1	08/14/13	2.6J	<5.0	<5.0	<5.0	210	<5.0	<0.019	<5.0	NT

Well	Date Sampled	Di-isopropyl Ether (IPE) (µg/L)	Ethanol (µg/L)	Ethyl Tert-butyl Alcohol (ETBA) (µg/L)	Ethyl tert-butyl ether (ETBE) (µg/L)	Tert-Amyl Alcohol (TAA) (µg/L)	Tert-Amyl Methyl Ether (TAME) (µg/L)	Tert Butyl Alcohol (TBA) (µg/L)	Tert Butyl Formate (TBF) (µg/L)
SC DHEC RBSL		150	10,000	NE	47	240	128	1,400	NE
06742-MW1	8/12/2013	Dry							
06742-MWR1	8/13/2013	<2,500	<50,000	<10,000	<500	73,000	180J	10,000	<2,500
06742-MWR1A	8/13/2013	1,800J	<50,000	<10,000	<500	44,000	1,400J	13,000	<2,500
06742-MW2	8/13/2013	<5.0	<100	<20	<1.0	23	<10	13J	<5.0
06742-MWR2	8/13/2013	<50	<1,000	<200	<10	140J	<100	<200	<50
06742-MW3	8/13/2013	Dry							
06742-MWR3	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW4	8/14/2013	<500	<10,000	<2,000	<100	15,000	26J	3,200	<500
06742-MWR4	8/13/2013	<2,500	<50,000	<10,000	<500	34,000	<5,000	<10,000	<2,500
06742-MWR4R	8/13/2013	<1,000	<20,000	<4,000	<200	19,000	<2,000	1,400J	<1,000
06742-MW5	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW6	8/13/2013	<1,000	<20,000	<4,000	<200	1,400J	<2,000	<4,000	<1,000
06742-MW7	8/13/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW7R	8/13/2013	<500	<10,000	<2,000	<100	<2,000	<1,000	<2,000	<500
06742-MW8	8/13/2013	Well not sampled due to the presence of 0.58 feet of free product							
06742-MW9	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW9R	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW11	8/14/2013	<5.0	<100	<20	<1.0	170	<10	120	<5.0
06742-MWR11	8/14/2013	<250	<5,000	<1,000	<50	<1,000	<500	<1,000	<250
06742-MW12	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW13R	8/14/2013	<250	<5,000	<1,000	<50	7,500	11J	1,000	<250
06742-MW14R	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW14R2	8/14/2013	<100	<2,000	<400	<20	<400	<200	<400	<100
06742-MW15R	8/13/2013	<50	<1,000	<200	<10	<200	18J	<200	<50
06742-MW16DD	8/13/2013	<25	200J	<100	<5.0	<100	<50	<100	<25
06742-MW17I	8/13/2013	<500	<10,000	<2,000	<100	3,900	<1,000	<2,000	<500
06742-MW18D	8/14/2013	<100	<2,000	<400	<20	950	<200	<400	<100
06742-MW19I	8/15/2013	<1,000	<20,000	<4,000	<200	37,000	310J	4,400	<1,000
06742-MW20D	8/15/2013	12J	<500	<100	<5.0	1,200	7.1J	220	<25
06742-MW21I	8/15/2013	360J	<20,000	<4,000	<200	6,800	130J	1,400J	<1,000
06742-MW22D	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW23	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW24	8/13/2013	2.2J	<100	<20	<1.0	29	<10	9.4J	<5.0
06742-MW25	8/13/2013	76J	<2,000	<400	<20	1,900	36J	230J	<100
06742-MW26I	8/14/2013	<25	<500	11J	<5.0	1,100	2.8J	230	<25
06742-MW28DD	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW29	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW30I	8/14/2013	18J	<1,000	<200	<10	460	<100	120J	<50
06742-MW31D	8/13/2013	11J	<500	<100	<5.0	1,100	7.2J	270	<25
06742-MW32	8/14/2013	<100	<2,000	<400	<20	420	<200	<400	<100
06742-MW33I	8/13/2013	0.61J	<100	<20	<1.0	3,800	3.1J	190	<5.0
06742-MW34D	8/13/2013	<100	<2,000	<400	<20	2,400	9.6J	510	<100
06742-MW35I	8/13/2013	<250	<5,000	<1,000	<50	1,500	<500	<1,000	<250
06742-MW36D	8/13/2013	<100	<2,000	<400	<20	1,800	<200	410	<100
06742-MW37DD	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW38	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW39I	8/14/2013	<50	<1,000	<200	<10	1,500	8.6J	420	<50
06742-MW40D	8/14/2013	3.9J	<500	<100	<5.0	270	6.7J	81J	<25
06742-MW41I	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW42D	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW43	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW44I	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW46	8/14/2013	<25	<500	<100	<5.0	<100	6.8J	<100	<25
06742-MW47	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW49	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW50	8/13/2013	Not Located							
06742-MW51	8/13/2013	Well not sampled due to the presence of 0.22 feet of free product							
06742-MW52	8/13/2013	<500	<10,000	<2,000	<100	4,100	<1,000	<2,000	<500
06742-MW53	8/13/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW54	8/13/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW55	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW57I	8/14/2013	<25	<500	<100	<5.0	<100	<50	<100	<25
06742-MW58	8/14/2013	<5.0	<100	<20	<1.0	<20	<10	<20	<5.0
06742-MW59	8/14/2013	<5.0	<100	<20	<1.0	41	0.54J	11J	<5.0
06742-MW60	8/13/2013	Well not sampled due to the presence of 0.01 feet of free product							
06742-MW61	8/13/2013	110J	<20,000	<4,000	<200	3,300J	<2,000	<4,000	<1,000
06742-MW62	8/14/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW63	8/14/2013	<1,000	<20,000	<4,000	<200	1,800J	<2,000	<4,000	<1,000
06742-MW64	8/14/2013	520J	<50,000	<10,000	<500	7,800J	240J	<10,000	<2,500
06742-MW65	8/15/2013	<1,000	<20,000	<4,000	<200	17,000	<2,000	1,300J	<1,000
06742-MW66	8/13/2013	<1,000	<20,000	<4,000	<200	6,400	<2,000	<4,000	<1,000
06742-MW67	8/15/2013	<1,000	<20,000	<4,000	<200	25,000	<2,000	3,500J	<1,000
06742-MW68	8/14/2013	<10,000	<200,000	<40,000	<2,000	<40,000	<20,000	<40,000	<10,000
06742-MW69	8/14/2013	81J	<20,000	<4,000	<200	8,300	51J	<4,000	<1,000
06742-MW70	8/15/2013	<1,000	<20,000	<4,000	<200	65,000	87J	7,300	<1,000
06742-MW1X	8/15/2013	<5.0	<100	<20	<1.0	<20	0.21J	<20	<5.0
06742-MW2X	8/15/2013	<2,500	<50,000	<10,000	<500	<10,000	<5,000	<10,000	<2,500
06742-MW3X	8/12/2013	Well obstructed at time of sampling event							
06742-MW4X	8/12/2013	Dry							
06742-MW5X	8/12/2013	Well damaged prior to sampling event							
06742-MW6X	8/15/2013	<1,000	<20,000	<4,000	<200	11,000	<2,000	<4,000	<1,000
SW-1	8/14/2013	0.60J	<100	<20	<1.0	200	1.4J	62	<5.0

NOTES:

1. GROUNDWATER SAMPLES WERE COLLECTED ON AUGUST 13-15, 2013.
2. ANALYTICAL RESULTS ARE REPORTED IN MICROGRAMS PER LITER (µg/l) OR PARTS PER BILLION.
3. BOLD CELLS INDICATE DETECTION.
4. SHADED CELLS INDICATE CONCENTRATIONS ABOVE RBSL's.
5. J-ESTIMATED VALUE ABOVE ADJUSTED MDL AND ADJUSTED REPORTING LIMIT.

LEGEND

- SURVEYED LOCATION OF GROUNDWATER MONITORING WELL
- APPROXIMATE LOCATION OF SURFACE WATER SAMPLING POINT

REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

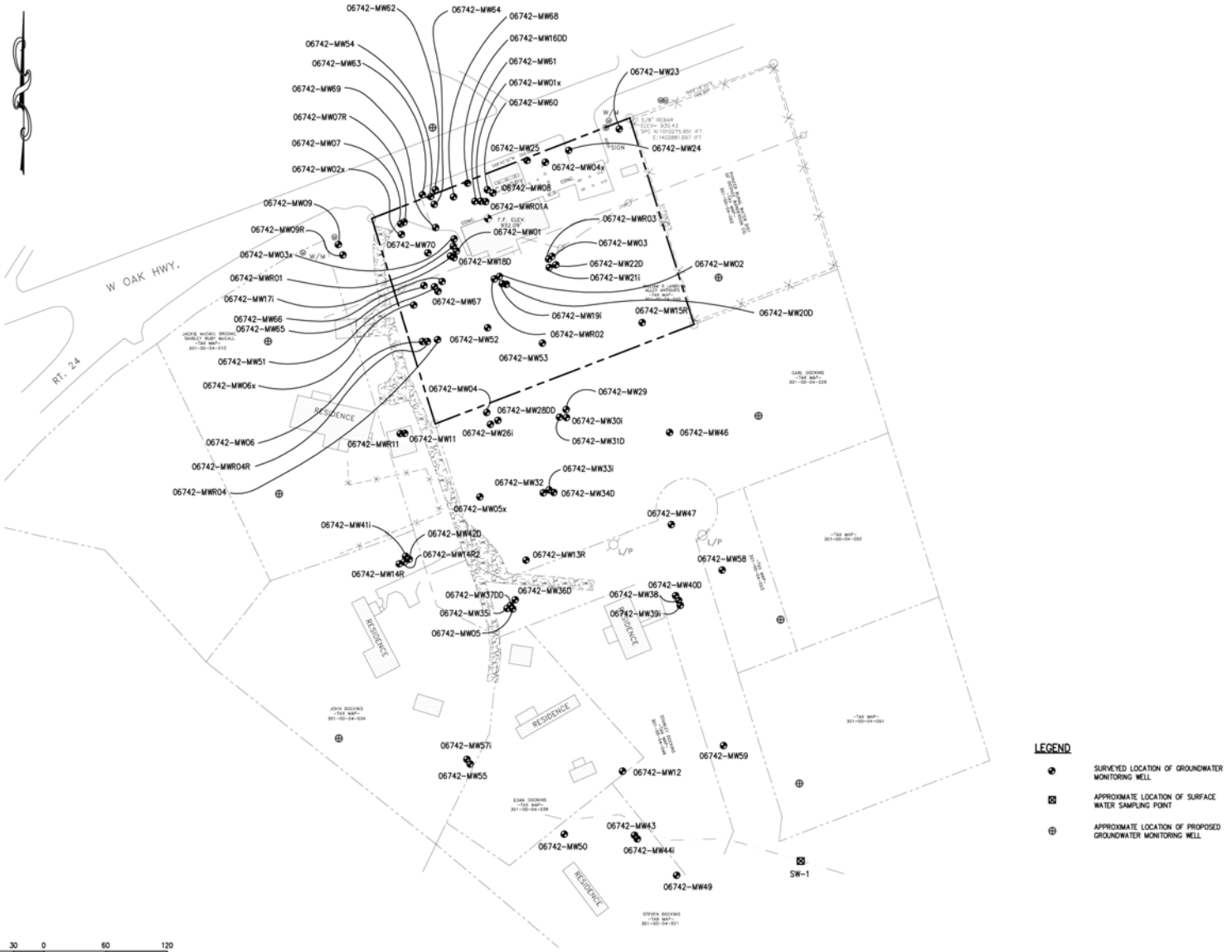
REVISIONS		
No.	DESCRIPTION	BY

DRAWN: ACE | CHECKED: RAD | APPROVED: DRW
DATE: 09-24-13 | CAD FILE: FORMCRGROC-05GWCOC | JOB NO: J13-6940-05

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.

GROUNDWATER COC MAP - AUGUST 2013
COUNTRY SIDE 2
UST PERMIT #06742
WESTMINSTER, SOUTH CAROLINA

FIGURE NO. 3



REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

REVISIONS			DRAWN: ACE	DATE: 09-27-13	BUNNELL-LAMMONS ENGINEERING, INC.	PROPOSED MONITORING WELL LOCATION PLAN	FIGURE NO.
No.	DESCRIPTION	BY	CHECKED: RAD	CAD FILE: FORMCRGROC-05PMWLP	6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	COUNTRY SIDE 2 UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA	4
			APPROVED: DRM	JOB NO: J13-6940-05			

APPENDICES

APPENDIX A

MONITORING WELL SAMPLING PROCEDURES AND SAMPLING LOGS

APPENDIX A

MONITORING WELL PURGING AND SAMPLING PROCEDURES

Pursuant to SCDHEC's directive, monitoring wells were purged prior to sample collection to remove any stagnant water from the well so that the samples collected were representative of the groundwater quality in the vicinity of each well. For wells that recovered quickly, a minimum of three volumes of water were evacuated. Specific conductance, pH, turbidity, and water temperature were measured periodically during well evacuation using instruments which were calibrated daily. Wells that were evacuated to dryness with less than three well volumes being removed were sampled as soon as the well had recovered enough to yield sufficient volume for a sample.

The monitoring wells were purged using a 4-foot long by 1.6-inch diameter disposable polyethylene bailer attached to an unused polypropylene cord. The wells were also sampled using a bailer as described above. To minimize the potential for cross-contamination between wells, a new clean bailer was used at each well.

STREAM (SURFACE WATER) SAMPLING PROCEDURES

Surface water samples were collected using the following field procedure:

1. The sample handler donned a new pair of latex gloves prior to collection of each sample.

2. With the appropriate sample caps unscrewed the sample container was carefully lowered below the water level upstream from the sampler and without touching any floating material or dislodging Teflon® discs inside the caps.

3. The samples were collected into 40-ml VOC vials and were filled to the top without headspace. Care was taken so that the acids in the bottles did not contact the sampler's gloves and thus pass to other caps and bottles. The vials were recapped without touching the interior of the cap, and screwed down tightly. Samples were moved to an ice chest where they were labeled, placed in bubble pack bags, and iced down immediately upon collection.

Samples for VOC analysis were placed in laboratory prepared 40-milliliter glass vials with Teflon® lined lids and marked with identifying numbers. The VOC samples were preserved using hydrochloric acid (HCl). The sample containers were maintained at approximately 4° Celsius in a refrigerated sample cooler and shipped to Shealy Environmental Services, Inc. (SC#32010) in West Columbia, South Carolina via courier service for analysis.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013
Field Personnel Reid A. Doherty
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**
serial no. serial no.
pH =4.0 Standard
pH = 7.0 Standard
pH = 10.0 Standard
DO Meter Standard
Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW1

Well Diameter (D) 2 inch of NA feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness --- ft
Total Well Depth (TWD) NA ft btoc
Depth to Groundwater (DGW) Dry ft btoc
Length of Water Colum (LWC = TWD-DGW) NA ft
1 Casing Volume (LWC*C) = NA X .17 = NA gals
3 Casing Volumes = 3 X NA = NA gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well dry at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MWR1				
Well Diameter (D)	2	inch of	45.54	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	45.54	ft btoc			
Depth to Groundwater (DGW)	29.65	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			15.89	ft	
1 Casing Volume (LWC*C) =	15.89	X .17	=	2.70	gals
3 Casing Volumes = 3 X	2.70	=		8.10	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 8.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	8.5						
Time (military)	1243	1250	1256	1305						
pH (s.u)	5.20	5.13	5.19	5.27						
Specific Conductivity (ΩS)	55	75	59	57						
Water Temperature (°C)	20.5	19.6	19.9	22.4						
Turbidity (NTU)	22.2	392	594	432						
Dissolved Oxygen (mg/l)	2.40									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1305 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MWR1A				
Well Diameter (D)	2	inch of	37.80	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness			Sheen	ft	
Total Well Depth (TWD)			37.80	ft btoc	
Depth to Groundwater (DGW)			30.05	ft btoc	
Length of Water Colum (LWC = TWD-DGW)				7.75	ft
1 Casing Volume (LWC*C) =	7.75	X .17 =		1.32	gals
3 Casing Volumes = 3 X	1.32	=		3.96	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.5	3.0	4.5						
Time (military)	1005	1010	1015	1020						
pH (s.u)	5.47	5.48	5.42	5.43						
Specific Conductivity (ΩS)	42	45	48	48						
Water Temperature (°C)	20.7	20.4	20.3	20.2						
Turbidity (NTU)	50	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	0.61									

Remarks: Sheen and strong petroleum odor noted at time of sampling. Well sampled at 1020 on August 13, 2013. Duplicate (06742-MWR1A DUP) sampled at 1022 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/15/2013
Field Personnel Reid A. Doherty
General Weather Conditions Cloudy
Ambient Air Temperature (°C) 19

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW2

Well Diameter (D) 2 inch of 29.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				---	ft
Total Well Depth (TWD)				29.70	ft btoc
Depth to Groundwater (DGW)				27.38	ft btoc
Length of Water Colum (LWC = TWD-DGW)				2.32	ft
1 Casing Volume (LWC*C) =	2.32	X .17	=	0.39	gals
3 Casing Volumes = 3 X	0.39	=		1.17	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 1.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	0.5								
Time (military)	1415	1417								
pH (s.u)	5.51	5.78								
Specific Conductivity (ΩS)	192	168								
Water Temperature (°C)	19.2	19.2								
Turbidity (NTU)	163	>1,100								
Dissolved Oxygen (mg/l)	1.20									

Remarks: Slight petroleum odor noted at time of sampling. Well purged dry after 1.0-gallons removed. Well sampled at 1425 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MWR2				
Well Diameter (D)	2	inch of	40.30	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	40.30	ft btoc			
Depth to Groundwater (DGW)	27.05	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			13.25	ft	
1 Casing Volume (LWC*C) =	13.25	X .17	=	2.25	gals
3 Casing Volumes = 3 X	2.25	=		6.75	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 7.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.5	5.0	7.0						
Time (military)	1330	1335	1340	1345						
pH (s.u)	5.51	5.54	5.65	5.81						
Specific Conductivity (ΩS)	109	119	128	143						
Water Temperature (°C)	20.0	19.7	19.8	19.8						
Turbidity (NTU)	55	400	850	1,000						
Dissolved Oxygen (mg/l)	1.52									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1345 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013
Field Personnel Reid A. Doherty
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:		**Conductivity Sensor:**	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	
DO Meter		Standard	
Standard		**Turbidity:**	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW3

Well Diameter (D) 2 inch of NA feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness NA ft
Total Well Depth (TWD) NA ft btoc
Depth to Groundwater (DGW) Dry ft btoc
Length of Water Colum (LWC = TWD-DGW) NA ft
1 Casing Volume (LWC*C) = NA X .17 = NA gals
3 Casing Volumes = 3 X NA = NA gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well dry at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MWR3				
Well Diameter (D)	2	inch of	40.04	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	40.04	ft btoc			
Depth to Groundwater (DGW)	27.51	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			12.53	ft	
1 Casing Volume (LWC*C) =	12.53	X .17	=	2.13	gals
3 Casing Volumes = 3 X	2.13	=		6.39	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 6.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.5	5.0	6.5						
Time (military)	1350	1356	1402	1410						
pH (s.u)	4.94	4.64	4.53	5.70						
Specific Conductivity (ΩS)	127	141	156	182						
Water Temperature (°C)	19.9	19.7	19.7	20.8						
Turbidity (NTU)	17.1	513	>1,100	>1,100						
Dissolved Oxygen (mg/l)	3.68									

Remarks: Well sampled at 1410 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW4				
Well Diameter (D)	2	inch of	35.58	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	35.58	ft btoc			
Depth to Groundwater (DGW)	18.40	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			17.18	ft	
1 Casing Volume (LWC*C) =	17.18	X .17 =	2.92	gals	
3 Casing Volumes = 3 X	2.92	=	8.76	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 9.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	9.0						
Time (military)	1115	1120	1127	1135						
pH (s.u)	6.37	6.42	6.44	6.44						
Specific Conductivity (ΩS)	115	156	169	176						
Water Temperature (°C)	18.5	18.0	18.0	18.0						
Turbidity (NTU)	158	158	158	165						
Dissolved Oxygen (mg/l)	1.23									

Remarks: Strong petroleum odor noted at time of sampling. Well sampled at 1135 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MWR4				
Well Diameter (D)	2	inch of	37.04	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	37.04	ft btoc			
Depth to Groundwater (DGW)	24.50	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			12.54	ft	
1 Casing Volume (LWC*C) =	12.54	X .17	=	2.13	gals
3 Casing Volumes = 3 X	2.13	=		6.39	gals
(Standard Purge Volume)					

Total Volume of Water Purged Before Sampling: 6.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.5	5.0	6.5						
Time (military)	1553	1600	1605	1615						
pH (s.u)	5.39	5.41	5.39	5.31						
Specific Conductivity (ΩS)	48	49	49	49						
Water Temperature (°C)	19.1	18.5	18.6	18.4						
Turbidity (NTU)	113	659	929	897						
Dissolved Oxygen (mg/l)	1.78									

Remarks: Sheen and strong petroleum odor noted at time of sampling. Well sampled at 1615 on August 13, 2013. Duplicate (06742-MWR4 DUP) sampled at 1616 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MWR4R				
Well Diameter (D)	2	inch of	38.94	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	38.94	ft btoc			
Depth to Groundwater (DGW)	24.52	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			14.42	ft	
1 Casing Volume (LWC*C) =	14.42	X .17	=	2.45	gals
3 Casing Volumes = 3 X	2.45	=		7.35	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 7.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.5	5.0	7.5						
Time (military)	1505	1520	1525	1535						
pH (s.u)	5.78	5.34	5.33	5.41						
Specific Conductivity (ΩS)	47	39	42	41						
Water Temperature (°C)	19.5	18.8	18.8	18.6						
Turbidity (NTU)	79.3	385	465	412						
Dissolved Oxygen (mg/l)	0.83									

Remarks: Sheen noted at time of sampling. Well sampled at 1535 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW5				
Well Diameter (D)	2	inch of	18.68	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	18.68	ft btoc			
Depth to Groundwater (DGW)	11.66	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			7.02	ft	
1 Casing Volume (LWC*C) =	7.02	X .17 =	1.19	gals	
3 Casing Volumes = 3 X	1.19	=	3.57	gals	
(Standard Purge Volume)					

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.5	3.0	4.5						
Time (military)	1345	1350	1355	1357						
pH (s.u)	5.27	5.37	5.47	5.42						
Specific Conductivity (ΩS)	41	48	43	49						
Water Temperature (°C)	20.5	17.6	19.7	19.7						
Turbidity (NTU)	982	374	759	640						
Dissolved Oxygen (mg/l)	3.03									

Remarks: Well sampled at 1357 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW6				
Well Diameter (D)	2	inch of	33.53	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	33.53	ft btoc			
Depth to Groundwater (DGW)	24.28	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			9.25	ft	
1 Casing Volume (LWC*C) =	9.25	X .17 =	1.57	gals	
3 Casing Volumes = 3 X	1.57	=	4.71	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 2.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.5								
Time (military)	1425	1430								
pH (s.u)	5.98	6.12								
Specific Conductivity (ΩS)	187	194								
Water Temperature (°C)	19.1	18.3								
Turbidity (NTU)	108	623								
Dissolved Oxygen (mg/l)	0.62									

Remarks: Well purged dry after 2.0-gallons removed. Well sampled at 1445 on August 13, 2013.
Duplicate (06742-MW6 DUP) sampled at 1446 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW7				
Well Diameter (D)	2	inch of	37.69	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	37.69	ft btoc			
Depth to Groundwater (DGW)	28.01	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			9.68	ft	
1 Casing Volume (LWC*C) =	9.68	X .17	=	1.65	gals
3 Casing Volumes = 3 X	1.65	=		4.95	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 5.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	5.0						
Time (military)	1115	1125	1128	1130						
pH (s.u)	5.24	5.39	5.52	5.41						
Specific Conductivity (ϑS)	51	91	60	54						
Water Temperature (°C)	21.2	20.1	20.2	20.0						
Turbidity (NTU)	71.1	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	4.80									

Remarks: Sheen and strong petroleum odor noted at time of sampling. Well sampled at 1130 on August 13, 2013. Duplicate (06742-MW7 DUP) sampled at 1131 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW7R				
Well Diameter (D)	2	inch of	44.44	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.44	ft btoc			
Depth to Groundwater (DGW)	28.41	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			16.03	ft	
1 Casing Volume (LWC*C) =	16.03	X .17	=	2.73	gals
3 Casing Volumes = 3 X	2.73	=		8.19	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 8.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	8.5						
Time (military)	1205	1215	1220	1230						
pH (s.u)	5.19	5.06	5.15	5.16						
Specific Conductivity (ΩS)	37	39	40	40						
Water Temperature (°C)	21.2	20.2	20.1	20.5						
Turbidity (NTU)	50.9	536	525	303						
Dissolved Oxygen (mg/l)	7.10									

Remarks: Well sampled at 1230 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013
Field Personnel Reid A. Doherty
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**
serial no. serial no.
pH =4.0 Standard
pH = 7.0 Standard
pH = 10.0 Standard
DO Meter Standard
Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW8

Well Diameter (D) 2 inch of 45.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness 0.58 ft
Total Well Depth (TWD) 45.00 ft btoc
Depth to Groundwater (DGW) 29.93 ft btoc
Length of Water Colum (LWC = TWD-DGW) 15.07 ft
1 Casing Volume (LWC*C) = 15.07 X .17 = 2.56 gals
3 Casing Volumes = 3 X 2.56 = 7.69 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well not sampled due to 0.58-feet of free-phase product present at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW9				
Well Diameter (D)	2	inch of	30.44	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	30.44	ft btoc			
Depth to Groundwater (DGW)	25.03	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			5.41	ft	
1 Casing Volume (LWC*C) =	5.41	X .17	=	0.92	gals
3 Casing Volumes = 3 X	0.92	=		2.76	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 3.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.0	2.0	3.0						
Time (military)	1215	1220	1225	1231						
pH (s.u)	7.31	5.91	5.55	5.41						
Specific Conductivity (ΩS)	48	23	24	22						
Water Temperature (°C)	20.9	19.8	19.7	19.7						
Turbidity (NTU)	33	270	130	180						
Dissolved Oxygen (mg/l)	1.95									

Remarks: Well sampled at 1231 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW9R				
Well Diameter (D)	2	inch of	45.13	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	45.13	ft btoc			
Depth to Groundwater (DGW)	25.40	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			19.73	ft	
1 Casing Volume (LWC*C) =	19.73	X .17	=	3.35	gals
3 Casing Volumes = 3 X	3.35	=		10.05	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 10.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.5	7.0	10.5						
Time (military)	1240	1248	1256	1304						
pH (s.u)	6.09	6.30	6.36	6.45						
Specific Conductivity (ΩS)	120	127	129	124						
Water Temperature (°C)	20.2	20.2	20.2	20.2						
Turbidity (NTU)	40	650	650	>1,100						
Dissolved Oxygen (mg/l)	0.94									

Remarks: Strong petroleum odor noted at time of sampling. Well sampled at 1304 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW11				
Well Diameter (D)	2	inch of	24.61	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	24.61	ft btoc			
Depth to Groundwater (DGW)	18.81	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			5.80	ft	
1 Casing Volume (LWC*C) =	5.80	X .17 =	0.99	gals	
3 Casing Volumes = 3 X	0.99	=	2.97	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 2.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.0	2.0							
Time (military)	1111	1116	1121							
pH (s.u)	6.18	6.35	6.34							
Specific Conductivity (ΩS)	545	637	638							
Water Temperature (°C)	18.5	18.5	19.4							
Turbidity (NTU)	210	295	330							
Dissolved Oxygen (mg/l)	1.81									

Remarks: Well purged dry after 2.0-gallons removed. Well sampled at 1123 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MWR11				
Well Diameter (D)	2	inch of	40.03	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	40.03	ft btoc			
Depth to Groundwater (DGW)	18.95	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			21.08	ft	
1 Casing Volume (LWC*C) =	21.08	X .17	=	3.58	gals
3 Casing Volumes = 3 X	3.58	=		10.74	gals
(Standard Purge Volume)					

Total Volume of Water Purged Before Sampling 11.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.0	8.0	11.0						
Time (military)	1029	1042	1049	1056						
pH (s.u)	5.75	5.82	5.87	5.86						
Specific Conductivity (ΩS)	114	128	128	127						
Water Temperature (°C)	18.7	18.6	18.5	18.2						
Turbidity (NTU)	27.1	285	472	375						
Dissolved Oxygen (mg/l)	2.71									

Remarks: Sheen noted at time of sampling. Well sampled at 1056 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW12				
Well Diameter (D)	2	inch of	11.78	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	11.78	ft btoc			
Depth to Groundwater (DGW)	7.09	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			4.69	ft	
1 Casing Volume (LWC*C) =	4.69	X .17	=	0.80	gals
3 Casing Volumes = 3 X	0.80	=		2.40	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 2.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.0	2.0							
Time (military)	1440	1445	1450							
pH (s.u)	5.27	5.12	5.29							
Specific Conductivity (ΩS)	57	42	45							
Water Temperature (°C)	21.6	19.7	21.2							
Turbidity (NTU)	63.8	887	>1,100							
Dissolved Oxygen (mg/l)	7.08									

Remarks: Well purged dry after 2.0-gallons removed. Well sampled at 1454 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW13R				
Well Diameter (D)	2	inch of	33.90	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	33.90	ft btoc			
Depth to Groundwater (DGW)	11.61	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			22.29	ft	
1 Casing Volume (LWC*C) =	22.29	X .17 =	3.79	gals	
3 Casing Volumes = 3 X	3.79	=	11.37	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 11.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.0	8.0	11.5						
Time (military)	1000	1010	1016	1025						
pH (s.u)	5.37	6.11	6.38	6.41						
Specific Conductivity (ΩS)	30	166	193	197						
Water Temperature (°C)	21.2	18.5	18.2	18.2						
Turbidity (NTU)	44.8	31.5	29.5	14.9						
Dissolved Oxygen (mg/l)	1.69									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1025 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW14R				
Well Diameter (D)	2	inch of	34.71	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	34.71	ft btoc			
Depth to Groundwater (DGW)	13.25	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			21.46	ft	
1 Casing Volume (LWC*C) =	21.46	X .17 =	3.65	gals	
3 Casing Volumes = 3 X	3.65	=	10.95	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 11.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.0	8.0	11.0						
Time (military)	1226	1237	1241	1251						
pH (s.u)	5.56	5.52	5.46	5.46						
Specific Conductivity (ΩS)	62	51	50	52						
Water Temperature (°C)	21.6	19.6	18.6	18.9						
Turbidity (NTU)	22.6	146	331	330						
Dissolved Oxygen (mg/l)	2.28									

Remarks: Well sampled at 1251 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW14R2			
Well Diameter (D)	2	inch of	24.95	feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2				
for a 2 inch well C = 0.163				
for a 4 inch well C = 0.652				
*Free Product Thickness	---			ft
Total Well Depth (TWD)	24.95			ft btoc
Depth to Groundwater (DGW)	13.20			ft btoc
Length of Water Colum (LWC = TWD-DGW)			11.75	ft
1 Casing Volume (LWC*C) =	11.75	X .17 =	2.00	gals
3 Casing Volumes = 3 X	2.00	=	6.00	gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	6.0						
Time (military)	1230	1235	1243	1245						
pH (s.u)	6.57	6.50	6.44	6.43						
Specific Conductivity (ΩS)	143	142	139	136						
Water Temperature (°C)	20.1	19.4	19.2	18.8						
Turbidity (NTU)	161	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	2.62									

Remarks: Strong petroleum odor noted at time of sampling. Well sampled at 1245 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW15R				
Well Diameter (D)	2	inch of	44.51	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness			---	ft	
Total Well Depth (TWD)			44.51	ft btoc	
Depth to Groundwater (DGW)			24.49	ft btoc	
Length of Water Colum (LWC = TWD-DGW)				20.02	ft
1 Casing Volume (LWC*C) =	20.02	X .17 =		3.40	gals
3 Casing Volumes = 3 X	3.40	=		10.20	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 10.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.5	7.0	10.5						
Time (military)	1545	1553	1600	1610						
pH (s.u)	5.19	5.14	5.17	5.20						
Specific Conductivity (ΩS)	53	76	82	86						
Water Temperature (°C)	18.6	18.7	18.8	18.8						
Turbidity (NTU)	28	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	7.01									

Remarks: Well sampled at 1610 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW16DD				
Well Diameter (D)	2	inch of	54.55	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness			---	ft	
Total Well Depth (TWD)			94.55	ft btoc	
Depth to Groundwater (DGW)			31.85	ft btoc	
Length of Water Colum (LWC = TWD-DGW)				62.70	ft
1 Casing Volume (LWC*C) =	62.70	X .17 =		10.66	gals
3 Casing Volumes = 3 X	10.66	=		31.98	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 32.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	11.0	22.0	32.0						
Time (military)	1035	1043	1051	1100						
pH (s.u)	11.96	12.13	12.16	12.19						
Specific Conductivity (ϑS)	3,920	4,590	4,660	4,640						
Water Temperature (°C)	21.2	20.7	20.2	20.2						
Turbidity (NTU)	500	270	260	240						
Dissolved Oxygen (mg/l)	0.82									

Remarks: Well sampled at 1100 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW17I				
Well Diameter (D)	2	inch of	49.36	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	49.36	ft btoc			
Depth to Groundwater (DGW)	28.80	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			20.56	ft	
1 Casing Volume (LWC*C) =	20.56	X .17	=	3.50	gals
3 Casing Volumes = 3 X	3.50	=		10.50	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.5								
Time (military)	1320	1330								
pH (s.u)	5.56	5.55								
Specific Conductivity (ΩS)	61	79								
Water Temperature (°C)	21.0	19.6								
Turbidity (NTU)	125	>1,100								
Dissolved Oxygen (mg/l)	11.50									

Remarks: Well purged dry after 4.5-gallons removed. Well sampled at 1335 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW18D				
Well Diameter (D)	2	inch of	58.60	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	58.60	ft btoc			
Depth to Groundwater (DGW)	28.87	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			29.73	ft	
1 Casing Volume (LWC*C) =	29.73	X .17	=	5.05	gals
3 Casing Volumes = 3 X	5.05	=		15.15	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 15.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	5.5	11.0	15.5						
Time (military)	1330	1336	1342	1350						
pH (s.u)	5.78	5.61	5.30	5.45						
Specific Conductivity (ΩS)	46	50	50	51						
Water Temperature (°C)	21.0	20.0	20.8	21.1						
Turbidity (NTU)	>1,100	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	2.53									

Remarks: Well sampled at 1350 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: 8/15/2013
Field Personnel: Ivan A. Irizarry
General Weather Conditions: Cloudy
Ambient Air Temperature (°C): 19

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW19I

Well Diameter (D): 2 inch of 55.29 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	---	ft			
Total Well Depth (TWD)	55.29	ft btoc			
Depth to Groundwater (DGW)	26.97	ft btoc			
Length of Water Colum (LWC = TWD-DGW)				28.32	ft
1 Casing Volume (LWC*C) =	28.32	X .17	=	4.81	gals
3 Casing Volumes = 3 X	4.81	=		14.43	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 6.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	5.0								
Time (military)	0853	0905								
pH (s.u)	5.84	5.68								
Specific Conductivity (ΩS)	66	57								
Water Temperature (°C)	18.7	18.7								
Turbidity (NTU)	55.3	88.7								
Dissolved Oxygen (mg/l)	0.91									

Remarks: Well purged dry after 6.0-gallons removed. Well sampled at 0910 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW20D				
Well Diameter (D)	2	inch of	75.24	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	75.24	ft btoc			
Depth to Groundwater (DGW)	27.87	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			47.37	ft	
1 Casing Volume (LWC*C) =	47.37	X .17	=	8.05	gals
3 Casing Volumes = 3 X	8.05	=		24.15	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 9.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	8.5								
Time (military)	1030	1040								
pH (s.u)	6.62	7.05								
Specific Conductivity (ΩS)	193	191								
Water Temperature (°C)	19.4	20.4								
Turbidity (NTU)	24.3	806								
Dissolved Oxygen (mg/l)	2.12									

Remarks: Well purged dry after 9.0-gallons removed. Well sampled at 1045 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW21I			
Well Diameter (D)	2	inch of	54.85	feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2				
for a 2 inch well C = 0.163				
for a 4 inch well C = 0.652				
*Free Product Thickness	---			ft
Total Well Depth (TWD)	54.85			ft btoc
Depth to Groundwater (DGW)	27.10			ft btoc
Length of Water Colum (LWC = TWD-DGW)			27.75	ft
1 Casing Volume (LWC*C) =	27.75	X .17 =	4.72	gals
3 Casing Volumes = 3 X	4.72	=	14.16	gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling: 5.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	5.0								
Time (military)	0923	0937								
pH (s.u)	6.13	6.37								
Specific Conductivity (ΩS)	192	188								
Water Temperature (°C)	18.8	19.0								
Turbidity (NTU)	35.6	857								
Dissolved Oxygen (mg/l)	1.32									

Remarks: Slight petroleum odor noted at time of sampling. Well purged dry after 5.5-gallons removed. Well sampled at 0945 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW22D				
Well Diameter (D)	2	inch of	73.71	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	73.71	ft btoc			
Depth to Groundwater (DGW)	27.38	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			46.33	ft	
1 Casing Volume (LWC*C) =	46.33	X .17	=	7.88	gals
3 Casing Volumes = 3 X	7.88	=		23.64	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 8.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	8.0								
Time (military)	1029	1050								
pH (s.u)	6.25	7.36								
Specific Conductivity (ΩS)	98	100								
Water Temperature (°C)	19.5	19.0								
Turbidity (NTU)	35.1	88.9								
Dissolved Oxygen (mg/l)	4.44									

Remarks: Well purged dry after 8.5-gallons removed. Well sampled at 1058 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW23				
Well Diameter (D)	2	inch of	39.70	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	39.70	ft btoc			
Depth to Groundwater (DGW)	29.11	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			10.59	ft	
1 Casing Volume (LWC*C) =	10.59	X .17	=	1.80	gals
3 Casing Volumes = 3 X	1.80	=		5.40	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 5.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	5.5						
Time (military)	0922	0928	0934	0945						
pH (s.u)	5.72	5.20	5.09	5.21						
Specific Conductivity (ΩS)	61	40	40	41						
Water Temperature (°C)	20.6	20.3	19.8	21.2						
Turbidity (NTU)	62.8	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	2.60									

Remarks: Well sampled at 0945 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW24				
Well Diameter (D)	2	inch of	40.17	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	40.17	ft btoc			
Depth to Groundwater (DGW)	29.83	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			10.34	ft	
1 Casing Volume (LWC*C) =	10.34	X .17	=	1.76	gals
3 Casing Volumes = 3 X	1.76	=		5.28	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	6.0						
Time (military)	0922	0929	0934	0940						
pH (s.u)	5.44	5.32	5.31	5.31						
Specific Conductivity (ΩS)	46	26	26	27						
Water Temperature (°C)	21.6	21.3	20.9	20.8						
Turbidity (NTU)	34	750	>1,100	>1,100						
Dissolved Oxygen (mg/l)	1.20									

Remarks: Well sampled at 0940 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Dan R. Matz
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW25				
Well Diameter (D)	2	inch of	44.80	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.80	ft btoc			
Depth to Groundwater (DGW)	30.33	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			14.47	ft	
1 Casing Volume (LWC*C) =	14.47	X .17 =	2.46	gals	
3 Casing Volumes = 3 X	2.46	=	7.38	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 7.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.5	5.0	7.5						
Time (military)	0957	1004	1012	1025						
pH (s.u)	5.78	6.44	6.50	6.54						
Specific Conductivity (ΩS)	159	171	179	166						
Water Temperature (°C)	20.8	20.5	20.6	22.7						
Turbidity (NTU)	47.9	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	5.70									

Remarks: Sheen noted at time of sampling. Well sampled at 1025 on August 13, 2013.
Duplicate (06742-MW25 DUP) sampled at 1026 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/14/2013
Field Personnel Reid A. Doherty
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 25

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW26I

Well Diameter (D) 2 inch of 44.57 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				---	ft
Total Well Depth (TWD)				44.57	ft btoc
Depth to Groundwater (DGW)				18.45	ft btoc
Length of Water Colum (LWC = TWD-DGW)				26.12	ft
1 Casing Volume (LWC*C) =	26.12	X .17	=	4.44	gals
3 Casing Volumes = 3 X	4.44	=		13.32	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 6.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.5	6.0							
Time (military)	1555	1604	1613							
pH (s.u)	6.31	6.41	6.77							
Specific Conductivity (ΩS)	237	240	238							
Water Temperature (°C)	19.1	18.2	17.9							
Turbidity (NTU)	89	>1,100	>1,100							
Dissolved Oxygen (mg/l)	5.14									

Remarks: Well purged dry after 6.0-gallons removed. Well sampled at 1620 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW28DD				
Well Diameter (D)	2	inch of	94.80	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	94.80	ft btoc			
Depth to Groundwater (DGW)	18.47	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			76.33	ft	
1 Casing Volume (LWC*C) =	76.33	X .17	=	12.98	gals
3 Casing Volumes = 3 X	12.98	=		38.94	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 20.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	13.0	20.0							
Time (military)	1148	1201	1213							
pH (s.u)	11.71	11.59	11.72							
Specific Conductivity (ϑS)	772	875	838							
Water Temperature (°C)	18.6	19.7	19.5							
Turbidity (NTU)	55	55	60							
Dissolved Oxygen (mg/l)	2.63									

Remarks: Well purged dry after 20.0-gallons removed. Well sampled at 1213 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW29				
Well Diameter (D)	2	inch of	34.96	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	34.96	ft btoc			
Depth to Groundwater (DGW)	18.52	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			16.44	ft	
1 Casing Volume (LWC*C) =	16.44	X .17 =	2.79	gals	
3 Casing Volumes = 3 X	2.79	=	8.37	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 9.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	9.0						
Time (military)	0910	0918	0924	0930						
pH (s.u)	5.74	6.10	5.75	5.71						
Specific Conductivity (ΩS)	142	121	108	104						
Water Temperature (°C)	19.0	18.3	18.4	18.6						
Turbidity (NTU)	129	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	6.11									

Remarks: Well sampled at 0930 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW30I				
Well Diameter (D)	2	inch of	44.66	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.66	ft btoc			
Depth to Groundwater (DGW)	18.19	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			26.47	ft	
1 Casing Volume (LWC*C) =	26.47	X .17	=	4.50	gals
3 Casing Volumes = 3 X	4.50	=		13.50	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 9.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.5	9.0							
Time (military)	1553	1600	1612							
pH (s.u)	5.59	6.81	6.80							
Specific Conductivity (ϑS)	72	81	81							
Water Temperature (°C)	19.2	18.7	18.7							
Turbidity (NTU)	35.6	187	213							
Dissolved Oxygen (mg/l)	7.97									

Remarks: Well purged dry after 9.0-gallons removed. Well sampled at 1612 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW31D				
Well Diameter (D)	2	inch of	65.56	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	65.56	ft btoc			
Depth to Groundwater (DGW)	18.33	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			47.23	ft	
1 Casing Volume (LWC*C) =	47.23	X .17	=	8.03	gals
3 Casing Volumes = 3 X	8.03	=		24.09	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 16.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	8.0	16.0							
Time (military)	1117	1121	1130							
pH (s.u)	6.77	6.82	6.92							
Specific Conductivity (ΩS)	133	136	135							
Water Temperature (°C)	18.4	18.4	18.3							
Turbidity (NTU)	33	55	24							
Dissolved Oxygen (mg/l)	5.42									

Remarks: Well purged dry after 16.0-gallons removed. Well sampled at 1130 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/14/2013
Field Personnel Ivan A. Irizarry
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 25

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW32

Well Diameter (D) 2 inch of 29.94 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				---	ft
Total Well Depth (TWD)				29.94	ft btoc
Depth to Groundwater (DGW)				13.94	ft btoc
Length of Water Colum (LWC = TWD-DGW)				16.00	ft
1 Casing Volume (LWC*C) =	16.00	X .17	=	2.72	gals
3 Casing Volumes = 3 X	2.72	=		8.16	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 9.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	9.0						
Time (military)	0944	0950	0958	1004						
pH (s.u)	5.30	5.44	5.71	5.84						
Specific Conductivity (ΩS)	58	82	89	91						
Water Temperature (°C)	18.3	18.2	18.2	18.0						
Turbidity (NTU)	26.1	>1,100	>1,100	887						
Dissolved Oxygen (mg/l)	3.53									

Remarks: Well sampled at 1004 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW33				
Well Diameter (D)	2	inch of	39.41	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	39.41	ft btoc			
Depth to Groundwater (DGW)	14.33	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			25.08	ft	
1 Casing Volume (LWC*C) =	25.08	X .17 =	4.26	gals	
3 Casing Volumes = 3 X	4.26	=	12.78	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 13.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.5	9.0	13.5						
Time (military)	1152	1155	1157	1200						
pH (s.u)	5.29	5.03	4.99	5.09						
Specific Conductivity (ϑS)	57	63	59	57						
Water Temperature (°C)	18.3	17.6	17.6	17.5						
Turbidity (NTU)	54.2	676	542	621						
Dissolved Oxygen (mg/l)	2.62									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1200 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW34D				
Well Diameter (D)	2	inch of	57.15	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	51.15	ft btoc			
Depth to Groundwater (DGW)	14.61	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			36.54	ft	
1 Casing Volume (LWC*C) =	36.54	X .17	=	6.21	gals
3 Casing Volumes = 3 X	6.21	=		18.63	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 10.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	6.5	10.0							
Time (military)	1046	1050	1054							
pH (s.u)	6.42	6.57	6.62							
Specific Conductivity (ΩS)	153	153	150							
Water Temperature (°C)	19.9	19.4	19.6							
Turbidity (NTU)	100	75	65							
Dissolved Oxygen (mg/l)	4.21									

Remarks: Well purged dry after 10.0-gallons removed. Well sampled at 1054 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW35I				
Well Diameter (D)	2	inch of	34.87	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	34.87	ft btoc			
Depth to Groundwater (DGW)	11.57	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			23.30	ft	
1 Casing Volume (LWC*C) =	23.30	X .17	=	3.96	gals
3 Casing Volumes = 3 X	3.96	=		11.88	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 12.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.0	8.0	12.0						
Time (military)	1220	1222	1224	1228						
pH (s.u)	6.24	6.35	6.26	6.40						
Specific Conductivity (ΩS)	204	208	199	202						
Water Temperature (°C)	18.3	17.8	17.7	17.7						
Turbidity (NTU)	27.3	237	186	92						
Dissolved Oxygen (mg/l)	3.91									

Remarks: Slight petroleum odor noted at time of sampling. Well sample at 1228 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW36D			
Well Diameter (D)	2	inch of	35.06	feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2				
for a 2 inch well C = 0.163				
for a 4 inch well C = 0.652				
*Free Product Thickness	---			ft
Total Well Depth (TWD)	35.06			ft btoc
Depth to Groundwater (DGW)	10.85			ft btoc
Length of Water Colum (LWC = TWD-DGW)			24.21	ft
1 Casing Volume (LWC*C) =	24.21	X .17 =	4.12	gals
3 Casing Volumes = 3 X	4.12	=	12.36	gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling 13.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.5	9.0	13.5						
Time (military)	1010	1017	1022	1029						
pH (s.u)	6.85	6.65	6.70	6.49						
Specific Conductivity (ΩS)	165	207	199	198						
Water Temperature (°C)	18.9	18.6	18.8	20.5						
Turbidity (NTU)	>1,100	290	160	240						
Dissolved Oxygen (mg/l)	4.39									

Remarks: Well sampled at 1029 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW37DD				
Well Diameter (D)	2	inch of	57.11	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2			11.33		
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness			---	ft	
Total Well Depth (TWD)			57.11	ft btoc	
Depth to Groundwater (DGW)			11.33	ft btoc	
Length of Water Colum (LWC = TWD-DGW)				45.78	ft
1 Casing Volume (LWC*C) =	45.78	X .17 =		7.78	gals
3 Casing Volumes = 3 X	7.78	=		23.34	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 24.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	8.0	16.0	24.0						
Time (military)	0936	0943	0949	0956						
pH (s.u)	8.72	8.86	8.64	7.89						
Specific Conductivity (ΩS)	174	177	150	119						
Water Temperature (°C)	18.7	18.5	18.9	19.0						
Turbidity (NTU)	35	27	30	13						
Dissolved Oxygen (mg/l)	6.84									

Remarks: Well sampled at 0956 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW38				
Well Diameter (D)	2	inch of	24.22	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	24.22	ft btoc			
Depth to Groundwater (DGW)	18.57	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			5.65	ft	
1 Casing Volume (LWC*C) =	5.65	X .17	=	0.96	gals
3 Casing Volumes = 3 X	0.96	=		2.88	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 3.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.0	2.0	3.0						
Time (military)	1310	1314	1318	1325						
pH (s.u)	5.56	5.42	5.34	5.31						
Specific Conductivity (ΩS)	52	49	44	44						
Water Temperature (°C)	19.8	18.2	18.0	17.8						
Turbidity (NTU)	>1,100	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	5.62									

Remarks: Well sampled at 1325 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW39I					
Well Diameter (D)	2	inch of	44.50	feet(ft) bgs		
conversion factor (C): 3.143*(D/2)^2						
for a 2 inch well C = 0.163						
for a 4 inch well C = 0.652						
*Free Product Thickness	---	ft				
Total Well Depth (TWD)	44.50	ft btoc				
Depth to Groundwater (DGW)	18.54	ft btoc				
Length of Water Colum (LWC = TWD-DGW)			25.96	ft		
1 Casing Volume (LWC*C) =	25.96	X .17	=	4.41	gals	
3 Casing Volumes = 3 X	4.41	=		13.23	gals	
(Standard Purge Volume)						

Total Volume of Water Purged Before Sampling 13.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.5	9.0	13.5						
Time (military)	1522	1527	1532	1540						
pH (s.u)	5.67	5.58	5.25	5.30						
Specific Conductivity (ϑS)	55	53	53	51						
Water Temperature (°C)	19.7	19.3	19.5	19.5						
Turbidity (NTU)	>1,100	>1,100	800	270						
Dissolved Oxygen (mg/l)	3.24									

Remarks: Well sampled at 1540 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW40D				
Well Diameter (D)	2	inch of	65.59	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	65.59	ft btoc			
Depth to Groundwater (DGW)	18.32	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			47.27	ft	
1 Casing Volume (LWC*C) =	47.27	X .17 =	8.04	gals	
3 Casing Volumes = 3 X	8.04	=	24.12	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 24.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	8.0	16.0	24.5						
Time (military)	1552	1602	1612	1621						
pH (s.u)	6.14	6.35	5.72	5.65						
Specific Conductivity (ϑS)	74	73	68	75						
Water Temperature (°C)	20.4	20.2	20.1	20.2						
Turbidity (NTU)	75	85	110	65						
Dissolved Oxygen (mg/l)	4.69									

Remarks: Well sampled at 1621 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW41I				
Well Diameter (D)	2	inch of	44.20	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness			---	ft	
Total Well Depth (TWD)			44.20	ft btoc	
Depth to Groundwater (DGW)			13.10	ft btoc	
Length of Water Colum (LWC = TWD-DGW)				31.10	ft
1 Casing Volume (LWC*C) =	31.10	X .17 =		5.30	gals
3 Casing Volumes = 3 X	5.30	=		15.90	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 16.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	5.5	11.0	16.5						
Time (military)	1156	1207	1217	1225						
pH (s.u)	4.84	5.44	5.80	6.50						
Specific Conductivity (ΩS)	185	49	47	68						
Water Temperature (°C)	19.0	18.0	18.5	17.8						
Turbidity (NTU)	55.6	231	210	212						
Dissolved Oxygen (mg/l)	8.13									

Remarks: Well sampled at 1225 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW42D				
Well Diameter (D)	2	inch of	57.68	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness			---	ft	
Total Well Depth (TWD)			57.68	ft btoc	
Depth to Groundwater (DGW)			12.81	ft btoc	
Length of Water Colum (LWC = TWD-DGW)				44.87	ft
1 Casing Volume (LWC*C) =	44.87	X .17 =		7.63	gals
3 Casing Volumes = 3 X	7.63	=		22.89	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 23.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	8.0	16.0	23.0						
Time (military)	0900	0906	0912	0918						
pH (s.u)	6.69	6.58	6.54	6.45						
Specific Conductivity (ΩS)	105	69	67	64						
Water Temperature (°C)	19.3	17.9	17.8	17.8						
Turbidity (NTU)	29	200	600	35						
Dissolved Oxygen (mg/l)	5.21									

Remarks: Well sampled at 0918 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW43				
Well Diameter (D)	2	inch of	18.03	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	18.03	ft btoc			
Depth to Groundwater (DGW)	9.14	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			8.89	ft	
1 Casing Volume (LWC*C) =	8.89	X .17	=	1.51	gals
3 Casing Volumes = 3 X	1.51	=		4.53	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 5.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	5.0						
Time (military)	1500	1513	1517	1522						
pH (s.u)	5.16	5.17	5.19	5.30						
Specific Conductivity (ΩS)	77	68	66	62						
Water Temperature (°C)	19.4	19.2	18.6	19.0						
Turbidity (NTU)	631	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	2.45									

Remarks: Well sampled at 1522 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW44I				
Well Diameter (D)	2	inch of	27.85	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	27.85	ft btoc			
Depth to Groundwater (DGW)	7.25	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			20.60	ft	
1 Casing Volume (LWC*C) =	20.60	X .17	=	3.50	gals
3 Casing Volumes = 3 X	3.50	=		10.50	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 10.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.5	7.0	10.5						
Time (military)	1249	1251	1253	1255						
pH (s.u)	6.43	6.37	6.05	5.78						
Specific Conductivity (ϑS)	57	52	52	51						
Water Temperature (°C)	18.7	17.3	16.9	16.6						
Turbidity (NTU)	15.4	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	5.93									

Remarks: Well sampled at 1255 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW46				
Well Diameter (D)	2	inch of	34.98	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	34.98	ft btoc			
Depth to Groundwater (DGW)	19.47	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			15.51	ft	
1 Casing Volume (LWC*C) =	15.51	X .17 =	2.64	gals	
3 Casing Volumes = 3 X	2.64	=	7.92	gals	
(Standard Purge Volume)					

Total Volume of Water Purged Before Sampling 8.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	8.0						
Time (military)	0925	0931	0940	0948						
pH (s.u)	5.71	5.50	5.38	5.36						
Specific Conductivity (ΩS)	52	28	26	26						
Water Temperature (°C)	18.8	18.3	17.8	18.1						
Turbidity (NTU)	45.5	974	>1,100	>1,100						
Dissolved Oxygen (mg/l)	5.50									

Remarks: Well sampled at 0948 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW47					
Well Diameter (D)	2	inch of	30.03	feet(ft) bgs		
conversion factor (C): 3.143*(D/2)^2						
for a 2 inch well C = 0.163						
for a 4 inch well C = 0.652						
*Free Product Thickness			---	ft		
Total Well Depth (TWD)			30.03	ft btoc		
Depth to Groundwater (DGW)			18.89	ft btoc		
Length of Water Colum (LWC = TWD-DGW)				11.14	ft	
1 Casing Volume (LWC*C) =	11.14	X .17	=	1.89	gals	
3 Casing Volumes = 3 X	1.89	=		5.67	gals	
(Standard Purge Volume)						

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	6.0						
Time (military)	1040	1047	1054	1102						
pH (s.u)	5.85	5.61	5.41	5.41						
Specific Conductivity (ΩS)	55	51	47	46						
Water Temperature (°C)	19.0	18.3	18.2	18.3						
Turbidity (NTU)	94.3	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	4.77									

Remarks: Well sampled at 1102 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW49				
Well Diameter (D)	2	inch of	22.57	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	22.57	ft btoc			
Depth to Groundwater (DGW)	14.06	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			8.51	ft	
1 Casing Volume (LWC*C) =	8.51	X .17	=	1.45	gals
3 Casing Volumes = 3 X	1.45	=		4.35	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.5	3.0	4.5						
Time (military)	1505	1510	1515	1520						
pH (s.u)	5.14	5.14	5.15	5.17						
Specific Conductivity (ΩS)	46	45	45	45						
Water Temperature (°C)	19.5	18.7	18.8	18.8						
Turbidity (NTU)	427	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	1.57									

Remarks: Well sampled at 1520 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013

Field Personnel Reid A. Doherty

General Weather Conditions Partly Cloudy

Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**

serial no. serial no.

pH =4.0 Standard

pH = 7.0 Standard

pH = 10.0 Standard

DO Meter Standard

Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW50

Well Diameter (D) inch of feet(ft) bgs

conversion factor (C): 3.143*(D/2)^2

for a 2 inch well C = 0.163

for a 4 inch well C = 0.652

*Free Product Thickness ft

Total Well Depth (TWD) ft btoc

Depth to Groundwater (DGW) ft btoc

Length of Water Colum (LWC = TWD-DGW) ft

1 Casing Volume (LWC*C) = X .17 = gals

3 Casing Volumes = 3 X = gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well not located at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013
Field Personnel Reid A. Doherty
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**
serial no. serial no.
pH =4.0 Standard
pH = 7.0 Standard
pH = 10.0 Standard
DO Meter Standard
Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW51

Well Diameter (D) 2 inch of 45.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness 0.22 ft
Total Well Depth (TWD) 45.00 ft btoc
Depth to Groundwater (DGW) 27.77 ft btoc
Length of Water Colum (LWC = TWD-DGW) 17.23 ft
1 Casing Volume (LWC*C) = 17.23 X .17 = 2.93 gals
3 Casing Volumes = 3 X 2.93 = 8.79 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well not sampled due to 0.22-feet of free-phase product at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW52				
Well Diameter (D)	2	inch of	40.87	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	40.87	ft btoc			
Depth to Groundwater (DGW)	22.85	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			18.02	ft	
1 Casing Volume (LWC*C) =	18.02	X .17	=	3.06	gals
3 Casing Volumes = 3 X	3.06	=		9.18	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 9.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.5	7.0	9.5						
Time (military)	1415	1423	1431	1440						
pH (s.u)	5.68	5.70	5.68	5.69						
Specific Conductivity (ΩS)	188	194	192	192						
Water Temperature (°C)	19.2	19.1	19.2	18.9						
Turbidity (NTU)	55	900	550	550						
Dissolved Oxygen (mg/l)	0.98									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1440 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW53				
Well Diameter (D)	2	inch of	45.00	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	45.00	ft btoc			
Depth to Groundwater (DGW)	22.85	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			22.15	ft	
1 Casing Volume (LWC*C) =	22.15	X .17	=	3.77	gals
3 Casing Volumes = 3 X	3.77	=		11.31	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 11.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.0	8.0	11.5						
Time (military)	1500	1508	1516	1524						
pH (s.u)	5.49	5.24	5.22	5.22						
Specific Conductivity (ΩS)	32	28	28	28						
Water Temperature (°C)	18.5	18.6	18.5	17.8						
Turbidity (NTU)	65	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	5.61									

Remarks: Well sampled at 1524 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: 8/13/2013
Field Personnel: Dan R. Matz
General Weather Conditions: Partly Cloudy
Ambient Air Temperature (°C): 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW54

Well Diameter (D) 2 inch of 45.13 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	---	ft		
Total Well Depth (TWD)	45.13	ft btoc		
Depth to Groundwater (DGW)	29.57	ft btoc		
Length of Water Colum (LWC = TWD-DGW)			15.56	ft
1 Casing Volume (LWC*C) =	15.56	X .17 =	2.65	gals
3 Casing Volumes = 3 X	2.65	=	7.95	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 8.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	3.0	6.0	8.0						
Time (military)	1040	1047	1055	1100						
pH (s.u)	5.79	5.51	5.29	5.25						
Specific Conductivity (ΩS)	46	375	36	36						
Water Temperature (°C)	21.3	21.3	20.4	20.6						
Turbidity (NTU)	18.2	866	>1,100	>1,100						
Dissolved Oxygen (mg/l)	3.10									

Remarks: Well sampled at 1105 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW55				
Well Diameter (D)	2	inch of	19.78	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	19.78	ft btoc			
Depth to Groundwater (DGW)	7.61	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			12.17	ft	
1 Casing Volume (LWC*C) =	12.17	X .17	=	2.07	gals
3 Casing Volumes = 3 X	2.07	=		6.21	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 6.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.5	5.0	6.5						
Time (military)	1432	1437	1442	1450						
pH (s.u)	5.01	4.95	4.88	4.93						
Specific Conductivity (ΩS)	42	42	41	43						
Water Temperature (°C)	21.0	18.9	18.5	18.0						
Turbidity (NTU)	485	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	4.02									

Remarks: Well sampled at 1450 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW57I					
Well Diameter (D)	2	inch of	29.87	feet(ft) bgs		
conversion factor (C): 3.143*(D/2)^2						
for a 2 inch well C = 0.163						
for a 4 inch well C = 0.652						
*Free Product Thickness	---	ft				
Total Well Depth (TWD)	29.87	ft btoc				
Depth to Groundwater (DGW)	9.24	ft btoc				
Length of Water Colum (LWC = TWD-DGW)					20.63	ft
1 Casing Volume (LWC*C) =	20.63	X	.17	=	3.51	gals
3 Casing Volumes = 3 X	3.51	=			10.53	gals
(Standard Purge Volume)						

Total Volume of Water Purged Before Sampling 7.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	4.0	7.0							
Time (military)	1451	1454	1458							
pH (s.u)	5.16	5.25	5.28							
Specific Conductivity (ΩS)	56	55	55							
Water Temperature (°C)	20.2	19.2	18.7							
Turbidity (NTU)	900	110	90							
Dissolved Oxygen (mg/l)	6.52									

Remarks: Well purged dry after 7.0-gallons removed. Well sampled at 1458 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW58				
Well Diameter (D)	2	inch of	29.92	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	29.92	ft btoc			
Depth to Groundwater (DGW)	19.15	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			10.77	ft	
1 Casing Volume (LWC*C) =	10.77	X .17	=	1.83	gals
3 Casing Volumes = 3 X	1.83	=		5.49	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	2.0	4.0	6.0						
Time (military)	1314	1322	1327	1330						
pH (s.u)	5.32	5.24	5.17	5.19						
Specific Conductivity (ΩS)	30	29	30	29						
Water Temperature (°C)	19.8	18.5	17.8	19.4						
Turbidity (NTU)	16.6	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	4.79									

Remarks: Well sampled at 1330 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	Reid A. Doherty
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW59				
Well Diameter (D)	2	inch of	24.69	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	24.69	ft btoc			
Depth to Groundwater (DGW)	16.76	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			7.93	ft	
1 Casing Volume (LWC*C) =	7.93	X .17	=	1.35	gals
3 Casing Volumes = 3 X	1.35	=		4.05	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.5	3.0	4.5						
Time (military)	1335	1342	1349	1355						
pH (s.u)	5.29	5.33	5.47	5.47						
Specific Conductivity (ΩS)	58	47	46	47						
Water Temperature (°C)	19.6	17.6	17.2	17.3						
Turbidity (NTU)	50	>1,100	>1,100	>1,100						
Dissolved Oxygen (mg/l)	1.62									

Remarks: Well sampled at 1355 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013
Field Personnel Reid A Doherty
General Weather Conditions Partly Cloudy
Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**
serial no. serial no.
pH =4.0 Standard
pH = 7.0 Standard
pH = 10.0 Standard
DO Meter Standard
Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW60

Well Diameter (D) 4 inch of 45.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness 0.01 ft
Total Well Depth (TWD) 45.00 ft btoc
Depth to Groundwater (DGW) 30.20 ft btoc
Length of Water Colum (LWC = TWD-DGW) 14.80 ft
1 Casing Volume (LWC*C) = 14.80 X .65 = 9.62 gals
3 Casing Volumes = 3 X 9.62 = 28.86 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well not sampled due to 0.01-feet of free-phase product present at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW61				
Well Diameter (D)	4	inch of	45.36	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	45.36	ft btoc			
Depth to Groundwater (DGW)	29.40	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			15.96	ft	
1 Casing Volume (LWC*C) =	15.96	X .65	=	10.41	gals
3 Casing Volumes = 3 X	10.41	=		31.23	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 31.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	10.5	21.0	31.5						
Time (military)	1410	1425	1440	1455						
pH (s.u)	6.19	5.63	5.37	5.54						
Specific Conductivity (ΩS)	94	57	41	49						
Water Temperature (°C)	22.3	21.3	20.8	20.8						
Turbidity (NTU)	161	178	98.2	76.4						
Dissolved Oxygen (mg/l)	1.75									

Remarks: Well sampled at 1455 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW62				
Well Diameter (D)	4	inch of	44.79	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.79	ft btoc			
Depth to Groundwater (DGW)	29.40	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			15.39	ft	
1 Casing Volume (LWC*C) =	15.39	X .65 =	10.03	gals	
3 Casing Volumes = 3 X	10.03	=	30.09	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling: 30.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	10.5	21.0	30.5						
Time (military)	0958	1009	1015	1022						
pH (s.u)	5.49	5.43	5.23	5.11						
Specific Conductivity (ΩS)	36	36	34	33						
Water Temperature (°C)	21.1	20.9	20.9	20.9						
Turbidity (NTU)	50	34	170	90						
Dissolved Oxygen (mg/l)	2.39									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1022 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW63				
Well Diameter (D)	4	inch of	45.35	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	45.35	ft btoc			
Depth to Groundwater (DGW)	28.84	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			16.51	ft	
1 Casing Volume (LWC*C) =	16.51	X .65 =	10.77	gals	
3 Casing Volumes = 3 X	10.77	=	32.31	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 32.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	11.0	22.0	32.5						
Time (military)	1045	1057	1110	1127						
pH (s.u)	5.26	5.46	5.32	5.09						
Specific Conductivity (ΩS)	43	41	38	37						
Water Temperature (°C)	23.4	21.3	21.4	20.5						
Turbidity (NTU)	38	33	29	22						
Dissolved Oxygen (mg/l)	5.12									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1127 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW64				
Well Diameter (D)	4	inch of	44.16	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.16	ft btoc			
Depth to Groundwater (DGW)	29.30	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			14.86	ft	
1 Casing Volume (LWC*C) =	14.86	X .65	=	9.69	gals
3 Casing Volumes = 3 X	9.69	=		29.07	gals
(Standard Purge Volume)					

Total Volume of Water Purged Before Sampling 29.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	10.0	20.0	29.5						
Time (military)	1140	1156	1207	1220						
pH (s.u)	5.26	5.16	5.34	5.21						
Specific Conductivity (ϑS)	416	38	35	36						
Water Temperature (°C)	21.9	21.1	21.7	21.7						
Turbidity (NTU)	23	26	160	50						
Dissolved Oxygen (mg/l)	3.94									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1220 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW65					
Well Diameter (D)	4	inch of	45.31	feet(ft) bgs		
conversion factor (C): 3.143*(D/2)^2						
for a 2 inch well C = 0.163						
for a 4 inch well C = 0.652						
*Free Product Thickness	---	ft				
Total Well Depth (TWD)	45.31	ft btoc				
Depth to Groundwater (DGW)	26.70	ft btoc				
Length of Water Colum (LWC = TWD-DGW)			18.61	ft		
1 Casing Volume (LWC*C) =	18.61	X .65	=	12.13	gals	
3 Casing Volumes = 3 X	12.13	=	36.39	gals		
(Standard Purge Volume)						

Total Volume of Water Purged Before Sampling 36.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	12.5	25.0	26.5						
Time (military)	1318	1325	1335	1345						
pH (s.u)	5.31	5.67	5.31	5.46						
Specific Conductivity (ΩS)	52	52	49	47						
Water Temperature (°C)	19.5	19.4	19.2	19.4						
Turbidity (NTU)	27	30	33	40						
Dissolved Oxygen (mg/l)	2.81									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	Ivan A. Irizarry
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW66			
Well Diameter (D)	4	inch of	44.93	feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2				
for a 2 inch well C = 0.163				
for a 4 inch well C = 0.652				
*Free Product Thickness	---			ft
Total Well Depth (TWD)	44.93			ft btoc
Depth to Groundwater (DGW)	27.29			ft btoc
Length of Water Colum (LWC = TWD-DGW)			17.64	ft
1 Casing Volume (LWC*C) =	17.64	X .65 =	11.50	gals
3 Casing Volumes = 3 X	11.50	=	34.50	gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling 34.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	11.5	23.0	34.5						
Time (military)	1319	1323	1327	1337						
pH (s.u)	5.59	5.37	5.33	5.47						
Specific Conductivity (ΩS)	62	59	56	52						
Water Temperature (°C)	19.6	19.4	19.1	19.5						
Turbidity (NTU)	883	>1,100	931	>1,100						
Dissolved Oxygen (mg/l)	3.49									

Remarks: Well sampled at 1337 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/15/2013
Field Personnel Ivan A. Irizarry
General Weather Conditions Cloudy
Ambient Air Temperature (°C) 19

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW67

Well Diameter (D) 4 inch of 44.97 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness --- ft
Total Well Depth (TWD) 44.97 ft btoc
Depth to Groundwater (DGW) 27.28 ft btoc
Length of Water Colum (LWC = TWD-DGW) 17.69 ft
1 Casing Volume (LWC*C) = 17.69 X .65 = 11.53 gals
3 Casing Volumes = 3 X 11.53 = 34.59 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 35.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	12.0	24.0	35.0						
Time (military)	1350	1353	1359	1402						
pH (s.u)	5.37	5.31	5.26	5.25						
Specific Conductivity (ΩS)	58	58	58	55						
Water Temperature (°C)	19.0	18.5	20.1	18.8						
Turbidity (NTU)	81.6	231	312	321						
Dissolved Oxygen (mg/l)	1.80									

Remarks: Well sampled at 1402 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/14/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	25
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well #	06742-MW68				
Well Diameter (D)	4	inch of	45.64	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	45.64	ft btoc			
Depth to Groundwater (DGW)	29.95	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			15.69	ft	
1 Casing Volume (LWC*C) =	15.69	X .65 =	10.23	gals	
3 Casing Volumes = 3 X	10.23	=	30.69	gals	
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 31.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	10.5	21.0	31.5						
Time (military)	0900	0918	0927	0940						
pH (s.u)	7.21	5.67	5.59	5.43						
Specific Conductivity (ϑS)	54	40	35	35						
Water Temperature (°C)	22.1	21.1	21.3	21.2						
Turbidity (NTU)	59	80	1,000	>1,100						
Dissolved Oxygen (mg/l)	2.79									

Remarks: Sheen and slight petroleum odor noted at time of sampling. Well sampled at 0940 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: 8/14/2013
Field Personnel: W. Sloan Click
General Weather Conditions: Partly Cloudy
Ambient Air Temperature (°C): 25

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW69

Well Diameter (D) 4 inch of 44.14 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.14	ft btoc			
Depth to Groundwater (DGW)	29.42	ft btoc			
Length of Water Colum (LWC = TWD-DGW)				14.72	ft
1 Casing Volume (LWC*C) =	14.72	X .65	=	9.60	gals
3 Casing Volumes = 3 X	9.60	=		28.80	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 29.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	10.0	20.0	29.0						
Time (military)	1234	1246	1257	1310						
pH (s.u)	5.78	5.72	5.54	5.52						
Specific Conductivity (ΩS)	148	112	78	72						
Water Temperature (°C)	21.3	20.6	21.0	20.8						
Turbidity (NTU)	45	140	120	110						
Dissolved Oxygen (mg/l)	2.11									

Remarks: Well sampled at 1310 on August 14, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/15/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Cloudy
Ambient Air Temperature (°C)	19
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW70				
Well Diameter (D)	4	inch of	44.49	feet(ft) bgs	
conversion factor (C): 3.143*(D/2)^2					
for a 2 inch well C = 0.163					
for a 4 inch well C = 0.652					
*Free Product Thickness	---	ft			
Total Well Depth (TWD)	44.49	ft btoc			
Depth to Groundwater (DGW)	28.34	ft btoc			
Length of Water Colum (LWC = TWD-DGW)			16.15	ft	
1 Casing Volume (LWC*C) =	16.15	X .65	=	10.53	gals
3 Casing Volumes = 3 X	10.53	=		31.59	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 32.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	11.0	22.0	32.0						
Time (military)	1239	1246	1254	1302						
pH (s.u)	8.47	6.03	5.94	5.37						
Specific Conductivity (ΩS)	53	47	41	41						
Water Temperature (°C)	19.3	19.6	19.9	19.4						
Turbidity (NTU)	50	29	80	55						
Dissolved Oxygen (mg/l)	3.71									

Remarks: Slight petroleum odor noted at time of sampling. Well sampled at 1302 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	8/13/2013
Field Personnel	W. Sloan Click
General Weather Conditions	Partly Cloudy
Ambient Air Temperature (°C)	27
Facility Name:	Country Side 2
Site ID #:	06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well #	06742-MW1X					
Well Diameter (D)	2	inch of	63.07	feet(ft) bgs		
conversion factor (C): 3.143*(D/2)^2						
for a 2 inch well C = 0.163						
for a 4 inch well C = 0.652						
*Free Product Thickness	---	ft				
Total Well Depth (TWD)	63.07	ft btoc				
Depth to Groundwater (DGW)	30.73	ft btoc				
Length of Water Colum (LWC = TWD-DGW)			32.34	ft		
1 Casing Volume (LWC*C) =	32.34	X .17	=	5.50	gals	
3 Casing Volumes = 3 X	5.50	=		16.50	gals	
(Standard Purge Volume)						

Total Volume of Water Purged Before Sampling 11.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	5.5	11.0							
Time (military)	1545	1552	1601							
pH (s.u)	6.13	5.94	5.90							
Specific Conductivity (ΩS)	92	92	92							
Water Temperature (°C)	21.2	21.2	21.2							
Turbidity (NTU)	80.4	98.6	76.4							
Dissolved Oxygen (mg/l)	3.56									

Remarks: Well purged dry after 11.0-gallons removed. Well sampled at 1601 on August 13, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/15/2013
Field Personnel Ivan A. Irizarry
General Weather Conditions Cloudy
Ambient Air Temperature (°C) 19

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:		**Conductivity Sensor:**	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	
DO Meter		Standard	
Standard		**Turbidity:**	

Chain of Custody

Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338
Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW2X

Well Diameter (D) 1 inch of 63.85 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				---	ft
Total Well Depth (TWD)				43.85	ft btoc
Depth to Groundwater (DGW)				20.42	ft btoc
Length of Water Colum (LWC = TWD-DGW)				23.43	ft
1 Casing Volume (LWC*C) =	23.43	X	.041 =	0.96	gals
3 Casing Volumes = 3 X	0.96		=	2.88	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---									
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Not enough water present for groundwater quality readings. Well sampled at 1410 on August 15, 2013.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: 8/15/2013
Field Personnel: Ivan A. Irizarry
General Weather Conditions: Cloudy
Ambient Air Temperature (°C): 19

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**
serial no. serial no.
pH =4.0 Standard
pH = 7.0 Standard
pH = 10.0 Standard
DO Meter Standard
Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW3X

Well Diameter (D) 1 inch of 44.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness --- ft
Total Well Depth (TWD) 44.50 ft btoc
Depth to Groundwater (DGW) 29.35 ft btoc
Length of Water Colum (LWC = TWD-DGW) 15.15 ft
1 Casing Volume (LWC*C) = 15.15 X .041 = 0.62 gals
3 Casing Volumes = 3 X 0.62 = 1.86 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well not sampled due to being obstructed by organic debris at time of the sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013

Field Personnel Dan R. Matz

General Weather Conditions Partly Cloudy

Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**

serial no. serial no.

pH =4.0 Standard

pH = 7.0 Standard

pH = 10.0 Standard

DO Meter Standard

Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW4X

Well Diameter (D) 2 inch of 11.40 feet(ft) bgs

conversion factor (C): 3.143*(D/2)^2

for a 2 inch well C = 0.163

for a 4 inch well C = 0.652

*Free Product Thickness NA ft

Total Well Depth (TWD) 11.40 ft btoc

Depth to Groundwater (DGW) Dry ft btoc

Length of Water Colum (LWC = TWD-DGW) NA ft

1 Casing Volume (LWC*C) = NA X .17 = NA gals

3 Casing Volumes = 3 X NA = NA gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling NA gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well dry at time of sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/13/2013

Field Personnel Dan R. Matz

General Weather Conditions Partly Cloudy

Ambient Air Temperature (°C) 27

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor: **Conductivity Sensor:**

serial no. serial no.

pH =4.0 Standard

pH = 7.0 Standard

pH = 10.0 Standard

DO Meter Standard

Standard **Turbidity:**

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # 06742-MW5X

Well Diameter (D) inch of feet(ft) bgs

conversion factor (C): 3.143*(D/2)^2

for a 2 inch well C = 0.163

for a 4 inch well C = 0.652

*Free Product Thickness ft

Total Well Depth (TWD) ft btoc

Depth to Groundwater (DGW) ft btoc

Length of Water Colum (LWC = TWD-DGW) ft

1 Casing Volume (LWC*C) = X .17 = gals

3 Casing Volumes = 3 X = gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)										
Time (military)										
pH (s.u)										
Specific Conductivity (ΩS)										
Water Temperature (°C)										
Turbidity (NTU)										
Dissolved Oxygen (mg/l)										

Remarks: Well destroyed prior to sampling event.

BLE

BUNNELL-LAMMONS ENGINEERING, INC.

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 8/15/2013
Field Personnel Ivan A. Irizarry
General Weather Conditions Cloudy
Ambient Air Temperature (°C) 19

Facility Name: Country Side 2 Site ID #: 06742

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Reid A. Doherty	8/16/13 : 1338	Shealy	8/16/13 : 1338

Well # 06742-MW6X

Well Diameter (D) 1 inch of 39.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				---	ft
Total Well Depth (TWD)				39.50	ft btoc
Depth to Groundwater (DGW)				26.23	ft btoc
Length of Water Colum (LWC = TWD-DGW)				13.27	ft
1 Casing Volume (LWC*C) =	13.27	X	.041 =	0.54	gals
3 Casing Volumes = 3 X	0.54		=	1.62	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 1.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	6th Vol.	7th Vol.	8th Vol.	Post
Volume Purged (gallons)	---	1.0								
Time (military)	1330	1340								
pH (s.u)	5.67	5.66								
Specific Conductivity (ΩS)	121	122								
Water Temperature (°C)	19.6	19.4								
Turbidity (NTU)	81.8	>1,100								
Dissolved Oxygen (mg/l)	1.31									

Remarks: Well purged dry after 1.0-gallons removed. Well sampled at 1340 on August 15, 2013.

APPENDIX B

WASTE TRANSPORTATION AND DISPOSAL RECORDS

VLS recovery services, llc

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number

GENERATOR

5. Generator's Name and Mailing Address

BUNNELL-LAMMON ENG, INC
6004 FONDERS COURT
GREENVILLE, SC 29615

Generator's Phone:

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name

PLE

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

VLS RECOVERY SERVICES, LLC
306 S. MAIN STREET
MAULDIN, SC 29662

U.S. EPA ID Number

Facility's Phone:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON HAZ NON REG WELL WATER #11512 County Side 2 Westminster SC US-06742			809	L	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Brian K White	Brian K White	9	20	13

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year

Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)	Month	Day	Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name	Signature	Month	Day	Year
Steven Loan		9	20	13

APPENDIX C

LABORATORY ANALYTICAL DATA SHEETS

Report of Analysis

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615
Attention: Dan Osbourne

Project Name: **Country Side 2**

Project Number: **J13-6940-05**

Lot Number: **OH17005**

Date Completed: **09/03/2013**

Lucas Odom
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

Case Narrative
Bunnell-Lammons Engineering, Inc.
Lot Number: OH17005

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

EDB by Microextraction

Sample -030 recovered the surrogate above method criteria. No corrective action was required as the sample was non-detect for the target compound.

Samples -034 and -061 were qualified with a "P" as the relative percent difference (RPD) between the two GC columns exceeded method criteria. Per SCDHEC, the lower of the two values has been reported.

Samples -063 and -075 were diluted 10X and 20X respectively due to large detections of the target compound. No corrective action was required as it is known that dilutions of 5X and greater may impact surrogate recoveries.

Sample Summary

Bunnell-Lammons Engineering, Inc.

Lot Number: OH17005

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	06742-MWR-1	Aqueous	08/13/2013 1305	08/16/2013
002	06742-MWR-1A	Aqueous	08/13/2013 1020	08/16/2013
003	06742-MWR-1A DUP	Aqueous	08/13/2013 1022	08/16/2013
004	06742-MW-1X	Aqueous	08/13/2013 1601	08/16/2013
005	06742-MW-2	Aqueous	08/15/2013 1425	08/16/2013
006	06742-MWR-2	Aqueous	08/13/2013 1345	08/16/2013
007	06742-MW-2X	Aqueous	08/15/2013 1410	08/16/2013
008	06742-MWR-3	Aqueous	08/13/2013 1410	08/16/2013
009	06742-MW-4	Aqueous	08/14/2013 1135	08/16/2013
010	06742-MWR-4	Aqueous	08/13/2013 1615	08/16/2013
011	06742-MWR-4DUP	Aqueous	08/13/2013 1616	08/16/2013
012	06742-MWR-4R	Aqueous	08/13/2013 1535	08/16/2013
013	06742-MW-5	Aqueous	08/14/2013 1357	08/16/2013
014	06742-MW-6	Aqueous	08/13/2013 1445	08/16/2013
015	06742-MW-6 DUP	Aqueous	08/13/2013 1446	08/16/2013
016	06742-MW-6X	Aqueous	08/15/2013 1340	08/16/2013
017	06742-MW-7	Aqueous	08/13/2013 1130	08/16/2013
018	06742-MW-7 DUP	Aqueous	08/13/2013 1131	08/16/2013
019	06742-MW-7R	Aqueous	08/13/2013 1230	08/16/2013
020	06742-MW-9	Aqueous	08/13/2013 1231	08/16/2013
021	06742-MW-9R	Aqueous	08/13/2013 1304	08/16/2013
022	06742-MW-11	Aqueous	08/14/2013 1123	08/16/2013
023	06742-MWR-11	Aqueous	08/14/2013 1056	08/16/2013
024	06742-MW-12	Aqueous	08/14/2013 1454	08/16/2013
025	06742-MW-13R	Aqueous	08/14/2013 1025	08/16/2013
026	06742-MW-14R	Aqueous	08/14/2013 1251	08/16/2013
027	06742-MW-14R2	Aqueous	08/14/2013 1245	08/16/2013
028	06742-MW-15R	Aqueous	08/13/2013 1610	08/16/2013
029	06742-MW-16DD	Aqueous	08/13/2013 1100	08/16/2013
030	06742-MW-17I	Aqueous	08/13/2013 1335	08/16/2013
031	06742-MW-18D	Aqueous	08/14/2013 1350	08/16/2013
032	06742-MW-19I	Aqueous	08/15/2013 0910	08/16/2013
033	06742-MW-20D	Aqueous	08/15/2013 1045	08/16/2013
034	06742-MW-21I	Aqueous	08/15/2013 0945	08/16/2013
035	06742-MW-22D	Aqueous	08/15/2013 1058	08/16/2013
036	06742-MW-23	Aqueous	08/13/2013 0945	08/16/2013
037	06742-MW-24	Aqueous	08/13/2013 0940	08/16/2013
038	06742-MW-25	Aqueous	08/13/2013 1025	08/16/2013
039	06742-MW-25 DUP	Aqueous	08/13/2013 1026	08/16/2013
040	06742-MW-26I	Aqueous	08/14/2013 1620	08/16/2013
041	06742-MW-28DD	Aqueous	08/15/2013 1213	08/16/2013
042	06742-MW-29	Aqueous	08/14/2013 0930	08/16/2013
043	06742-MW-30I	Aqueous	08/14/2013 1612	08/16/2013
044	06742-MW-31D	Aqueous	08/15/2013 1130	08/16/2013
045	06742-MW-32	Aqueous	08/14/2013 1004	08/16/2013

Sample Summary (Continued)

Lot Number: OH17005

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
046	06742-MW-33I	Aqueous	08/15/2013 1200	08/16/2013
047	06742-MW-34D	Aqueous	08/15/2013 1054	08/16/2013
048	06742-MW-35I	Aqueous	08/15/2013 1228	08/16/2013
049	06742-MW-36D	Aqueous	08/15/2013 1029	08/16/2013
050	06742-MW-37DD	Aqueous	08/15/2013 0956	08/16/2013
051	06742-MW-38	Aqueous	08/14/2013 1325	08/16/2013
052	06742-MW-39I	Aqueous	08/14/2013 1540	08/16/2013
053	06742-MW-40D	Aqueous	08/14/2013 1621	08/16/2013
054	06742-MW-41I	Aqueous	08/15/2013 1225	08/16/2013
055	06742-MW-42D	Aqueous	08/15/2013 0918	08/16/2013
056	06742-MW-43	Aqueous	08/14/2013 1522	08/16/2013
057	06742-MW-44I	Aqueous	08/15/2013 1255	08/16/2013
058	06742-MW-46	Aqueous	08/14/2013 0948	08/16/2013
059	06742-MW-47	Aqueous	08/14/2013 1102	08/16/2013
060	06742-MW-49	Aqueous	08/14/2013 1520	08/16/2013
061	06742-MW-52	Aqueous	08/13/2013 1440	08/16/2013
062	06742-MW-53	Aqueous	08/13/2013 1524	08/16/2013
063	06742-MW-54	Aqueous	08/13/2013 1105	08/16/2013
064	06742-MW-55	Aqueous	08/14/2013 1450	08/16/2013
065	06742-MW-57I	Aqueous	08/14/2013 1458	08/16/2013
066	06742-MW-58	Aqueous	08/14/2013 1330	08/16/2013
067	06742-MW-59	Aqueous	08/14/2013 1355	08/16/2013
068	06742-MW-61	Aqueous	08/13/2013 1455	08/16/2013
069	06742-MW-62	Aqueous	08/14/2013 1022	08/16/2013
070	06742-MW-63	Aqueous	08/14/2013 1127	08/16/2013
071	06742-MW-64	Aqueous	08/14/2013 1220	08/16/2013
072	06742-MW-65	Aqueous	08/15/2013 1345	08/16/2013
073	06742-MW-66	Aqueous	08/15/2013 1337	08/16/2013
074	06742-MW-67	Aqueous	08/15/2013 1402	08/16/2013
075	06742-MW-68	Aqueous	08/14/2013 0940	08/16/2013
076	06742-MW-69	Aqueous	08/14/2013 1310	08/16/2013
077	06742-MW-70	Aqueous	08/15/2013 1302	08/16/2013
078	SW-1	Aqueous	08/14/2013 1540	08/16/2013
079	FIELD BLANK 1	Aqueous	08/13/2013 1630	08/16/2013
080	FIELD BLANK 2	Aqueous	08/14/2013 1630	08/16/2013
081	FIELD BLANK 3	Aqueous	08/15/2013 1500	08/16/2013
082	Trip Blank 1	Aqueous	08/14/2013 1500	08/16/2013
083	Trip Blank 2	Aqueous	08/14/2013 1500	08/16/2013

(83 samples)

Executive Summary
Bunnell-Lammons Engineering, Inc.
Lot Number: OH17005

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	06742-MWR-1	Aqueous	tert-Amyl alcohol (TAA)	8260B	73000		ug/L	15
001	06742-MWR-1	Aqueous	tert-Amyl methyl ether (TAME)	8260B	180	J	ug/L	15
001	06742-MWR-1	Aqueous	Benzene	8260B	38000		ug/L	15
001	06742-MWR-1	Aqueous	Ethylbenzene	8260B	3500		ug/L	15
001	06742-MWR-1	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	45000		ug/L	15
001	06742-MWR-1	Aqueous	Naphthalene	8260B	1000	J	ug/L	15
001	06742-MWR-1	Aqueous	tert-butyl alcohol (TBA)	8260B	10000		ug/L	15
001	06742-MWR-1	Aqueous	Toluene	8260B	48000		ug/L	15
001	06742-MWR-1	Aqueous	Xylenes (total)	8260B	19000		ug/L	15
001	06742-MWR-1	Aqueous	1,2-Dibromoethane (EDB)	8011	1.5		ug/L	15
002	06742-MWR-1A	Aqueous	tert-Amyl alcohol (TAA)	8260B	66000		ug/L	16
002	06742-MWR-1A	Aqueous	tert-Amyl methyl ether (TAME)	8260B	1400	J	ug/L	16
002	06742-MWR-1A	Aqueous	Benzene	8260B	38000		ug/L	16
002	06742-MWR-1A	Aqueous	Diisopropyl ether (IPE)	8260B	1800	J	ug/L	16
002	06742-MWR-1A	Aqueous	Ethylbenzene	8260B	3300		ug/L	16
002	06742-MWR-1A	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	250000		ug/L	16
002	06742-MWR-1A	Aqueous	Naphthalene	8260B	1000	J	ug/L	16
002	06742-MWR-1A	Aqueous	tert-butyl alcohol (TBA)	8260B	13000		ug/L	16
002	06742-MWR-1A	Aqueous	Toluene	8260B	63000		ug/L	16
002	06742-MWR-1A	Aqueous	Xylenes (total)	8260B	30000		ug/L	16
002	06742-MWR-1A	Aqueous	1,2-Dibromoethane (EDB)	8011	9.9		ug/L	16
003	06742-MWR-1A DUP	Aqueous	tert-Amyl alcohol (TAA)	8260B	70000		ug/L	17
003	06742-MWR-1A DUP	Aqueous	tert-Amyl methyl ether (TAME)	8260B	1700	J	ug/L	17
003	06742-MWR-1A DUP	Aqueous	Benzene	8260B	44000		ug/L	17
003	06742-MWR-1A DUP	Aqueous	Diisopropyl ether (IPE)	8260B	2100	J	ug/L	17
003	06742-MWR-1A DUP	Aqueous	3,3-Dimethyl-1-butanol	8260B	1200	J	ug/L	17
003	06742-MWR-1A DUP	Aqueous	Ethylbenzene	8260B	3700		ug/L	17
003	06742-MWR-1A DUP	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	270000		ug/L	17
003	06742-MWR-1A DUP	Aqueous	Naphthalene	8260B	1100	J	ug/L	17
003	06742-MWR-1A DUP	Aqueous	tert-butyl alcohol (TBA)	8260B	13000		ug/L	17
003	06742-MWR-1A DUP	Aqueous	Toluene	8260B	66000		ug/L	17
003	06742-MWR-1A DUP	Aqueous	Xylenes (total)	8260B	33000		ug/L	17
003	06742-MWR-1A DUP	Aqueous	1,2-Dibromoethane (EDB)	8011	12		ug/L	17
004	06742-MW-1X	Aqueous	tert-Amyl methyl ether (TAME)	8260B	0.31	J	ug/L	18
004	06742-MW-1X	Aqueous	Benzene	8260B	77		ug/L	18
004	06742-MW-1X	Aqueous	Ethylbenzene	8260B	33		ug/L	18
004	06742-MW-1X	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	11		ug/L	18
004	06742-MW-1X	Aqueous	Naphthalene	8260B	18		ug/L	18
004	06742-MW-1X	Aqueous	Toluene	8260B	130		ug/L	18
004	06742-MW-1X	Aqueous	Xylenes (total)	8260B	180		ug/L	18
005	06742-MW-2	Aqueous	tert-Amyl alcohol (TAA)	8260B	23		ug/L	19
005	06742-MW-2	Aqueous	Benzene	8260B	0.49	J	ug/L	19
005	06742-MW-2	Aqueous	tert-butyl alcohol (TBA)	8260B	13	J	ug/L	19
006	06742-MWR-2	Aqueous	tert-Amyl alcohol (TAA)	8260B	140	J	ug/L	20
006	06742-MWR-2	Aqueous	Benzene	8260B	7.2	J	ug/L	20

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
006	06742-MWR-2	Aqueous	Toluene	8260B	19	J	ug/L	20
006	06742-MWR-2	Aqueous	Xylenes (total)	8260B	38	J	ug/L	20
007	06742-MW-2X	Aqueous	Benzene	8260B	24000		ug/L	21
007	06742-MW-2X	Aqueous	1,2-Dichloroethane	8260B	510	J	ug/L	21
007	06742-MW-2X	Aqueous	Ethylbenzene	8260B	2600		ug/L	21
007	06742-MW-2X	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	3400		ug/L	21
007	06742-MW-2X	Aqueous	Toluene	8260B	41000		ug/L	21
007	06742-MW-2X	Aqueous	Xylenes (total)	8260B	15000		ug/L	21
007	06742-MW-2X	Aqueous	1,2-Dibromoethane (EDB)	8011	0.92		ug/L	21
009	06742-MW-4	Aqueous	tert-Amyl alcohol (TAA)	8260B	15000		ug/L	23
009	06742-MW-4	Aqueous	tert-Amyl methyl ether (TAME)	8260B	20	J	ug/L	23
009	06742-MW-4	Aqueous	Benzene	8260B	8500		ug/L	23
009	06742-MW-4	Aqueous	1,2-Dichloroethane	8260B	180	J	ug/L	23
009	06742-MW-4	Aqueous	Ethylbenzene	8260B	650		ug/L	23
009	06742-MW-4	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	8300		ug/L	23
009	06742-MW-4	Aqueous	Naphthalene	8260B	300	J	ug/L	23
009	06742-MW-4	Aqueous	tert-butyl alcohol (TBA)	8260B	3200		ug/L	23
009	06742-MW-4	Aqueous	Toluene	8260B	4900		ug/L	23
009	06742-MW-4	Aqueous	Xylenes (total)	8260B	4600		ug/L	23
009	06742-MW-4	Aqueous	1,2-Dibromoethane (EDB)	8011	0.13		ug/L	23
010	06742-MWR-4	Aqueous	tert-Amyl alcohol (TAA)	8260B	36000		ug/L	24
010	06742-MWR-4	Aqueous	Benzene	8260B	28000		ug/L	24
010	06742-MWR-4	Aqueous	Ethylbenzene	8260B	3500		ug/L	24
010	06742-MWR-4	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	7100		ug/L	24
010	06742-MWR-4	Aqueous	Naphthalene	8260B	1200	J	ug/L	24
010	06742-MWR-4	Aqueous	Toluene	8260B	43000		ug/L	24
010	06742-MWR-4	Aqueous	Xylenes (total)	8260B	20000		ug/L	24
010	06742-MWR-4	Aqueous	1,2-Dibromoethane (EDB)	8011	0.81		ug/L	24
011	06742-MWR-4DUP	Aqueous	tert-Amyl alcohol (TAA)	8260B	38000		ug/L	25
011	06742-MWR-4DUP	Aqueous	Benzene	8260B	29000		ug/L	25
011	06742-MWR-4DUP	Aqueous	Ethylbenzene	8260B	3500		ug/L	25
011	06742-MWR-4DUP	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	7100		ug/L	25
011	06742-MWR-4DUP	Aqueous	Naphthalene	8260B	1100	J	ug/L	25
011	06742-MWR-4DUP	Aqueous	Toluene	8260B	44000		ug/L	25
011	06742-MWR-4DUP	Aqueous	Xylenes (total)	8260B	20000		ug/L	25
011	06742-MWR-4DUP	Aqueous	1,2-Dibromoethane (EDB)	8011	0.80		ug/L	25
012	06742-MWR-4R	Aqueous	tert-Amyl alcohol (TAA)	8260B	19000		ug/L	26
012	06742-MWR-4R	Aqueous	Benzene	8260B	13000		ug/L	26
012	06742-MWR-4R	Aqueous	Ethylbenzene	8260B	2400		ug/L	26
012	06742-MWR-4R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	540	J	ug/L	26
012	06742-MWR-4R	Aqueous	Naphthalene	8260B	820	J	ug/L	26
012	06742-MWR-4R	Aqueous	tert-butyl alcohol (TBA)	8260B	1400	J	ug/L	26
012	06742-MWR-4R	Aqueous	Toluene	8260B	24000		ug/L	26
012	06742-MWR-4R	Aqueous	Xylenes (total)	8260B	14000		ug/L	26
012	06742-MWR-4R	Aqueous	1,2-Dibromoethane (EDB)	8011	0.41		ug/L	26
014	06742-MW-6	Aqueous	tert-Amyl alcohol (TAA)	8260B	1400	J	ug/L	28
014	06742-MW-6	Aqueous	Benzene	8260B	5000		ug/L	28
014	06742-MW-6	Aqueous	Ethylbenzene	8260B	470	J	ug/L	28

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
014	06742-MW-6	Aqueous	Naphthalene	8260B	350	J	ug/L	28
014	06742-MW-6	Aqueous	Toluene	8260B	9200		ug/L	28
014	06742-MW-6	Aqueous	Xylenes (total)	8260B	7200		ug/L	28
015	06742-MW-6 DUP	Aqueous	tert-Amyl alcohol (TAA)	8260B	1500	J	ug/L	29
015	06742-MW-6 DUP	Aqueous	Benzene	8260B	4700		ug/L	29
015	06742-MW-6 DUP	Aqueous	Ethylbenzene	8260B	450	J	ug/L	29
015	06742-MW-6 DUP	Aqueous	Toluene	8260B	8600		ug/L	29
015	06742-MW-6 DUP	Aqueous	Xylenes (total)	8260B	6700		ug/L	29
016	06742-MW-6X	Aqueous	tert-Amyl alcohol (TAA)	8260B	11000		ug/L	30
016	06742-MW-6X	Aqueous	Benzene	8260B	16000		ug/L	30
016	06742-MW-6X	Aqueous	Ethylbenzene	8260B	2300		ug/L	30
016	06742-MW-6X	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	270	J	ug/L	30
016	06742-MW-6X	Aqueous	Naphthalene	8260B	610	J	ug/L	30
016	06742-MW-6X	Aqueous	Toluene	8260B	34000		ug/L	30
016	06742-MW-6X	Aqueous	Xylenes (total)	8260B	13000		ug/L	30
016	06742-MW-6X	Aqueous	1,2-Dibromoethane (EDB)	8011	0.56		ug/L	30
017	06742-MW-7	Aqueous	Benzene	8260B	1300	J	ug/L	31
017	06742-MW-7	Aqueous	Ethylbenzene	8260B	4600		ug/L	31
017	06742-MW-7	Aqueous	Naphthalene	8260B	1500	J	ug/L	31
017	06742-MW-7	Aqueous	Toluene	8260B	7700		ug/L	31
017	06742-MW-7	Aqueous	Xylenes (total)	8260B	31000		ug/L	31
018	06742-MW-7 DUP	Aqueous	Benzene	8260B	1500	J	ug/L	32
018	06742-MW-7 DUP	Aqueous	Ethylbenzene	8260B	3400		ug/L	32
018	06742-MW-7 DUP	Aqueous	Naphthalene	8260B	1200	J	ug/L	32
018	06742-MW-7 DUP	Aqueous	Toluene	8260B	6400		ug/L	32
018	06742-MW-7 DUP	Aqueous	Xylenes (total)	8260B	25000		ug/L	32
019	06742-MW-7R	Aqueous	Benzene	8260B	270	J	ug/L	33
019	06742-MW-7R	Aqueous	Ethylbenzene	8260B	2000		ug/L	33
019	06742-MW-7R	Aqueous	Naphthalene	8260B	610		ug/L	33
019	06742-MW-7R	Aqueous	Toluene	8260B	5700		ug/L	33
019	06742-MW-7R	Aqueous	Xylenes (total)	8260B	11000		ug/L	33
022	06742-MW-11	Aqueous	tert-Amyl alcohol (TAA)	8260B	170		ug/L	36
022	06742-MW-11	Aqueous	Benzene	8260B	13		ug/L	36
022	06742-MW-11	Aqueous	Ethylbenzene	8260B	7.2		ug/L	36
022	06742-MW-11	Aqueous	Naphthalene	8260B	9.4		ug/L	36
022	06742-MW-11	Aqueous	tert-butyl alcohol (TBA)	8260B	120		ug/L	36
022	06742-MW-11	Aqueous	Toluene	8260B	22		ug/L	36
022	06742-MW-11	Aqueous	Xylenes (total)	8260B	110		ug/L	36
023	06742-MWR-11	Aqueous	Benzene	8260B	10	J	ug/L	37
023	06742-MWR-11	Aqueous	Ethylbenzene	8260B	360		ug/L	37
023	06742-MWR-11	Aqueous	Naphthalene	8260B	340		ug/L	37
023	06742-MWR-11	Aqueous	Toluene	8260B	120	J	ug/L	37
023	06742-MWR-11	Aqueous	Xylenes (total)	8260B	2500		ug/L	37
025	06742-MW-13R	Aqueous	tert-Amyl alcohol (TAA)	8260B	7500		ug/L	39
025	06742-MW-13R	Aqueous	tert-Amyl methyl ether (TAME)	8260B	13	J	ug/L	39
025	06742-MW-13R	Aqueous	Benzene	8260B	3500		ug/L	39
025	06742-MW-13R	Aqueous	1,2-Dichloroethane	8260B	75	J	ug/L	39
025	06742-MW-13R	Aqueous	Ethylbenzene	8260B	240	J	ug/L	39

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
025	06742-MW-13R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2500		ug/L	39
025	06742-MW-13R	Aqueous	Naphthalene	8260B	100	J	ug/L	39
025	06742-MW-13R	Aqueous	tert-butyl alcohol (TBA)	8260B	1000		ug/L	39
025	06742-MW-13R	Aqueous	Toluene	8260B	160	J	ug/L	39
025	06742-MW-13R	Aqueous	Xylenes (total)	8260B	240	J	ug/L	39
027	06742-MW-14R2	Aqueous	Benzene	8260B	110		ug/L	41
027	06742-MW-14R2	Aqueous	Ethylbenzene	8260B	400		ug/L	41
027	06742-MW-14R2	Aqueous	Naphthalene	8260B	250		ug/L	41
027	06742-MW-14R2	Aqueous	Toluene	8260B	580		ug/L	41
027	06742-MW-14R2	Aqueous	Xylenes (total)	8260B	2400		ug/L	41
028	06742-MW-15R	Aqueous	tert-Amyl methyl ether (TAME)	8260B	18	J	ug/L	42
028	06742-MW-15R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1700		ug/L	42
029	06742-MW-16DD	Aqueous	Benzene	8260B	65		ug/L	43
029	06742-MW-16DD	Aqueous	Ethanol	8260B	310	J	ug/L	43
029	06742-MW-16DD	Aqueous	Ethylbenzene	8260B	37		ug/L	43
029	06742-MW-16DD	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	23	J	ug/L	43
029	06742-MW-16DD	Aqueous	Naphthalene	8260B	9.2	J	ug/L	43
029	06742-MW-16DD	Aqueous	Toluene	8260B	190		ug/L	43
029	06742-MW-16DD	Aqueous	Xylenes (total)	8260B	200		ug/L	43
030	06742-MW-17I	Aqueous	tert-Amyl alcohol (TAA)	8260B	3900		ug/L	44
030	06742-MW-17I	Aqueous	Benzene	8260B	5800		ug/L	44
030	06742-MW-17I	Aqueous	Ethylbenzene	8260B	2000		ug/L	44
030	06742-MW-17I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	350	J	ug/L	44
030	06742-MW-17I	Aqueous	Naphthalene	8260B	500		ug/L	44
030	06742-MW-17I	Aqueous	Toluene	8260B	16000		ug/L	44
030	06742-MW-17I	Aqueous	Xylenes (total)	8260B	11000		ug/L	44
031	06742-MW-18D	Aqueous	tert-Amyl alcohol (TAA)	8260B	550		ug/L	45
031	06742-MW-18D	Aqueous	Benzene	8260B	730		ug/L	45
031	06742-MW-18D	Aqueous	1,2-Dichloroethane	8260B	16	J	ug/L	45
031	06742-MW-18D	Aqueous	Ethylbenzene	8260B	220		ug/L	45
031	06742-MW-18D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	42	J	ug/L	45
031	06742-MW-18D	Aqueous	Naphthalene	8260B	100		ug/L	45
031	06742-MW-18D	Aqueous	Toluene	8260B	560		ug/L	45
031	06742-MW-18D	Aqueous	Xylenes (total)	8260B	1500		ug/L	45
032	06742-MW-19I	Aqueous	tert-Amyl alcohol (TAA)	8260B	37000		ug/L	46
032	06742-MW-19I	Aqueous	tert-Amyl methyl ether (TAME)	8260B	310	J	ug/L	46
032	06742-MW-19I	Aqueous	Benzene	8260B	26000		ug/L	46
032	06742-MW-19I	Aqueous	Ethylbenzene	8260B	2400		ug/L	46
032	06742-MW-19I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	19000		ug/L	46
032	06742-MW-19I	Aqueous	Naphthalene	8260B	490	J	ug/L	46
032	06742-MW-19I	Aqueous	tert-butyl alcohol (TBA)	8260B	4400		ug/L	46
032	06742-MW-19I	Aqueous	Toluene	8260B	37000		ug/L	46
032	06742-MW-19I	Aqueous	Xylenes (total)	8260B	14000		ug/L	46
032	06742-MW-19I	Aqueous	1,2-Dibromoethane (EDB)	8011	6.3		ug/L	46
033	06742-MW-20D	Aqueous	tert-Amyl alcohol (TAA)	8260B	1200		ug/L	47
033	06742-MW-20D	Aqueous	tert-Amyl methyl ether (TAME)	8260B	7.3	J	ug/L	47
033	06742-MW-20D	Aqueous	Benzene	8260B	270		ug/L	47
033	06742-MW-20D	Aqueous	Diisopropyl ether (IPE)	8260B	12	J	ug/L	47

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
033	06742-MW-20D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	470		ug/L	47
033	06742-MW-20D	Aqueous	Naphthalene	8260B	8.6	J	ug/L	47
033	06742-MW-20D	Aqueous	tert-butyl alcohol (TBA)	8260B	220		ug/L	47
034	06742-MW-21I	Aqueous	tert-Amyl alcohol (TAA)	8260B	6800		ug/L	48
034	06742-MW-21I	Aqueous	tert-Amyl methyl ether (TAME)	8260B	130	J	ug/L	48
034	06742-MW-21I	Aqueous	Benzene	8260B	6400		ug/L	48
034	06742-MW-21I	Aqueous	Diisopropyl ether (IPE)	8260B	260	J	ug/L	48
034	06742-MW-21I	Aqueous	Ethylbenzene	8260B	540	J	ug/L	48
034	06742-MW-21I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	21000		ug/L	48
034	06742-MW-21I	Aqueous	tert-butyl alcohol (TBA)	8260B	1400	J	ug/L	48
034	06742-MW-21I	Aqueous	Xylenes (total)	8260B	2200		ug/L	48
034	06742-MW-21I	Aqueous	1,2-Dibromoethane (EDB)	8011	0.091	P	ug/L	48
035	06742-MW-22D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2.1	J	ug/L	49
037	06742-MW-24	Aqueous	tert-Amyl alcohol (TAA)	8260B	20		ug/L	51
037	06742-MW-24	Aqueous	Benzene	8260B	76		ug/L	51
037	06742-MW-24	Aqueous	Diisopropyl ether (IPE)	8260B	2.2	J	ug/L	51
037	06742-MW-24	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	5.4		ug/L	51
037	06742-MW-24	Aqueous	tert-butyl alcohol (TBA)	8260B	9.4	J	ug/L	51
037	06742-MW-24	Aqueous	Xylenes (total)	8260B	15		ug/L	51
038	06742-MW-25	Aqueous	tert-Amyl alcohol (TAA)	8260B	1900		ug/L	52
038	06742-MW-25	Aqueous	tert-Amyl methyl ether (TAME)	8260B	36	J	ug/L	52
038	06742-MW-25	Aqueous	Benzene	8260B	3300		ug/L	52
038	06742-MW-25	Aqueous	Diisopropyl ether (IPE)	8260B	78	J	ug/L	52
038	06742-MW-25	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2100		ug/L	52
038	06742-MW-25	Aqueous	Naphthalene	8260B	51	J	ug/L	52
038	06742-MW-25	Aqueous	tert-butyl alcohol (TBA)	8260B	220	J	ug/L	52
038	06742-MW-25	Aqueous	Xylenes (total)	8260B	420		ug/L	52
039	06742-MW-25 DUP	Aqueous	tert-Amyl alcohol (TAA)	8260B	2600		ug/L	53
039	06742-MW-25 DUP	Aqueous	tert-Amyl methyl ether (TAME)	8260B	36	J	ug/L	53
039	06742-MW-25 DUP	Aqueous	Benzene	8260B	3300		ug/L	53
039	06742-MW-25 DUP	Aqueous	Diisopropyl ether (IPE)	8260B	78	J	ug/L	53
039	06742-MW-25 DUP	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1700		ug/L	53
039	06742-MW-25 DUP	Aqueous	Naphthalene	8260B	58	J	ug/L	53
039	06742-MW-25 DUP	Aqueous	tert-butyl alcohol (TBA)	8260B	250	J	ug/L	53
039	06742-MW-25 DUP	Aqueous	Xylenes (total)	8260B	420		ug/L	53
040	06742-MW-26I	Aqueous	tert-Amyl alcohol (TAA)	8260B	1100		ug/L	54
040	06742-MW-26I	Aqueous	tert-Amyl methyl ether (TAME)	8260B	2.0	J	ug/L	54
040	06742-MW-26I	Aqueous	Benzene	8260B	790		ug/L	54
040	06742-MW-26I	Aqueous	1,2-Dichloroethane	8260B	17	J	ug/L	54
040	06742-MW-26I	Aqueous	3,3-Dimethyl-1-butanol	8260B	13	J	ug/L	54
040	06742-MW-26I	Aqueous	Ethylbenzene	8260B	29		ug/L	54
040	06742-MW-26I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	560		ug/L	54
040	06742-MW-26I	Aqueous	Naphthalene	8260B	14	J	ug/L	54
040	06742-MW-26I	Aqueous	tert-butyl alcohol (TBA)	8260B	230		ug/L	54
041	06742-MW-28DD	Aqueous	Benzene	8260B	21		ug/L	55
041	06742-MW-28DD	Aqueous	Ethylbenzene	8260B	11		ug/L	55
041	06742-MW-28DD	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	12		ug/L	55
041	06742-MW-28DD	Aqueous	Naphthalene	8260B	4.4	J	ug/L	55

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
041	06742-MW-28DD	Aqueous	Toluene	8260B	77		ug/L	55
041	06742-MW-28DD	Aqueous	Xylenes (total)	8260B	60		ug/L	55
043	06742-MW-30I	Aqueous	tert-Amyl alcohol (TAA)	8260B	460		ug/L	57
043	06742-MW-30I	Aqueous	Benzene	8260B	700		ug/L	57
043	06742-MW-30I	Aqueous	Diisopropyl ether (IPE)	8260B	18	J	ug/L	57
043	06742-MW-30I	Aqueous	Ethylbenzene	8260B	57		ug/L	57
043	06742-MW-30I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	770		ug/L	57
043	06742-MW-30I	Aqueous	Naphthalene	8260B	34	J	ug/L	57
043	06742-MW-30I	Aqueous	tert-butyl alcohol (TBA)	8260B	120	J	ug/L	57
043	06742-MW-30I	Aqueous	Toluene	8260B	51		ug/L	57
043	06742-MW-30I	Aqueous	Xylenes (total)	8260B	340		ug/L	57
043	06742-MW-30I	Aqueous	1,2-Dibromoethane (EDB)	8011	0.037		ug/L	57
044	06742-MW-31D	Aqueous	tert-Amyl alcohol (TAA)	8260B	1100		ug/L	58
044	06742-MW-31D	Aqueous	tert-Amyl methyl ether (TAME)	8260B	7.2	J	ug/L	58
044	06742-MW-31D	Aqueous	Benzene	8260B	97		ug/L	58
044	06742-MW-31D	Aqueous	Diisopropyl ether (IPE)	8260B	11	J	ug/L	58
044	06742-MW-31D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1100		ug/L	58
044	06742-MW-31D	Aqueous	tert-butyl alcohol (TBA)	8260B	250		ug/L	58
044	06742-MW-31D	Aqueous	Toluene	8260B	17	J	ug/L	58
044	06742-MW-31D	Aqueous	Xylenes (total)	8260B	28		ug/L	58
045	06742-MW-32	Aqueous	tert-Amyl alcohol (TAA)	8260B	620		ug/L	59
045	06742-MW-32	Aqueous	Benzene	8260B	20	J	ug/L	59
045	06742-MW-32	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	180		ug/L	59
046	06742-MW-33I	Aqueous	tert-Amyl alcohol (TAA)	8260B	3800		ug/L	60
046	06742-MW-33I	Aqueous	tert-Amyl methyl ether (TAME)	8260B	2.3	J	ug/L	60
046	06742-MW-33I	Aqueous	Benzene	8260B	2500		ug/L	60
046	06742-MW-33I	Aqueous	Diisopropyl ether (IPE)	8260B	0.83	J	ug/L	60
046	06742-MW-33I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	380		ug/L	60
046	06742-MW-33I	Aqueous	Naphthalene	8260B	17		ug/L	60
046	06742-MW-33I	Aqueous	tert-butyl alcohol (TBA)	8260B	350		ug/L	60
046	06742-MW-33I	Aqueous	Toluene	8260B	2.7	J	ug/L	60
046	06742-MW-33I	Aqueous	Xylenes (total)	8260B	3.5	J	ug/L	60
047	06742-MW-34D	Aqueous	tert-Amyl alcohol (TAA)	8260B	2600		ug/L	61
047	06742-MW-34D	Aqueous	tert-Amyl methyl ether (TAME)	8260B	9.0	J	ug/L	61
047	06742-MW-34D	Aqueous	Benzene	8260B	2700		ug/L	61
047	06742-MW-34D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1300		ug/L	61
047	06742-MW-34D	Aqueous	Naphthalene	8260B	54	J	ug/L	61
047	06742-MW-34D	Aqueous	tert-butyl alcohol (TBA)	8260B	510		ug/L	61
047	06742-MW-34D	Aqueous	Toluene	8260B	57	J	ug/L	61
047	06742-MW-34D	Aqueous	Xylenes (total)	8260B	330		ug/L	61
048	06742-MW-35I	Aqueous	tert-Amyl alcohol (TAA)	8260B	1500		ug/L	62
048	06742-MW-35I	Aqueous	Benzene	8260B	1600		ug/L	62
048	06742-MW-35I	Aqueous	Ethylbenzene	8260B	130	J	ug/L	62
048	06742-MW-35I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	110	J	ug/L	62
049	06742-MW-36D	Aqueous	tert-Amyl alcohol (TAA)	8260B	2800		ug/L	63
049	06742-MW-36D	Aqueous	Benzene	8260B	1300		ug/L	63
049	06742-MW-36D	Aqueous	Ethylbenzene	8260B	65	J	ug/L	63
049	06742-MW-36D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	820		ug/L	63

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
049	06742-MW-36D	Aqueous	tert-butyl alcohol (TBA)	8260B	410		ug/L	63
049	06742-MW-36D	Aqueous	Xylenes (total)	8260B	50	J	ug/L	63
050	06742-MW-37DD	Aqueous	Benzene	8260B	3.8	J	ug/L	64
050	06742-MW-37DD	Aqueous	Ethylbenzene	8260B	3.1	J	ug/L	64
050	06742-MW-37DD	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1.6	J	ug/L	64
050	06742-MW-37DD	Aqueous	Toluene	8260B	22		ug/L	64
050	06742-MW-37DD	Aqueous	Xylenes (total)	8260B	17		ug/L	64
051	06742-MW-38	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	0.58	J	ug/L	65
052	06742-MW-39I	Aqueous	tert-Amyl alcohol (TAA)	8260B	2500		ug/L	66
052	06742-MW-39I	Aqueous	tert-Amyl methyl ether (TAME)	8260B	8.4	J	ug/L	66
052	06742-MW-39I	Aqueous	Benzene	8260B	36	J	ug/L	66
052	06742-MW-39I	Aqueous	Ethylbenzene	8260B	29	J	ug/L	66
052	06742-MW-39I	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1000		ug/L	66
052	06742-MW-39I	Aqueous	Naphthalene	8260B	24	J	ug/L	66
052	06742-MW-39I	Aqueous	tert-butyl alcohol (TBA)	8260B	420		ug/L	66
052	06742-MW-39I	Aqueous	Toluene	8260B	40	J	ug/L	66
052	06742-MW-39I	Aqueous	Xylenes (total)	8260B	54		ug/L	66
053	06742-MW-40D	Aqueous	tert-Amyl alcohol (TAA)	8260B	270		ug/L	67
053	06742-MW-40D	Aqueous	tert-Amyl methyl ether (TAME)	8260B	6.7	J	ug/L	67
053	06742-MW-40D	Aqueous	Benzene	8260B	96		ug/L	67
053	06742-MW-40D	Aqueous	Diisopropyl ether (IPE)	8260B	3.9	J	ug/L	67
053	06742-MW-40D	Aqueous	Ethylbenzene	8260B	41		ug/L	67
053	06742-MW-40D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	850		ug/L	67
053	06742-MW-40D	Aqueous	Naphthalene	8260B	18	J	ug/L	67
053	06742-MW-40D	Aqueous	tert-butyl alcohol (TBA)	8260B	81	J	ug/L	67
053	06742-MW-40D	Aqueous	Toluene	8260B	370		ug/L	67
053	06742-MW-40D	Aqueous	Xylenes (total)	8260B	200		ug/L	67
053	06742-MW-40D	Aqueous	1,2-Dibromoethane (EDB)	8011	0.029		ug/L	67
055	06742-MW-42D	Aqueous	Benzene	8260B	3.3	J	ug/L	69
055	06742-MW-42D	Aqueous	Ethylbenzene	8260B	3.5	J	ug/L	69
055	06742-MW-42D	Aqueous	Naphthalene	8260B	2.9	J	ug/L	69
055	06742-MW-42D	Aqueous	Toluene	8260B	6.8		ug/L	69
055	06742-MW-42D	Aqueous	Xylenes (total)	8260B	8.0		ug/L	69
056	06742-MW-43	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	0.96	J	ug/L	70
057	06742-MW-44I	Aqueous	Benzene	8260B	2.6	J	ug/L	71
058	06742-MW-46	Aqueous	tert-Amyl methyl ether (TAME)	8260B	6.0	J	ug/L	72
058	06742-MW-46	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	540		ug/L	72
060	06742-MW-49	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	4.9	J	ug/L	74
061	06742-MW-52	Aqueous	tert-Amyl alcohol (TAA)	8260B	4100		ug/L	75
061	06742-MW-52	Aqueous	Benzene	8260B	3000		ug/L	75
061	06742-MW-52	Aqueous	Ethylbenzene	8260B	1700		ug/L	75
061	06742-MW-52	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	84	J	ug/L	75
061	06742-MW-52	Aqueous	Naphthalene	8260B	470	J	ug/L	75
061	06742-MW-52	Aqueous	Toluene	8260B	11000		ug/L	75
061	06742-MW-52	Aqueous	Xylenes (total)	8260B	7200		ug/L	75
061	06742-MW-52	Aqueous	1,2-Dibromoethane (EDB)	8011	0.16	P	ug/L	75
063	06742-MW-54	Aqueous	Benzene	8260B	28000		ug/L	77
063	06742-MW-54	Aqueous	Ethylbenzene	8260B	4600		ug/L	77

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
063	06742-MW-54	Aqueous	Toluene	8260B	62000		ug/L	77
063	06742-MW-54	Aqueous	Xylenes (total)	8260B	24000		ug/L	77
063	06742-MW-54	Aqueous	1,2-Dibromoethane (EDB)	8011	3.9		ug/L	77
065	06742-MW-57I	Aqueous	Benzene	8260B	58		ug/L	79
065	06742-MW-57I	Aqueous	Ethylbenzene	8260B	31		ug/L	79
065	06742-MW-57I	Aqueous	Naphthalene	8260B	16	J	ug/L	79
065	06742-MW-57I	Aqueous	Toluene	8260B	210		ug/L	79
065	06742-MW-57I	Aqueous	Xylenes (total)	8260B	150		ug/L	79
067	06742-MW-59	Aqueous	tert-Amyl alcohol (TAA)	8260B	41		ug/L	81
067	06742-MW-59	Aqueous	tert-Amyl methyl ether (TAME)	8260B	0.54	J	ug/L	81
067	06742-MW-59	Aqueous	Benzene	8260B	2.5	J	ug/L	81
067	06742-MW-59	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	89		ug/L	81
067	06742-MW-59	Aqueous	tert-butyl alcohol (TBA)	8260B	11	J	ug/L	81
068	06742-MW-61	Aqueous	tert-Amyl alcohol (TAA)	8260B	2300	J	ug/L	82
068	06742-MW-61	Aqueous	Benzene	8260B	7900		ug/L	82
068	06742-MW-61	Aqueous	Diisopropyl ether (IPE)	8260B	110	J	ug/L	82
068	06742-MW-61	Aqueous	Ethylbenzene	8260B	1700		ug/L	82
068	06742-MW-61	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	5200		ug/L	82
068	06742-MW-61	Aqueous	Naphthalene	8260B	340	J	ug/L	82
068	06742-MW-61	Aqueous	Toluene	8260B	17000		ug/L	82
068	06742-MW-61	Aqueous	Xylenes (total)	8260B	8900		ug/L	82
068	06742-MW-61	Aqueous	1,2-Dibromoethane (EDB)	8011	1.8		ug/L	82
069	06742-MW-62	Aqueous	Benzene	8260B	17000		ug/L	83
069	06742-MW-62	Aqueous	Ethylbenzene	8260B	4700		ug/L	83
069	06742-MW-62	Aqueous	Naphthalene	8260B	1600	J	ug/L	83
069	06742-MW-62	Aqueous	Toluene	8260B	56000		ug/L	83
069	06742-MW-62	Aqueous	Xylenes (total)	8260B	22000		ug/L	83
069	06742-MW-62	Aqueous	1,2-Dibromoethane (EDB)	8011	2.1		ug/L	83
070	06742-MW-63	Aqueous	tert-Amyl alcohol (TAA)	8260B	1800	J	ug/L	84
070	06742-MW-63	Aqueous	Benzene	8260B	8300		ug/L	84
070	06742-MW-63	Aqueous	1,2-Dichloroethane	8260B	180	J	ug/L	84
070	06742-MW-63	Aqueous	Ethylbenzene	8260B	4000		ug/L	84
070	06742-MW-63	Aqueous	Naphthalene	8260B	650	J	ug/L	84
070	06742-MW-63	Aqueous	Toluene	8260B	45000		ug/L	84
070	06742-MW-63	Aqueous	Xylenes (total)	8260B	21000		ug/L	84
070	06742-MW-63	Aqueous	1,2-Dibromoethane (EDB)	8011	0.96		ug/L	84
071	06742-MW-64	Aqueous	tert-Amyl alcohol (TAA)	8260B	7800	J	ug/L	85
071	06742-MW-64	Aqueous	tert-Amyl methyl ether (TAME)	8260B	340	J	ug/L	85
071	06742-MW-64	Aqueous	Benzene	8260B	41000		ug/L	85
071	06742-MW-64	Aqueous	1,2-Dichloroethane	8260B	870	J	ug/L	85
071	06742-MW-64	Aqueous	Diisopropyl ether (IPE)	8260B	520	J	ug/L	85
071	06742-MW-64	Aqueous	Ethylbenzene	8260B	4400		ug/L	85
071	06742-MW-64	Aqueous	Toluene	8260B	65000		ug/L	85
071	06742-MW-64	Aqueous	Xylenes (total)	8260B	23000		ug/L	85
071	06742-MW-64	Aqueous	1,2-Dibromoethane (EDB)	8011	9.0		ug/L	85
072	06742-MW-65	Aqueous	tert-Amyl alcohol (TAA)	8260B	17000		ug/L	86
072	06742-MW-65	Aqueous	Benzene	8260B	16000		ug/L	86
072	06742-MW-65	Aqueous	Ethylbenzene	8260B	2500		ug/L	86

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
072	06742-MW-65	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	4400		ug/L	86
072	06742-MW-65	Aqueous	Naphthalene	8260B	650	J	ug/L	86
072	06742-MW-65	Aqueous	tert-butyl alcohol (TBA)	8260B	1300	J	ug/L	86
072	06742-MW-65	Aqueous	Toluene	8260B	32000		ug/L	86
072	06742-MW-65	Aqueous	Xylenes (total)	8260B	13000		ug/L	86
072	06742-MW-65	Aqueous	1,2-Dibromoethane (EDB)	8011	0.46		ug/L	86
073	06742-MW-66	Aqueous	tert-Amyl alcohol (TAA)	8260B	6400		ug/L	87
073	06742-MW-66	Aqueous	Benzene	8260B	8000		ug/L	87
073	06742-MW-66	Aqueous	Ethylbenzene	8260B	2500		ug/L	87
073	06742-MW-66	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	4300		ug/L	87
073	06742-MW-66	Aqueous	Naphthalene	8260B	820	J	ug/L	87
073	06742-MW-66	Aqueous	Toluene	8260B	30000		ug/L	87
073	06742-MW-66	Aqueous	Xylenes (total)	8260B	16000		ug/L	87
073	06742-MW-66	Aqueous	1,2-Dibromoethane (EDB)	8011	0.20		ug/L	87
074	06742-MW-67	Aqueous	tert-Amyl alcohol (TAA)	8260B	25000		ug/L	88
074	06742-MW-67	Aqueous	Benzene	8260B	25000		ug/L	88
074	06742-MW-67	Aqueous	Ethylbenzene	8260B	3300		ug/L	88
074	06742-MW-67	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	26000		ug/L	88
074	06742-MW-67	Aqueous	Naphthalene	8260B	810	J	ug/L	88
074	06742-MW-67	Aqueous	tert-butyl alcohol (TBA)	8260B	3500	J	ug/L	88
074	06742-MW-67	Aqueous	Toluene	8260B	39000		ug/L	88
074	06742-MW-67	Aqueous	Xylenes (total)	8260B	17000		ug/L	88
074	06742-MW-67	Aqueous	1,2-Dibromoethane (EDB)	8011	0.58		ug/L	88
075	06742-MW-68	Aqueous	Benzene	8260B	43000		ug/L	89
075	06742-MW-68	Aqueous	Ethylbenzene	8260B	5200	J	ug/L	89
075	06742-MW-68	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	8100	J	ug/L	89
075	06742-MW-68	Aqueous	Toluene	8260B	77000		ug/L	89
075	06742-MW-68	Aqueous	Xylenes (total)	8260B	27000		ug/L	89
075	06742-MW-68	Aqueous	1,2-Dibromoethane (EDB)	8011	13		ug/L	89
076	06742-MW-69	Aqueous	tert-Amyl alcohol (TAA)	8260B	8300		ug/L	90
076	06742-MW-69	Aqueous	tert-Amyl methyl ether (TAME)	8260B	52	J	ug/L	90
076	06742-MW-69	Aqueous	Benzene	8260B	18000		ug/L	90
076	06742-MW-69	Aqueous	1,2-Dichloroethane	8260B	390	J	ug/L	90
076	06742-MW-69	Aqueous	Diisopropyl ether (IPE)	8260B	81	J	ug/L	90
076	06742-MW-69	Aqueous	Ethylbenzene	8260B	3700		ug/L	90
076	06742-MW-69	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2700		ug/L	90
076	06742-MW-69	Aqueous	Naphthalene	8260B	780	J	ug/L	90
076	06742-MW-69	Aqueous	Toluene	8260B	39000		ug/L	90
076	06742-MW-69	Aqueous	Xylenes (total)	8260B	21000		ug/L	90
076	06742-MW-69	Aqueous	1,2-Dibromoethane (EDB)	8011	2.7		ug/L	90
077	06742-MW-70	Aqueous	tert-Amyl alcohol (TAA)	8260B	65000		ug/L	91
077	06742-MW-70	Aqueous	tert-Amyl methyl ether (TAME)	8260B	87	J	ug/L	91
077	06742-MW-70	Aqueous	Benzene	8260B	19000		ug/L	91
077	06742-MW-70	Aqueous	Ethylbenzene	8260B	2900		ug/L	91
077	06742-MW-70	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	30000		ug/L	91
077	06742-MW-70	Aqueous	Naphthalene	8260B	870	J	ug/L	91
077	06742-MW-70	Aqueous	tert-butyl alcohol (TBA)	8260B	7500		ug/L	91
077	06742-MW-70	Aqueous	Toluene	8260B	30000		ug/L	91

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
077	06742-MW-70	Aqueous	Xylenes (total)	8260B	15000		ug/L	91
077	06742-MW-70	Aqueous	1,2-Dibromoethane (EDB)	8011	0.95		ug/L	91
078	SW-1	Aqueous	tert-Amyl alcohol (TAA)	8260B	280		ug/L	92
078	SW-1	Aqueous	tert-Amyl methyl ether (TAME)	8260B	1.4	J	ug/L	92
078	SW-1	Aqueous	Benzene	8260B	2.6	J	ug/L	92
078	SW-1	Aqueous	Diisopropyl ether (IPE)	8260B	0.60	J	ug/L	92
078	SW-1	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	210		ug/L	92
078	SW-1	Aqueous	tert-butyl alcohol (TBA)	8260B	62		ug/L	92

(437 detections)

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MWR-1
Date Sampled: 08/13/2013 1305
Date Received: 08/16/2013

Laboratory ID: OH17005-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 0422	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**73000**		**10000**	**3400**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**180**	**J**	**5000**	**100**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**38000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3500**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**45000**		**2500**	**200**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**1000**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**10000**		**10000**	**3400**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**48000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**19000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		119	70-130
Bromofluorobenzene		123	70-130
Toluene-d8		124	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	2	08/22/2013 1856	AMY	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**1.5**		**0.039**	**0.039**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		114	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-002
Description: 06742-MWR-1A
Matrix: Aqueous
Date Sampled: 08/13/2013 1020
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/26/2013 1858	RGB		27965
2	5030B	8260B	2000	08/27/2013 1201	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**66000**		**10000**	**3400**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**1400**	**J**	**5000**	**100**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**38000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**1800**	**J**	**2500**	**200**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3300**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**250000**		**10000**	**800**	**ug/L**	**2**
Naphthalene	**91-20-3**	**8260B**	**1000**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**13000**		**10000**	**3400**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**63000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**30000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130		113	70-130
Bromofluorobenzene		97	70-130		118	70-130
Toluene-d8		101	70-130		118	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	20	08/22/2013 1917	AMY	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**9.9**		**0.39**	**0.39**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-003
Description: 06742-MWR-1A DUP
Matrix: Aqueous
Date Sampled: 08/13/2013 1022
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 0444	TAF		28086
2	5030B	8260B	2000	08/27/2013 1222	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**70000**		**10000**	**3400**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**1700**	**J**	**5000**	**100**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**44000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**2100**	**J**	**2500**	**200**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	**624-95-3**	**8260B**	**1200**	**J**	**10000**	**500**	**ug/L**	**1**
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3700**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**270000**		**10000**	**800**	**ug/L**	**2**
Naphthalene	**91-20-3**	**8260B**	**1100**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**13000**		**10000**	**3400**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**66000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**33000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		119	70-130		115	70-130
Bromofluorobenzene		124	70-130		119	70-130
Toluene-d8		121	70-130		116	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	20	08/22/2013 1730	AMY	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**12**		**0.39**	**0.39**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		67	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-004
Description: 06742-MW-1X
Matrix: Aqueous
Date Sampled: 08/13/2013 1601
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/26/2013 2338	TAF		28086
2	5030B	8260B	5	08/27/2013 1055	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**0.31**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**77**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**33**		**5.0**	**1.7**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**11**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**18**		**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	**108-88-3**	**8260B**	**130**		**25**	**8.5**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**180**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130		107	70-130
Bromofluorobenzene		116	70-130		110	70-130
Toluene-d8		116	70-130		111	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 1942	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		75	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-2
Date Sampled: 08/15/2013 1425
Date Received: 08/16/2013

Laboratory ID: OH17005-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/28/2013 1228	AAC		28291

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**23**		**20**	**6.7**	**ug/L**	**2**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
Benzene	**71-43-2**	**8260B**	**0.49**	**J**	**5.0**	**0.20**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND		100	33	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	2
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**13**	**J**	**20**	**6.7**	**ug/L**	**2**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2003	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		97	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MWR-2
Date Sampled: 08/13/2013 1345
Date Received: 08/16/2013

Laboratory ID: OH17005-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	08/27/2013 0227	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**140**	**J**	**200**	**67**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		100	2.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**7.2**	**J**	**50**	**2.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		50	10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		50	4.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		200	10	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	330	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	4.0	ug/L	1
Naphthalene	91-20-3	8260B	ND		50	17	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		200	67	ug/L	1
Toluene	**108-88-3**	**8260B**	**19**	**J**	**50**	**17**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**38**	**J**	**50**	**17**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		115	70-130
Toluene-d8		115	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2024	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		97	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc. | Laboratory ID: OH17005-007
Description: 06742-MW-2X | Matrix: Aqueous
Date Sampled: 08/15/2013 1410
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/28/2013 0406	TAF		28203

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	3400	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**24000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**510**	**J**	**2500**	**150**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2600**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**3400**		**2500**	**200**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		2500	850	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**41000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**15000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		110	70-130
Toluene-d8		111	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	2	08/22/2013 1752	AMY	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.92**		**0.039**	**0.039**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time
ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MWR-3
Date Sampled: 08/13/2013 1410
Date Received: 08/16/2013

Laboratory ID: OH17005-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/26/2013 2359	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		115	70-130
Toluene-d8		115	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2107	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-009
Description: 06742-MW-4
Matrix: Aqueous
Date Sampled: 08/14/2013 1135
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/27/2013 1733	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**15000**		**2000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**20**	**J**	**1000**	**20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**8500**		**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	100	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**180**	**J**	**500**	**30**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	3300	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**650**		**500**	**170**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**8300**		**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**300**	**J**	**500**	**170**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**3200**		**2000**	**670**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**4900**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**4600**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		108	70-130
Bromofluorobenzene		111	70-130
Toluene-d8		113	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2128	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.13**		**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MWR-4
Date Sampled: 08/13/2013 1615
Date Received: 08/16/2013

Laboratory ID: OH17005-010
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 0512	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**36000**		**10000**	**3400**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**28000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3500**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**7100**		**2500**	**200**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**1200**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**43000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**20000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		118	70-130
Toluene-d8		118	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2149	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.81**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MWR-4DUP
Date Sampled: 08/13/2013 1616
Date Received: 08/16/2013

Laboratory ID: OH17005-011
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 0533	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**38000**		**10000**	**3400**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**29000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3500**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**7100**		**2500**	**200**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**1100**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**44000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**20000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		117	70-130
Bromofluorobenzene		118	70-130
Toluene-d8		120	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2210	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.80**		**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		131	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MWR-4R
Date Sampled: 08/13/2013 1535
Date Received: 08/16/2013

Laboratory ID: OH17005-012
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/27/2013 0319	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**19000**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**13000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2400**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**540**	**J**	**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**820**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1400**	**J**	**4000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**24000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**14000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		116	70-130
Bromofluorobenzene		121	70-130
Toluene-d8		120	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2231	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.41**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		126	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-5
Date Sampled: 08/14/2013 1357
Date Received: 08/16/2013

Laboratory ID: OH17005-013
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1445	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		119	70-130
Toluene-d8		118	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2252	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.024	0.024	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		75	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-014
Description: 06742-MW-6
Matrix: Aqueous
Date Sampled: 08/13/2013 1445
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/27/2013 0340	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1400**	**J**	**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**5000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**470**	**J**	**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1000	80	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**350**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**9200**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**7200**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	70-130
Bromofluorobenzene		119	70-130
Toluene-d8		119	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2313	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		106	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-015
Description: 06742-MW-6 DUP
Matrix: Aqueous
Date Sampled: 08/13/2013 1446
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/27/2013 0401	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1500**	**J**	**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**4700**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**450**	**J**	**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1000	80	ug/L	1
Naphthalene	91-20-3	8260B	ND		1000	340	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**8600**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**6700**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		113	70-130
Toluene-d8		113	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/21/2013 2334	RBH	08/20/2013 0950	27586

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		122	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-016
Description: 06742-MW-6X
Matrix: Aqueous
Date Sampled: 08/15/2013 1340
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0355	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**11000**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**16000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2300**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**270**	**J**	**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**610**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**34000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**13000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0840	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.56**		**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		128	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-017
Description: 06742-MW-7
Matrix: Aqueous
Date Sampled: 08/13/2013 1130
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 0553	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	3400	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**1300**	**J**	**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**4600**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		2500	200	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**1500**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**7700**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**31000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		108	70-130
Bromofluorobenzene		114	70-130
Toluene-d8		112	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0901	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		136	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-018
Description: 06742-MW-7 DUP
Matrix: Aqueous
Date Sampled: 08/13/2013 1131
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 0614	TAF		28086

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	3400	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**1500**	**J**	**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3400**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		2500	200	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**1200**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**6400**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**25000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	70-130
Bromofluorobenzene		116	70-130
Toluene-d8		116	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0922	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-7R**
Date Sampled: **08/13/2013 1230**
Date Received: **08/16/2013**

Laboratory ID: **OH17005-019**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/26/2013 1702	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		2000	670	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
Benzene	**71-43-2**	**8260B**	**270**	**J**	**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	100	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	3300	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2000**		**500**	**170**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		500	40	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**610**		**500**	**170**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		2000	670	ug/L	1
Toluene	**108-88-3**	**8260B**	**5700**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**11000**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0943	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-9
Date Sampled: 08/13/2013 1231
Date Received: 08/16/2013

Laboratory ID: OH17005-020
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/27/2013 1138	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND		100	33	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	2
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		111	70-130
Toluene-d8		108	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1004	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		84	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-021
Description: 06742-MW-9R
Matrix: Aqueous
Date Sampled: 08/13/2013 1304
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/27/2013 1117	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND		100	33	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	2
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		115	70-130
Toluene-d8		113	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1108	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		86	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-11**
Date Sampled: **08/14/2013 1123**
Date Received: **08/16/2013**

Laboratory ID: OH17005-022
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/28/2013 1048	ALL		28289

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**170**		**20**	**6.7**	**ug/L**	**2**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
Benzene	**71-43-2**	**8260B**	**13**		**5.0**	**0.20**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND		100	33	ug/L	2
Ethylbenzene	**100-41-4**	**8260B**	**7.2**		**5.0**	**1.7**	**ug/L**	**2**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
Naphthalene	**91-20-3**	**8260B**	**9.4**		**5.0**	**1.7**	**ug/L**	**2**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**120**		**20**	**6.7**	**ug/L**	**2**
Toluene	**108-88-3**	**8260B**	**22**		**5.0**	**1.7**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**110**		**5.0**	**1.7**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		122	70-130
Bromofluorobenzene		125	70-130
Toluene-d8		125	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1129	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		85	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MWR-11**
Date Sampled: **08/14/2013 1056**
Date Received: **08/16/2013**

Laboratory ID: **OH17005-023**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	08/27/2013 1652	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		1000	340	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		500	10	ug/L	1
Benzene	**71-43-2**	**8260B**	**10**	**J**	**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		250	20	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	1700	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**360**		**250**	**85**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	10	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		250	20	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**340**		**250**	**85**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		1000	340	ug/L	1
Toluene	**108-88-3**	**8260B**	**120**	**J**	**250**	**85**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**2500**		**250**	**85**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		122	70-130
Bromofluorobenzene		122	70-130
Toluene-d8		123	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1150	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		117	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-12**
Date Sampled: **08/14/2013 1454**
Date Received: **08/16/2013**

Laboratory ID: **OH17005-024**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1354	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	70-130
Bromofluorobenzene		119	70-130
Toluene-d8		119	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1211	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		86	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-13R
Date Sampled: 08/14/2013 1025
Date Received: 08/16/2013

Laboratory ID: OH17005-025
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	08/27/2013 1712	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**7500**		**1000**	**340**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**13**	**J**	**500**	**10**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**3500**		**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	50	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**75**	**J**	**250**	**15**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		250	20	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	1700	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**240**	**J**	**250**	**85**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	10	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2500**		**250**	**20**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**100**	**J**	**250**	**85**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1000**		**1000**	**340**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**160**	**J**	**250**	**85**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**240**	**J**	**250**	**85**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		120	70-130
Bromofluorobenzene		122	70-130
Toluene-d8		122	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1232	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		121	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-14R
Date Sampled: 08/14/2013 1251
Date Received: 08/16/2013

Laboratory ID: OH17005-026
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1415	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		112	70-130
Toluene-d8		109	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1254	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		90	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-14R2**
Date Sampled: **08/14/2013 1245**
Date Received: **08/16/2013**

Laboratory ID: **OH17005-027**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/27/2013 1549	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		400	130	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		200	4.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**110**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**400**		**100**	**34**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	8.0	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**250**		**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		400	130	ug/L	1
Toluene	**108-88-3**	**8260B**	**580**		**100**	**34**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**2400**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		126	70-130
Bromofluorobenzene		127	70-130
Toluene-d8		130	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1315	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		107	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-15R**
Date Sampled: **08/13/2013 1610**
Date Received: **08/16/2013**

Laboratory ID: **OH17005-028**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	08/26/2013 1639	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		200	67	ug/L	1
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**18**	**J**	**100**	**2.0**	**ug/L**	**1**
Benzene	71-43-2	8260B	ND		50	2.0	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		50	10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		50	4.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		200	10	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	330	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1700**		**50**	**4.0**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		50	17	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		200	67	ug/L	1
Toluene	108-88-3	8260B	ND		50	17	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		97	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1336	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		88	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-16DD**
Date Sampled: **08/13/2013 1100**
Date Received: **08/16/2013**

Laboratory ID: OH17005-029
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/26/2013 1552	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	34	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**65**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	2.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	**64-17-5**	**8260B**	**310**	**J**	**500**	**170**	**ug/L**	**1**
Ethylbenzene	**100-41-4**	**8260B**	**37**		**25**	**8.5**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**23**	**J**	**25**	**2.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**9.2**	**J**	**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	34	ug/L	1
Toluene	**108-88-3**	**8260B**	**190**		**25**	**8.5**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**200**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1357	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		114	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: **06742-MW-17I**
Date Sampled: **08/13/2013 1335**
Date Received: **08/16/2013**

Laboratory ID: OH17005-030
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/26/2013 1725	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**3900**		**2000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
Benzene	**71-43-2**	**8260B**	**5800**		**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	100	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	3300	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2000**		**500**	**170**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**350**	**J**	**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**500**		**500**	**170**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		2000	670	ug/L	1
Toluene	**108-88-3**	**8260B**	**16000**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**11000**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1419	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.025	0.025	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane	N	179	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-18D
Date Sampled: 08/14/2013 1350
Date Received: 08/16/2013

Laboratory ID: OH17005-031
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/27/2013 1610	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**550**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		200	4.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**730**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**16**	**J**	**100**	**6.0**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**220**		**100**	**34**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**42**	**J**	**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**100**		**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		400	130	ug/L	1
Toluene	**108-88-3**	**8260B**	**560**		**100**	**34**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**1500**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	70-130
Bromofluorobenzene		115	70-130
Toluene-d8		119	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1440	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		116	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-19I
Date Sampled: 08/15/2013 0910
Date Received: 08/16/2013

Laboratory ID: OH17005-032
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0418	TAF		28205
2	5030B	8260B	500	08/29/2013 0909	TAF		28304

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**37000**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**310**	**J**	**2000**	**40**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**26000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2400**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**19000**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**490**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**4400**		**4000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**37000**		**2500**	**850**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**14000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		98	70-130		102	70-130
Bromofluorobenzene		100	70-130		100	70-130
Toluene-d8		101	70-130		103	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	10	08/22/2013 2000	AMY	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**6.3**		**0.19**	**0.19**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,1,1,2-Tetrachloroethane		102	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-033
Description: **06742-MW-20D**
Matrix: **Aqueous**
Date Sampled: **08/15/2013 1045**
Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/28/2013 0158	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1200**		**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**7.3**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**270**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**12**	**J**	**25**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**470**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**8.6**	**J**	**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**220**		**100**	**34**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1522	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-034
Description: 06742-MW-21I
Matrix: Aqueous
Date Sampled: 08/15/2013 0945
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0441	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**6800**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**130**	**J**	**2000**	**40**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**6400**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**260**	**J**	**1000**	**80**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**540**	**J**	**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**21000**		**1000**	**80**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		1000	340	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1400**	**J**	**4000**	**1300**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		1000	340	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**2200**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1544	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.091**	**P**	**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-035
Description: 06742-MW-22D
Matrix: Aqueous
Date Sampled: 08/15/2013 1058
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 2316	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2.1**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 1605	RBH	08/20/2013 0950	27588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		84	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc. Laboratory ID: OH17005-036

Description: **06742-MW-23** Matrix: **Aqueous**

Date Sampled: **08/13/2013 0945**

Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/24/2013 1518	RGB		27954

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1625	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-24
Date Sampled: 08/13/2013 0940
Date Received: 08/16/2013

Laboratory ID: OH17005-037
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/24/2013 1540	RGB		27954

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**20**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**76**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**2.2**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**5.4**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**9.4**	**J**	**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**15**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1646	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-038
Description: 06742-MW-25
Matrix: Aqueous
Date Sampled: 08/13/2013 1025
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/24/2013 1707	RGB		27954

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1900**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**36**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**3300**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**78**	**J**	**100**	**8.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2100**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**51**	**J**	**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**220**	**J**	**400**	**130**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**420**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1708	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		75	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-25 DUP
Date Sampled: 08/13/2013 1026
Date Received: 08/16/2013

Laboratory ID: OH17005-039
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/26/2013 1921	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2600**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**36**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**3300**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**78**	**J**	**100**	**8.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1700**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**58**	**J**	**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**250**	**J**	**400**	**130**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**420**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1729	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		76	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-26I
Date Sampled: 08/14/2013 1620
Date Received: 08/16/2013

Laboratory ID: OH17005-040
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/28/2013 0113	TAF		28203

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1100**		**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**2.0**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**790**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**17**	**J**	**25**	**1.5**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	2.0	ug/L	1
3,3-Dimethyl-1-butanol	**624-95-3**	**8260B**	**13**	**J**	**100**	**5.0**	**ug/L**	**1**
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**29**		**25**	**8.5**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**560**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**14**	**J**	**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**230**		**100**	**34**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		114	70-130
Toluene-d8		115	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1750	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.025	0.025	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		86	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-041
Description: **06742-MW-28DD**
Matrix: **Aqueous**
Date Sampled: **08/15/2013 1213**
Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 2339	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**21**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**11**		**5.0**	**1.7**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**12**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**4.4**	**J**	**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	**108-88-3**	**8260B**	**77**		**5.0**	**1.7**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**60**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1812	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		128	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-042
Description: 06742-MW-29
Matrix: Aqueous
Date Sampled: 08/14/2013 0930
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1312	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		107	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1916	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-043
Description: 06742-MW-30I
Matrix: Aqueous
Date Sampled: 08/14/2013 1612
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	08/27/2013 2103	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**460**		**200**	**67**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		100	2.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**700**		**50**	**2.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		50	10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**18**	**J**	**50**	**4.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		200	10	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	330	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**57**		**50**	**17**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**770**		**50**	**4.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**34**	**J**	**50**	**17**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**120**	**J**	**200**	**67**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**51**		**50**	**17**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**340**		**50**	**17**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		86	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1937	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.037**		**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-31D
Date Sampled: 08/15/2013 1130
Date Received: 08/16/2013

Laboratory ID: OH17005-044
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/28/2013 0222	TAF		28205
2	5030B	8260B	10	08/29/2013 0805	TAF		28304

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1100**		**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**7.2**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**97**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**11**	**J**	**25**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1100**		**50**	**4.0**	**ug/L**	**2**
Naphthalene	91-20-3	8260B	ND		25	8.5	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**250**		**100**	**34**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**17**	**J**	**25**	**8.5**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**28**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		98	70-130		98	70-130
Bromofluorobenzene		96	70-130		98	70-130
Toluene-d8		101	70-130		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 1958	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-045
Description: **06742-MW-32**
Matrix: **Aqueous**
Date Sampled: **08/14/2013 1004**
Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/27/2013 1631	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**620**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		200	4.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**20**	**J**	**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**180**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		100	34	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		400	130	ug/L	1
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		100	34	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		120	70-130
Bromofluorobenzene		122	70-130
Toluene-d8		124	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2020	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-046
Description: 06742-MW-33I
Matrix: Aqueous
Date Sampled: 08/15/2013 1200
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2013 0135	TAF		28205
2	5030B	8260B	50	08/29/2013 1347	JAC		28355

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**3800**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**2.3**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**2500**		**250**	**10**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**0.83**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**380**		**250**	**20**	**ug/L**	**2**
Naphthalene	**91-20-3**	**8260B**	**17**		**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**350**		**20**	**6.7**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**2.7**	**J**	**5.0**	**1.7**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**3.5**	**J**	**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130		102	70-130
Bromofluorobenzene		98	70-130		107	70-130
Toluene-d8		98	70-130		105	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2041	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-047
Description: 06742-MW-34D
Matrix: Aqueous
Date Sampled: 08/15/2013 1054
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/28/2013 0245	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2600**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**9.0**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**2700**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1300**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**54**	**J**	**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**510**		**400**	**130**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**57**	**J**	**100**	**34**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**330**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2102	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-048
Description: 06742-MW-35I
Matrix: Aqueous
Date Sampled: 08/15/2013 1228
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	08/28/2013 0332	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1500**		**1000**	**340**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		500	10	ug/L	1
Benzene	**71-43-2**	**8260B**	**1600**		**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		250	20	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	1700	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**130**	**J**	**250**	**85**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	10	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**110**	**J**	**250**	**20**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		250	85	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		1000	340	ug/L	1
Toluene	108-88-3	8260B	ND		250	85	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		250	85	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2123	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		121	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-049
Description: 06742-MW-36D
Matrix: Aqueous
Date Sampled: 08/15/2013 1029
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	08/28/2013 0308	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2800**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		200	4.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**1300**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**65**	**J**	**100**	**34**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**820**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		100	34	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**410**		**400**	**130**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**50**	**J**	**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2144	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		112	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-37DD
Date Sampled: 08/15/2013 0956
Date Received: 08/16/2013

Laboratory ID: OH17005-050
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2013 0003	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**3.8**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3.1**	**J**	**5.0**	**1.7**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.6**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	**108-88-3**	**8260B**	**22**		**5.0**	**1.7**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**17**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2205	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc. Laboratory ID: OH17005-051

Description: **06742-MW-38** Matrix: **Aqueous**

Date Sampled: **08/14/2013 1325**

Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1333	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.58**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		117	70-130
Toluene-d8		114	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2226	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-39I
Date Sampled: 08/14/2013 1540
Date Received: 08/16/2013

Laboratory ID: OH17005-052
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	08/27/2013 2017	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2500**		**200**	**67**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**8.4**	**J**	**100**	**2.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**36**	**J**	**50**	**2.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		50	10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		50	4.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		200	10	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	330	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**29**	**J**	**50**	**17**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1000**		**50**	**4.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**24**	**J**	**50**	**17**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**420**		**200**	**67**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**40**	**J**	**50**	**17**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**54**		**50**	**17**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2248	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-053
Description: 06742-MW-40D
Matrix: Aqueous
Date Sampled: 08/14/2013 1621
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/27/2013 1954	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**270**		**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**6.7**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**96**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**3.9**	**J**	**25**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**41**		**25**	**8.5**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**850**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**18**	**J**	**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**81**	**J**	**100**	**34**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**370**		**25**	**8.5**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**200**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2309	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.029**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		110	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-054
Description: 06742-MW-41I
Matrix: Aqueous
Date Sampled: 08/15/2013 1225
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1710	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		84	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		87	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2330	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-055
Description: 06742-MW-42D
Matrix: Aqueous
Date Sampled: 08/15/2013 0918
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1733	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**3.3**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3.5**	**J**	**5.0**	**1.7**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**2.9**	**J**	**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	**108-88-3**	**8260B**	**6.8**		**5.0**	**1.7**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**8.0**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		83	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/23/2013 2351	AMY	08/20/2013 2125	27652

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-43
Date Sampled: 08/14/2013 1522
Date Received: 08/16/2013

Laboratory ID: OH17005-056
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1757	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.96**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		84	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0115	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		80	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-057
Description: 06742-MW-44I
Matrix: Aqueous
Date Sampled: 08/15/2013 1255
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1821	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**2.6**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0136	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-058
Description: 06742-MW-46
Matrix: Aqueous
Date Sampled: 08/14/2013 0948
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/27/2013 1506	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	34	ug/L	1
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**6.0**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	71-43-2	8260B	ND		25	1.0	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	2.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**540**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		25	8.5	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	34	ug/L	1
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		112	70-130
Toluene-d8		112	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0157	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		96	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1811	ALL		28164

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0218	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-060
Description: 06742-MW-49
Matrix: Aqueous
Date Sampled: 08/14/2013 1520
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1834	ALL		28164

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**4.9**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		102	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0239	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-52
Date Sampled: 08/13/2013 1440
Date Received: 08/16/2013

Laboratory ID: OH17005-061
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/26/2013 1749	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**4100**		**2000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
Benzene	**71-43-2**	**8260B**	**3000**		**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	100	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	3300	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**1700**		**500**	**170**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**84**	**J**	**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**470**	**J**	**500**	**170**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		2000	670	ug/L	1
Toluene	**108-88-3**	**8260B**	**11000**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**7200**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0300	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.16**	**P**	**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		124	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-53
Date Sampled: 08/13/2013 1524
Date Received: 08/16/2013

Laboratory ID: OH17005-062
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/26/2013 1615	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		97	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0321	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-54
Date Sampled: 08/13/2013 1105
Date Received: 08/16/2013

Laboratory ID: OH17005-063
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/26/2013 1835	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	3400	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**28000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**4600**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		2500	200	ug/L	1
Naphthalene	91-20-3	8260B	ND		2500	850	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**62000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**24000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0342	AMY	08/20/2013 2125	27653
2	8011	8011	10	08/24/2013 0920	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**3.9**		**0.19**	**0.19**	**ug/L**	**2**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		109	57-137	N	257	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-064
Description: 06742-MW-55
Matrix: Aqueous
Date Sampled: 08/14/2013 1450
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1857	ALL		28164

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0404	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		85	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-065
Description: 06742-MW-57I
Matrix: Aqueous
Date Sampled: 08/14/2013 1458
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/27/2013 1932	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	34	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**58**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	2.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**31**		**25**	**8.5**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**16**	**J**	**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	34	ug/L	1
Toluene	**108-88-3**	**8260B**	**210**		**25**	**8.5**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**150**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0425	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-066
Description: 06742-MW-58
Matrix: Aqueous
Date Sampled: 08/14/2013 1330
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1846	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		86	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0528	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-59
Date Sampled: 08/14/2013 1355
Date Received: 08/16/2013

Laboratory ID: OH17005-067
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1908	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**41**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**0.54**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**2.5**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**89**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**11**	**J**	**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0549	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		96	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-068
Description: 06742-MW-61
Matrix: Aqueous
Date Sampled: 08/13/2013 1455
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/26/2013 1812	RGB		27965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2300**	**J**	**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**7900**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**110**	**J**	**1000**	**80**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**1700**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**5200**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**340**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**17000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**8900**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	5	08/24/2013 0941	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**1.8**		**0.096**	**0.096**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		75	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-069
Description: 06742-MW-62
Matrix: Aqueous
Date Sampled: 08/14/2013 1022
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/27/2013 2040	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	3400	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**17000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**4700**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		2500	200	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**1600**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**56000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**22000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	5	08/24/2013 1002	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**2.1**		**0.097**	**0.097**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		129	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-070
Description: 06742-MW-63
Matrix: Aqueous
Date Sampled: 08/14/2013 1127
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0220	TAF		28203
2	5030B	8260B	500	08/28/2013 1110	ALL		28289

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1800**	**J**	**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**8300**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**180**	**J**	**1000**	**60**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**4000**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1000	80	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**650**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**45000**		**2500**	**850**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**21000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		107	70-130		112	70-130
Bromofluorobenzene		112	70-130		115	70-130
Toluene-d8		113	70-130		116	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0652	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.96**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits
1,1,1,2-Tetrachloroethane		104	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **OH17005-071**

Description: **06742-MW-64** Matrix: **Aqueous**

Date Sampled: **08/14/2013 1220**

Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	08/28/2013 0428	TAF		28203

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**7800**	**J**	**10000**	**3400**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**340**	**J**	**5000**	**100**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**41000**		**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**870**	**J**	**2500**	**150**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**520**	**J**	**2500**	**200**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**4400**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		2500	200	ug/L	1
Naphthalene	91-20-3	8260B	ND		2500	850	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**65000**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**23000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		122	70-130
Bromofluorobenzene		126	70-130
Toluene-d8		127	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	10	08/24/2013 1023	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**9.0**		**0.19**	**0.19**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-072
Description: **06742-MW-65**
Matrix: **Aqueous**
Date Sampled: **08/15/2013 1345**
Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0505	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**17000**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**16000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2500**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**4400**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**650**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1300**	**J**	**4000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**32000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**13000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0734	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.46**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		132	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: 06742-MW-66
Date Sampled: 08/15/2013 1337
Date Received: 08/16/2013

Laboratory ID: OH17005-073
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0528	TAF		28205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**6400**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**8000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2500**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**4300**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**820**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**30000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**16000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0755	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.20**		**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-074
Description: 06742-MW-67
Matrix: Aqueous
Date Sampled: 08/15/2013 1402
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0551	TAF		28205
2	5030B	8260B	500	08/29/2013 0939	TAF		28304

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**25000**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**25000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3300**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**26000**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**810**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**3500**	**J**	**4000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**39000**		**2500**	**850**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**17000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130		96	70-130
Bromofluorobenzene		98	70-130		98	70-130
Toluene-d8		100	70-130		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0816	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.58**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-075
Description: **06742-MW-68**
Matrix: **Aqueous**
Date Sampled: **08/14/2013 0940**
Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	2000	08/27/2013 1754	AAC		28165

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		40000	13000	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		20000	400	ug/L	1
Benzene	**71-43-2**	**8260B**	**43000**		**10000**	**400**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		10000	2000	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		10000	600	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10000	800	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		40000	2000	ug/L	1
Ethanol	64-17-5	8260B	ND		200000	66000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**5200**	**J**	**10000**	**3400**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		2000	400	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**8100**	**J**	**10000**	**800**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		10000	3400	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		40000	13000	ug/L	1
Toluene	**108-88-3**	**8260B**	**77000**		**10000**	**3400**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**27000**		**10000**	**3400**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		116	70-130
Toluene-d8		117	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/24/2013 0838	AMY	08/20/2013 2125	27653
2	8011	8011	20	08/24/2013 1044	AMY	08/20/2013 2125	27653

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**13**		**0.39**	**0.39**	**ug/L**	**2**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137	N	149	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-076
Description: 06742-MW-69
Matrix: Aqueous
Date Sampled: 08/14/2013 1310
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0241	TAF		28203
2	5030B	8260B	500	08/28/2013 1131	ALL		28289

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**8300**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**52**	**J**	**2000**	**40**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**18000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**390**	**J**	**1000**	**60**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**81**	**J**	**1000**	**80**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3700**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2700**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**780**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		4000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**39000**		**2500**	**850**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**21000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		116	70-130		111	70-130
Bromofluorobenzene		118	70-130		113	70-130
Toluene-d8		121	70-130		116	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	5	08/22/2013 1813	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**2.7**		**0.097**	**0.097**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,1,1,2-Tetrachloroethane		115	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-077
Description: 06742-MW-70
Matrix: Aqueous
Date Sampled: 08/15/2013 1302
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/28/2013 0303	TAF		28203

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**65000**		**4000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**87**	**J**	**2000**	**40**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**19000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		4000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2900**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		200	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**30000**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**870**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**7500**		**4000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**30000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**15000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		119	70-130
Bromofluorobenzene		120	70-130
Toluene-d8		122	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	2	08/22/2013 1835	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.95**		**0.038**	**0.038**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		116	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc. Laboratory ID: OH17005-078

Description: SW-1 Matrix: Aqueous

Date Sampled: 08/14/2013 1540

Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1539	JAC		28193
2	5030B	8260B	5	08/28/2013 1417	AAC		28286

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**280**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**1.4**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**2.6**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**0.60**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**210**		**25**	**2.0**	**ug/L**	**2**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**62**		**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130		88	70-130
Bromofluorobenzene		89	70-130		87	70-130
Toluene-d8		90	70-130		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0305	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: FIELD BLANK 1
Date Sampled: 08/13/2013 1630
Date Received: 08/16/2013

Laboratory ID: OH17005-079
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/24/2013 1456	RGB		27954

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0327	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: FIELD BLANK 2
Date Sampled: 08/14/2013 1630
Date Received: 08/16/2013

Laboratory ID: OH17005-080
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1406	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		87	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0348	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		103	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Description: FIELD BLANK 3
Date Sampled: 08/15/2013 1500
Date Received: 08/16/2013

Laboratory ID: OH17005-081
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1429	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		86	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0409	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-082
Description: **Trip Blank 1**
Matrix: **Aqueous**
Date Sampled: **08/14/2013 1500**
Date Received: **08/16/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1451	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0430	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: Bunnell-Lammons Engineering, Inc.
Laboratory ID: OH17005-083
Description: Trip Blank 2
Matrix: Aqueous
Date Sampled: 08/14/2013 1500
Date Received: 08/16/2013

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2013 1516	JAC		28193

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		87	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/22/2013 0451	AMY	08/21/2013 1150	27698

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ27954-001
Batch: 27954
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/24/2013 1202
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/24/2013 1202
Benzene	ND		1	5.0	0.20	ug/L	08/24/2013 1202
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/24/2013 1202
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/24/2013 1202
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/24/2013 1202
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/24/2013 1202
Ethanol	ND		1	100	33	ug/L	08/24/2013 1202
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/24/2013 1202
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/24/2013 1202
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/24/2013 1202
Naphthalene	ND		1	5.0	1.7	ug/L	08/24/2013 1202
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/24/2013 1202
Toluene	ND		1	5.0	1.7	ug/L	08/24/2013 1202
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/24/2013 1202

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ27954-002
Batch: 27954
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	900		1	90	70-130	08/24/2013 1033
tert-Amyl methyl ether (TAME)	50	51		1	102	70-130	08/24/2013 1033
Benzene	50	49		1	98	70-130	08/24/2013 1033
tert-Butyl formate (TBF)	250	220		1	88	70-130	08/24/2013 1033
1,2-Dichloroethane	50	51		1	101	70-130	08/24/2013 1033
Diisopropyl ether (IPE)	50	50		1	101	70-130	08/24/2013 1033
3,3-Dimethyl-1-butanol	1000	870		1	87	70-130	08/24/2013 1033
Ethanol	5000	5800		1	116	70-130	08/24/2013 1033
Ethylbenzene	50	51		1	102	70-130	08/24/2013 1033
Ethyl-tert-butyl ether (ETBE)	50	56		1	113	70-130	08/24/2013 1033
Methyl tertiary butyl ether (MTBE)	50	54		1	108	70-130	08/24/2013 1033
Naphthalene	50	49		1	98	70-130	08/24/2013 1033
tert-butyl alcohol (TBA)	1000	1000		1	100	70-130	08/24/2013 1033
Toluene	50	50		1	101	70-130	08/24/2013 1033
Xylenes (total)	100	100		1	102	70-130	08/24/2013 1033

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ27954-003
Batch: 27954
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	920		1	92	1.7	70-130	20	08/24/2013 1055
tert-Amyl methyl ether (TAME)	50	53		1	106	3.3	70-130	20	08/24/2013 1055
Benzene	50	51		1	102	4.3	70-130	20	08/24/2013 1055
tert-Butyl formate (TBF)	250	230		1	92	4.3	70-130	20	08/24/2013 1055
1,2-Dichloroethane	50	52		1	103	1.9	70-130	20	08/24/2013 1055
Diisopropyl ether (IPE)	50	52		1	103	2.8	70-130	20	08/24/2013 1055
3,3-Dimethyl-1-butanol	1000	930		1	93	6.0	70-130	20	08/24/2013 1055
Ethanol	5000	6300		1	125	7.9	70-130	20	08/24/2013 1055
Ethylbenzene	50	52		1	103	1.5	70-130	20	08/24/2013 1055
Ethyl-tert-butyl ether (ETBE)	50	59		1	117	3.8	70-130	20	08/24/2013 1055
Methyl tertiary butyl ether (MTBE)	50	57		1	115	5.5	70-130	20	08/24/2013 1055
Naphthalene	50	55		1	111	13	70-130	20	08/24/2013 1055
tert-butyl alcohol (TBA)	1000	1100		1	107	6.3	70-130	20	08/24/2013 1055
Toluene	50	53		1	105	4.1	70-130	20	08/24/2013 1055
Xylenes (total)	100	100		1	104	2.6	70-130	20	08/24/2013 1055

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OH17005-038MS
Batch: 27954
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1900	20000	20000		20	91	70-130	08/24/2013 1939
tert-Amyl methyl ether (TAME)	36	1000	1200		20	112	70-130	08/24/2013 1939
Benzene	3300	1000	3800	N	20	56	70-130	08/24/2013 1939
tert-Butyl formate (TBF)	ND	5000	3300	N	20	66	70-130	08/24/2013 1939
1,2-Dichloroethane	ND	1000	1100		20	113	70-130	08/24/2013 1939
Diisopropyl ether (IPE)	78	1000	1200		20	111	70-130	08/24/2013 1939
3,3-Dimethyl-1-butanol	ND	20000	17000		20	87	70-130	08/24/2013 1939
Ethanol	ND	100000	43000	N	20	43	70-130	08/24/2013 1939
Ethylbenzene	ND	1000	1000		20	102	70-130	08/24/2013 1939
Ethyl-tert-butyl ether (ETBE)	ND	1000	1100		20	115	70-130	08/24/2013 1939
Methyl tertiary butyl ether (MTBE)	2100	1000	2900		20	76	70-130	08/24/2013 1939
Naphthalene	51	1000	920		20	87	70-130	08/24/2013 1939
tert-butyl alcohol (TBA)	220	20000	20000		20	99	70-130	08/24/2013 1939
Toluene	ND	1000	1100		20	108	70-130	08/24/2013 1939
Xylenes (total)	420	2000	2400		20	101	70-130	08/24/2013 1939

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OH17005-038MD
Batch: 27954
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1900	20000	23000		20	103	12	70-130	20	08/24/2013 2001
tert-Amyl methyl ether (TAME)	36	1000	1200		20	119	6.2	70-130	20	08/24/2013 2001
Benzene	3300	1000	3900	N	20	67	2.7	70-130	20	08/24/2013 2001
tert-Butyl formate (TBF)	ND	5000	3500	N	20	69	4.7	70-130	20	08/24/2013 2001
1,2-Dichloroethane	ND	1000	1100		20	114	1.3	70-130	20	08/24/2013 2001
Diisopropyl ether (IPE)	78	1000	1200		20	115	3.0	70-130	20	08/24/2013 2001
3,3-Dimethyl-1-butanol	ND	20000	19000		20	97	11	70-130	20	08/24/2013 2001
Ethanol	ND	100000	80000	+	20	80	60	70-130	20	08/24/2013 2001
Ethylbenzene	ND	1000	1000		20	103	0.56	70-130	20	08/24/2013 2001
Ethyl-tert-butyl ether (ETBE)	ND	1000	1200		20	121	5.3	70-130	20	08/24/2013 2001
Methyl tertiary butyl ether (MTBE)	2100	1000	3100		20	94	6.3	70-130	20	08/24/2013 2001
Naphthalene	51	1000	980		20	93	6.3	70-130	20	08/24/2013 2001
tert-butyl alcohol (TBA)	220	20000	24000		20	121	19	70-130	20	08/24/2013 2001
Toluene	ND	1000	1100		20	110	1.4	70-130	20	08/24/2013 2001
Xylenes (total)	420	2000	2500		20	103	1.4	70-130	20	08/24/2013 2001

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ27965-001
Batch: 27965
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/26/2013 1429
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/26/2013 1429
Benzene	ND		1	5.0	0.20	ug/L	08/26/2013 1429
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/26/2013 1429
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/26/2013 1429
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/26/2013 1429
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/26/2013 1429
Ethanol	ND		1	100	33	ug/L	08/26/2013 1429
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/26/2013 1429
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/26/2013 1429
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/26/2013 1429
Naphthalene	ND		1	5.0	1.7	ug/L	08/26/2013 1429
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/26/2013 1429
Toluene	ND		1	5.0	1.7	ug/L	08/26/2013 1429
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/26/2013 1429

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ27965-002
Batch: 27965
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	107	70-130	08/26/2013 1320
tert-Amyl methyl ether (TAME)	50	52		1	104	70-130	08/26/2013 1320
Benzene	50	53		1	107	70-130	08/26/2013 1320
tert-Butyl formate (TBF)	250	270		1	107	70-130	08/26/2013 1320
1,2-Dichloroethane	50	53		1	106	70-130	08/26/2013 1320
Diisopropyl ether (IPE)	50	53		1	106	70-130	08/26/2013 1320
3,3-Dimethyl-1-butanol	1000	1100		1	110	70-130	08/26/2013 1320
Ethanol	5000	5200		1	104	70-130	08/26/2013 1320
Ethylbenzene	50	55		1	110	70-130	08/26/2013 1320
Ethyl-tert-butyl ether (ETBE)	50	56		1	113	70-130	08/26/2013 1320
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	08/26/2013 1320
Naphthalene	50	54		1	107	70-130	08/26/2013 1320
tert-butyl alcohol (TBA)	1000	1000		1	103	70-130	08/26/2013 1320
Toluene	50	55		1	110	70-130	08/26/2013 1320
Xylenes (total)	100	110		1	109	70-130	08/26/2013 1320

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ27965-003
Batch: 27965
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	106	0.78	70-130	20	08/26/2013 1343
tert-Amyl methyl ether (TAME)	50	52		1	104	0.16	70-130	20	08/26/2013 1343
Benzene	50	52		1	105	1.7	70-130	20	08/26/2013 1343
tert-Butyl formate (TBF)	250	270		1	107	0.50	70-130	20	08/26/2013 1343
1,2-Dichloroethane	50	52		1	105	1.5	70-130	20	08/26/2013 1343
Diisopropyl ether (IPE)	50	53		1	106	0.16	70-130	20	08/26/2013 1343
3,3-Dimethyl-1-butanol	1000	1100		1	109	0.70	70-130	20	08/26/2013 1343
Ethanol	5000	5200		1	103	0.32	70-130	20	08/26/2013 1343
Ethylbenzene	50	54		1	107	2.5	70-130	20	08/26/2013 1343
Ethyl-tert-butyl ether (ETBE)	50	57		1	113	0.42	70-130	20	08/26/2013 1343
Methyl tertiary butyl ether (MTBE)	50	51		1	102	2.8	70-130	20	08/26/2013 1343
Naphthalene	50	54		1	108	0.35	70-130	20	08/26/2013 1343
tert-butyl alcohol (TBA)	1000	1000		1	105	1.7	70-130	20	08/26/2013 1343
Toluene	50	53		1	106	3.1	70-130	20	08/26/2013 1343
Xylenes (total)	100	110		1	106	2.7	70-130	20	08/26/2013 1343

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OH17005-039MS
Batch: 27965
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	2600	20000	25000		20	112	70-130	08/26/2013 1944
tert-Amyl methyl ether (TAME)	36	1000	1100		20	109	70-130	08/26/2013 1944
Benzene	3300	1000	4100	E	20	79	70-130	08/26/2013 1944
tert-Butyl formate (TBF)	ND	5000	4300		20	86	70-130	08/26/2013 1944
1,2-Dichloroethane	ND	1000	1200		20	119	70-130	08/26/2013 1944
Diisopropyl ether (IPE)	78	1000	1200		20	114	70-130	08/26/2013 1944
3,3-Dimethyl-1-butanol	ND	20000	22000		20	111	70-130	08/26/2013 1944
Ethanol	ND	100000	92000		20	92	70-130	08/26/2013 1944
Ethylbenzene	ND	1000	1200		20	118	70-130	08/26/2013 1944
Ethyl-tert-butyl ether (ETBE)	ND	1000	1200		20	115	70-130	08/26/2013 1944
Methyl tertiary butyl ether (MTBE)	1700	1000	2700		20	96	70-130	08/26/2013 1944
Naphthalene	58	1000	1200		20	113	70-130	08/26/2013 1944
tert-butyl alcohol (TBA)	250	20000	22000		20	109	70-130	08/26/2013 1944
Toluene	ND	1000	1200		20	115	70-130	08/26/2013 1944
Xylenes (total)	420	2000	2700		20	115	70-130	08/26/2013 1944

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OH17005-039MD
Batch: 27965
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	2600	20000	24000		20	106	4.8	70-130	20	08/26/2013 2008
tert-Amyl methyl ether (TAME)	36	1000	1100		20	107	1.8	70-130	20	08/26/2013 2008
Benzene	3300	1000	4100	E	20	73	1.4	70-130	20	08/26/2013 2008
tert-Butyl formate (TBF)	ND	5000	4100		20	81	5.8	70-130	20	08/26/2013 2008
1,2-Dichloroethane	ND	1000	1200		20	116	2.3	70-130	20	08/26/2013 2008
Diisopropyl ether (IPE)	78	1000	1200		20	111	2.8	70-130	20	08/26/2013 2008
3,3-Dimethyl-1-butanol	ND	20000	22000		20	110	1.5	70-130	20	08/26/2013 2008
Ethanol	ND	100000	91000		20	91	1.0	70-130	20	08/26/2013 2008
Ethylbenzene	ND	1000	1200		20	116	1.9	70-130	20	08/26/2013 2008
Ethyl-tert-butyl ether (ETBE)	ND	1000	1100		20	113	1.7	70-130	20	08/26/2013 2008
Methyl tertiary butyl ether (MTBE)	1700	1000	2700		20	95	0.17	70-130	20	08/26/2013 2008
Naphthalene	58	1000	1200		20	111	1.3	70-130	20	08/26/2013 2008
tert-butyl alcohol (TBA)	250	20000	21000		20	103	5.4	70-130	20	08/26/2013 2008
Toluene	ND	1000	1200		20	114	0.84	70-130	20	08/26/2013 2008
Xylenes (total)	420	2000	2700		20	112	2.3	70-130	20	08/26/2013 2008

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28086-001
Batch: 28086
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/26/2013 2256
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/26/2013 2256
Benzene	ND		1	5.0	0.20	ug/L	08/26/2013 2256
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/26/2013 2256
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/26/2013 2256
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/26/2013 2256
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/26/2013 2256
Ethanol	ND		1	100	33	ug/L	08/26/2013 2256
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/26/2013 2256
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/26/2013 2256
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/26/2013 2256
Naphthalene	ND		1	5.0	1.7	ug/L	08/26/2013 2256
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/26/2013 2256
Toluene	ND		1	5.0	1.7	ug/L	08/26/2013 2256
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/26/2013 2256

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		119	70-130
1,2-Dichloroethane-d4		114	70-130
Toluene-d8		116	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28086-002
Batch: 28086
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	106	70-130	08/26/2013 2153
tert-Amyl methyl ether (TAME)	50	49		1	99	70-130	08/26/2013 2153
Benzene	50	49		1	98	70-130	08/26/2013 2153
tert-Butyl formate (TBF)	250	250		1	101	70-130	08/26/2013 2153
1,2-Dichloroethane	50	50		1	100	70-130	08/26/2013 2153
Diisopropyl ether (IPE)	50	49		1	99	70-130	08/26/2013 2153
3,3-Dimethyl-1-butanol	1000	1100		1	106	70-130	08/26/2013 2153
Ethanol	5000	5000		1	100	70-130	08/26/2013 2153
Ethylbenzene	50	50		1	101	70-130	08/26/2013 2153
Ethyl-tert-butyl ether (ETBE)	50	55		1	109	70-130	08/26/2013 2153
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	08/26/2013 2153
Naphthalene	50	48		1	97	70-130	08/26/2013 2153
tert-butyl alcohol (TBA)	1000	1100		1	107	70-130	08/26/2013 2153
Toluene	50	50		1	100	70-130	08/26/2013 2153
Xylenes (total)	100	99		1	99	70-130	08/26/2013 2153

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28086-003
Batch: 28086
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	107	1.2	70-130	20	08/26/2013 2214
tert-Amyl methyl ether (TAME)	50	50		1	100	0.79	70-130	20	08/26/2013 2214
Benzene	50	49		1	99	0.23	70-130	20	08/26/2013 2214
tert-Butyl formate (TBF)	250	250		1	101	0.13	70-130	20	08/26/2013 2214
1,2-Dichloroethane	50	50		1	101	0.64	70-130	20	08/26/2013 2214
Diisopropyl ether (IPE)	50	50		1	100	1.5	70-130	20	08/26/2013 2214
3,3-Dimethyl-1-butanol	1000	1100		1	107	1.4	70-130	20	08/26/2013 2214
Ethanol	5000	5100		1	101	1.6	70-130	20	08/26/2013 2214
Ethylbenzene	50	51		1	102	1.7	70-130	20	08/26/2013 2214
Ethyl-tert-butyl ether (ETBE)	50	55		1	111	1.1	70-130	20	08/26/2013 2214
Methyl tertiary butyl ether (MTBE)	50	52		1	105	2.5	70-130	20	08/26/2013 2214
Naphthalene	50	50		1	99	2.2	70-130	20	08/26/2013 2214
tert-butyl alcohol (TBA)	1000	1100		1	107	0.82	70-130	20	08/26/2013 2214
Toluene	50	50		1	100	0.17	70-130	20	08/26/2013 2214
Xylenes (total)	100	100		1	101	1.6	70-130	20	08/26/2013 2214

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OH17005-006MS
Batch: 28086
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	140	10000	13000		10	129	70-130	08/27/2013 0635
tert-Amyl methyl ether (TAME)	ND	500	620		10	124	70-130	08/27/2013 0635
Benzene	7.2	500	660		10	130	70-130	08/27/2013 0635
tert-Butyl formate (TBF)	ND	2500	2300		10	92	70-130	08/27/2013 0635
1,2-Dichloroethane	ND	500	630		10	127	70-130	08/27/2013 0635
Diisopropyl ether (IPE)	ND	500	640		10	128	70-130	08/27/2013 0635
3,3-Dimethyl-1-butanol	ND	10000	13000	N	10	132	70-130	08/27/2013 0635
Ethanol	ND	50000	52000		10	104	70-130	08/27/2013 0635
Ethylbenzene	ND	500	670	N	10	133	70-130	08/27/2013 0635
Ethyl-tert-butyl ether (ETBE)	ND	500	690	N	10	139	70-130	08/27/2013 0635
Methyl tertiary butyl ether (MTBE)	ND	500	630		10	126	70-130	08/27/2013 0635
Naphthalene	ND	500	610		10	122	70-130	08/27/2013 0635
tert-butyl alcohol (TBA)	ND	10000	13000	N	10	133	70-130	08/27/2013 0635
Toluene	19	500	680	N	10	132	70-130	08/27/2013 0635
Xylenes (total)	38	1000	1300		10	128	70-130	08/27/2013 0635

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		118	70-130
Bromofluorobenzene		123	70-130
Toluene-d8		125	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OH17005-006MD
Batch: 28086
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	140	10000	13000		10	128	0.91	70-130	20	08/27/2013 0656
tert-Amyl methyl ether (TAME)	ND	500	610		10	123	1.3	70-130	20	08/27/2013 0656
Benzene	7.2	500	650		10	128	1.1	70-130	20	08/27/2013 0656
tert-Butyl formate (TBF)	ND	2500	2300		10	92	0.045	70-130	20	08/27/2013 0656
1,2-Dichloroethane	ND	500	630		10	127	0.021	70-130	20	08/27/2013 0656
Diisopropyl ether (IPE)	ND	500	630		10	125	2.6	70-130	20	08/27/2013 0656
3,3-Dimethyl-1-butanol	ND	10000	13000	N	10	131	0.78	70-130	20	08/27/2013 0656
Ethanol	ND	50000	53000		10	105	1.3	70-130	20	08/27/2013 0656
Ethylbenzene	ND	500	660		10	130	1.8	70-130	20	08/27/2013 0656
Ethyl-tert-butyl ether (ETBE)	ND	500	680	N	10	136	2.5	70-130	20	08/27/2013 0656
Methyl tertiary butyl ether (MTBE)	ND	500	630		10	126	0.36	70-130	20	08/27/2013 0656
Naphthalene	ND	500	610		10	121	0.70	70-130	20	08/27/2013 0656
tert-butyl alcohol (TBA)	ND	10000	13000	N	10	133	0.0079	70-130	20	08/27/2013 0656
Toluene	19	500	670	N	10	131	0.86	70-130	20	08/27/2013 0656
Xylenes (total)	38	1000	1300		10	127	1.4	70-130	20	08/27/2013 0656

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		116	70-130
Bromofluorobenzene		123	70-130
Toluene-d8		124	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28164-001
Batch: 28164
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/27/2013 1015
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/27/2013 1015
Benzene	ND		1	5.0	0.20	ug/L	08/27/2013 1015
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/27/2013 1015
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/27/2013 1015
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/27/2013 1015
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/27/2013 1015
Ethanol	ND		1	100	33	ug/L	08/27/2013 1015
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/27/2013 1015
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/27/2013 1015
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/27/2013 1015
Naphthalene	ND		1	5.0	1.7	ug/L	08/27/2013 1015
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/27/2013 1015
Toluene	ND		1	5.0	1.7	ug/L	08/27/2013 1015
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/27/2013 1015

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28164-002
Batch: 28164
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	105	70-130	08/27/2013 0842
tert-Amyl methyl ether (TAME)	50	49		1	98	70-130	08/27/2013 0842
Benzene	50	51		1	103	70-130	08/27/2013 0842
tert-Butyl formate (TBF)	250	270		1	106	70-130	08/27/2013 0842
1,2-Dichloroethane	50	52		1	104	70-130	08/27/2013 0842
Diisopropyl ether (IPE)	50	53		1	107	70-130	08/27/2013 0842
3,3-Dimethyl-1-butanol	1000	1100		1	108	70-130	08/27/2013 0842
Ethanol	5000	5200		1	103	70-130	08/27/2013 0842
Ethylbenzene	50	52		1	105	70-130	08/27/2013 0842
Ethyl-tert-butyl ether (ETBE)	50	54		1	107	70-130	08/27/2013 0842
Methyl tertiary butyl ether (MTBE)	50	48		1	96	70-130	08/27/2013 0842
Naphthalene	50	53		1	105	70-130	08/27/2013 0842
tert-butyl alcohol (TBA)	1000	1000		1	102	70-130	08/27/2013 0842
Toluene	50	53		1	105	70-130	08/27/2013 0842
Xylenes (total)	100	100		1	103	70-130	08/27/2013 0842

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28164-003
Batch: 28164
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	106	0.93	70-130	20	08/27/2013 0906
tert-Amyl methyl ether (TAME)	50	50		1	99	0.84	70-130	20	08/27/2013 0906
Benzene	50	52		1	103	0.51	70-130	20	08/27/2013 0906
tert-Butyl formate (TBF)	250	270		1	107	1.1	70-130	20	08/27/2013 0906
1,2-Dichloroethane	50	52		1	104	0.33	70-130	20	08/27/2013 0906
Diisopropyl ether (IPE)	50	54		1	108	1.3	70-130	20	08/27/2013 0906
3,3-Dimethyl-1-butanol	1000	1100		1	111	2.5	70-130	20	08/27/2013 0906
Ethanol	5000	5200		1	105	1.8	70-130	20	08/27/2013 0906
Ethylbenzene	50	53		1	106	1.1	70-130	20	08/27/2013 0906
Ethyl-tert-butyl ether (ETBE)	50	57		1	113	5.3	70-130	20	08/27/2013 0906
Methyl tertiary butyl ether (MTBE)	50	50		1	101	4.3	70-130	20	08/27/2013 0906
Naphthalene	50	54		1	108	2.9	70-130	20	08/27/2013 0906
tert-butyl alcohol (TBA)	1000	1000		1	101	1.7	70-130	20	08/27/2013 0906
Toluene	50	54		1	107	1.5	70-130	20	08/27/2013 0906
Xylenes (total)	100	100		1	104	1.3	70-130	20	08/27/2013 0906

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28165-001
Batch: 28165
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/27/2013 1033
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/27/2013 1033
Benzene	ND		1	5.0	0.20	ug/L	08/27/2013 1033
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/27/2013 1033
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/27/2013 1033
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/27/2013 1033
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/27/2013 1033
Ethanol	ND		1	100	33	ug/L	08/27/2013 1033
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/27/2013 1033
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/27/2013 1033
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/27/2013 1033
Naphthalene	ND		1	5.0	1.7	ug/L	08/27/2013 1033
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/27/2013 1033
Toluene	ND		1	5.0	1.7	ug/L	08/27/2013 1033
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/27/2013 1033

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		116	70-130
1,2-Dichloroethane-d4		112	70-130
Toluene-d8		116	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28165-002
Batch: 28165
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	111	70-130	08/27/2013 0929
tert-Amyl methyl ether (TAME)	50	52		1	104	70-130	08/27/2013 0929
Benzene	50	52		1	104	70-130	08/27/2013 0929
tert-Butyl formate (TBF)	250	270		1	108	70-130	08/27/2013 0929
1,2-Dichloroethane	50	51		1	102	70-130	08/27/2013 0929
Diisopropyl ether (IPE)	50	53		1	105	70-130	08/27/2013 0929
3,3-Dimethyl-1-butanol	1000	1200		1	116	70-130	08/27/2013 0929
Ethanol	5000	5600		1	111	70-130	08/27/2013 0929
Ethylbenzene	50	55		1	110	70-130	08/27/2013 0929
Ethyl-tert-butyl ether (ETBE)	50	57		1	115	70-130	08/27/2013 0929
Methyl tertiary butyl ether (MTBE)	50	52		1	104	70-130	08/27/2013 0929
Naphthalene	50	54		1	109	70-130	08/27/2013 0929
tert-butyl alcohol (TBA)	1000	1100		1	115	70-130	08/27/2013 0929
Toluene	50	54		1	108	70-130	08/27/2013 0929
Xylenes (total)	100	110		1	108	70-130	08/27/2013 0929

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28165-003
Batch: 28165
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	114	3.2	70-130	20	08/27/2013 0949
tert-Amyl methyl ether (TAME)	50	54		1	107	2.8	70-130	20	08/27/2013 0949
Benzene	50	53		1	106	2.2	70-130	20	08/27/2013 0949
tert-Butyl formate (TBF)	250	280		1	111	2.2	70-130	20	08/27/2013 0949
1,2-Dichloroethane	50	53		1	107	4.2	70-130	20	08/27/2013 0949
Diisopropyl ether (IPE)	50	54		1	108	2.8	70-130	20	08/27/2013 0949
3,3-Dimethyl-1-butanol	1000	1200		1	120	3.7	70-130	20	08/27/2013 0949
Ethanol	5000	5600		1	112	1.2	70-130	20	08/27/2013 0949
Ethylbenzene	50	56		1	112	1.9	70-130	20	08/27/2013 0949
Ethyl-tert-butyl ether (ETBE)	50	59		1	117	2.2	70-130	20	08/27/2013 0949
Methyl tertiary butyl ether (MTBE)	50	56		1	112	7.4	70-130	20	08/27/2013 0949
Naphthalene	50	56		1	112	2.4	70-130	20	08/27/2013 0949
tert-butyl alcohol (TBA)	1000	1200		1	120	4.6	70-130	20	08/27/2013 0949
Toluene	50	56		1	112	2.9	70-130	20	08/27/2013 0949
Xylenes (total)	100	110		1	110	1.5	70-130	20	08/27/2013 0949

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		113	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28193-001
Batch: 28193
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/27/2013 1335
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/27/2013 1335
Benzene	ND		1	5.0	0.20	ug/L	08/27/2013 1335
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/27/2013 1335
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/27/2013 1335
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/27/2013 1335
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/27/2013 1335
Ethanol	ND		1	100	33	ug/L	08/27/2013 1335
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/27/2013 1335
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/27/2013 1335
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/27/2013 1335
Naphthalene	ND		1	5.0	1.7	ug/L	08/27/2013 1335
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/27/2013 1335
Toluene	ND		1	5.0	1.7	ug/L	08/27/2013 1335
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/27/2013 1335

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		87	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28193-002
Batch: 28193
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	100	70-130	08/27/2013 1204
tert-Amyl methyl ether (TAME)	50	47		1	94	70-130	08/27/2013 1204
Benzene	50	44		1	89	70-130	08/27/2013 1204
tert-Butyl formate (TBF)	250	240		1	95	70-130	08/27/2013 1204
1,2-Dichloroethane	50	51		1	101	70-130	08/27/2013 1204
Diisopropyl ether (IPE)	50	49		1	98	70-130	08/27/2013 1204
3,3-Dimethyl-1-butanol	1000	920		1	92	70-130	08/27/2013 1204
Ethanol	5000	4000		1	80	70-130	08/27/2013 1204
Ethylbenzene	50	44		1	89	70-130	08/27/2013 1204
Ethyl-tert-butyl ether (ETBE)	50	51		1	102	70-130	08/27/2013 1204
Methyl tertiary butyl ether (MTBE)	50	52		1	104	70-130	08/27/2013 1204
Naphthalene	50	40		1	81	70-130	08/27/2013 1204
tert-butyl alcohol (TBA)	1000	960		1	96	70-130	08/27/2013 1204
Toluene	50	49		1	98	70-130	08/27/2013 1204
Xylenes (total)	100	95		1	95	70-130	08/27/2013 1204

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		88	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28193-003
Batch: 28193
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	103	3.6	70-130	20	08/27/2013 1227
tert-Amyl methyl ether (TAME)	50	46		1	92	1.8	70-130	20	08/27/2013 1227
Benzene	50	43		1	86	2.9	70-130	20	08/27/2013 1227
tert-Butyl formate (TBF)	250	230		1	93	2.6	70-130	20	08/27/2013 1227
1,2-Dichloroethane	50	50		1	99	2.0	70-130	20	08/27/2013 1227
Diisopropyl ether (IPE)	50	47		1	95	3.9	70-130	20	08/27/2013 1227
3,3-Dimethyl-1-butanol	1000	960		1	96	4.0	70-130	20	08/27/2013 1227
Ethanol	5000	5500	+	1	110	32	70-130	20	08/27/2013 1227
Ethylbenzene	50	43		1	86	3.1	70-130	20	08/27/2013 1227
Ethyl-tert-butyl ether (ETBE)	50	50		1	101	1.3	70-130	20	08/27/2013 1227
Methyl tertiary butyl ether (MTBE)	50	51		1	102	2.1	70-130	20	08/27/2013 1227
Naphthalene	50	43		1	86	5.8	70-130	20	08/27/2013 1227
tert-butyl alcohol (TBA)	1000	1000		1	101	5.1	70-130	20	08/27/2013 1227
Toluene	50	48		1	96	1.6	70-130	20	08/27/2013 1227
Xylenes (total)	100	94		1	94	0.82	70-130	20	08/27/2013 1227

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		91	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		89	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OH17005-043MS
Batch: 28193
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	460	10000	9500		10	90	70-130	08/27/2013 2130
tert-Amyl methyl ether (TAME)	ND	500	490		10	98	70-130	08/27/2013 2130
Benzene	700	500	1100		10	83	70-130	08/27/2013 2130
tert-Butyl formate (TBF)	ND	2500	1300	N	10	54	70-130	08/27/2013 2130
1,2-Dichloroethane	ND	500	560		10	113	70-130	08/27/2013 2130
Diisopropyl ether (IPE)	18	500	540		10	104	70-130	08/27/2013 2130
3,3-Dimethyl-1-butanol	ND	10000	8600		10	86	70-130	08/27/2013 2130
Ethanol	ND	50000	31000	N	10	63	70-130	08/27/2013 2130
Ethylbenzene	57	500	540		10	96	70-130	08/27/2013 2130
Ethyl-tert-butyl ether (ETBE)	ND	500	540		10	107	70-130	08/27/2013 2130
Methyl tertiary butyl ether (MTBE)	770	500	1200		10	90	70-130	08/27/2013 2130
Naphthalene	34	500	450		10	82	70-130	08/27/2013 2130
tert-butyl alcohol (TBA)	120	10000	9400		10	92	70-130	08/27/2013 2130
Toluene	51	500	610		10	112	70-130	08/27/2013 2130
Xylenes (total)	340	1000	1300		10	99	70-130	08/27/2013 2130

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		85	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		92	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OH17005-043MD
Batch: 28193
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	460	10000	9900		10	94	4.3	70-130	20	08/27/2013 2153
tert-Amyl methyl ether (TAME)	ND	500	510		10	101	2.9	70-130	20	08/27/2013 2153
Benzene	700	500	1100		10	72	4.8	70-130	20	08/27/2013 2153
tert-Butyl formate (TBF)	ND	2500	1300	N	10	51	4.4	70-130	20	08/27/2013 2153
1,2-Dichloroethane	ND	500	560		10	112	0.45	70-130	20	08/27/2013 2153
Diisopropyl ether (IPE)	18	500	550		10	105	1.6	70-130	20	08/27/2013 2153
3,3-Dimethyl-1-butanol	ND	10000	9000		10	90	3.6	70-130	20	08/27/2013 2153
Ethanol	ND	50000	37000		10	75	17	70-130	20	08/27/2013 2153
Ethylbenzene	57	500	520		10	92	3.7	70-130	20	08/27/2013 2153
Ethyl-tert-butyl ether (ETBE)	ND	500	540		10	107	0.028	70-130	20	08/27/2013 2153
Methyl tertiary butyl ether (MTBE)	770	500	1200		10	91	0.48	70-130	20	08/27/2013 2153
Naphthalene	34	500	430		10	79	3.6	70-130	20	08/27/2013 2153
tert-butyl alcohol (TBA)	120	10000	10000		10	99	7.1	70-130	20	08/27/2013 2153
Toluene	51	500	590		10	108	3.6	70-130	20	08/27/2013 2153
Xylenes (total)	340	1000	1300		10	95	2.8	70-130	20	08/27/2013 2153

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		83	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		88	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28203-001
Batch: 28203
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/27/2013 2120
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/27/2013 2120
Benzene	ND		1	5.0	0.20	ug/L	08/27/2013 2120
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/27/2013 2120
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/27/2013 2120
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/27/2013 2120
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/27/2013 2120
Ethanol	ND		1	100	33	ug/L	08/27/2013 2120
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/27/2013 2120
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/27/2013 2120
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/27/2013 2120
Naphthalene	ND		1	5.0	1.7	ug/L	08/27/2013 2120
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/27/2013 2120
Toluene	ND		1	5.0	1.7	ug/L	08/27/2013 2120
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/27/2013 2120

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		121	70-130
1,2-Dichloroethane-d4		117	70-130
Toluene-d8		122	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28203-002
Batch: 28203
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	102	70-130	08/27/2013 2016
tert-Amyl methyl ether (TAME)	50	49		1	98	70-130	08/27/2013 2016
Benzene	50	51		1	102	70-130	08/27/2013 2016
tert-Butyl formate (TBF)	250	250		1	101	70-130	08/27/2013 2016
1,2-Dichloroethane	50	49		1	97	70-130	08/27/2013 2016
Diisopropyl ether (IPE)	50	51		1	101	70-130	08/27/2013 2016
3,3-Dimethyl-1-butanol	1000	1100		1	107	70-130	08/27/2013 2016
Ethanol	5000	5000		1	100	70-130	08/27/2013 2016
Ethylbenzene	50	54		1	107	70-130	08/27/2013 2016
Ethyl-tert-butyl ether (ETBE)	50	53		1	107	70-130	08/27/2013 2016
Methyl tertiary butyl ether (MTBE)	50	48		1	97	70-130	08/27/2013 2016
Naphthalene	50	53		1	106	70-130	08/27/2013 2016
tert-butyl alcohol (TBA)	1000	1000		1	101	70-130	08/27/2013 2016
Toluene	50	53		1	106	70-130	08/27/2013 2016
Xylenes (total)	100	100		1	105	70-130	08/27/2013 2016

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		111	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28203-003
Batch: 28203
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1200		1	118	15	70-130	20	08/27/2013 2037
tert-Amyl methyl ether (TAME)	50	58		1	115	16	70-130	20	08/27/2013 2037
Benzene	50	59		1	118	15	70-130	20	08/27/2013 2037
tert-Butyl formate (TBF)	250	300		1	118	15	70-130	20	08/27/2013 2037
1,2-Dichloroethane	50	58		1	115	17	70-130	20	08/27/2013 2037
Diisopropyl ether (IPE)	50	59		1	117	15	70-130	20	08/27/2013 2037
3,3-Dimethyl-1-butanol	1000	1200		1	124	15	70-130	20	08/27/2013 2037
Ethanol	5000	5900		1	117	16	70-130	20	08/27/2013 2037
Ethylbenzene	50	61		1	123	13	70-130	20	08/27/2013 2037
Ethyl-tert-butyl ether (ETBE)	50	63		1	126	16	70-130	20	08/27/2013 2037
Methyl tertiary butyl ether (MTBE)	50	58		1	116	18	70-130	20	08/27/2013 2037
Naphthalene	50	62		1	124	16	70-130	20	08/27/2013 2037
tert-butyl alcohol (TBA)	1000	1200		1	123	20	70-130	20	08/27/2013 2037
Toluene	50	60		1	120	13	70-130	20	08/27/2013 2037
Xylenes (total)	100	120		1	120	13	70-130	20	08/27/2013 2037

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		124	70-130
1,2-Dichloroethane-d4		119	70-130
Toluene-d8		126	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OH17005-005MS
Batch: 28203
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	23	5000	5500		5	110	70-130	08/28/2013 0449
tert-Amyl methyl ether (TAME)	ND	250	280		5	113	70-130	08/28/2013 0449
Benzene	0.49	250	300		5	120	70-130	08/28/2013 0449
tert-Butyl formate (TBF)	ND	1300	220	N	5	18	70-130	08/28/2013 0449
1,2-Dichloroethane	ND	250	280		5	113	70-130	08/28/2013 0449
Diisopropyl ether (IPE)	ND	250	290		5	115	70-130	08/28/2013 0449
3,3-Dimethyl-1-butanol	ND	5000	5900		5	117	70-130	08/28/2013 0449
Ethanol	ND	25000	27000		5	106	70-130	08/28/2013 0449
Ethylbenzene	ND	250	310		5	124	70-130	08/28/2013 0449
Ethyl-tert-butyl ether (ETBE)	ND	250	310		5	125	70-130	08/28/2013 0449
Methyl tertiary butyl ether (MTBE)	ND	250	290		5	115	70-130	08/28/2013 0449
Naphthalene	ND	250	290		5	116	70-130	08/28/2013 0449
tert-butyl alcohol (TBA)	13	5000	6600	N	5	131	70-130	08/28/2013 0449
Toluene	ND	250	300		5	121	70-130	08/28/2013 0449
Xylenes (total)	ND	500	610		5	122	70-130	08/28/2013 0449

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		115	70-130
Bromofluorobenzene		121	70-130
Toluene-d8		120	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OH17005-005MD
Batch: 28203
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	23	5000	5700		5	112	2.4	70-130	20	08/28/2013 0510
tert-Amyl methyl ether (TAME)	ND	250	290		5	114	1.2	70-130	20	08/28/2013 0510
Benzene	0.49	250	310		5	122	1.3	70-130	20	08/28/2013 0510
tert-Butyl formate (TBF)	ND	1300	210	N	5	17	4.2	70-130	20	08/28/2013 0510
1,2-Dichloroethane	ND	250	290		5	115	2.3	70-130	20	08/28/2013 0510
Diisopropyl ether (IPE)	ND	250	290		5	117	1.8	70-130	20	08/28/2013 0510
3,3-Dimethyl-1-butanol	ND	5000	6000		5	119	1.5	70-130	20	08/28/2013 0510
Ethanol	ND	25000	25000		5	100	5.9	70-130	20	08/28/2013 0510
Ethylbenzene	ND	250	320		5	128	3.4	70-130	20	08/28/2013 0510
Ethyl-tert-butyl ether (ETBE)	ND	250	310		5	124	0.12	70-130	20	08/28/2013 0510
Methyl tertiary butyl ether (MTBE)	ND	250	290		5	116	1.1	70-130	20	08/28/2013 0510
Naphthalene	ND	250	300		5	120	3.4	70-130	20	08/28/2013 0510
tert-butyl alcohol (TBA)	13	5000	6500		5	129	1.7	70-130	20	08/28/2013 0510
Toluene	ND	250	310		5	125	3.2	70-130	20	08/28/2013 0510
Xylenes (total)	ND	500	620		5	125	2.2	70-130	20	08/28/2013 0510

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		116	70-130
Bromofluorobenzene		122	70-130
Toluene-d8		123	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28205-001
Batch: 28205
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/27/2013 2207
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/27/2013 2207
Benzene	ND		1	5.0	0.20	ug/L	08/27/2013 2207
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/27/2013 2207
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/27/2013 2207
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/27/2013 2207
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/27/2013 2207
Ethanol	ND		1	100	33	ug/L	08/27/2013 2207
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/27/2013 2207
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/27/2013 2207
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/27/2013 2207
Naphthalene	ND		1	5.0	1.7	ug/L	08/27/2013 2207
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/27/2013 2207
Toluene	ND		1	5.0	1.7	ug/L	08/27/2013 2207
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/27/2013 2207

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28205-002
Batch: 28205
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	108	70-130	08/27/2013 2056
tert-Amyl methyl ether (TAME)	50	52		1	105	70-130	08/27/2013 2056
Benzene	50	53		1	106	70-130	08/27/2013 2056
tert-Butyl formate (TBF)	250	270		1	106	70-130	08/27/2013 2056
1,2-Dichloroethane	50	54		1	107	70-130	08/27/2013 2056
Diisopropyl ether (IPE)	50	54		1	108	70-130	08/27/2013 2056
3,3-Dimethyl-1-butanol	1000	1100		1	111	70-130	08/27/2013 2056
Ethanol	5000	5300		1	107	70-130	08/27/2013 2056
Ethylbenzene	50	53		1	107	70-130	08/27/2013 2056
Ethyl-tert-butyl ether (ETBE)	50	56		1	112	70-130	08/27/2013 2056
Methyl tertiary butyl ether (MTBE)	50	51		1	101	70-130	08/27/2013 2056
Naphthalene	50	55		1	109	70-130	08/27/2013 2056
tert-butyl alcohol (TBA)	1000	1000		1	103	70-130	08/27/2013 2056
Toluene	50	54		1	107	70-130	08/27/2013 2056
Xylenes (total)	100	110		1	106	70-130	08/27/2013 2056

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28205-003
Batch: 28205
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	106	2.0	70-130	20	08/27/2013 2120
tert-Amyl methyl ether (TAME)	50	53		1	105	0.40	70-130	20	08/27/2013 2120
Benzene	50	53		1	106	0.12	70-130	20	08/27/2013 2120
tert-Butyl formate (TBF)	250	270		1	107	0.93	70-130	20	08/27/2013 2120
1,2-Dichloroethane	50	54		1	107	0.077	70-130	20	08/27/2013 2120
Diisopropyl ether (IPE)	50	54		1	108	0.17	70-130	20	08/27/2013 2120
3,3-Dimethyl-1-butanol	1000	1100		1	112	0.51	70-130	20	08/27/2013 2120
Ethanol	5000	4900		1	97	9.4	70-130	20	08/27/2013 2120
Ethylbenzene	50	54		1	108	0.99	70-130	20	08/27/2013 2120
Ethyl-tert-butyl ether (ETBE)	50	58		1	115	2.6	70-130	20	08/27/2013 2120
Methyl tertiary butyl ether (MTBE)	50	52		1	105	3.0	70-130	20	08/27/2013 2120
Naphthalene	50	53		1	106	2.4	70-130	20	08/27/2013 2120
tert-butyl alcohol (TBA)	1000	1000		1	101	1.8	70-130	20	08/27/2013 2120
Toluene	50	53		1	106	0.97	70-130	20	08/27/2013 2120
Xylenes (total)	100	110		1	107	0.46	70-130	20	08/27/2013 2120

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OH17005-047MS
Batch: 28205
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	2600	20000	25000		20	114	70-130	08/28/2013 0614
tert-Amyl methyl ether (TAME)	9.0	1000	1100		20	110	70-130	08/28/2013 0614
Benzene	2700	1000	3500		20	82	70-130	08/28/2013 0614
tert-Butyl formate (TBF)	ND	5000	2700	N	20	55	70-130	08/28/2013 0614
1,2-Dichloroethane	ND	1000	1200		20	116	70-130	08/28/2013 0614
Diisopropyl ether (IPE)	ND	1000	1100		20	114	70-130	08/28/2013 0614
3,3-Dimethyl-1-butanol	ND	20000	23000		20	116	70-130	08/28/2013 0614
Ethanol	ND	100000	110000		20	113	70-130	08/28/2013 0614
Ethylbenzene	ND	1000	1200		20	116	70-130	08/28/2013 0614
Ethyl-tert-butyl ether (ETBE)	ND	1000	1200		20	116	70-130	08/28/2013 0614
Methyl tertiary butyl ether (MTBE)	1300	1000	2300		20	101	70-130	08/28/2013 0614
Naphthalene	54	1000	1200		20	110	70-130	08/28/2013 0614
tert-butyl alcohol (TBA)	510	20000	24000		20	116	70-130	08/28/2013 0614
Toluene	57	1000	1200		20	114	70-130	08/28/2013 0614
Xylenes (total)	330	2000	2600		20	113	70-130	08/28/2013 0614

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OH17005-047MD
Batch: 28205
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	2600	20000	24000		20	108	4.8	70-130	20	08/28/2013 0637
tert-Amyl methyl ether (TAME)	9.0	1000	1100		20	107	3.6	70-130	20	08/28/2013 0637
Benzene	2700	1000	3500		20	80	0.77	70-130	20	08/28/2013 0637
tert-Butyl formate (TBF)	ND	5000	2600	N	20	52	6.1	70-130	20	08/28/2013 0637
1,2-Dichloroethane	ND	1000	1100		20	114	1.9	70-130	20	08/28/2013 0637
Diisopropyl ether (IPE)	ND	1000	1100		20	109	4.2	70-130	20	08/28/2013 0637
3,3-Dimethyl-1-butanol	ND	20000	22000		20	110	5.1	70-130	20	08/28/2013 0637
Ethanol	ND	100000	110000		20	108	4.7	70-130	20	08/28/2013 0637
Ethylbenzene	ND	1000	1100		20	113	2.2	70-130	20	08/28/2013 0637
Ethyl-tert-butyl ether (ETBE)	ND	1000	1200		20	115	1.0	70-130	20	08/28/2013 0637
Methyl tertiary butyl ether (MTBE)	1300	1000	2300		20	96	2.0	70-130	20	08/28/2013 0637
Naphthalene	54	1000	1100		20	108	1.9	70-130	20	08/28/2013 0637
tert-butyl alcohol (TBA)	510	20000	23000		20	114	1.9	70-130	20	08/28/2013 0637
Toluene	57	1000	1200		20	113	1.2	70-130	20	08/28/2013 0637
Xylenes (total)	330	2000	2500		20	111	1.8	70-130	20	08/28/2013 0637

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28286-001
Batch: 28286
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/28/2013 1331

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		85	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28286-002
Batch: 28286
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Methyl tertiary butyl ether (MTBE)	50	54		1	108	70-130	08/28/2013 1200

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		88	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28286-003
Batch: 28286
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Methyl tertiary butyl ether (MTBE)	50	53		1	106	2.1	70-130	20	08/28/2013 1222

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28289-001
Batch: 28289
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/28/2013 1027
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/28/2013 1027
Benzene	ND		1	5.0	0.20	ug/L	08/28/2013 1027
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/28/2013 1027
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/28/2013 1027
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/28/2013 1027
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/28/2013 1027
Ethanol	ND		1	100	33	ug/L	08/28/2013 1027
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/28/2013 1027
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/28/2013 1027
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/28/2013 1027
Naphthalene	ND		1	5.0	1.7	ug/L	08/28/2013 1027
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/28/2013 1027
Toluene	ND		1	5.0	1.7	ug/L	08/28/2013 1027
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/28/2013 1027

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28289-002
Batch: 28289
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1200		1	122	70-130	08/28/2013 0924
tert-Amyl methyl ether (TAME)	50	56		1	113	70-130	08/28/2013 0924
Benzene	50	57		1	114	70-130	08/28/2013 0924
tert-Butyl formate (TBF)	250	290		1	117	70-130	08/28/2013 0924
1,2-Dichloroethane	50	57		1	113	70-130	08/28/2013 0924
Diisopropyl ether (IPE)	50	57		1	115	70-130	08/28/2013 0924
3,3-Dimethyl-1-butanol	1000	1200		1	120	70-130	08/28/2013 0924
Ethanol	5000	5800		1	116	70-130	08/28/2013 0924
Ethylbenzene	50	60		1	119	70-130	08/28/2013 0924
Ethyl-tert-butyl ether (ETBE)	50	63		1	126	70-130	08/28/2013 0924
Methyl tertiary butyl ether (MTBE)	50	59		1	117	70-130	08/28/2013 0924
Naphthalene	50	55		1	110	70-130	08/28/2013 0924
tert-butyl alcohol (TBA)	1000	1200		1	122	70-130	08/28/2013 0924
Toluene	50	58		1	117	70-130	08/28/2013 0924
Xylenes (total)	100	120		1	117	70-130	08/28/2013 0924

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		124	70-130
1,2-Dichloroethane-d4		118	70-130
Toluene-d8		125	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28289-003
Batch: 28289
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	107	13	70-130	20	08/28/2013 0945
tert-Amyl methyl ether (TAME)	50	53		1	107	5.1	70-130	20	08/28/2013 0945
Benzene	50	54		1	108	4.6	70-130	20	08/28/2013 0945
tert-Butyl formate (TBF)	250	280		1	111	5.7	70-130	20	08/28/2013 0945
1,2-Dichloroethane	50	52		1	104	8.0	70-130	20	08/28/2013 0945
Diisopropyl ether (IPE)	50	55		1	109	4.7	70-130	20	08/28/2013 0945
3,3-Dimethyl-1-butanol	1000	1100		1	113	6.5	70-130	20	08/28/2013 0945
Ethanol	5000	5400		1	108	7.4	70-130	20	08/28/2013 0945
Ethylbenzene	50	57		1	113	5.3	70-130	20	08/28/2013 0945
Ethyl-tert-butyl ether (ETBE)	50	58		1	116	7.8	70-130	20	08/28/2013 0945
Methyl tertiary butyl ether (MTBE)	50	56		1	113	3.9	70-130	20	08/28/2013 0945
Naphthalene	50	52		1	103	6.6	70-130	20	08/28/2013 0945
tert-butyl alcohol (TBA)	1000	1100		1	111	9.8	70-130	20	08/28/2013 0945
Toluene	50	56		1	111	4.6	70-130	20	08/28/2013 0945
Xylenes (total)	100	110		1	111	5.2	70-130	20	08/28/2013 0945

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		116	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		118	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28291-001
Batch: 28291
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	08/28/2013 1035
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/28/2013 1035
Benzene	ND		1	5.0	0.20	ug/L	08/28/2013 1035
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	08/28/2013 1035
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/28/2013 1035
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	08/28/2013 1035
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	08/28/2013 1035
Ethanol	ND		1	100	33	ug/L	08/28/2013 1035
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/28/2013 1035
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	08/28/2013 1035
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/28/2013 1035
Naphthalene	ND		1	5.0	1.7	ug/L	08/28/2013 1035
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	08/28/2013 1035
Toluene	ND		1	5.0	1.7	ug/L	08/28/2013 1035
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/28/2013 1035

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28291-002
Batch: 28291
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	108	70-130	08/28/2013 0902
tert-Amyl methyl ether (TAME)	50	52		1	103	70-130	08/28/2013 0902
Benzene	50	50		1	100	70-130	08/28/2013 0902
tert-Butyl formate (TBF)	250	260		1	103	70-130	08/28/2013 0902
1,2-Dichloroethane	50	51		1	102	70-130	08/28/2013 0902
Diisopropyl ether (IPE)	50	52		1	104	70-130	08/28/2013 0902
3,3-Dimethyl-1-butanol	1000	1100		1	112	70-130	08/28/2013 0902
Ethanol	5000	5800		1	116	70-130	08/28/2013 0902
Ethylbenzene	50	51		1	102	70-130	08/28/2013 0902
Ethyl-tert-butyl ether (ETBE)	50	56		1	113	70-130	08/28/2013 0902
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	08/28/2013 0902
Naphthalene	50	52		1	105	70-130	08/28/2013 0902
tert-butyl alcohol (TBA)	1000	1000		1	105	70-130	08/28/2013 0902
Toluene	50	53		1	105	70-130	08/28/2013 0902
Xylenes (total)	100	100		1	101	70-130	08/28/2013 0902

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28291-003
Batch: 28291
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	105	2.1	70-130	20	08/28/2013 0925
tert-Amyl methyl ether (TAME)	50	53		1	105	1.5	70-130	20	08/28/2013 0925
Benzene	50	50		1	100	0.68	70-130	20	08/28/2013 0925
tert-Butyl formate (TBF)	250	260		1	103	0.041	70-130	20	08/28/2013 0925
1,2-Dichloroethane	50	51		1	103	0.61	70-130	20	08/28/2013 0925
Diisopropyl ether (IPE)	50	52		1	104	0.067	70-130	20	08/28/2013 0925
3,3-Dimethyl-1-butanol	1000	1100		1	111	0.80	70-130	20	08/28/2013 0925
Ethanol	5000	5600		1	112	3.7	70-130	20	08/28/2013 0925
Ethylbenzene	50	51		1	102	0.069	70-130	20	08/28/2013 0925
Ethyl-tert-butyl ether (ETBE)	50	57		1	114	1.5	70-130	20	08/28/2013 0925
Methyl tertiary butyl ether (MTBE)	50	52		1	104	4.4	70-130	20	08/28/2013 0925
Naphthalene	50	53		1	106	0.91	70-130	20	08/28/2013 0925
tert-butyl alcohol (TBA)	1000	1100		1	105	0.68	70-130	20	08/28/2013 0925
Toluene	50	50		1	100	4.9	70-130	20	08/28/2013 0925
Xylenes (total)	100	100		1	101	0.088	70-130	20	08/28/2013 0925

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28304-001
Batch: 28304
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/29/2013 0233
Toluene	ND		1	5.0	1.7	ug/L	08/29/2013 0233

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		112	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28304-002
Batch: 28304
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	08/29/2013 0124
Toluene	50	50		1	101	70-130	08/29/2013 0124

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28304-003
Batch: 28304
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Methyl tertiary butyl ether (MTBE)	50	56		1	111	12	70-130	20	08/29/2013 0146
Toluene	50	56		1	112	11	70-130	20	08/29/2013 0146

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		118	70-130
1,2-Dichloroethane-d4		111	70-130
Toluene-d8		118	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28355-001
Batch: 28355
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		1	5.0	0.20	ug/L	08/29/2013 1326
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/29/2013 1326

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28355-002
Batch: 28355
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	49		1	99	70-130	08/29/2013 1221
Methyl tertiary butyl ether (MTBE)	50	48		1	96	70-130	08/29/2013 1221

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		109	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28355-003
Batch: 28355
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	50	49		1	98	0.76	70-130	20	08/29/2013 1242
Methyl tertiary butyl ether (MTBE)	50	48		1	95	1.3	70-130	20	08/29/2013 1242

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		109	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: OQ27586-001
Batch: 27586
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	08/21/2013 0409

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		88	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: OQ27586-002
Batch: 27586
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.25		1	101	60-140	08/21/2013 0430

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: OH17005-002MS
Batch: 27586
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	9.9	0.25	9.2		1	137	60-140	08/21/2013 0723

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		118	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: OH17005-002MD
Batch: 27586
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	9.9	0.24	8.7	N	1	-49	5.1	60-140	20	08/21/2013 0744

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		117	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: OQ27588-001
Batch: 27588
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	08/22/2013 0740

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: OQ27588-002
Batch: 27588
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.27		1	108	60-140	08/22/2013 0801

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: OH17005-020MS
Batch: 27588
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.25	0.24		1	100	60-140	08/22/2013 1025

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: OH17005-020MD
Batch: 27588
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 950

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.25		1	102	1.7	60-140	20	08/22/2013 1047

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: OQ27652-001
Batch: 27652
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	08/23/2013 1542

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		78	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: OQ27652-002
Batch: 27652
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.26		1	104	60-140	08/23/2013 1604

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: OH17005-041MS
Batch: 27652
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.29		1	118	60-140	08/23/2013 1833

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: OH17005-041MD
Batch: 27652
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.21	+	1	87	31	60-140	20	08/23/2013 1854

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		70	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: OQ27653-001
Batch: 27653
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	08/24/2013 0033

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: OQ27653-002
Batch: 27653
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.28		1	111	60-140	08/24/2013 0054

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: OH17005-065MS
Batch: 27653
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.37	N	1	151	60-140	08/24/2013 0446

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		117	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: OH17005-065MD
Batch: 27653
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/20/2013 2125

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.25	0.28	+	1	113	26	60-140	20	08/24/2013 0507

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: OQ27698-001
Batch: 27698
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/21/2013 1150

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	08/22/2013 0017

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: OQ27698-002
Batch: 27698
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/21/2013 1150

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.27		1	107	60-140	08/22/2013 0038

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: OH17005-076MS
Batch: 27698
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/21/2013 1150

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	2.7	0.24	2.8	N	1	21	60-140	08/22/2013 0202

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		110	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: OH17005-076MD
Batch: 27698
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/21/2013 1150

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	2.7	0.25	2.8	N	1	4.3	1.4	60-140	20	08/22/2013 0223

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody Record

Number 33366

Client: BLE	Report to Contact: Dan Osbourne	Sampler (Printed Name): Dan Osbourne, Jr. Steven Clark, Reid A. Debnam & Jason A. Ingram
Address: 6084 Fairview Court	Telephone No. / Fax No. / Email: dan.osbourne@bleengr.com	Waybill No.
City: Greenville / State: SC / Zip Code: 29615		
Project Name: Country Side 2		
Project Number: 313-6940-05	P.O. Number:	

Preservative: 1. Unpres 4. HNO3 7. NaOH; 2. NaOH/ZnA 5. HCl; 3. H2SO4 6. Na Thio

Matrix: GW, DW, WW, S, Other

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab	Composite	GW	DW	WW	S	Other	Analysis: 8260B/CLP (Pace)	8260B/CLP (TCL)	Remarks / Cooler ID
06742-MW2-1	3/13/13	1305	G	X						X	X	
06742-MW2-1A	3/13/13	1020										Temp blk received w/ MW-1A on 3/14/13
06742-MW3-1A DUP	3/13/13	1022										Temp blk labeled w/ MW-1A Dup on COC
06742-MW-1X	3/13/13	1601										
06742-MW-2	3/13/13	1425										
06742-MW2-2	3/13/13	1305										
06742-MW-2X	3/13/13	1410										
06742-MW2-3	3/13/13	1410										
06742-MW-4	3/14/13	1135										
06742-MW2-4	3/13/13	1615	↓	↓						↓	↓	* Sheen noted.

Turn Around Time Required (Prior lab approval required for expedited TAT): Standard / Rush (Please Specify)

Sample Disposal: Return to Client / Dispose by Lab

QC Requirements (Specify)

Possible Hazard Identification: Non-Hazard / Flammable / Skin Irritant / Poison / Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	3/14/13	1337	1. Received by	3/14/13	1337
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	3/14/13	1633	4. Laboratory Received by	3/14/13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Circle) Y / N; Custody Seal Y / N / NA; Receipt Temp. 1.0 °C; Temp. Blank Y / N

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SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 11

Page 1 of 1
Replaces Date: 01/28/13
Effective Date: 04/18/13

Sample Receipt Checklist (SRC)

Client: BLE Cooler Inspected by/date: EA 8/17/13 Lot #: OH A005

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Airborne Exp ☐ Other

Yes ☐	No ☑		1. Were custody seals present on the cooler?
Yes ☐	No ☐		2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt: 1459/1.0 °C 1163/1.0 °C ___/___ °C ___/___ °C
Method: ☐ Temperature Blank ☑ Against Bottles
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed?
Yes ☑	No ☐		7. Was collection date & time listed?
Yes ☑	No ☐		8. Were tests to be performed listed on the COC?
Yes ☑	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☐	No ☑		10. Did all container label information (ID, date, time) agree with COC? -041
Yes ☑	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		12. Was adequate sample volume available?
Yes ☐	No ☑		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		14. Were any samples containers missing?
Yes ☐	No ☑		15. Were there any excess samples not listed on COC?
Yes ☑	No ☐	NA ☐	16. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)
-045 (3) -060 (3) -065 (1) -069 (2)

Sample(s) -013 (2), -024 (1), -042 (1), were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/phenol

Sample labels verified by: _____ Date: _____

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐

SESI employee: _____ Date of response: _____

Comments: -041 vials labelled "MW-26 DD" but time of collection same as on COC
-061 (3) vials labelled MW-53 but time of collection same as MW52

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Chain of Custody Record

Number 33367

Client: BLE	Report to Contact: Don Ushmorine	Sampler (Printed Name): Don A. Ushmorine, Brian A. Shealy, Reid A. Abernathy	Quote No.
Address: 6004 Market Court	Telephone No. / Fax No. / Email: dushmorine@bleinc.com	Waybill No.	Page: 2 of 3
City: Greenville	State: SC	Zip Code: 29605	
Project Name: County Site 2			
Project Number: J13-09410-05	P.O. Number:		

Preservative: 1. Unpres. 2. NaOH/ZnAc 3. H2SO4 4. HNO3 5. HCl 6. Na Thio. 7. NaOH

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab	Composite	Matrix: GW	DW	WW	S	Other	Analysis: 8260B/8260B PH+Lead Scan	BTEX (8260)	Number of Containers	Bottle (See Instructions on back)	Preservative	Lot No.	Remarks / Cooler ID
06742-MW2-7DUP	8/13/13	1414	G	X						X	X	3	4	5	OH 17005	* Sheen noted
06742-MW2-4R	8/13/13	1535														* Sheen noted
06742-MW-5	8/14/13	1357														
06742-MW-6	8/13/13	1445														
06742-MW-6 DUP	8/13/13	1446														
06742-MW-6X	8/15/13	1340														
06742-MW-7	8/13/13	1130														* Sheen noted
06742-MW-7 DUP	8/13/13	1131														* Sheen noted
06742-MW-7R	8/13/13	1230														
06742-MW-9	8/13/13	1231	↓	↓						↓	↓					

Turn Around Time Required (Prior lab approval required for expedited TAT): ☑ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

QC Requirements (Specify):

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	8/16/13	1338	1. Received by	8/16/13	1338
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	8/16/13	1633	4. Laboratory Received by	8/13/13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Circle) ☑ Yes ☐ No ☐ Ice Pack | Receipt Temp: 1-0 °C | Temp. Blank: ☐ Y / ☐ N

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Chain of Custody Record

Number 33368

Client	Report to Contact	Sampler (Printed Name)	Quote No.
BLE	Dan Osborne	NAD, FAJ, DRM, WSC	
Address	Telephone No. / Fax No. / Email	Waybill No.	Page 3 of 4
City / State / Zip Code	Preservative: 1. Ascorbic 2. NaOH/ZnA 3. HCL 4. H2SO4 5. HNO3 6. NaThio.		Number of Containers / Bottle (See instructions on back) / Preservative
Project Name: Country Site 2			Lot No. 01 17005
Project Number: TB-6510-05	P.O. Number	Matrix: GW DW WW S Other	Analysis: 8260B (Full List + MNA + Ethanol + 1,4-Dioxane) (Bottle #3) / Ethanol (Bottle #4)
Sample ID / Description (Containers for each sample may be combined on one line)	Date / Time / G-Grab C-Composite		Remarks / Cooler ID
06742 - MW-9R	8/13/13 1304	G X	X X
06742 - MW-11	8/14/13 1123		
06742 - MW12-11	8/14/13 1056		
06742 - MW-12	8/14/13 1454		
06742 - MW-13R	8/14/13 1625		
06742 - MW-14R	8/14/13 1251		
06742 - MW-14R2	8/14/13 1245		
06742 - MW-15R	8/13/13 1610		
06742 - MW-16DD	8/13/13 1100		
06742 - MW-17R	8/13/13 1335	G G	X X

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Dispose by Lab

QC Requirements (Specify):

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	8/16/13	1332	1. Received by	8/16/13	1838
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	8/16/13	1933	4. Laboratory Received by	8-16-13	1933

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Check): ☐ Yes ☐ No ☐ Ice Pack — Receipt Temp: 1.0 °C — Temp. Blank: ☐ Y / ☐ N

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Number 33369

Client: DLE	Report to Contact: Don Osborne	Sampler (Printed Name): RAD, IAI, DRM, WSC	Quote No
Address	Telephone No. / Fax No. / Email	Waybill No.	Page 4 of 9
City / State / Zip Code	Preservative: 1. Unpres 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCl 6. Na Thio. 7. NaOH		Number of Containers
Project Name: Country Side 2			Bottle (See instructions on back)
Project Number: JTI-6940-05	P.O Number		Preservative
			Lot No: 0H17005

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis	8/16 (8/16 TEX + MTBE + Cond. 3 ...)	8/16 (8/16 TEX)	Remarks / Cooler ID
06742-MW-18D	8/14/13	1350	G	X						X	X	
06742-MW-19I	8/15/13	0910										
06742-MW-20D	8/15/13	1045										
06742-MW-21I	8/15/13	0945										
06742-MW-22D	8/15/13	1058										
06742-MW-23	8/13/13	0945										
06742-MW-24	8/13/13	0940										
06742-MW-25	8/13/13	1025										* Sheen noted
06742-MW-25 DUP	8/13/13	1026										* Sheen noted
06742-MW-26I	8/14/13	1620	↓	↓						↓	↓	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☑ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☑ Non Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: [signature]	8/16/13	1338	1. Received by: [signature]	8/16/13	1338
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by	8/16/13	
4. Relinquished by: [signature]	8/16/13	1633	4. Laboratory Received by: [signature]	8/16/13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check) ☑ Yes ☐ No Ice Pack | Receipt Temp 1.0 °C | Temp. Blank ☐ Y / ☐ N

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Chain of Custody Record

Number 33370

Client: RE	Report to Contact: Dan Osborne	Sampler (Printed Name): RAB, JH-T, DMS, BRAH	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page: 5 of 9
City / State / Zip Code	Preservative: 1. Unpres. 2. NaOH/ZnA 3. NaOH 4. HNO3 5. HCl 6. Na2S2O3		Number of Containers
Project Name: Country Side Z			Bottle (See Instructions on back)
Project Number: 713-6749-05	P.O. Number		Preservative
			Lot No.: 0417005

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab	Composite	Matrix: GW	DW	WW	S	Other	Analysis: 8260B/BTEX + MTBE + Naphthalene + 2-MeNaph	MNA (full)		Remarks / Cooler ID
06742-MW-28D	8/15/13	1213	G		X					X	X		MS/MSD for 3rd qtr MW-28D, MW-31D
06742-MW-29	8/14/13	0930											
06742-MW-30I	8/14/13	1412											
06742-MW-31D	8/15/13	1130											
06742-MW-32	8/14/13	1004											
06742-MW-35I	8/15/13	1200											
06742-MW-36D	8/15/13	1054											
06742-MW-39I	8/15/13	1228											
06742-MW-40D	8/15/13	1029											
06742-MW-99DD	8/15/13	0956	↓	↓	↓					↓	↓		

Turn Around Time Required (Prior lab approval required for expedited TAT): ☑ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Samples	8/16/13	1338	1. Received by	8/16/13	1338
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date 8/16/13	Time 1633	4. Laboratory Received by	Date 8-16-13	Time 1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack | Receipt Temp: 1.0 °C | Temp. Blank ☐ Y / ☐ N

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Chain of Custody Record

Number 33371

Client: BLC	Report to Contact: Don Osbourne	Sampler (Printed Name): RAB, JAT, HCC, DRM	Quote No.
Address	Telephone No. / Fax No. / Email:	Waybill No.	Page: 6 of 9
City / State / Zip Code	Preservative: 1. Cool 2. $NaOH/ZnAc$ 3. H_2SO_4 4. HNO_3 5. HCL 6. Na Thio. 7. NaOH		Number of Containers / Bottle (See Instructions on back) / Preservative
Project Name: County Sub 2			Lot No.: 0H17005
Project Number: JIB - 69498 - 05	P.O. Number	Matrix: GW, DW, WW, S, Other	Analysis: Pb, SO_4, Br, Cl, F, NO_3, NO_2, PO_4, Specific Conductance (EC); Total (EC)

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab/Comp	GW	DW	WW	S	Other	Pb, SO_4, Br, Cl, F, NO_3, NO_2, PO_4, Specific Conductance (EC)	Total (EC)	Remarks / Cooler ID
06742 - MW - 38	8/14/13	1126	G	X					X	X	
06742 - MW - 39 I	8/14/13	1540									
06742 - MW - 40D	8/14/13	1621									
06742 - MW - 41I	8/15/13	1225									
06742 - MW - 42D	8/15/13	0918									
06742 - MW - 43	8/14/13	1522									
06742 - MW - 44I	8/15/13	1259									
06742 - MW - 46	8/14/13	0945									
06742 - MW - 47	8/14/13	1102									
06742 - MW - 49	8/14/13	1320	↓	↓					↓	↓	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☒ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposed by Lab

QC Requirements (Specify):

Possible Hazard Identification: ☐ Non Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	8/16/13	1378	1. Received by	8/16/13	1378
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	8/16/13	1633	4. Laboratory Received by	8-16-13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Circle): ☐ Yes ☐ No ☐ Ice Pack — Receipt Temp. 1.0 °C — Temp. Blank ☐ Y / ☐ N

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Chain of Custody Record

Number 33372

Client: BLE	Report to Contact: Dan Gsheume	Sampler (Printed Name): ZAD, USL, IMS, LMW	Quote No:
Address:	Telephone No. / Fax No. / Email:	Waybill No:	Page: 7 of 9
City:	State:	Zip Code:	Number of Containers
Project Name: County Site 2	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCl 6. Na2S2O3 7. NaOH		Bottle (See instructions on back)
Project Number: J13-6940-05	P.O. Number:		Preservative

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab or Composite	Matrix: GW	DW	WW	S	Other	Analysis: Chloride (EPA 300.0)	Nitrate-Nitrite (as N) (EPA 353.2)	Lot No. / Remarks / Cooler ID
06742-MW-52	8/13/13	1440	G	X					X	X	OH17005
06742-MW-53	8/13/13	1524									
06742-MW-54	8/13/13	1105									
06742-MW-55	8/14/13	1450									
06742-MW-57I	8/14/13	1458									
06742-MW-58	8/14/13	1330									
06742-MW-59	8/14/13	1355									
06742-MW-61	8/13/13	1455									
06742-MW-62	8/13/13	1022									
06742-MW-63	8/14/13	1127	↓	↓					↓	↓	

Some wells may be labeled as MW-57

Turn Around Time Required (Prior lab approval required for expedited TAT): ☑ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify):

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	8/16/13	1332	1. Received by	8/16/13	1332
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	8/16/13	1633	4. Laboratory Received by	8/16/13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check): ☐ Yes ☐ No ☐ Ice Pack | Receipt Temp. 1.2 °C | Temp. Blank ☐ Y / ☐ N

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Chain of Custody Record

Number 33373

Client	Report to Contact	Sampler (Printed Name)	Quote No.
BLE	Dan Osborne	ZAB, JAT, JDC, DRW	
Address	Telephone No. / Fax No. / Email	Waybill No.	Page 8 of 9
City / State / Zip Code	Preservative: 1. Ungres 4. HNO3 7. NaOH; 2. NaOH/ZnA 5. HCL; 3. H2SO4 6. Na Thio.		Number of Containers / Bottle (See instructions on back) / Preservative
Project Name: Country Side 2			Lot No. OH170005

Project Number	P.O. Number	Grab/Comp	Matrix	Analysis	Remarks / Cooler ID
Sample ID / Description (Containers for each sample may be combined on one line)	Date / Time	G=Grab C=Composite	GW / DW / WW / S / Oil	Volatiles (8260 HHS List) / dBH (EDB)	
06742-MW-64	8/4/13 1220	G	X	X	
06742-MW-65	8/5/13 1345				
06742-MW-66	8/5/13 1357				
06742-MW-67	8/5/13 1402				
06742-MW-68	8/6/13 0940				
06742-MW-69	8/4/13 1310				
06742-MW-70	8/5/13 1302				
SW-1	8/4/13 1340				
Field Blank 1	8/3/13 1020				
Field Blank 2	8/4/13 1030	↓	↓	↓	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	8/6/13	1238	1. Received by	8/6/13	13:38
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	8/6/13	1633	4. Laboratory Received by	8/6/13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Circle): ☐ Yes ☐ No ☐ Ice Pack — Receipt Temp. 1.2 °C — Temp. Blank ☐ Y / ☐ N

Level 1 Report v2.1

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 33374

Client: BLE	Report to Contact: Don Osbourne	Sampler (Printed Name): RAD, IAI, HSL, DRM	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page 9 of 9
City / State / Zip Code	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. NaThio 7. NaOH		Number of Containers
Project Name: Country Side 2			Bottle (See Instructions on back)
Project Number: J13-6940 05	P.O Number		Preservative
			Lot No. OH 17005

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	S=Grab C=Composite	Matrix: SW	DW	WW	S	Other	Analysis	8/1/13 (8/3/13+8/4+8/5)	8011 (EDB)	Remarks / Cooler ID
Field Blank 3	8/15/13	1500	G	X						X	X	
Trip Blank 1	—	—	—							↓	↓	
Trip Blank 2	—	—	—							↓	↓	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☑ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: [signature]	8/16/13	1338	1. Received by: [signature]	8/16/13	1338
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by: [signature]	8/16/13	1633	4. Laboratory Received by: [signature]	8-16-13	1633

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack | Receipt Temp. 1-4 °C | Temp. Blank ☐ Y / ☐ N

APPENDIX D

SCDHEC CONTRACTOR CHECKLIST

Contractor Checklist

For each report submitted to the UST Management Division, the contractor will be required to verify that all data elements for the required scope of work have been provided. For items not required for the scope of work, the N/A box should be checked. For items required and not completed or provided, the No box should be checked and a thorough description of the reason must be provided.

Item #	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	✓		
2	Is UST Owner/Operator name, address, & phone number provided?	✓		
3	Is name, address, & phone number of current property owner provided?	✓		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	✓		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			✓
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	✓		
7	Has the facility history been summarized?	✓		
8	Has the regional geology and hydrogeology been described?			✓
9	Are the receptor survey results provided as required?			✓
10	Has current use of the site and adjacent land been described?	✓		
11	Has the site-specific geology and hydrogeology been described?			✓
12	Has the primary soil type been described?			✓
13	Have field screening results been described?			✓
14	Has a description of the soil sample collection and preservation been detailed?			✓
15	Has the field screening methodology and procedure been detailed?			✓
16	Has the monitoring well installation and development dates been provided?			✓
17	Has the method of well development been detailed?			✓
18	Has justification been provided for the locations of the monitoring wells?			✓
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			✓
20	Has the groundwater sampling methodology been detailed?	✓		
21	Have the groundwater sampling dates and groundwater measurements been provided?	✓		
22	Has the purging methodology been detailed?	✓		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete?	✓		
24	If free-product is present, has the thickness been provided?	✓		
25	Does the report include a brief discussion of the assessment done and the results?	✓		
26	Does the report include a brief discussion of the aquifer evaluation and results?			✓
27	Does the report include a brief discussion of the fate & transport models used?			✓

Item #	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			✓
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			✓
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			✓
31	Have recommendations for further action been provided and explained?	✓		
32	Has the soil analytical data for the site been provided in tabular format?			✓
33	Has the potentiometric data for the site been provided in tabular format?	✓		
34	Has the current and historical laboratory data been provided in tabular format?	✓		
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			✓
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			✓
37	Has the topographic map been provided with all required elements? (Figure 1)	✓		
38	Has the site base map been provided with all required elements? (Figure 2)	✓		
39	Have the CoC site maps been provided?	✓		
40	Has the site potentiometric map been provided?	✓		
41	Have the geologic cross-sections been provided?			✓
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			✓
43	Has the site survey been provided and include all necessary elements? (Appendix A)			✓
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements?	✓		
45	Is the laboratory performing the analyses properly certified?	✓		
46	Has the tax map been included with all necessary elements? (Appendix C)			✓
47	Have the soil boring/field screening logs been provided?			✓
48	Have the well completion logs and SCDHEC Form 1903 been provided?			✓
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			✓
50	Have the disposal manifests been provided?	✓		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			✓
52	Has all fate and transport modeling been provided? (Appendix I)			
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			✓
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided?	✓		

Explanation for missing and incomplete information?

Countryside 2- Post-ACA data
UST Permit #06742

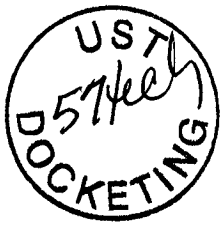
	AR	MR
MW-1	5/8/07	8/13/13
DTW	well	well
Benzene	dry	dry
Toluene		
Ethylbenzene		
Xylenes		
MTBE		
Naphthalene		
DCA		
EDB		
DIPE		
TAA		
TAME		
TBA		
Lead		

MWR-1	5/8/07	8/13/13
DTW	**FP**	29.65
Benzene	(1.25')	**38000**
Toluene		**48000**
Ethylbenzene		**3500**
Xylenes		**19000**
MTBE		**45000**
Naphthalene		**1000**
DCA		**<2500**
EDB		**1.50**
DIPE		**<2500**
TAA		**73000**
TAME		**180**
TBA		**10000**
Lead		na

MWR-1A	5/8/07	8/13/13
DTW	33.23	30.05
Benzene	<5	**38000**
Toluene	<5	**63000**
Ethylbenzene	<5	**3300**
Xylenes	<15	**30000**
MTBE	<5	**250000**
Naphthalene	10	**1000**
DCA	<5	**<2500**
EDB	<0.02	**9.90**
DIPE	<5	**1800**
TAA	<100	**66000**
TAME	<10	**1400**
TBA	<50	**13000**
Lead	<5	na

MW-2	5/8/07	8/13/13
DTW	well	27.38
Benzene	dry	<1
Toluene		<5
Ethylbenzene		<5
Xylenes		<5
MTBE		<5
Naphthalene		<5
DCA		<5
EDB		<0.02
DIPE		<5
TAA		23
TAME		<10
TBA		13
Lead		na

MWR-2	5/8/07	8/13/13
DTW	30.63	27.05
Benzene	**58**	7
Toluene	170	19
Ethylbenzene	56	<50
Xylenes	<15	38
MTBE	<5	**<50**
Naphthalene	16	**<50**
DCA	<5	**<50**
EDB	<0.02	<0.02
DIPE	<5	<50
TAA	**540**	140
TAME	<10	<100
TBA	<50	<200
Lead	<5	na



MW-3	5/8/07	8/13/13
DTW	well	well
Benzene	dry	dry
Toluene		
Ethylbenzene		
Xylenes		
MTBE		
Naphthalene		
DCA		
EDB		
DIPE		
TAA		
TAME		
TBA		
Lead		

MWR-3	5/8/07	8/13/13
DTW	30.81	27.51
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	<5	<5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	<5	na

MW-4	5/8/07	8/13/13
DTW	25.74	18.40
Benzene	**12000**	**8500**
Toluene	**31000**	**4900**
Ethylbenzene	**5000**	650
Xylenes	**27200**	4600
MTBE	**3900**	**8300**
Naphthalene	**1600**	**300**
DCA	**<250**	**180**
EDB	**<0.02**	**0.13**
DIPE	**<250**	**<500**
TAA	**16000**	**15000**
TAME	**<500**	20
TBA	**<2500**	**3200**
Lead	**58**	na

MWR-4	5/8/07	8/13/13
DTW	**FP**	24.50
Benzene	(0.29')	**28000**
Toluene		**43000**
Ethylbenzene		**3500**
Xylenes		**20000**
MTBE		**7100**
Naphthalene		**1200**
DCA		**<2500**
EDB		**0.81**
DIPE		**<2500**
TAA		**36000**
TAME		**<5000**
TBA		**<10000**
Lead		na

MWR-4R	5/8/07	8/13/13
DTW	**FP**	24.52
Benzene	(0.58')	**13000**
Toluene		**24000**
Ethylbenzene		**2400**
Xylenes		**14000**
MTBE		**540**
Naphthalene		**820**
DCA		**<1000**
EDB		**0.41**
DIPE		**<1000**
TAA		**19000**
TAME		**<2000**
TBA		**1400**
Lead		na

MW-5	5/8/07	8/13/13
DTW	14.51	11.66
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	<5	<5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	<5	na

MW-6	5/8/07	8/13/13
DTW	27.49	24.28
Benzene	**16000**	**5000**
Toluene	**14000**	**9200**
Ethylbenzene	**3800**	470
Xylenes	**25000**	7200
MTBE	**850**	**<1000**
Naphthalene	**1800**	**350**
DCA	**<500**	**<1000**
EDB	**0.26**	<0.02
DIPE	**<500**	**<1000**
TAME	**<1000**	**<2000**
TAA	**<10000**	**1400**
TBA	**<5000**	**<4000**
Lead	**28**	na

MW-7	5/8/07	8/13/13
DTW	31.14	28.01
Benzene	**12000**	**1300**
Toluene	**38000**	**7700**
Ethylbenzene	**24000**	**4600**
Xylenes	**141000**	**31000**
MTBE	**1300**	**<2500**
Naphthalene	**8700**	**1500**
DCA	**<1200**	**<2500**
EDB	<0.02	<0.02
DIPE	**<1200**	**<2500**
TAA	**<25000**	**<10000**
TAME	**<2500**	**<5000**
TBA	**<12000**	**<10000**
Lead	**72**	na

MW-7R	5/8/07	8/13/13
DTW	31.57	28.41
Benzene	**6100**	**270**
Toluene	**19000**	**5700**
Ethylbenzene	**4300**	**2000**
Xylenes	**23000**	**11000**
MTBE	**<500**	**<500**
Naphthalene	**1600**	**610**
DCA	**<500**	**<500**
EDB	<0.02	<0.02
DIPE	**<500**	**<500**
TAA	**11000**	**<2000**
TAME	**<1000**	**<1000**
TBA	**<5000**	**<2000**
Lead	<5	na

MW-8	5/8/07	8/13/13
DTW	**FP**	**FP**
Benzene	(0.44')	(0.58')
Toluene		
Ethylbenzene		
Xylenes		
MTBE		
Naphthalene		
Lead		
DCA		
EDB		
DIPE		
TAA		
TAME		
TBA		
Lead		

MW-9	5/8/07	8/13/13
DTW	29.12	25.03
Benzene		<5
Toluene		<5
Ethylbenzene		<5
Xylenes		<5
MTBE		<5
Naphthalene		<5
DCA		<5
EDB		<0.02
DIPE		<5
TAA		<20
TAME		<10
TBA		<20
Lead		na

MW-9R	5/8/07	8/13/13
DTW	29.47	25.40
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	<5	<5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	**390**	<20
TAME	<10	<10
TBA	<50	<20
Lead	<5	na

MW-11	5/8/07	8/13/13
DTW	22.35	18.81
Benzene	**88**	**13**
Toluene	430	22
Ethylbenzene	340	7
Xylenes	2000	110
MTBE	**<50**	<5
Naphthalene	**200**	9
DCA	**<25**	<5
EDB	<0.02	<0.02
DIPE	<25	<5
TAA	**<500**	170
TAME	<50	<10
TBA	<250	120
Lead	**77**	na

MWR-11	5/8/07	8/13/13
DTW	22.42	18.90
Benzene	ns	**10**
Toluene		120
Ethylbenzene		360
Xylenes		2500
MTBE		**<250**
Naphthalene		**340**
DCA		**<250**
EDB		<0.02
DIPE		**<250**
TAA		**<1000**
TAME		**<500**
TBA		<1000
Lead		na

MW-12	5/8/07	8/13/13
DTW	9.62	7.09
Benzene	**14**	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	<5	<5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<100	<20
Lead	**37**	na

MW13R	5/8/07	8/13/13
DTW	14.87	11.61
Benzene	**6600**	**3500**
Toluene	87	160
Ethylbenzene	100	240
Xylenes	250	240
MTBE	**4400**	**2500**
Naphthalene	**89**	**100**
DCA	**<50**	**75**
EDB	<0.02	<0.02
DIPE	<50	**<250**
TAA	**4600**	**7500**
TAME	<100	13
TBA	<500	1000
Lead	<5	na

MW-14R	5/8/07	8/13/13
DTW	16.80	13.25
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	<5	<5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	<5	na

MW-14R2	5/8/07	8/13/13
DTW	16.73	13.20
Benzene	**11100**	**110**
Toluene	**1800**	580
Ethylbenzene	**1000**	400
Xylenes	7300	2400
MTBE	**92**	**<100**
Naphthalene	**650**	**250**
DCA	**<50**	**<100**
EDB	<0.02	<0.02
DIPE	<50	<100
TAA	**6300**	**<400**
TAME	<100	**<200**
TBA	<500	<400
Lead	**24**	na

MW-15R	5/8/07	8/13/13
DTW	27.74	24.49
Benzene	<5	**<50**
Toluene	<5	<50
Ethylbenzene	<5	<50
Xylenes	<15	<50
MTBE	<5	**1700**
Naphthalene	<5	**<50**
DCA	<5	**<50**
EDB	<0.02	<0.02
DIPE	<5	<50
TAA	<100	<200
TAME	<10	18
TBA	<50	<200
Lead	11	na

MW-16DD	5/8/07	8/13/13
DTW	37.86	31.85
Benzene	<5	**65**
Toluene	9	190
Ethylbenzene	<5	37
Xylenes	<15	200
MTBE	<5	23
Naphthalene	<5	9
DCA	<5	**<25**
EDB	<0.02	<0.02
DIPE	<5	<25
TAA	<100	<100
TAME	<10	<50
TBA	<50	<100
Lead	11	na

MW-17i	5/8/07	8/13/13
DTW	31.93	28.80
Benzene	**7900**	**5800**
Toluene	**14000**	**16000**
Ethylbenzene	**3700**	**2000**
Xylenes	**20600**	**11000**
MTBE	**2800**	**350**
Naphthalene	**1300**	**500**
DCA	<5	**<500**
EDB	<0.02	<0.02
DIPE	<5	**<500**
TAA	**2600**	**3900**
TAME	<10	**<1000**
TBA	<50	**<2000**
Lead	12	na

MW-18D	5/8/07	8/13/13
DTW	31.99	28.87
Benzene	**2000**	**730**
Toluene	**3600**	560
Ethylbenzene	620	220
Xylenes	3700	1500
MTBE	**1700**	**42**
Naphthalene	**160**	**100**
DCA	<5	**16**
EDB	<0.02	<0.02
DIPE	<5	<100
TAA	**2000**	**550**
TAME	<10	<200
TBA	<50	<400
Lead	<5	na

MW-19i	5/8/07	8/13/13
DTW	30.37	26.97
Benzene	**3600**	**26000**
Toluene	**4800**	**37000**
Ethylbenzene	400	**2400**
Xylenes	2130	**14000**
MTBE	**1700**	**19000**
Naphthalene	**130**	**490**
DCA	<5	**<1000**
EDB	**0.14**	**6.30**
DIPE	40	**<1000**
TAA	**<5000**	**37000**
TAME	26	**310**
TBA	<50	**4400**
Lead	5	na

MW-20D	5/8/07	8/13/13
DTW	30.32	27.87
Benzene	**430**	**270**
Toluene	570	<25
Ethylbenzene	41	<25
Xylenes	240	<25
MTBE	**570**	**470**
Naphthalene	21	9
DCA	<5	<25
EDB	**0.24**	<0.02
DIPE	15	12
TAA	**2200**	**1200**
TAME	<10	7
TBA	<50	220
Lead	6	na

MW-21i	5/8/07	8/13/13
DTW	30.36	27.10
Benzene	**3400**	**6400**
Toluene	**3800**	<1000
Ethylbenzene	300	540
Xylenes	1630	2200
MTBE	**6800**	**21000**
Naphthalene	**38**	**<1000**
DCA	<5	**<1000**
EDB	**0.30**	0.09
DIPE	84	**260**
TAA	**1300**	**6800**
TAME	32	**130**
TBA	<50	**1400**
Lead	9	na

MW-22D	5/8/07	8/13/13
DTW	32.13	27.38
Benzene	**82**	<5
Toluene	81	<5
Ethylbenzene	8	<5
Xylenes	53	<5
MTBE	**530**	2
Naphthalene	6	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	5	<5
TAA	**970**	<20
TAME	<10	<10
TBA	<50	<20
Lead	6	na

MW-23	5/8/07	8/13/13
DTW	32.02	29.11
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	<5	<5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	140	<20
TAME	<10	<10
TBA	<50	<20
Lead	11	na

MW-24	5/8/07	8/13/13
DTW	32.64	29.83
Benzene	**160**	**76**
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	29	15
MTBE	<5	5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	2
TAA	<100	20
TAME	<10	<10
TBA	<50	9
Lead	7	na

MW-25	5/8/07	8/13/13
DTW	33.05	30.33
Benzene	**3100**	**3300**
Toluene	490	<100
Ethylbenzene	36	<100
Xylenes	850	420
MTBE	**1300**	**2100**
Naphthalene	21	**51**
DCA	<5	**<100**
EDB	<0.02	<0.02
DIPE	40	78
TAA	**930**	**1900**
TAME	<10	36
TBA	<50	220
Lead	6	na

MW-26i	5/8/07	8/13/13
DTW	21.85	18.45
Benzene	**9800**	**790**
Toluene	890	<25
Ethylbenzene	**730**	29
Xylenes	4300	<25
MTBE	**2900**	**560**
Naphthalene	**130**	14
DCA	<5	17
EDB	<0.02	<0.02
DIPE	<5	<25
TAA	**<10000**	**1100**
TAME	<10	2
TBA	**8900**	230
Lead	<5	na

MW-28DD	5/8/07	8/13/13
DTW	21.98	18.47
Benzene	**9**	**21**
Toluene	<5	77
Ethylbenzene	<5	11
Xylenes	<15	60
MTBE	28	12
Naphthalene	<5	4
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	11	na

MW-29	5/8/07	8/13/13
DTW	21.90	18.52
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	<5	<5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	**33**	na

MW-30i	5/8/07	8/13/13
DTW	21.59	18.19
Benzene	**41**	**700**
Toluene	20	51
Ethylbenzene	8	57
Xylenes	40	340
MTBE	<5	**770**
Naphthalene	<5	**34**
DCA	<5	**<50**
EDB	<0.02	<0.02
DIPE	<5	18
TAA	<100	**460**
TAME	<10	<100
TBA	<50	120
Lead	6	na

MW-31D	5/8/07	8/13/13
DTW	21.71	18.33
Benzene	**570**	**97**
Toluene	260	17
Ethylbenzene	31	<25
Xylenes	182	28
MTBE	**350**	**1100**
Naphthalene	9	<25
DCA	<5	<25
EDB	<0.02	<0.02
DIPE	<5	11
TAA	**830**	**1100**
TAME	<10	7
TBA	<50	250
Lead	<5	na

MW-32	5/8/07	8/13/13
DTW	17.55	13.94
Benzene	**3000**	**20**
Toluene	7	<100
Ethylbenzene	18	<100
Xylenes	<16	<100
MTBE	**540**	**180**
Naphthalene	8	**<100**
DCA	<5	**<100**
EDB	<0.02	<0.02
DIPE	<5	<100
TAA	**3300**	**620**
TAME	<10	**<200**
TBA	<50	<400
Lead	14	na

MW-33i	5/8/07	8/13/13
DTW	17.90	14.33
Benzene	**860**	**2500**
Toluene	<5	3
Ethylbenzene	<5	<5
Xylenes	28	3
MTBE	**50**	**380**
Naphthalene	12	17
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<1
TAA	**1800**	**3800**
TAME	<10	2
TBA	<50	350
Lead	<5	na

MW-34D	5/8/07	8/13/13
DTW	18.12	14.61
Benzene	**380**	**2700**
Toluene	<5	57
Ethylbenzene	13	<100
Xylenes	78	330
MTBE	**260**	**1300**
Naphthalene	8	**54**
DCA	<5	**<100**
EDB	<0.02	<0.02
DIPE	<5	<100
TAA	**530**	**2600**
TAME	<10	9
TBA	<50	510
Lead	10	na

MW-35i	5/8/07	8/13/13
DTW	14.62	11.57
Benzene	**1900**	**1600**
Toluene	83	<250
Ethylbenzene	180	130
Xylenes	1087	<250
MTBE	**83**	**110**
Naphthalene	**440**	**<250**
DCA	<5	**<250**
EDB	<0.02	<0.02
DIPE	<5	**<250**
TAA	**1400**	**1500**
TAME	<10	**<500**
TBA	<50	**<1000**
Lead	13	na

MW-36D	5/8/07	8/13/13
DTW	13.98	10.85
Benzene	**1400**	**1300**
Toluene	56	<100
Ethylbenzene	130	65
Xylenes	546	50
MTBE	**230**	**820**
Naphthalene	**210**	**<100**
DCA	<5	**<100**
EDB	<0.02	<0.02
DIPE	<5	<100
TAA	**1700**	**2800**
TAME	<10	<200
TBA	<50	410
Lead	11	na

MW-37DD	5/8/07	8/13/13
DTW	14.39	11.33
Benzene	<5	4
Toluene	<5	22
Ethylbenzene	<5	3
Xylenes	<15	17
MTBE	<5	2
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	10	na

MW-38	5/8/07	8/13/13
DTW	21.53	18.57
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	25	<1
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	**88**	na

MW-39i	5/8/07	8/13/13
DTW	21.51	18.54
Benzene	**61**	**36**
Toluene	<5	40
Ethylbenzene	<5	39
Xylenes	<15	54
MTBE	**890**	**1000**
Naphthalene	8	24
DCA	<5	**<50**
EDB	<0.02	<0.02
DIPE	<50	<50
TAA	**1600**	**2500**
TAME	<10	8
TBA	<50	420
Lead	10	na

MW-40D	5/8/07	8/13/13
DTW	21.49	18.32
Benzene	**330**	**96**
Toluene	<5	370
Ethylbenzene	<5	41
Xylenes	<25	200
MTBE	**340**	**850**
Naphthalene	6	18
DCA	<5	<25
EDB	**0.16**	0.03
DIPE	<5	4
TAA	**1400**	**270**
TAME	<10	7
TBA	<50	81
Lead	10	na

MW-41i	5/8/07	8/13/13
DTW	16.50	13.10
Benzene	<5	<5
Toluene	14	<5
Ethylbenzene	29	<5
Xylenes	180	<5
MTBE	25	<5
Naphthalene	7	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	**250**	<20
TAME	<10	<10
TBA	<50	<20
Lead	11	na

MW-42D	5/8/07	8/13/13
DTW	16.35	12.81
Benzene	**8**	3
Toluene	46	7
Ethylbenzene	40	3
Xylenes	241	8
MTBE	<5	<5
Naphthalene	33	3
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	10	na

MW-43	5/8/07	8/13/13
DTW	11.60	9.14
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	25	<1
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	13	na

MW-44i	5/8/07	8/13/13
DTW	9.11	7.25
Benzene	<5	3
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	25	<5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	12	na

MW-46	5/8/07	8/13/13
DTW	23.02	19.47
Benzene	<5	**<25**
Toluene	<5	<25
Ethylbenzene	<5	<25
Xylenes	<15	<25
MTBE	25	**540**
Naphthalene	<5	<25
DCA	<5	**<25**
EDB	<0.02	<0.02
DIPE	<5	<25
TAA	<100	<100
TAME	<10	6
TBA	<50	<100
Lead	10	na

MW-47	5/8/07	8/13/13
DTW	22.12	18.89
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	25	<5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	10	na

MW-49	5/8/07	8/13/13
DTW	14.92	14.06
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	25	5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	**120**	na

MW-50	5/8/07	8/13/13
DTW	10.95	well
Benzene	<5	not
Toluene	<5	located
Ethylbenzene	<5	
Xylenes	<15	
MTBE	25	
Naphthalene	<5	
DCA	<5	
EDB	<0.02	
DIPE	<5	
TAA	<100	
TAME	<10	
TBA	<50	
Lead	**15**	

MW-51	5/8/07	8/13/13
DTW	30.85	**FP**
Benzene	**27000**	(0.22')
Toluene	**37000**	
Ethylbenzene	**3800**	
Xylenes	**19100**	
MTBE	**31000**	
Naphthalene	**820**	
DCA	**<500**	
EDB	**0.23**	
DIPE	**<500**	
TAA	**28000**	
TAME	**<1000**	
TBA	**7000**	
Lead	**24**	

MW-52	5/8/07	8/13/13
DTW	27.22	23.97
Benzene	**11000**	**3000**
Toluene	**23000**	**11000**
Ethylbenzene	**3000**	**1700**
Xylenes	**16000**	7200
MTBE	**<250**	**84**
Naphthalene	**930**	**470**
DCA	**<250**	**<500**
EDB	<0.02	**0.16**
DIPE	**<250**	**<500**
TAA	**<5000**	**4100**
TAME	**<500**	**<1000**
TBA	**<2500**	**<2000**
Lead	**20**	na

MW-53	5/8/07	8/13/13
DTW	26.22	22.85
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	25	<5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	10	na

MW-54	5/8/07	8/13/13
DTW	32.31	29.57
Benzene	**36000**	**28000**
Toluene	**62000**	**62000**
Ethylbenzene	**4300**	**4600**
Xylenes	**22600**	**24000**
MTBE	**<250**	**<2500**
Naphthalene	**890**	**<2500**
DCA	**<250**	**<2500**
EDB	**0.32**	**3.90**
DIPE	**<250**	**<2500**
TAA	**<5000**	**<10000**
TAME	**<500**	**<5000**
TBA	**<2500**	**<1000**
Lead	11	na

MW-55	5/8/07	8/13/13
DTW	11.23	7.61
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	<5	<5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	10	na

MW-57i	5/8/07	8/13/13
DTW	12.05	9.24
Benzene	<5	**58**
Toluene	<5	<25
Ethylbenzene	<5	31
Xylenes	<15	150
MTBE	<5	<25
Naphthalene	<5	16
DCA	<5	<25
EDB	<0.02	<0.02
DIPE	<5	<25
TAA	<100	<100
TAME	<10	<50
TBA	<50	<100
Lead	13	na

MW-58	5/8/07	8/13/13
DTW	22.16	19.15
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	<5	<5
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<5
TAA	<100	<20
TAME	<10	<10
TBA	<50	<20
Lead	11	na

MW-59	5/8/07	8/13/13
DTW	16.08	16.76
Benzene	**9**	2
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	**280**	**89**
Naphthalene	<5	<5
DCA	<5	<5
EDB	**0.06**	<0.02
DIPE	<5	<5
TAA	**320**	41
TAME	<10	<1
TBA	69	11
Lead	**32**	na

MW-60		8/13/13
DTW		**FP**
Benzene		(0.01'
Toluene		
Ethylbenzene		
Xylenes		
MTBE		
Naphthalene		
DCA		
EDB		
DIPE		
TAA		
TAME		
TBA		
Lead		

MW-61		8/13/13
DTW		29.40
Benzene		**7900**
Toluene		**17000**
Ethylbenzene		**1700**
Xylenes		8900
MTBE		**5200**
Naphthalene		**340**
DCA		**<1000**
EDB		**1.80**
DIPE		110
TAA		**2300**
TAME		**<2500**
TBA		**<4000**
Lead		na

MW-62		8/13/13
DTW		29.40
Benzene		**17000**
Toluene		**56000**
Ethylbenzene		**4700**
Xylenes		**22000**
MTBE		**<2500**
Naphthalene		**1600**
DCA		**<2500**
EDB		**2.10**
DIPE		**<2500**
TAA		**<10000**
TAME		**<5000**
TBA		**<10000**
Lead		na

MW-63		8/13/13
DTW		28.84
Benzene		**8300**
Toluene		**45000**
Ethylbenzene		**4000**
Xylenes		**21000**
MTBE		**<1000**
Naphthalene		**650**
DCA		**180**
EDB		**0.96**
DIPE		**<1000**
TAA		**1800**
TAME		**<2000**
TBA		**<4000**
Lead		na

MW-64		8/13/13
DTW		29.30
Benzene		**41000**
Toluene		**65000**
Ethylbenzene		**4400**
Xylenes		**23000**
MTBE		**<2500**
Naphthalene		**<2500**
DCA		**870**
EDB		**9.00**
DIPE		**520**
TAA		**7800**
TAME		**340**
TBA		**<10000**
Lead		na

MW-65		8/13/13
DTW		26.70
Benzene		**16000**
Toluene		**32000**
Ethylbenzene		**2500**
Xylenes		**13000**
MTBE		**4400**
Naphthalene		**650**
DCA		**<1000**
EDB		**0.48**
DIPE		**<1000**
TAA		**17000**
TAME		**<2000**
TBA		**1300**
Lead		na

MW-66		8/13/13
DTW		27.29
Benzene		**8000**
Toluene		**30000**
Ethylbenzene		**2500**
Xylenes		**16000**
MTBE		**4300**
Naphthalene		**820**
DCA		**<1000**
EDB		**0.20**
DIPE		**<1000**
TAA		**6400**
TAME		**<2000**
TBA		**<4000**
Lead		na

MW-67		8/13/13
DTW		27.28
Benzene		**25000**
Toluene		**39000**
Ethylbenzene		**3300**
Xylenes		**17000**
MTBE		**26000**
Naphthalene		**810**
DCA		**<1000**
EDB		**0.58**
DIPE		**<1000**
TAA		**25000**
TAME		**<2000**
TBA		**3500**
Lead		na

MW-68		8/13/13
DTW		29.95
Benzene		**43000**
Toluene		**77000**
Ethylbenzene		**5200**
Xylenes		**27000**
MTBE		**8100**
Naphthalene		**<10000**
DCA		**<10000**
EDB		**13.00**
DIPE		**<10000**
TAA		**<40000**
TAME		**<20000**
TBA		**<40000**
Lead		na

MW-69		8/13/13
DTW		29.42
Benzene		**18000**
Toluene		**39000**
Ethylbenzene		**3700**
Xylenes		**21000**
MTBE		**2700**
Naphthalene		**780**
DCA		**390**
EDB		**2.70**
DIPE		81
TAA		**8300**
TAME		52
TBA		**<4000**
Lead		na

MW-70		8/13/13
DTW		28.34
Benzene		**19000**
Toluene		**30000**
Ethylbenzene		**2900**
Xylenes		**15000**
MTBE		**30000**
Naphthalene		**870**
DCA		**<1000**
EDB		**0.95**
DIPE		**<1000**
TAA		**65000**
TAME		87
TBA		**7500**
Lead		na

MW-1X		8/13/13
DTW		30.73
Benzene		**77**
Toluene		130
Ethylbenzene		33
Xylenes		180
MTBE		11
Naphthalene		18
DCA		<5
EDB		<0.02
DIPE		<5
TAA		<20
TAME		<1
TBA		<20
Lead		na

MW-2X		8/13/13
DTW		20.42
Benzene		**24000**
Toluene		**34000**
Ethylbenzene		**2600**
Xylenes		**15000**
MTBE		**3400**
Naphthalene		**<2500**
DCA		**510**
EDB		**0.92**
DIPE		**<2500**
TAA		**<10000**
TAME		**<5000**
TBA		**<10000**
Lead		na

MW-3X		8/13/13
DTW		well
Benzene		obstructed
Toluene		
Ethylbenzene		
Xylenes		
MTBE		
Naphthalene		
DCA		
EDB		
DIPE		
TAA		
TAME		
TBA		
Lead		

MW-4X		8/13/13
DTW		well
Benzene		dry
Toluene		
Ethylbenzene		
Xylenes		
MTBE		
Naphthalene		
DCA		
EDB		
DIPE		
TAA		
TAME		
TBA		
Lead		

MW-5X		8/13/13
DTW		well
Benzene		destroyed
Toluene		
Ethylbenzene		
Xylenes		
MTBE		
Naphthalene		
DCA		
EDB		
DIPE		
TAA		
TAME		
TBA		
Lead		

MW-6X		8/13/13
DTW		26.23
Benzene		**16000**
Toluene		**34000**
Ethylbenzene		**2300**
Xylenes		**13000**
MTBE		**270**
Naphthalene		**610**
DCA		**<1000**
EDB		**0.56**
DIPE		**<1000**
TAA		**11000**
TAME		**<2000**
TBA		**<4000**
Lead		na

SW-1	5/8/07	8/13/13
DTW		
Benzene	<5	3
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<5
MTBE	**300**	**210**
Naphthalene	<5	<5
DCA	<5	<5
EDB	<0.02	<0.02
DIPE	<5	<1
TAA	220	**280**
TAME	<10	1
TBA	86	62
Lead	na	na

FP- free-phase product
na- not analyzed
nd- not detected
nm- not measured
ns- not sampled

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

MR NEIL ALEXANDER
C/O ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINSTER SC 29693-5534

DEC 0 9 2013

Re: ACA options letter
Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit #06742
Release reported January 11, 1993
Monitoring report received November 27, 2013
Oconee County

Dear Mr. Alexander:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced report submitted on your behalf by Bunnell-Lammons Engineering, Inc. The report documents that free-phase product (FPP) and high levels of petroleum contaminants persist in groundwater at the facility. Accordingly, corrective action will be necessary.

Funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account will soon be available for corrective action. The selected technology must reduce FPP thicknesses and ground-water petroleum contaminants to site-specific target levels (SSTLs) determined by the Division.

The SUPERB Site Rehabilitation and Fund Access Regulations R.61-98 require the UST owner/operator to develop and implement a reasonable, cost-effective corrective action to be performed by a SCDHEC-certified site rehabilitation contractor. As the owner/operator for the referenced release, you may choose one of two options as to how to proceed with this requirement: state lead or owner/operator lead.

State Lead Option:

- If you choose the state lead option, the Division will procure a certified site rehabilitation contractor to perform corrective action on your behalf. The Agency will enter into an enforceable contract with the awarded contractor. As long as you do not interfere with or prohibit work at the facility, you will not be responsible in the event the state-selected contractor does not perform appropriately or does not make satisfactory progress towards achieving established corrective action goals. To choose the state lead option, please sign and return the applicable Permission Form or Right-of-Entry Form within 15 days of the date of this letter.

Owner/Operator Lead Option:

- If you select the owner/operator lead option, you will be required to select a contractor to perform the corrective action. In order to assist you in determining the clean-up technology, time frame, clean-up levels, and associated costs, the Division will prepare a technical specification package and provide copies for you to send to contractors of your choice. In addition, the Division will announce the request for solicitations in the South Carolina Business Opportunities, a bi-weekly state government publication. This announcement will clearly indicate that you will select a contractor to implement the corrective action.
- Compensation to your contractor will be from the SUPERB Account, but you may have the obligation to pay your contractor for any costs not approved by the Agency.
- The Division strongly suggests that a written contract between you and your contractor be developed following the completion of the solicitation process. The parties to this contract would be you and your contractor. The Division's function would be to monitor and ensure progress of corrective action activities.
- If your contractor does not or cannot complete the required corrective action activities, you will be required to find another certified contractor to complete the activities for the remainder of the existing financial approval amount. No additional funding from the SUPERB Account may be allowed. Under Agency regulations, you, as the owner/operator on record, are ultimately responsible to the Agency for the actions of your contractor. The Agency will pursue enforcement actions against you if your contractor does not make satisfactory progress towards achieving established corrective actions goals. To choose the owner/operator lead option, please sign and return the enclosed Active Corrective Action Options Form within 15 days of the date of this letter.

On all correspondence or inquiries regarding this project, please reference UST Permit #06742. If you have any questions, please feel free to contact me by telephone at (803) 898-0655, by fax at (803) 898-0673, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
06742.acaoption

enc: State Lead Permission and Right-of-Entry forms
Owner/Operator Active Corrective Action Option form

cc: Technical file (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

FEB 2 1 2014

MR DANIEL MAW
SOUTH CAROLINA BANKING AND TRUST
201 US-123 BYPASS
SENECA SC 29678

Re: Concern letter
Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit #06742
Petroleum Release reported January 11, 1993
Oconee County

Dear Mr. Maw:

Per your request, the Underground Storage Tank (UST) Management Division is providing you with this update on environmental conditions and liability associated with the referenced facility.

According to Division records, Mr. R. Neil Alexander, has operated ten underground storage tanks (USTs) at the Country Side 2 facility to supply gasoline, diesel fuel and kerosene. Five tanks were abandoned by removal in June 1990. Five tanks installed as replacements in 1990 are currently operated by Mr. William R. Land. The tanks were last inspected on December 3, 2013 and were found to be in regulatory compliance.

On January 11, 1993, the Division received a report that documented a petroleum release at the facility. In response to the initial report of contamination, the Division directed Mr. R. Neil Alexander, the owner/operator on record with the Division, to assess the severity and extent of the petroleum contamination. Assessment work conducted from 1993 to 1998 confirmed and delineated petroleum free-phase product (FPP) and chemicals of concern (CoC) at the site. In August 1999, the Division solicited bids to perform active corrective action (ACA) at the site to reduce the contamination to acceptable levels protective of human health and the environment. The successful bidder, Smith Monitoring and Maintenance, conducted ACA from September 1999 to April 2006. On April 30, 2006, the Division cancelled the ACA due to identification of additional FPP at the site. From 2006 to 2008, assessment work further defined the area impacted by FPP and installed a recovery well network for future ACA. Since 2008, multiple aggressive fluid and vapor recovery (AFVR) events have been conducted as an interim measure to remove FPP. The Division plans to place the release in ACA in the near future.

The referenced release is qualified to receive funding under the conditions of the State Underground Petroleum Environmental Response Bank (SUPERB) Act. This means that reasonable costs up to $1,000,000 can be paid by the SUPERB account for site rehabilitation associated with the releases. Should cleanup costs exceed $1,000,000.00, Mr. R. Neil Alexander, pursuant to state and federal laws, retains responsibility for any additional site rehabilitation and costs associated with the releases. Division records show that a total of $478,953.58 of SUPERB funds has been expended on site rehabilitation to date.

In 1997, the General Assembly amended Section 80 (B) of the SUPERB Act to clarify that persons who hold "indicia of ownership" primarily to protect a security interest in property impacted by a release from a UST are exempt from the requirements to conduct site rehabilitation activities other than necessary abatement actions to eliminate any imminent threat to human health or the environment. The "indicia of ownership" exemption includes those persons who acquire title to property through foreclosure or other means necessary to protect their security interest, provided that person does not participate in the management of the UST and is not otherwise engaged in petroleum production, marketing, or refining. This applies equally to subsequent lenders who acquire the USTs and property through foreclosure in the future.

Please note there are currently no laws or regulations that prohibit the use, sale or development of properties at or near the location of a UST petroleum release. Should the current owner sell the property, the Division requests that the buyer coordinate with the Division to allow for continued access for necessary site rehabilitation activities.

If you have any questions, please contact me by telephone at (803) 898-0655, by fax at (803) 898-0673, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
06742.concern

cc: Technical file

D H E C
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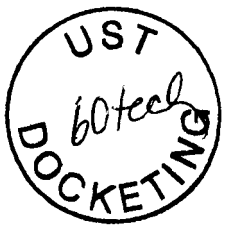
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MR NEIL ALEXANDER
C/O ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINSTER SC 29693-5534

MAR 2 7 2014



Re: ACA options letter- Second request
Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit #06742
Release reported January 11, 1993
Monitoring report received November 27, 2013
Oconee County

Dear Mr. Alexander:

In December 2013, the Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) sent you correspondence requesting that you choose a corrective action option for the Country Side 2 site. To date, your response has not been received. Accordingly, the Division is sending this second request to you.

The referenced report, submitted on your behalf by Bunnell-Lammons Engineering, Inc., documents that free-phase product (FPP) and high levels of petroleum contaminants persist in groundwater at the facility despite numerous aggressive fluid and vapor recovery (AFVR) events conducted in the release source area. Further, petroleum chemicals of concern have been detected in the headwaters of a creek located down-gradient from the site. Therefore, the Division has determined that corrective action will be necessary to reduce the risk posed by the release to human health and the environment.

Funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account will soon be available for corrective action. The selected technology must reduce FPP thicknesses and ground-water petroleum contaminants to site-specific target levels (SSTLs) determined by the Division.

The SUPERB Site Rehabilitation and Fund Access Regulations R.61-98 require the UST owner/operator to develop and implement a reasonable, cost-effective corrective action to be performed by a SCDHEC-certified site rehabilitation contractor. As the owner/operator for the referenced release, you may choose one of two options as to how to proceed with this requirement: state lead or owner/operator lead.

State Lead Option:

- If you choose the state lead option, the Division will procure a certified site rehabilitation contractor to perform corrective action on your behalf. The Agency will enter into an enforceable contract with the awarded contractor. As long as you do not interfere with or prohibit work at the facility, you will not be responsible in the event the state-selected

contractor does not perform appropriately or does not make satisfactory progress towards achieving established corrective action goals. To choose the state lead option, please sign and return the applicable Permission Form or Right-of-Entry Form within 15 days of the date of this letter.

Owner/Operator Lead Option:

- If you select the owner/operator lead option, you will be required to select a contractor to perform the corrective action. In order to assist you in determining the clean-up technology, time frame, clean-up levels, and associated costs, the Division will prepare a technical specification package and provide copies for you to send to contractors of your choice. In addition, the Division will announce the request for solicitations in the South Carolina Business Opportunities, a bi-weekly state government publication. This announcement will clearly indicate that you will select a contractor to implement the corrective action.
- Compensation to your contractor will be from the SUPERB Account, but you may have the obligation to pay your contractor for any costs not approved by the Agency.
- The Division strongly suggests that a written contract between you and your contractor be developed following the completion of the solicitation process. The parties to this contract would be you and your contractor. The Division's function would be to monitor and ensure progress of corrective action activities.
- If your contractor does not or cannot complete the required corrective action activities, you will be required to find another certified contractor to complete the activities for the remainder of the existing financial approval amount. No additional funding from the SUPERB Account may be allowed. Under Agency regulations, you, as the owner/operator on record, are ultimately responsible to the Agency for the actions of your contractor. The Agency will pursue enforcement actions against you if your contractor does not make satisfactory progress towards achieving established corrective actions goals. To choose the owner/operator lead option, please sign and return the enclosed Active Corrective Action Options Form within 15 days of the date of this letter.

On all correspondence or inquiries regarding this project, please reference UST Permit #06742. If you have any questions, please feel free to contact me by telephone at (803) 898-0655, by fax at (803) 898-0673, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
06742.acaoption2

enc: State Lead Permission and Right-of-Entry forms
Owner/Operator Active Corrective Action Option form
cc: Trevor Benton, Bunnell-Lammons Engineering, Inc., 6004 Ponders Court, Greenville, SC 29615 (w/o enc)
Technical file (w/o enc)

Joel

State Lead Option

UST
MAY 14 2014
PROGRAM

RIGHT-OF-ENTRY FORM

PROPERTY OWNER

UST Permit #06742

If you are the Property Owner or are the authorized representative for that person, but did not own the former or existing underground storage tanks at the time the release was reported, please complete this form.

I, William R. Land II/Alley Antiques, certify that I am the legal owner of the property identified below or serve as the authorized representative for the property owner. I authorize the South Carolina Department of Health and Environmental Control (Agency), or a contractor selected by the Agency, to enter this property at reasonable times only to conduct assessment and corrective action activities, as required. The contractor will be designated as the contractor for the UST owner or operator for only the required environmental site rehabilitation activities. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that the Agency or its contractor will notify me of all activities that are necessary prior to their initiation and will promptly provide to me a summary of the data upon request.

Name of Facility: Country Side 2 Phone #: (864) 973-6300

Street Address of Facility: 8050 West Oak Highway

Town, City, District, Suburb: Westminster, SC

Name of nearest intersecting street, road, highway, alley:

Is this facility within the city limits? (yes or no) no

Does a public water or sewer utility service this facility? (yes or no) yes (water) no (sewer)

If no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines: SCDHEC Upstate Environmental Quality Control (864) 260-5569

Is the property currently leased or rented to someone? (yes or no) no

If yes, please provide their name _____ and phone number _____ and let them know about the pending site rehabilitation activities. If vehicles or other mobile structures are parked over the monitoring wells, they should be moved before the Agency's contractor arrives at the site.

Name of Property owner (Please Print): William R. Land II/Alley Antiques

Phone Number: (864) 710-8841 (home) (864) 882-7617 (work)

Current Mailing Address: 705 South Oak Street, Seneca, SC 29678

Signature of Property Owner: William R Land II

Witness: Ashley McClure

Date: 5/9/14 May Month 9 Day 2014 Year

UST
MAY 14 2014
Mail Tech
DOCKETING

Re: Oconee Monitoring Wells

Padgett, Joel P.

Fri 12/5/2014 12 34 PM

Sent Items

To Brackett, Lee <lee.brackett@urs.com>;

Lee-
I have identified the wells as MW-25 and MW-62. Neither will require replacement.
-Joel

From: Brackett, Lee <lee.brackett@urs.com>
Sent: Friday, December 5, 2014 11:43 AM
To: Padgett, Joel P.
Subject: Oconee Monitoring Wells

Joel,

Thanks for taking my call just now about our monitoring well question. To reiterate, during force main construction through the Highways 24 and 59 intersection (Tokeena Crossroads), our project's contractor damaged and subsequently removed two monitoring wells at a Countryside gas station. You and I talked about us grabbing some identifying information on the two wells that were damaged the next time we were on site, but we actually were able to already pinpoint the wells that were damaged. Please see the attached plan sheet. We don't know whether the well caps or pipes are still on site or whether they've been hauled off as debris waste by the contractor, but both well pipes are believed to have been 2" pipes.

You mentioned on the phone that the 2" wells were likely not critical and that if that were to be the case that no further repairs on our part would be necessary. Please correct me if I received that information incorrectly, or if there is in fact anything else we need to do to address the damaged wells.

Thanks so much,

Lee Brackett, P.E.
Project Engineer
URS Corporation
Mailing Address: 128 Millport Circle, Suite 100, Greenville, SC 29607
Direct Phone: (864) 527-4736
Office Phone: (864) 609-9111
Office Fax: (864) 609-9069
[www.urscorp.com]www.urscorp.com

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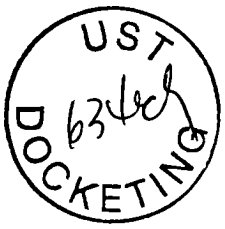
W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment



BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

MAY 2 9 2015

Re: **Site Specific Work Plan Request**
Groundwater Sampling Contract
Solicitation # IFB-5400007403, PO#4600368640

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400007403 and the UST Management Division Quality Assurance Program Plan (QAPP), Revision 2.0 it is requested that you submit a Site Specific Work Plan for each site listed below. The plans must be submitted **within 15 business days** to my attention. The project manager for each site will issue a notice to proceed once the plan has been reviewed and approved.

UST Permit	Site Name	County	# samples and requested analysis*	Project Manager
06742	Country Side 2	Oconee	79-BTEXMN, DCA, Oxygenates & EDB	J. Padgett

*The number of samples do not include trip blanks, field blanks, or field duplicate

Please contact me with the sampling schedule before commencing work at these facilities. In addition, a weekly update for each site is required to be submitted via e-mail to the site's project manager and myself. If you have any questions or need further assistance, please contact me at (803) 898-0606 or bryantjc@dhec.sc.gov.

Sincerely,

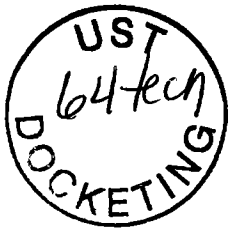
John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

enc: Site Information Packages
cc: Technical Files

Midlands Environmental Consultants, Inc.

June 16, 2015

Mr. John Bryant, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201



Subject: Site-Specific Work Plan
Country Side 2
Westminster, South Carolina
SCDHEC Site ID Number 06742
MECI Project Number 15-5222
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Bryant,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site.

On June 8, 2015, MECI personnel performed a site visit to the subject site to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

FOR Todd D. Elder
Staff Hydrogeologist

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Midlands Environmental Consultants, Inc.

DHEC
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Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Mr. Joel Padgett (SCDHEC Project Manager)
From: Mr. Jeff Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Country Side 2 UST Permit #: 05878
Facility Address: 8050 West Oak Highway, Westminster, SC 29693
Responsible Party: WILLIAM R LAND II DBA ALLEY ANTIQUES Phone: 864-973-6300
RP Address: 8050 W OAK HWY WESTMINSTER SC 29693
Property Owner (if different): SAA
Property Owner Address: SAA
Current Use of Property: Active gas station/Residential

Scope of Work (Please check all that apply)

☐ IGWA ☐ Tier II ☑ Groundwater Sampling ☐ GAC
☐ Tier I ☐ Monitoring Well Installation ☐ Other _____

Analyses (Please check all that apply)

Groundwater/Surface Water:

☑ BTEXNMDCA (8260B) ☐ Lead ☐ BOD ☐ Methane
☑ Oxygenates (8260B) ☐ 8 RCRA Metals ☐ Nitrate ☐ Ethanol
☑ EDB (8011) ☐ TPH ☐ Sulfate ☐ Dissolved Iron
☐ PAH (8270D) ☐ pH ☐ Other _____

Soil:

☐ BTEXN ☐ 8 RCRA Metals ☐ TPH-DRO (3550B/8015B) ☐ Grain Size
☐ PAH ☐ Oil & Grease (9071) ☐ TPH-GRO (5030B/8015B) ☐ TOC

Air:

☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

_____ Soil _____ Water Supply Wells _____ Air 2 Field Blank
81 Monitoring Wells 1 Surface Water 5 Duplicate 3 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.

# of shallow points proposed: _____ Estimated Footage: _____ feet per point
# of deep points proposed: _____ Estimated Footage: _____ feet per point
Field Screening Methodology: _____

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.

# of shallow wells: _____ Estimated Footage: _____ feet per point
# of deep wells: _____ Estimated Footage: _____ feet per point
# of recovery wells: _____ Estimated Footage: _____ feet per point
Monitoring Well development method (consistent with SOP): _____
Comments, if warranted:

_____
_____
_____

UST Permit #: 06742 Facility Name: Country Side 2

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 6/30/2015 Field Work Completion: 7/30/2015
Report Submittal: 8/30/2015 # of Copies Provided to Property Owners: _____

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: _____ Tons Purge Water: 400 Gallons
Drilling Fluids: _____ Gallons Free-Phase Product: _____ Gallons

Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.
During the initial site visit, nineteen (18) monitoring wells (MW-R4R, MW-5, MW-8, MW-23, MW-26i, MW-28DD, MW-29, MW-31i, MW-31D, MW-35i, MW-46, MW-50, MW-55, MW-57i, MW-58, MW-3X, MW-4X, and MW-5X) were not located. MECI personnel will make an effort to locate these wells during the sampling event. If any are found to be in good condition, they will be sampled accordingly.
-All other wells were located and found to be in good condition.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: _____
SCDHEC Certification Number: _____
Name of Laboratory Director: _____

N/A Well Driller as indicated in ACQAO? (Yes/No) If no, indicate driller information below.
Name of Well Driller: _____
SCLLR Certification Number: _____

No Other variations from ACQAP. Please describe below.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

D H E C

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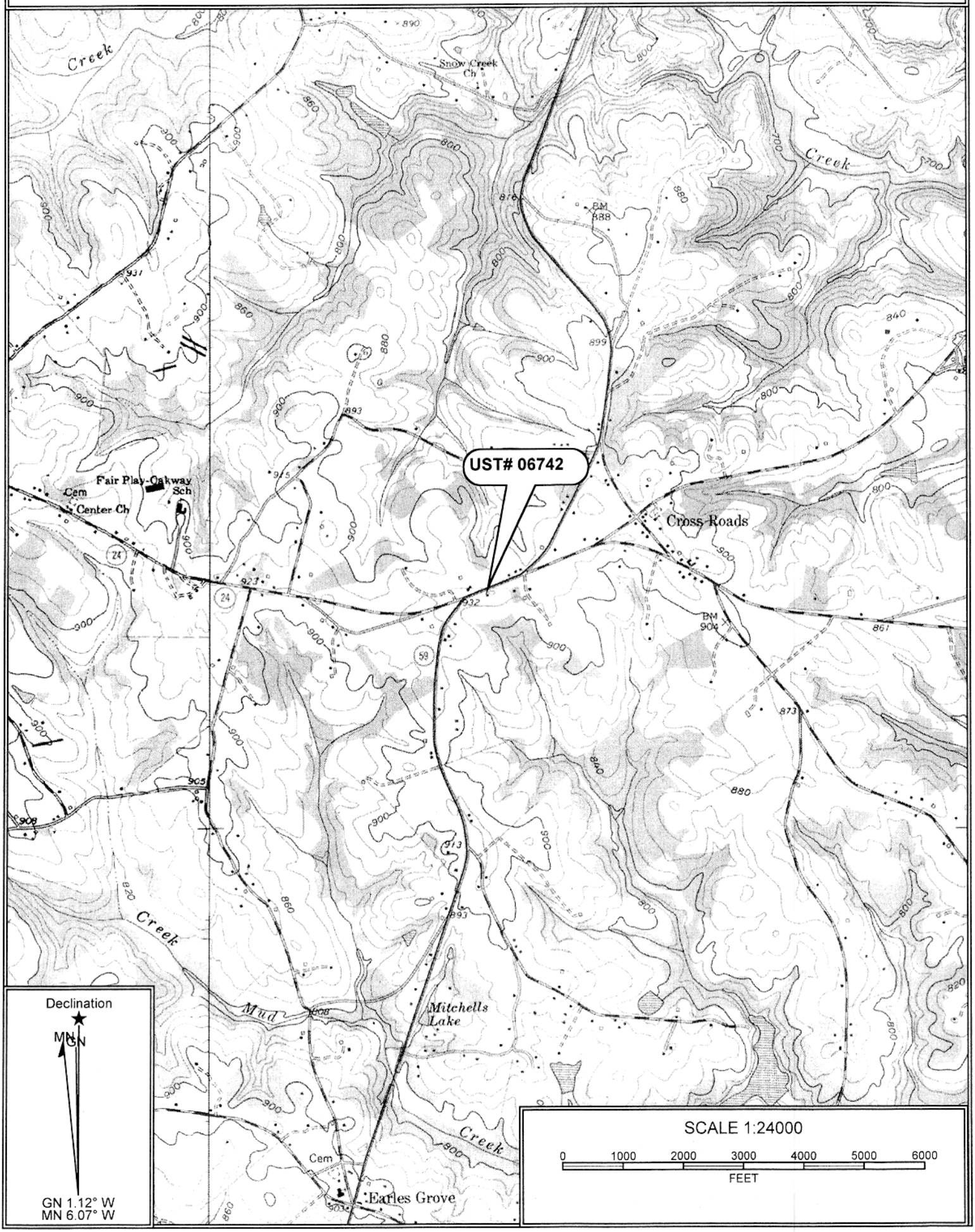
South Carolina Department of Health and Environmental Control

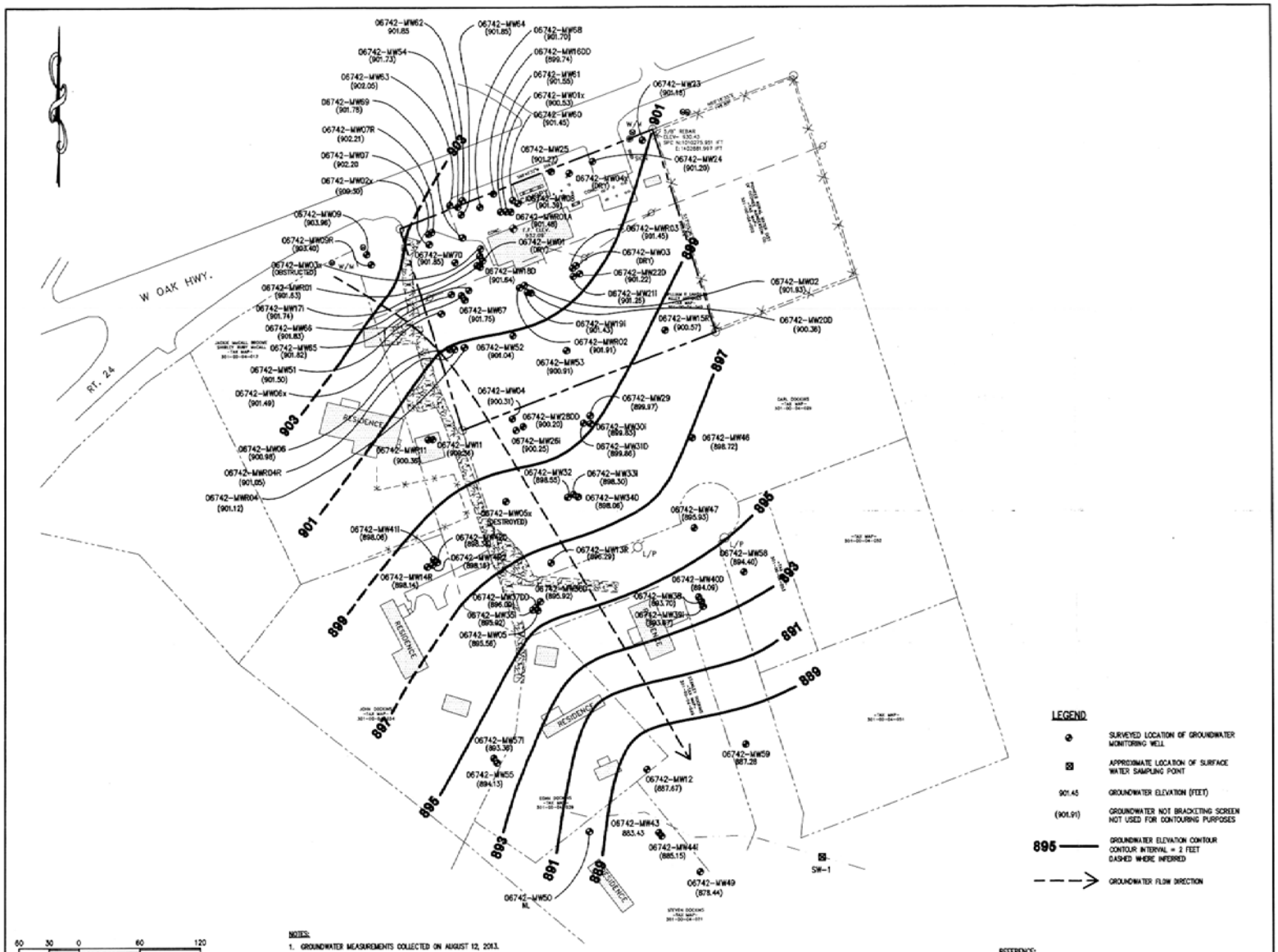
ASSESSMENT COMPONENT INVOICE
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
CONTRACT PO NUMBER 4600328425

Facility Name: Country Side 2

UST Permit #: 05878 **Cost Agreement #:** Proposal

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
1. **Plan***					
A1. Site Specific Work Plan	1	each	$0.00		$0.00
C1. QAPP Appendix B		each	$0.00		$0.00
2. A1. Receptor Survey		each	$0.00		$0.00
4. **Mob/Demob**					
B1. Personnel	5	each	$350.00		$1,750.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**					
A1. Groundwater Purge	81	per well	$16.00		$1,296.00
B1. Air or Vapors		samples	$0.00		$0.00
C1. Water Supply	1	samples	$5.00		$5.00
D1. Groundwater No Purge		per well	$8.00		$0.00
E1. Gauge Well only		per well	$0.00		$0.00
F1. Sample Below Product		per well	$0.00		$0.00
G1. Pasive Diffusion Bag		each	$20.00		$0.00
H1. Field Blank	2	each	$10.00		$20.00
17. **Disposal* (gallons or tons)**					
AA. Disposal/Water	800	gallons	$1.00		$800.00
BB. Free Product		gallons	$0.00		$0.00
Note: Rate includes costs or rental of suitable container(s)					
23. D. Site Reconnaissance		each	$0.00		$0.00
18. **Miscellaneous (attach receipts)**					
GW Contour Map		each	$25.00		$0.00
Isopleth Map		each	$25.00		$0.00
High-Strength Well Pad Replacement		each	$75.00		$0.00
Trip Blank	3	each	$10.00		$30.00
Data Table		each	$25.00		$0.00
25. **Well Repair**					
B1. Repair 2x2 MW Pad		each	$75.00		$0.00
C1. Repair 4x4 MW Pad		each	$75.00		$0.00
D1. Replace Well Vault		each	$75.00		$0.00
E. Replace well cover		each	$25.00		$0.00
F1. Replace well cover bolts		each	$2.60		$0.00
G. Replace locking well cap & lock		each	$15.00		$0.00
K1. Replace Missing Well ID Plate		each	$10.00		$0.00
TOTAL					$3,901.00


Map Name: FAIR PLAY
Print Date: 06/17/15
Scale: 1 inch = 2,000 ft.
Map Center: 034° 35' 38.81" N, 082° 59'
Horizontal Datum: NAD27
UST# 06742
Fair Play-Oakway Sch
Cem
Center Ch
Snow Creek Ch
Cross Roads
Mitchells Lake
Earles Grove
Cem
Creek
Mud Creek
Declination
MN
GN
GN 1.12° W
MN 6.07° W
SCALE 1:24000
0 1000 2000 3000 4000 5000 6000
FEET



NOTES:

1. GROUNDWATER MEASUREMENTS COLLECTED ON AUGUST 12, 2013.
2. ELEVATIONS ARE RELATIVE TO AN ARBITRARY SITE DATUM.

REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

REVISIONS			DRAWN: ACE	DATE: 09-24-13
No.	DESCRIPTION	BY	CHECKED: RAD	CAD FILE: FORMCRGROC-05WTM
			APPROVED: DRM	JOB NO: J13-6940-05

BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-6430

GROUNDWATER ELEVATION CONTOUR MAP - AUGUST 2013
COUNTRY SIDE 2
UST PERMIT #06742
WESTMINSTER, SOUTH CAROLINA

FIGURE NO. 2

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Catherine E. Heigel, Director
Promoting and protecting the health of the public and the environment

UST DOCKETING 65tcel

JUL 20 2015

BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: Notice to Proceed-Groundwater sampling/SSWP approval
Groundwater sampling contract
Contract #IFB-5400007403; PO #4600368640
Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA #50627 (MECI); CA #50628 (Pace)
Oconee County

Dear Mr. Shane:

In accordance with Contract #IFB-5400007403 and Quality Assurance Program Plan (QAPP) Revision 2.0 for the UST Management Division, the Site-Specific Work Plan (SSWP) Contractor Addendum has been reviewed and approved with the following comment:

- The SSWP states that Midlands did not locate 19 monitoring and recovery well during the reconnaissance but may be able to locate/uncover the wells during sampling activities. On July 15, 2015, Division personnel mobilized to the site to locate/uncover and mark the missing wells. Fifteen of the 19 wells were located/uncovered and marked.
- Monitoring/recovery wells MW-23, MW-25, and MW-54 have been abandoned for road/utility construction.
- Monitoring wells MW-11 and MW-11D? are located under a travel trailer. Please contact Ms. Jackie Broome (daughter) or Mr. Phillip Broome at 864-903-2773 prior to mobilizing to the site to arrange for the trailer to be moved.

In accordance with QAPP Revision 2.0, a status report of the project should be provided on a weekly basis via e-mail. If any quality assurance problems arise, you must contact me within 24 hours via phone or e-mail. In addition, a discussion of the problem(s) encountered (including quality assurance problems), the actions taken, and the results must be included in the final report submitted to the UST Management Division.

Midlands Environmental Consultants, Inc. will perform services at the site on behalf of the release owner/operator (O/O) and payment for the services will be made from the State Underground Petroleum Environmental Response Bank (SUPERB) account. The release O/O has no obligation to pay for this scope of work. Please coordinate access to the facility with the property owner. The Agency grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. A copy of the disposal manifest and/or

acceptance letter from the receiving facility that clearly designates the quantity received must be included with the final report. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

Please note that sampling should be conducted within 15 calendar days from the date of this letter and that the final report is due within 3 weeks from the sampling date. If the site is not sampled by the specified due date or the report is not received in the specified time period, a late fee may be imposed. The final report should contain the requirements of Section III.2.15 of the contract. Please submit the report to John Bryant, the contract manager.

If you have any site-specific questions, please contact me at (803) 898-0655 or via e-mail at padgetjp@dhec.sc.gov. If you have any contract-specific questions, please contact John Bryant at (803) 898-0606 or via e-mail at bryantjc@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

JPP/jpp
06742.mr2

enc: Pace and Midlands approved cost agreements
Contractor memorandum

cc: John Bryant, Corrective Action Section (w/o enc)
Angela Baioni, Pace Analytical Services, 9800 Kincey Ave, Ste 100, Huntersville, NC, 28078 (w/approved Pace CA)
Technical file (w/enc)

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

UNDERGROUND STORAGE TANK MANAGEMENT DIVISION
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-898-2544

MEMORANDUM

TO: Bryan Shane, P.G.

FROM: Joel Padgett, P.G.

RE: **Site Specific Work Plan Request**

Facility Name: Country Side 2

Permit Number: 06742

County: Oconee

Work To Be Completed: Sample all monitoring wells, recovery wells, and surface water location SW-1 for BTEX+naph+MtBE+DCA+oxygenates, EDB. **Do not sample well containing measurable (0.01')free-phase product**. ACA baseline.

81 wells
1 surface water location

Approved Cost Agreement 50627

Facility: 06742 COUNTRY SIDE 2

PADGETJP

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B1	PERSONNEL	5.0000	350.00	1,750.00
10 SAMPLE COLLECTION						
		A1	GROUNDWATER (PURGE)	81.0000	16.00	1,296.00
		C1	WATER SUPPLY	1.0000	5.00	5.00
		H1	FIELD BLANK	3.0000	10.00	30.00
17 DISPOSAL						
		AA	WASTEWATER	800.0000	1.00	800.00
18 MISCELLANEOUS						
			SITE RECONNAISSANCE	1.0000	0.00	0.00
			SITE SPECIFIC WORK PLAN	1.0000	0.00	0.00
			TRIP BLANK	3.0000	10.00	30.00
				Total Amount		3,911.00

Approved Cost Agreement 50628

Facility: 06742 COUNTRY SIDE 2

PADGETJP

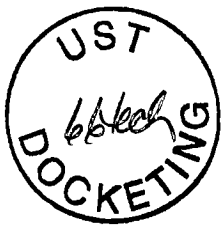
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
11 ANALYSES						
	GW GROUNDWATER	A2	BTEXNM+OXYGS+1,2-DCA+ETH-8260B	88.0000	19.00	1,672.00
		F1	EDB BY 8011	85.0000	18.00	1,530.00
				Total Amount		3,202.00

Midlands
Environmental
Consultants, Inc.

August 17, 2015

Mr. John Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201



Subject: Report of Groundwater Sampling
Country Side 2
8050 West Oak Highway
Westminster, South Carolina
SCDHEC Site ID Number 06742, CA #50627
MECI Project Number 15-5222
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Bryant,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling for the referenced site. This report describes site activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control's (SCDHEC) Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP).

PROJECT INFORMATION

The subject site (Country Side 2) is located at 8050 West Oak Highway in Westminster, Oconee County, South Carolina. The subject site formerly maintained two 1,000 gallon gasoline underground storage tanks (UST's), one 550 gallon gasoline UST, one 550 gallon diesel UST and one 550 gallon kerosene UST. These former UST's were abandoned by removal from the ground in June of 1990. Currently, the site maintains one 8,000 gallon gasoline UST, one 6,000 gallon gasoline plus UST, one 6,000 regular unleaded gasoline UST, one 10,000 off road diesel UST, and one 10,000 gallon diesel UST. The current UST's maintained at the site are in compliance with a compliance date of December 5, 2014. Two releases of petroleum product have been reported to the South Carolina Department of Health and Environmental Control (SCDHEC). Release #1 was reported and confirmed in January of 1993 and remains open. Release #2 was reported and confirmed in January of 2015. Release #2 was issued "conditional no further action" status in January of 2015. The subject site is currently rated a Class 1D.

The above information is based on reports and correspondence obtained from MECI field notes and SCDHEC files.

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

MONITORING WELL SAMPLING AND CHEMICAL ANALYSIS

On August 11 & 12, 2015, MECI personnel collected groundwater samples from fifty-eight (58) monitoring wells at the subject site. Eighteen (18) monitoring wells were gauged during the subject sampling event. Monitoring wells MW-R1, MW-R4, MW-7R, MW-8, MW-51, MW-60, MW-61, MW-63, MW-64, MW-65, MW-66, MW-67, MW-69 and MW-70 were gauged and determined to contain measurable free phase petroleum product. Monitoring wells MW-1, MW-2, MW-3x and MW-4x were gauged and determined to be dry. Monitoring wells MW-3, MW-23, MW-25, MW-54, and MW-5x were not located during sampling activities. Lastly, the surface water (SW-1) was found to be dry and samples were unable to be collected.

Based on the request of SCDHEC, all monitoring wells were to be purged prior to sample collection; however monitoring well MW-4 was unable to purged prior to sample collection due to insufficient water. Fifty-seven (57) monitoring wells were purged prior to sample collection. Prior to sampling, MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Purging was completed by bailing at least five well volumes of water from the well, until pH, conductivity, dissolved oxygen stabilized or all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, water temperature, and turbidity were obtained before well sampling process. MECI utilized YSI550A meter for DO (mg/L) and temperature readings (°C), YSI63 meters for pH and conductivity (uS) readings and a MicroTPI/TPW turbidimeter for turbidity readings (NTU). The attached Field Data Information Sheets presents the results of the field measurements obtained. The wells were sampled in accordance with SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP Revision 2.0) and MECI's Standard Operating Procedures (MECI SOP, Dates January 2014).

Groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006001) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Monitoring Well	Purge	No Purge	Gauge Well	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	Sulfate (EPA Method 375.2)	Nitrate (EPA Method 335.2)	Methane (RSK Method)	PAH's (EPA Method 8270)	Ferrous Iron (Field Test)
					Analyte Sampled									
MW-1			X											
MW-R1			X											
MW-R1A	X				X	X	X	X						
MW-2			X											
MW-R2	X				X	X	X	X						
MW-3				X										
MW-R3	X				X	X	X	X						

Notes: : BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons

Country Side 2
Westminster, South Carolina

August 18, 2015
MECI Job #: 15-5222

Monitoring Well	Purge	No Purge	Gauge Well	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	Sulfate (EPA Method 375.2)	Nitrate (EPA Method 335.2)	Methane (RSK Method)	PAH's (EPA Method 8270)	Ferrous Iron (Field Test)
					Analyte Sampled									
MW-4		X			X	X	X	X						
MW-R4			X											
MW-R4R	X				X	X	X	X						
MW-5	X				X	X	X	X						
MW-6	X				X	X	X	X						
MW-7	X				X	X	X	X						
MW-7R			X											
MW-8			X											
MW-9	X				X	X	X	X						
MW-9R	X				X	X	X	X						
MW-11	X				X	X	X	X						
MW-R11	X				X	X	X	X						
MW-12	X				X	X	X	X						
MW-13R	X				X	X	X	X						
MW-14R	X				X	X	X	X						
MW-14R2	X				X	X	X	X						
MW-15R	X				X	X	X	X						
MW-16DD	X				X	X	X	X						
MW-17i	X				X	X	X	X						
MW-18D	X				X	X	X	X						
MW-19i	X				X	X	X	X						
MW-20D	X				X	X	X	X						
MW-21i	X				X	X	X	X						
MW-22D	X				X	X	X	X						
MW-23				X										
MW-24	X				X	X	X	X						
MW-25				X										
MW-26i	X				X	X	X	X						
MW-28DD	X				X	X	X	X						
MW-29	X				X	X	X	X						
MW-30i	X				X	X	X	X						
MW-31D	X				X	X	X	X						
MW-32	X				X	X	X	X						
MW-33i	X				X	X	X	X						
MW-34D	X				X	X	X	X						
MW-35i	X				X	X	X	X						
MW-36D	X				X	X	X	X						
MW-37DD	X				X	X	X	X						
MW-38	X				X	X	X	X						
MW-39i	X				X	X	X	X						
MW-40D	X				X	X	X	X						
MW-41i	X				X	X	X	X						
MW-42D	X				X	X	X	X						
MW-43	X				X	X	X	X						
MW-44i	X				X	X	X	X						
MW-46	X				X	X	X	X						
MW-47	X				X	X	X	X						

Notes: : BTEX = benzene, toluene, etlbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons

Monitoring Well	Purge	No Purge	Gauge Well	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	Sulfate (EPA Method 375.2)	Nitrate (EPA Method 335.2)	Methane (RSK Method)	PAH's (EPA Method 8270)	Ferrous Iron (Field Test)
					Analyte Sampled									
MW-49	X				X	X	X	X						
MW-50	X				X	X	X	X						
MW-51			X											
MW-52	X				X	X	X	X						
MW-53	X				X	X	X	X						
MW-54				X										
MW-55	X				X	X	X	X						
MW-57i	X				X	X	X	X						
MW-58	X				X	X	X	X						
MW-59	X				X	X	X	X						
MW-60			X											
MW-61			X											
MW-62	X				X	X	X	X						
MW-63			X											
MW-64			X											
MW-65			X											
MW-66			X											
MW-67			X											
MW-68	X				X	X	X	X						
MW-69			X											
MW-70			X											
MW-1x	X				X	X	X	X						
MW-2x	X				X	X	X	X						
MW-3x			X											
MW-4x			X											
MW-5x				X										
MW-6x	X				X	X	X	X						
SW-1														
MW-9R Dup.					X	X	X	X						
MW-62 Dup.					X	X	X	X						
MW-68 Dup.					X	X	X	X						
Field Blank #1					X	X	X	X						
Field Blank #2					X	X	X	X						
Trip Blank #1					X		X	X						
Trip Blank #2					X		X	X						

Notes: : BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons

There was total of 455.75 gallons of purge water produced at the subject site.

Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Scientist

Jeff L. Coleman
Senior Scientist

Attachments:

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?			X
3	Is name, address, & phone number of current property owner provided?			X
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?			X
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?			X
11	Has the site-specific geology and hydrogeology been described?			X
12	Has the primary soil type been described?			X
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			X
20	Has the groundwater sampling methodology been detailed? (For detailed specifics, See MECI's SOP on file with SCDHEC)	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? See attached Site Activity Summary Sheet	X		
22	Has the purging methodology been detailed? (For detailed specifics, See MECI's SOP on file with SCDHEC)	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? See attached Field Data Information Sheets	X		
24	If free-product is present, has the thickness been provided? See attached Site Activity Summary Sheets	X		
25	Does the report include a brief discussion of the assessment done and the results?			X
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?			X
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)			X
34	Has the current and historical laboratory data been provided in tabular format?			X
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)		X	
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figure 3 & Figure 4)			X
40	Has the site potentiometric map been provided? (Figure 5)			X
41	Have the geologic cross-sections been provided? (Figure 6)			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix D)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? See attached	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided?	X		

Site Activity Summary

UST Permit #: 06742
Facility Name: Country Side 2
County: Oconee
Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

Midlands Environmental Consultants, Inc.

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	DO (mg/l)	# Gals. Purged	Comments
MW-1	N	8/11/15	DRY	TD: 30.00	DRY	DRY	DRY	DRY	DRY	Well Gauged DRY
MW-R1	N	8/11/15	PROD	30.0-45.0	32.61	32.65	0.04	PROD	PROD	PROD = Free Product Detected
MW-R1A	Y	8/12/15	11:13	65.0-70.0	***	29.69	***	Sheen	11.00	Odor, Sheen
MW-2	N	8/11/15	DRY	TD:25.00	DRY	DRY	DRY	DRY	DRY	Well Gauged DRY
MW-R2	Y	8/11/15	13:31	25.0-40.0	***	27.04	***	3.01	3.00	Organic Odor
MW-3	N	8/11/15	NL	NA	NL	NL	NL	NL	NL	Not Located/Possibly Destroyed
MW-R3	Y	8/11/15	13:44	30.0-40.0	***	27.00	***	2.74	3.00	Organic Odor
MW-4	Y	8/11/15	14:25	15.0-25.0	***	23.89	***	INS.	INS.	No Odor; Insufficient water to purge or collect field readings
MW-R4	N	8/11/15	PROD	28.0-38.0	27.92	27.94	0.02	PROD	PROD	PROD = Free Product Detected
MW-R4R	Y	8/11/15	16:01	25.0-40.0	***	27.80	***	1.81	3.00	Odor
MW-5	Y	8/11/15	16:07	10.0-20.0	***	14.08	***	5.07	2.00	No Odor
MW-6	Y	8/11/15	16:13	20.0-35.0	***	26.89	***	Sheen	2.00	Strong Odor, Sheen
MW-7	Y	8/12/15	11:32	24.0-39.0	***	28.04	***	2.01	3.00	Odor
MW-7R	N	8/12/15	PROD	35.0-45.0	27.93	27.94	0.01	PROD	PROD	PROD = Free Product Detected
MW-8	N	8/12/15	PROD	25.0-45.0	29.86	29.87	0.01	PROD	PROD	PROD = Free Product Detected
									27.00	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #: 06742
Facility Name: Country Side 2
County: Oconee
Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

Midlands Environmental Consultants, Inc.

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	DO (mg/l)	# Gals. Purged	Comments
MW-9	Y	8/12/15	11:41	17.0-32.0	***	24.89	***	2.79	2.5	No Odor
MW-9R	Y	8/12/15	11:53	35.0-45.0	***	25.01	***	3.79	4.00	No Odor
MW-11	Y	8/11/15	14:17	22.0-35.0	***	21.79	***	1.36	2.25	No Odor
MW-R11	Y	8/11/15	14:23	30.0-40.0	***	22.01	***	1.76	3.5	No Odor
MW-12	Y	8/11/15	9:06	7.0-12.0	***	8.99	***	5.97	0.75	No Odor
MW-13R	Y	8/11/15	12:14	25.0-35.0	***	6:14	***	1.28	6.50	No Odor
MW-14R	Y	8/11/15	12:22	25.0-35.0	***	16.26	***	1.37	6.00	No Odor
MW-14R2	Y	8/11/15	12:28	10.0-25.0	***	16.09	***	1.09	2.25	No Odor
MW-15R	Y	8/11/15	16:23	30.0-45.0	***	26.90	***	6.27	5.00	No Odor
MW-16DD	Y	8/11/15	15:17	90.0-95.0	***	34.76	***	2.06	26.00	No Odor
MW-17i	Y	8/11/15	15:43	47.0-52.0	***	30.71	***	4.07	10.00	No Odor
MW-18D	Y	8/11/15	15:29	56.0-61.0	***	30.94	***	4.71	13.00	No Odor
MW-19i	Y	8/11/15	15:53	50.0-55.0	***	29.99	***	2.21	9.00	No Odor
MW-20D	Y	8/11/15	14:45	71.0-76.0	***	29.66	***	2.36	22.00	No Odor
MW-21i	Y	8/11/15	16:08	50.0-55.0	***	29.97	***	2.49	9.00	No Odor
									121.75	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #: 06742
Facility Name: Country Side 2
County: Oconee
Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

Midlands Environmental Consultants, Inc.

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	DO (mg/l)	# Gals. Purged	Comments
MW-22D	Y	8/11/15	15:03	70.0-75.0	***	31.29	***	3.46	20.00	No Odor
MW-23	N	8/12/15	ABD	25.0-40.0	ABD	ABD	ABD	ABD	ABD	ABD = Well Abandoned
MW-24	Y	8/12/15	10:18	25.0-40.0	***	28.81	***	2.66	2.50	No Odor
MW-25	N	8/12/15	ABD	30.0-45.0	ABD	ABD	ABD	ABD	ABD	ABD = Well Abandoned
MW-26i	Y	8/11/15	13:53	40.0-45.0	***	21.16	***	6.28	9.00	No Odor
MW-28DD	Y	8/11/15	14:09	91.0-96.0	***	21.29	***	1.36	22.00	No Odor
MW-29	Y	8/11/15	13:14	20.0-33.0	***	21.73	***	6.79	3.00	No Odor
MW-30i	Y	8/11/15	13:23	40.0-45.0	***	21.51	***	7.26	8.00	No Odor
MW-31D	Y	8/11/15	13:39	61.0-66.0	***	21.60	***	7.36	17.00	No Odor
MW-32	Y	8/11/15	10:39	15.0-30.0	***	17.02	***	2.58	4.75	No Odor
MW-33i	Y	8/11/15	10:47	35.0-40.0	***	17.51	***	2.46	5.00	No Odor
MW-34D	Y	8/11/15	10:56	46.0-51.0	***	17.70	***	6.71	10.00	No Odor
MW-35i	Y	8/11/15	11:36	30.0-35.0	***	13.87	***	5.27	7.00	No Odor
MW-36D	Y	8/11/15	11:46	31.0-36.0	***	13.64	***	3.59	8.00	No Odor
MW-37DD	Y	8/11/15	12:05	52.0-57.0	***	13.94	***	2.26	20.00	No Odor
									136.25	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #: 06742
Facility Name: Country Side 2
County: Oconee
Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

Midlands Environmental Consultants, Inc.

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	DO (mg/l)	# Gals. Purged	Comments
MW-38	Y	8/11/15	9:46	15.0-25.0	***	21.15	***	4.91	1.00	No Odor
MW-39i	Y	8/11/15	9:59	40.0-45.0	***	21.07	***	7.02	13.00	No Odor
MW-40D	Y	8/11/15	10:18	61.0-66.0	***	20.96	***	4.96	18.00	No Odor
MW-41i	Y	8/11/15	12:40	40.0-45.0	***	16.07	***	2.21	7.00	No Odor
MW-42D	Y	8/11/15	13:07	55.0-60.0	***	15.99	***	1.79	24.00	No Odor
MW-43	Y	8/11/15	8:48	5.0-15.0	***	10.54	***	5.51	4.00	No Odor
MW-44i	Y	8/11/15	8:55	20.0-25.0	***	12.41	***	6.27	7.00	No Odor
MW-46	Y	8/11/15	10:24	20.0-35.0	***	22.71	***	6.94	4.00	No Odor
MW-47	Y	8/11/15	10:30	15.0-30.0	***	21.64	***	6.71	3.00	No Odor
MW-49	Y	8/11/15	8:33	5.0-20.0	***	13.73	***	1.26	6.00	No Odor
MW-50	Y	8/11/15	8:40	5.0-20.0	***	10.36	***	4.87	6.00	No Odor
MW-51	N	8/11/15	PROD	30.0-45.0	29.93	29.96	0.03	PROD	PROD	PROD = Free Product Detected
MW-52	Y	8/11/15	16:36	30.0-45.0	***	26.91	***	1.37	6.00	Odor
MW-53	Y	8/11/15	16:47	25.0-45.0	***	25.87	***	1.16	7.00	No Odor
MW-54	N	8/12/15	ABD	30.0-45.0	ABD	ABD	ABD	ABD	ABD	ABD = Well Abandoned
									106.00	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #: 06742
Facility Name: Country Side 2
County: Oconee
Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

Midlands Environmental Consultants, Inc.

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	DO (mg/l)	# Gals. Purged	Comments
MW-55	Y	8/11/15	9:17	5.0-20.0	***	11.02	***	4.91	1.00	No Odor
MW-57i	Y	8/11/15	9:26	25.0-30.0	***	11.90	***	7.02	13.00	No Odor
MW-58	Y	8/11/15	9:37	20.0-30.0	***	21.77	***	4.96	18.00	No Odor
MW-59	Y	8/11/15	9:01	7.0-22.0	***	15.54	***	2.21	7.00	No Odor
MW-60	N	8/12/15	PROD	25.0-45.0	29.85	29.88	0.03	PROD	PROD	PROD = Free Product Detected
MW-61	N	8/12/15	PROD	25.0-45.0	29.28	29.33	0.05	PROD	PROD	PROD = Free Product Detected
MW-62	Y	8/12/15	9:30	25.0-45.0	***	29.36	***	6.27	7.00	Odor
MW-63	N	8/12/15	PROD	25.0-45.0	28.99	29.01	0.02	PROD	PROD	PROD = Free Product Detected
MW-64	N	8/11/15	PROD	25.0-45.0	28.54	28.55	0.01	PROD	PROD	PROD = Free Product Detected
MW-65	N	8/11/15	PROD	25.0-45.0	29.00	29.06	0.06	PROD	PROD	PROD = Free Product Detected
MW-66	N	8/11/15	PROD	25.0-45.0	26.93	26.98	0.05	PROD	PROD	PROD = Free Product Detected
MW-67	N	8/11/15	PROD	25.0-45.0	26.96	27.00	0.04	PROD	PROD	PROD = Free Product Detected
MW-68	Y	8/12/15	9:57	25.7-45.7	***	28.79	***	1.37	6.00	Odor, Sheen
MW-69	N	8/12/15	PROD	24.4-44.4	28.44	28.46	0.02	PROD	PROD	PROD = Free Product Detected
MW-70	N	8/11/15	PROD	24.3-44.3	26.71	27.74	1.03	PROD	PROD	PROD = Free Product Detected
									52.00	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #: 06742
Facility Name: Country Side 2
County: Oconee
Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

Midlands Environmental Consultants, Inc.

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	DO (mg/l)	# Gals. Purged	Comments
MW-1x	Y	8/12/15	10:10	65.0-70.0	***	29.77	***	2.21	11.00	No Odor
MW-2x	Y	8/12/15	12:10	TD:43.00	***	21.15	***	2.11	1.25	Odor
MW-3x	N	8/11/15	DRY	TD:28.64	DRY	DRY	DRY	DRY	DRY	Well Gauged DRY
MW-4x	N	8/12/15	DRY	TD:20.00	DRY	DRY	DRY	DRY	DRY	Well Gauged DRY
MW-5x	N	8/11/15	NL	NL	NL	NL	NL	NL	NL	Not Located
MW-6x	Y	8/12/15	11:05	TD:38.00	***	32.10	***	Sheen	0.50	Odor
SW-1	N	8/11/15	DRY	***	***	***	***	***	***	Creek DRY
MW-9R Dup.	Y	8/12/15	9:30	***	***	***	***	***	***	Duplicate Sample
MW-62 Dup.	Y	8/12/215	9:57	***	***	***	***	***	***	Duplicate Sample
MW-68 Dup.	Y	8/12/15	11:53	***	***	***	***	***	***	Duplicate Sample
Field Blank 1	Y	8/11/15	17:00	***	***	***	***	***	***	Field Blank 8/11/2015
Field Blank 2	Y	8/12/15	12:15	***	***	***	***	***	***	Field Blank 8/12/2015
Trip Blank 1	Y	8/11/15	17:01	***	***	***	***	***	***	Trip Blank (Cooler 1)
Trip Blank 2	Y	8/11/15	17:02	***	***	***	***	***	***	Trip Blank (Cooler 2)
									12.75	**TOTAL GALLONS PURGED**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-1

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	DRY		feet
Total Well Depth (TWD)	30		feet
Length of the water column (LWC=TWD-DGW)		#VALUE!	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	#VALUE!	gallons
5 casing volume (5 X CV)=	5	7.22	gallons

Total Volume of Water Purged Before Sampling DRY gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	DRY							
pH (s.u.)	DRY							
Specific Conductivity (µmhos/cm)	DRY							
Water Temperature (°C)	DRY							
Dissolved Oxygen	DRY							
Turbidity (NTU)	DRY							
PID readings, if required								

Remarks: Sample Time: DRY **DRY = Well Gauged Dry**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-R1

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	*0.04*			feet
Depth to Free Product (DFP)	32.65			feet
Depth to Ground Water (DGW)	32.61			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			12.39	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	2.02	gallons
5 casing volume (5 X CV)=		5	10.10	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-R1A

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	29.69			feet
Total Well Depth (TWD)	70			feet
Length of the water column (LWC=TWD-DGW)			40.31	feet
1 casing volume (CV=LWC X C)=	X	0.163	6.57	gallons
5 casing volume (5 X CV)=		5	32.85	gallons

Total Volume of Water Purged Before Sampling 11 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:06	11:13						
pH (s.u.)	Sheen	Sheen						
Specific Conductivity (µmhos/cm)	Sheen	Sheen						
Water Temperature (°C)	Sheen	Sheen						
Dissolved Oxygen	Sheen	Sheen						
Turbidity (NTU)	Sheen	Sheen						
PID readings, if required								

Remarks: Sample Time: 11:13 **Dry @ 11.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-2

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	DRY		feet
Total Well Depth (TWD)	25		feet
Length of the water column (LWC=TWD-DGW)		#VALUE!	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	#VALUE!	gallons
5 casing volume (5 X CV)=	5	#VALUE!	gallons

Total Volume of Water Purged Before Sampling DRY gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	DRY							
pH (s.u.)	DRY							
Specific Conductivity (µmhos/cm)	DRY							
Water Temperature (°C)	DRY							
Dissolved Oxygen	DRY							
Turbidity (NTU)	DRY							
PID readings, if required								

Remarks: Sample Time: DRY **DRY = Well Gauged Dry**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-R2

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	27.04			feet
Total Well Depth (TWD)	40			feet
Length of the water column (LWC=TWD-DGW)			12.96	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	2.11	gallons
5 casing volume (5 X CV)=		5	10.56	gallons

Total Volume of Water Purged Before Sampling 3 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:29	13:31						
pH (s.u.)	6.57	6.61						
Specific Conductivity (µmhos/cm)	106.1	94.8						
Water Temperature (°C)	20.4	19.0						
Dissolved Oxygen	3.01	2.96						
Turbidity (NTU)	19.8	175.5						
PID readings, if required								

Remarks: Sample Time: 13:31 **Dry @ 3.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-3

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	NL		feet
Total Well Depth (TWD)	NA		feet
Length of the water column (LWC=TWD-DGW)		#VALUE!	feet
1 casing volume (CV=LWC X C)=	X	0.163 #VALUE!	gallons
5 casing volume (5 X CV)=		5 #VALUE!	gallons

Total Volume of Water Purged Before Sampling NL gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	NL							
pH (s.u.)	NL							
Specific Conductivity (µmhos/cm)	NL							
Water Temperature (°C)	NL							
Dissolved Oxygen	NL							
Turbidity (NTU)	NL							
PID readings, if required								

Remarks: Sample Time: NL **NL =Not Located, Well Possibly Destroyed**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-R3

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	27.00			feet
Total Well Depth (TWD)	40			feet
Length of the water column (LWC=TWD-DGW)			13.00	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	2.12	gallons
5 casing volume (5 X CV)=		5	10.60	gallons

Total Volume of Water Purged Before Sampling 3 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:42	13:44						
pH (s.u.)	6.89	6.92						
Specific Conductivity (µmhos/cm)	121.9	107.0						
Water Temperature (°C)	20.2	18.9						
Dissolved Oxygen	2.74	2.61						
Turbidity (NTU)	21.6	271.8						
PID readings, if required								

Remarks: Sample Time: 13:44 **Dry @ 3.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-4

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	23.89			feet
Total Well Depth (TWD)	25			feet
Length of the water column (LWC=TWD-DGW)			1.11	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	0.18	gallons
5 casing volume (5 X CV)=		5	0.90	gallons

Total Volume of Water Purged Before Sampling 0 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:25							
pH (s.u.)	INS.							
Specific Conductivity (µmhos/cm)	INS.							
Water Temperature (°C)	INS.							
Dissolved Oxygen	INS.							
Turbidity (NTU)	INS.							
PID readings, if required								

Remarks: Sample Time: 14:25 **INS. = Insufficient water to purge or collect field readingas**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-R4

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	*0.02*			feet
Depth to Free Product (DFP)	27.94			feet
Depth to Ground Water (DGW)	27.92			feet
Total Well Depth (TWD)	38			feet
Length of the water column (LWC=TWD-DGW)			10.08	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.64	gallons
5 casing volume (5 X CV)=		5	8.22	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-R4R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	27.80			feet
Total Well Depth (TWD)	40			feet
Length of the water column (LWC=TWD-DGW)			12.20	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.99	gallons
5 casing volume (5 X CV)=		5	9.94	gallons

Total Volume of Water Purged Before Sampling 3 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	15:58	16:01						
pH (s.u.)	6.81	6.72						
Specific Conductivity (µmhos/cm)	134.1	121.8						
Water Temperature (°C)	20.1	18.9						
Dissolved Oxygen	1.81	1.59						
Turbidity (NTU)	14.7	190.2						
PID readings, if required								

Remarks: Sample Time: 16:01 **Dry @ 3.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-5

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	14.08			feet
Total Well Depth (TWD)	20			feet
Length of the water column (LWC=TWD-DGW)			5.92	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	0.96	gallons
5 casing volume (5 X CV)=		5	4.82	gallons

Total Volume of Water Purged Before Sampling 2 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	16:05	16:06	16:07					
pH (s.u.)	7.90	7.84	7.77					
Specific Conductivity (µmhos/cm)	71.1	60.4	58.8					
Water Temperature (°C)	19.7	18.9	18.8					
Dissolved Oxygen	5.07	4.96	4.81					
Turbidity (NTU)	16.7	178.8	257.6					
PID readings, if required								

Remarks: Sample Time: 16:07 **Dry @ 2.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-6

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	26.89			feet
Total Well Depth (TWD)	35			feet
Length of the water column (LWC=TWD-DGW)			8.11	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.32	gallons
5 casing volume (5 X CV)=		5	6.61	gallons

Total Volume of Water Purged Before Sampling 2 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	16:12	16:13						
pH (s.u.)	Sheen	Sheen						
Specific Conductivity (µmhos/cm)	Sheen	Sheen						
Water Temperature (°C)	Sheen	Sheen						
Dissolved Oxygen	Sheen	Sheen						
Turbidity (NTU)	Sheen	Sheen						
PID readings, if required								

Remarks: Sample Time: 16:13 **Dry @ 2.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-7

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	28.04			feet
Total Well Depth (TWD)	39			feet
Length of the water column (LWC=TWD-DGW)			10.96	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.79	gallons
5 casing volume (5 X CV)=		5	8.93	gallons

Total Volume of Water Purged Before Sampling 3 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:30	11:32						
pH (s.u.)	6.79	6.89						
Specific Conductivity (µmhos/cm)	71.8	96.4						
Water Temperature (°C)	21.1	19.6						
Dissolved Oxygen	2.01	1.93						
Turbidity (NTU)	10.3	168.2						
PID readings, if required								

Remarks: Sample Time: 11:32 **Dry @ 3.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-7R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	*0.01*			feet
Depth to Free Product (DFP)	27.94			feet
Depth to Ground Water (DGW)	27.93			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			17.07	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	2.78	gallons
5 casing volume (5 X CV)=		5	13.91	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-8

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	***0.01***			feet
Depth to Free Product (DFP)	29.87			feet
Depth to Ground Water (DGW)	29.86			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			15.14	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	2.47	gallons
5 casing volume (5 X CV)=		5	12.34	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-9

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	24.89			feet
Total Well Depth (TWD)	32			feet
Length of the water column (LWC=TWD-DGW)			7.11	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.16	gallons
5 casing volume (5 X CV)=		5	5.79	gallons

Total Volume of Water Purged Before Sampling 2.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:39	11:40	11:41					
pH (s.u.)	6.19	6.11	6.06					
Specific Conductivity (µmhos/cm)	57.1	46.2	44.8					
Water Temperature (°C)	22.1	20.9	20.8					
Dissolved Oxygen	2.79	3.06	3.15					
Turbidity (NTU)	17.4	191.6	251.9					
PID readings, if required								

Remarks: Sample Time: 11:41 **Dry @ 2.50 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-9R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	25.01			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			19.99	feet
1 casing volume (CV=LWC X C)=	X	0.163	3.26	gallons
5 casing volume (5 X CV)=		5	16.29	gallons

Total Volume of Water Purged Before Sampling 4 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:50	11:53						
pH (s.u.)	6.89	7.04						
Specific Conductivity (µmhos/cm)	37.8	29.4						
Water Temperature (°C)	18.7	18.4						
Dissolved Oxygen	3.79	3.51						
Turbidity (NTU)	12.4	137.6						
PID readings, if required								

Remarks: Sample Time: 11:53 **Dry @ 4.00 Gallons**
Duplicate Sample Collected

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-11

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	21.79			feet
Total Well Depth (TWD)	35			feet
Length of the water column (LWC=TWD-DGW)			13.21	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	2.15	gallons
5 casing volume (5 X CV)=		5	10.77	gallons

Total Volume of Water Purged Before Sampling 2.25 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:15	14:17						
pH (s.u.)	6.17	6.09						
Specific Conductivity (µmhos/cm)	86.4	71.0						
Water Temperature (°C)	21.1	19.8						
Dissolved Oxygen	1.36	1.19						
Turbidity (NTU)	16.8	199.4						
PID readings, if required								

Remarks: Sample Time: 14:17 **Dry @ 2.25 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-R11

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	22.01			feet
Total Well Depth (TWD)	40			feet
Length of the water column (LWC=TWD-DGW)			17.99	feet
1 casing volume (CV=LWC X C)=	X	0.163	2.93	gallons
5 casing volume (5 X CV)=		5	14.66	gallons

Total Volume of Water Purged Before Sampling 3.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:20	14:23						
pH (s.u.)	6.31	6.25						
Specific Conductivity (µmhos/cm)	106.4	93.5						
Water Temperature (°C)	20.8	20.0						
Dissolved Oxygen	1.76	1.58						
Turbidity (NTU)	19.1	211.1						
PID readings, if required								

Remarks: Sample Time: 14:23 **Dry @ 3.50 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015
Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie
General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2
Site ID#: 06742 **Monitoring Well #** MW-12
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	8.99			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			3.01	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	0.49	gallons
5 casing volume (5 X CV)=		5	2.45	gallons

Total Volume of Water Purged Before Sampling 0.75 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	9:05	9:06						
pH (s.u.)	5.35	5.49						
Specific Conductivity (µmhos/cm)	20.4	27.0						
Water Temperature (°C)	17.6	17.2						
Dissolved Oxygen	5.97	6.12						
Turbidity (NTU)	19.8	246.8						
PID readings, if required								

Remarks: Sample Time: 9:06 **Dry @ 0.75 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-13R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	14.26			feet
Total Well Depth (TWD)	35			feet
Length of the water column (LWC=TWD-DGW)			20.74	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	3.38	gallons
5 casing volume (5 X CV)=		5	16.90	gallons

Total Volume of Water Purged Before Sampling 6.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:10	12:14						
pH (s.u.)	7.49	7.37						
Specific Conductivity (µmhos/cm)	141.1	127.0						
Water Temperature (°C)	20.0	19.0						
Dissolved Oxygen	1.28	1.17						
Turbidity (NTU)	20.0	176.7						
PID readings, if required								

Remarks: Sample Time: 12:14 **Dry @ 6.50 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015
Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie
General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2
Site ID#: 06742 **Monitoring Well #** MW-14R
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	16.26			feet
Total Well Depth (TWD)	35			feet
Length of the water column (LWC=TWD-DGW)			18.74	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	3.05	gallons
5 casing volume (5 X CV)=		5	15.27	gallons

Total Volume of Water Purged Before Sampling 6 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:18	12:22						
pH (s.u.)	6.71	6.59						
Specific Conductivity (µmhos/cm)	87.2	71.6						
Water Temperature (°C)	18.9	17.4						
Dissolved Oxygen	1.37	1.26						
Turbidity (NTU)	21.8	271.8						
PID readings, if required								

Remarks: Sample Time: 12:22 **Dry @ 6.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-14R2

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	16.09			feet
Total Well Depth (TWD)	25			feet
Length of the water column (LWC=TWD-DGW)			8.91	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.45	gallons
5 casing volume (5 X CV)=		5	7.26	gallons

Total Volume of Water Purged Before Sampling 2.25 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:26	12:28						
pH (s.u.)	7.11	7.04						
Specific Conductivity (µmhos/cm)	120.4	147.8						
Water Temperature (°C)	18.4	17.9						
Dissolved Oxygen	1.09	1.24						
Turbidity (NTU)	19.2	177.8						
PID readings, if required								

Remarks: Sample Time: 12:28 **Dry @ 2.25 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-15R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	26.90			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			18.10	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	2.95	gallons
5 casing volume (5 X CV)=		5	14.75	gallons

Total Volume of Water Purged Before Sampling 5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	16:20	16:23						
pH (s.u.)	5.70	5.57						
Specific Conductivity (µmhos/cm)	40.8	29.4						
Water Temperature (°C)	19.5	18.2						
Dissolved Oxygen	6.27	6.04						
Turbidity (NTU)	15.3	227.8						
PID readings, if required								

Remarks: Sample Time: 16:23 **Dry @ 5.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-16DD

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	34.76			feet
Total Well Depth (TWD)	95			feet
Length of the water column (LWC=TWD-DGW)			60.24	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	9.82	gallons
5 casing volume (5 X CV)=		5	49.10	gallons

Total Volume of Water Purged Before Sampling 26 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	15:01	15:06	15:17					
pH (s.u.)	6.71	6.90	6.88					
Specific Conductivity (µmhos/cm)	155.4	136.8	130.9					
Water Temperature (°C)	18.6	17.7	17.6					
Dissolved Oxygen	2.06	2.27	2.39					
Turbidity (NTU)	11.1	22.0	36.8					
PID readings, if required								

Remarks: Sample Time: 15:17 **Dry @ 26.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-17i

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	30.71			feet
Total Well Depth (TWD)	52			feet
Length of the water column (LWC=TWD-DGW)			21.29	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	3.47	gallons
5 casing volume (5 X CV)=		5	17.35	gallons

Total Volume of Water Purged Before Sampling 10 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	15:35	15:38	15:43					
pH (s.u.)	7.12	7.16	7.18					
Specific Conductivity (µmhos/cm)	76.2	89.1	94.7					
Water Temperature (°C)	20.0	18.7	18.5					
Dissolved Oxygen	4.07	3.93	3.81					
Turbidity (NTU)	11.3	33.1	44.8					
PID readings, if required								

Remarks: Sample Time: 15:43 **Dry @ 10.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	

Calibration Buffer: 4, 7, & 10

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-18D

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	30.94			feet
Total Well Depth (TWD)	61			feet
Length of the water column (LWC=TWD-DGW)			30.06	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	4.90	gallons
5 casing volume (5 X CV)=		5	24.50	gallons

Total Volume of Water Purged Before Sampling 13 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	15:20	15:25	15:29					
pH (s.u.)	7.19	7.11	7.26					
Specific Conductivity (µmhos/cm)	51.7	40.8	38.2					
Water Temperature (°C)	20.0	19.0	18.8					
Dissolved Oxygen	4.71	4.49	4.37					
Turbidity (NTU)	12.3	36.5	49.3					
PID readings, if required								

Remarks: Sample Time: 15:29 **Dry @ 13.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-19i

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	29.99			feet
Total Well Depth (TWD)	55			feet
Length of the water column (LWC=TWD-DGW)			25.01	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	4.08	gallons
5 casing volume (5 X CV)=		5	20.38	gallons

Total Volume of Water Purged Before Sampling 9 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	15:45	15:49	15:53					
pH (s.u.)	7.84	7.71	7.62					
Specific Conductivity (µmhos/cm)	62.1	51.8	49.7					
Water Temperature (°C)	19.4	18.2	18.1					
Dissolved Oxygen	2.21	2.07	1.96					
Turbidity (NTU)	17.7	49.2	66.3					
PID readings, if required								

Remarks: Sample Time: 15:53 **Dry @ 9.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-20D

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	29.66			feet
Total Well Depth (TWD)	76			feet
Length of the water column (LWC=TWD-DGW)			46.34	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	7.55	gallons
5 casing volume (5 X CV)=		5	37.77	gallons

Total Volume of Water Purged Before Sampling 22 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:30	14:37	14:45					
pH (s.u.)	6.81	6.71	6.96					
Specific Conductivity (µmhos/cm)	136.2	121.8	115.0					
Water Temperature (°C)	21.1	18.7	18.5					
Dissolved Oxygen	2.36	2.21	2.16					
Turbidity (NTU)	10.4	21.1	36.6					
PID readings, if required								

Remarks: Sample Time: 14:45 **Dry @ 22.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-21i

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	29.97			feet
Total Well Depth (TWD)	55			feet
Length of the water column (LWC=TWD-DGW)			25.03	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	4.08	gallons
5 casing volume (5 X CV)=		5	20.40	gallons

Total Volume of Water Purged Before Sampling 9 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	15:58	16:04	16:08					
pH (s.u.)	6.61	6.71	6.84					
Specific Conductivity (µmhos/cm)	121.8	117.9	106.4					
Water Temperature (°C)	19.6	18.8	18.6					
Dissolved Oxygen	2.49	2.33	2.21					
Turbidity (NTU)	13.5	51.7	76.3					
PID readings, if required								

Remarks: Sample Time: 16:08 **Dry @ 9.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-22D

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	31.29			feet
Total Well Depth (TWD)	75			feet
Length of the water column (LWC=TWD-DGW)			43.71	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	7.12	gallons
5 casing volume (5 X CV)=		5	35.62	gallons

Total Volume of Water Purged Before Sampling 20 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:48	14:55	15:03					
pH (s.u.)	6.71	6.87	6.94					
Specific Conductivity (µmhos/cm)	57.1	43.8	39.7					
Water Temperature (°C)	20.6	19.0	18.8					
Dissolved Oxygen	3.46	3.31	3.26					
Turbidity (NTU)	9.3	19.8	30.0					
PID readings, if required								

Remarks: Sample Time: 15:03 **Dry @ 20.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-23

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	ABD		feet
Total Well Depth (TWD)	40		feet
Length of the water column (LWC=TWD-DGW)		#VALUE!	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	#VALUE!	gallons
5 casing volume (5 X CV)=	5	#VALUE!	gallons

Total Volume of Water Purged Before Sampling ABD gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	ABD							
pH (s.u.)	ABD							
Specific Conductivity (µmhos/cm)	ABD							
Water Temperature (°C)	ABD							
Dissolved Oxygen	ABD							
Turbidity (NTU)	ABD							
PID readings, if required								

Remarks: Sample Time: ABD **ABD = Well Abandoned**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-24

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	28.81			feet
Total Well Depth (TWD)	40			feet
Length of the water column (LWC=TWD-DGW)			11.19	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.82	gallons
5 casing volume (5 X CV)=		5	9.12	gallons

Total Volume of Water Purged Before Sampling 2.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:15	10:18						
pH (s.u.)	6.71	6.59						
Specific Conductivity (µmhos/cm)	87.2	94.6						
Water Temperature (°C)	19.6	18.2						
Dissolved Oxygen	2.66	2.47						
Turbidity (NTU)	17.6	247.8						
PID readings, if required								

Remarks: Sample Time: 10:18 **Dry @ 2.50 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-25

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	ABD		feet
Total Well Depth (TWD)	40		feet
Length of the water column (LWC=TWD-DGW)		#VALUE!	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	#VALUE!	gallons
5 casing volume (5 X CV)=	5	#VALUE!	gallons

Total Volume of Water Purged Before Sampling ABD gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	ABD							
pH (s.u.)	ABD							
Specific Conductivity (µmhos/cm)	ABD							
Water Temperature (°C)	ABD							
Dissolved Oxygen	ABD							
Turbidity (NTU)	ABD							
PID readings, if required								

Remarks: Sample Time: ABD **ABD = Well Abandoned**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-26i

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	21.16			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			23.84	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	3.89	gallons
5 casing volume (5 X CV)=		5	19.43	gallons

Total Volume of Water Purged Before Sampling 9 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:45	13:49	13:53					
pH (s.u.)	6.41	6.30	6.36					
Specific Conductivity (µmhos/cm)	71.8	58.8	57.0					
Water Temperature (°C)	20.0	18.6	18.5					
Dissolved Oxygen	6.28	6.11	6.01					
Turbidity (NTU)	11.1	49.3	61.2					
PID readings, if required								

Remarks: Sample Time: 13:53 **Dry @ 9.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015
Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie
General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2
Site ID#: 06742 **Monitoring Well #** MW-28DD
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	21.29			feet
Total Well Depth (TWD)	96			feet
Length of the water column (LWC=TWD-DGW)			74.71	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	12.18	gallons
5 casing volume (5 X CV)=		5	60.89	gallons

Total Volume of Water Purged Before Sampling 22 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:55	14:09						
pH (s.u.)	7.36	7.21						
Specific Conductivity (µmhos/cm)	274.6	307.1						
Water Temperature (°C)	19.3	17.6						
Dissolved Oxygen	1.36	1.58						
Turbidity (NTU)	10.8	21.2						
PID readings, if required								

Remarks: Sample Time: 14:09 **Dry @ 22.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-29

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	21.73			feet
Total Well Depth (TWD)	33			feet
Length of the water column (LWC=TWD-DGW)			11.27	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.84	gallons
5 casing volume (5 X CV)=		5	9.19	gallons

Total Volume of Water Purged Before Sampling 3 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:12	13:14						
pH (s.u.)	5.96	6.09						
Specific Conductivity (µmhos/cm)	31.1	20.4						
Water Temperature (°C)	19.9	19.1						
Dissolved Oxygen	6.79	6.57						
Turbidity (NTU)	18.8	160.5						
PID readings, if required								

Remarks: Sample Time: 13:14 **Dry @ 3.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-30i

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	21.51			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			23.49	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	3.83	gallons
5 casing volume (5 X CV)=		5	19.14	gallons

Total Volume of Water Purged Before Sampling 8 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:16	13:19	13:23					
pH (s.u.)	7.48	7.57	7.64					
Specific Conductivity (µmhos/cm)	80.4	89.1	94.5					
Water Temperature (°C)	19.6	18.9	18.8					
Dissolved Oxygen	7.26	7.11	7.04					
Turbidity (NTU)	12.0	40.9	56.6					
PID readings, if required								

Remarks: Sample Time: 13:23 **Dry @ 8.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-31D

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	21.60			feet
Total Well Depth (TWD)	66			feet
Length of the water column (LWC=TWD-DGW)			44.40	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	7.24	gallons
5 casing volume (5 X CV)=		5	36.19	gallons

Total Volume of Water Purged Before Sampling 17 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:25	13:32	13:39					
pH (s.u.)	8.07	8.16	8.24					
Specific Conductivity (µmhos/cm)	266.6	271.9	284.5					
Water Temperature (°C)	19.1	18.0	17.7					
Dissolved Oxygen	7.36	7.59	7.62					
Turbidity (NTU)	9.9	20.8	29.4					
PID readings, if required								

Remarks: Sample Time: 13:39 **Dry @ 17.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-32

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	17.02			feet
Total Well Depth (TWD)	30			feet
Length of the water column (LWC=TWD-DGW)			12.98	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	2.12	gallons
5 casing volume (5 X CV)=		5	10.58	gallons

Total Volume of Water Purged Before Sampling 4.75 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:35	10:37	10:39					
pH (s.u.)	5.70	5.79	5.86					
Specific Conductivity (µmhos/cm)	81.6	70.0	69.4					
Water Temperature (°C)	19.4	18.6	18.4					
Dissolved Oxygen	2.58	2.43	2.30					
Turbidity (NTU)	16.6	137.1	171.9					
PID readings, if required								

Remarks: Sample Time: 10:39 **Dry @ 4.75 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-33i

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	17.51			feet
Total Well Depth (TWD)	40			feet
Length of the water column (LWC=TWD-DGW)			22.49	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	3.67	gallons
5 casing volume (5 X CV)=		5	18.33	gallons

Total Volume of Water Purged Before Sampling 5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:42	10:47						
pH (s.u.)	5.90	6.01						
Specific Conductivity (µmhos/cm)	41.9	29.3						
Water Temperature (°C)	18.3	17.5						
Dissolved Oxygen	2.46	2.31						
Turbidity (NTU)	11.3	100.5						
PID readings, if required								

Remarks: Sample Time: 10:47 **Dry @ 5.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-34D

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	17.70			feet
Total Well Depth (TWD)	51			feet
Length of the water column (LWC=TWD-DGW)			33.30	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	5.43	gallons
5 casing volume (5 X CV)=		5	27.14	gallons

Total Volume of Water Purged Before Sampling 10 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:50	10:56						
pH (s.u.)	5.91	5.86						
Specific Conductivity (µmhos/cm)	57.1	43.6						
Water Temperature (°C)	17.9	17.3						
Dissolved Oxygen	6.71	6.49						
Turbidity (NTU)	9.4	40.7						
PID readings, if required								

Remarks: Sample Time: 10:56 **Dry @ 10.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015
Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie
General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2
Site ID#: 06742 **Monitoring Well #** MW-35i
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	13.87			feet
Total Well Depth (TWD)	35			feet
Length of the water column (LWC=TWD-DGW)			21.13	feet
1 casing volume (CV=LWC X C)=	X	0.163	3.44	gallons
5 casing volume (5 X CV)=		5	17.22	gallons

Total Volume of Water Purged Before Sampling 7 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:00	11:33	11:36					
pH (s.u.)	8.36	8.29	8.24					
Specific Conductivity (µmhos/cm)	206.8	227.8	241.9					
Water Temperature (°C)	19.8	19.0	18.9					
Dissolved Oxygen	5.27	5.16	5.11					
Turbidity (NTU)	15.0	52.0	78.9					
PID readings, if required								

Remarks: Sample Time: 11:36 **Dry @ 7.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-36D

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	13.64			feet
Total Well Depth (TWD)	36			feet
Length of the water column (LWC=TWD-DGW)			22.36	feet
1 casing volume (CV=LWC X C)=	X	0.163	3.64	gallons
5 casing volume (5 X CV)=		5	18.22	gallons

Total Volume of Water Purged Before Sampling 8 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:40	11:43	11:46					
pH (s.u.)	8.11	8.01	7.96					
Specific Conductivity (µmhos/cm)	121.7	117.6	111.9					
Water Temperature (°C)	19.6	18.7	18.6					
Dissolved Oxygen	3.59	3.40	3.30					
Turbidity (NTU)	11.1	41.9	54.0					
PID readings, if required								

Remarks: Sample Time: 11:46 **Dry @ 8.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-37DD

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	13.94			feet
Total Well Depth (TWD)	57			feet
Length of the water column (LWC=TWD-DGW)			43.06	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	7.02	gallons
5 casing volume (5 X CV)=		5	35.09	gallons

Total Volume of Water Purged Before Sampling 20 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:50	11:57	12:05					
pH (s.u.)	8.27	8.36	8.41					
Specific Conductivity (µmhos/cm)	276.4	236.9	230.1					
Water Temperature (°C)	18.7	17.9	17.8					
Dissolved Oxygen	2.26	2.10	2.04					
Turbidity (NTU)	9.6	27.1	48.0					
PID readings, if required								

Remarks: Sample Time: 12:05 **Dry @ 20.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-38

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	21.15			feet
Total Well Depth (TWD)	25			feet
Length of the water column (LWC=TWD-DGW)			3.85	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	0.63	gallons
5 casing volume (5 X CV)=		5	3.14	gallons

Total Volume of Water Purged Before Sampling 1 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	9:45	9:46						
pH (s.u.)	7.37	7.21						
Specific Conductivity (µmhos/cm)	47.6	38.2						
Water Temperature (°C)	18.7	17.9						
Dissolved Oxygen	2.26	2.10						
Turbidity (NTU)	9.6	27.1						
PID readings, if required								

Remarks: Sample Time: 12:05 **Dry @ 1.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-39i

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	21.07			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			23.93	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	3.90	gallons
5 casing volume (5 X CV)=		5	19.50	gallons

Total Volume of Water Purged Before Sampling 13 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	9:50	9:53	9:56	9:59				
pH (s.u.)	7.57	7.48	7.41	7.38				
Specific Conductivity (µmhos/cm)	81.7	62.1	58.9	52.1				
Water Temperature (°C)	19.4	18.2	18.1	17.9				
Dissolved Oxygen	7.02	6.82	6.80	6.71				
Turbidity (NTU)	10.8	59.1	68.2	76.3				
PID readings, if required								

Remarks: Sample Time: 9:59 **Dry @ 13.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-40D

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	20.96			feet
Total Well Depth (TWD)	66			feet
Length of the water column (LWC=TWD-DGW)			45.04	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	7.34	gallons
5 casing volume (5 X CV)=		5	36.71	gallons

Total Volume of Water Purged Before Sampling 18 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:04	10:11	10:18					
pH (s.u.)	7.96	8.04	8.21					
Specific Conductivity (µmhos/cm)	137.0	156.1	164.9					
Water Temperature (°C)	19.0	18.0	17.7					
Dissolved Oxygen	4.96	5.29	5.36					
Turbidity (NTU)	10.0	29.0	38.6					
PID readings, if required								

Remarks: Sample Time: 10:18 **Dry @ 18.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-41i

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	16.07			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			28.93	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	4.72	gallons
5 casing volume (5 X CV)=		5	23.58	gallons

Total Volume of Water Purged Before Sampling 7 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:35	12:40						
pH (s.u.)	8.29	8.17						
Specific Conductivity (µmhos/cm)	68.7	52.0						
Water Temperature (°C)	19.3	18.2						
Dissolved Oxygen	2.21	2.01						
Turbidity (NTU)	11.3	66.7						
PID readings, if required								

Remarks: Sample Time: 12:40 **Dry @ 7.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-42D

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	15.99			feet
Total Well Depth (TWD)	60			feet
Length of the water column (LWC=TWD-DGW)			44.01	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	7.17	gallons
5 casing volume (5 X CV)=		5	35.87	gallons

Total Volume of Water Purged Before Sampling 24 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:46	12:53	13:00	13:07				
pH (s.u.)	8.57	8.66	8.71	8.68				
Specific Conductivity (µmhos/cm)	110.2	129.9	136.2	140.5				
Water Temperature (°C)	19.0	17.9	17.8	17.7				
Dissolved Oxygen	1.79	1.60	1.57	1.51				
Turbidity (NTU)	10.9	36.5	52.4	67.5				
PID readings, if required								

Remarks: Sample Time: 13:07 **Dry @ 24.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-43

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	7.39			feet
Total Well Depth (TWD)	15			feet
Length of the water column (LWC=TWD-DGW)			7.61	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.24	gallons
5 casing volume (5 X CV)=		5	6.20	gallons

Total Volume of Water Purged Before Sampling 4 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	8:45	8:46	8:47	8:48				
pH (s.u.)	5.76	5.52	5.47	5.41				
Specific Conductivity (µmhos/cm)	107.6	91.8	89.7	87.1				
Water Temperature (°C)	19.7	18.9	18.8	18.8				
Dissolved Oxygen	5.51	5.39	5.27	5.26				
Turbidity (NTU)	16.9	144.0	214.6	291.5				
PID readings, if required								

Remarks: Sample Time: 8:48 **Dry @ 4.00 Gallons**

****10.54(DTW)-3.15(Stick-Up Height) =7.39' BGS**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-44i

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	9.16			feet
Total Well Depth (TWD)	25			feet
Length of the water column (LWC=TWD-DGW)			15.84	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	2.58	gallons
5 casing volume (5 X CV)=		5	12.91	gallons

Total Volume of Water Purged Before Sampling 7 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	8:50	8:52	8:53	8:55				
pH (s.u.)	5.26	5.39	5.47	5.61				
Specific Conductivity (µmhos/cm)	34.6	27.8	26.4	25.8				
Water Temperature (°C)	20.2	19.0	18.9	18.8				
Dissolved Oxygen	6.27	6.55	6.47	6.41				
Turbidity (NTU)	10.1	36.8	51.2	79.0				
PID readings, if required								

Remarks: Sample Time: 8:55 **Dry @ 7.00 Gallons**

****12.41(DTW)-3.25(Stick-Up Height) =9.16' BGS**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-46

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	22.71		feet
Total Well Depth (TWD)	35		feet
Length of the water column (LWC=TWD-DGW)		12.29	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	2.00	gallons
5 casing volume (5 X CV)=	5	10.02	gallons

Total Volume of Water Purged Before Sampling 4 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:20	10:22	10:24					
pH (s.u.)	7.15	7.04	6.93					
Specific Conductivity (µmhos/cm)	33.8	26.6	24.4					
Water Temperature (°C)	19.2	18.0	17.9					
Dissolved Oxygen	6.94	7.09	7.19					
Turbidity (NTU)	14.4	131.9	246.6					
PID readings, if required								

Remarks: Sample Time: 10:24 **Dry @ 4.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-47

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	21.64			feet
Total Well Depth (TWD)	30			feet
Length of the water column (LWC=TWD-DGW)			8.36	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.36	gallons
5 casing volume (5 X CV)=		5	6.81	gallons

Total Volume of Water Purged Before Sampling 3 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:28	10:29	10:30					
pH (s.u.)	6.39	6.36	6.44					
Specific Conductivity (µmhos/cm)	30.2	21.0	20.9					
Water Temperature (°C)	20.1	19.0	18.9					
Dissolved Oxygen	6.71	6.53	6.47					
Turbidity (NTU)	13.4	106.8	194.5					
PID readings, if required								

Remarks: Sample Time: 10:30 **Dry @ 3.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-49

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	10.73			feet
Total Well Depth (TWD)	20			feet
Length of the water column (LWC=TWD-DGW)			9.27	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.51	gallons
5 casing volume (5 X CV)=		5	7.56	gallons

Total Volume of Water Purged Before Sampling 6 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	8:30	8:31	8:32	8:33				
pH (s.u.)	5.76	5.89	5.91	5.99				
Specific Conductivity (µmhos/cm)	48.2	33.8	31.2	29.9				
Water Temperature (°C)	19.6	18.6	18.3	18.2				
Dissolved Oxygen	1.26	1.39	1.42	1.49				
Turbidity (NTU)	12.6	196.1	271.0	321.6				
PID readings, if required								

Remarks: Sample Time: 8:33 **Dry @ 6.00 Gallons**

****13.73(DTW)-3.00(Stick-Up Height) =10.73' BGS**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-50

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	10.36			feet
Total Well Depth (TWD)	20			feet
Length of the water column (LWC=TWD-DGW)			9.64	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.57	gallons
5 casing volume (5 X CV)=		5	7.86	gallons

Total Volume of Water Purged Before Sampling 6 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	8:35	8:36	8:38	8:40				
pH (s.u.)	6.47	6.41	6.57	6.62				
Specific Conductivity (µmhos/cm)	40.2	30.9	27.8	25.5				
Water Temperature (°C)	18.7	18.0	17.8	17.6				
Dissolved Oxygen	4.87	4.99	5.12	5.07				
Turbidity (NTU)	13.1	127.9	186.2	211.0				
PID readings, if required								

Remarks: Sample Time: 8:40 **Dry @ 6.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-51

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	***0.03***		feet
Depth to Free Product (DFP)	29.96		feet
Depth to Ground Water (DGW)	29.93		feet
Total Well Depth (TWD)	45		feet
Length of the water column (LWC=TWD-DGW)		15.07	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	2.46	gallons
5 casing volume (5 X CV)=	5	12.28	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-52

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	26.91		feet
Total Well Depth (TWD)	45		feet
Length of the water column (LWC=TWD-DGW)		18.09	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	2.95	gallons
5 casing volume (5 X CV)=	5	14.74	gallons

Total Volume of Water Purged Before Sampling 6 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	16:30	16:33	16:36					
pH (s.u.)	5.87	5.79	5.74					
Specific Conductivity (µmhos/cm)	99.6	71.2	69.4					
Water Temperature (°C)	21.3	19.9	19.8					
Dissolved Oxygen	1.37	1.26	1.20					
Turbidity (NTU)	16.6	176.2	247.8					
PID readings, if required								

Remarks: Sample Time: 16:36 **Dry @ 6.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-53

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	25.87			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			19.13	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	3.12	gallons
5 casing volume (5 X CV)=		5	15.59	gallons

Total Volume of Water Purged Before Sampling 7 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	16:41	16:44	16:47					
pH (s.u.)	5.77	5.74	5.69					
Specific Conductivity (µmhos/cm)	52.2	41.1	38.7					
Water Temperature (°C)	21.2	19.6	19.4					
Dissolved Oxygen	1.16	1.27	1.21					
Turbidity (NTU)	19.1	127.8	204.6					
PID readings, if required								

Remarks: Sample Time: 16:47 **Dry @ 7.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-54

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	ABD		feet
Total Well Depth (TWD)	45		feet
Length of the water column (LWC=TWD-DGW)		#VALUE!	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	#VALUE!	gallons
5 casing volume (5 X CV)=	5	#VALUE!	gallons

Total Volume of Water Purged Before Sampling ABD gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	ABD							
pH (s.u.)	ABD							
Specific Conductivity (µmhos/cm)	ABD							
Water Temperature (°C)	ABD							
Dissolved Oxygen	ABD							
Turbidity (NTU)	ABD							
PID readings, if required								

Remarks: Sample Time: ABD **ABD = Well Abandoned**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-55

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	11.02			feet
Total Well Depth (TWD)	20			feet
Length of the water column (LWC=TWD-DGW)			8.98	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.46	gallons
5 casing volume (5 X CV)=		5	7.32	gallons

Total Volume of Water Purged Before Sampling 2 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	9:15	9:17						
pH (s.u.)	5.99	6.07						
Specific Conductivity (µmhos/cm)	62.8	49.7						
Water Temperature (°C)	19.0	17.9						
Dissolved Oxygen	5.62	5.43						
Turbidity (NTU)	12.9	240.9						
PID readings, if required								

Remarks: Sample Time: 9:17 **Dry @ 2.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-57i

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	11.90			feet
Total Well Depth (TWD)	30			feet
Length of the water column (LWC=TWD-DGW)			18.10	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	2.95	gallons
5 casing volume (5 X CV)=		5	14.75	gallons

Total Volume of Water Purged Before Sampling 8 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	9:20	9:23	9:26					
pH (s.u.)	5.87	6.01	6.09					
Specific Conductivity (µmhos/cm)	46.2	37.1	36.5					
Water Temperature (°C)	18.9	18.0	17.9					
Dissolved Oxygen	4.02	3.71	3.59					
Turbidity (NTU)	11.0	46.6	68.1					
PID readings, if required								

Remarks: Sample Time: 9:17 **Dry @ 8.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015
Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie
General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2
Site ID#: 06742 **Monitoring Well #** MW-58
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	21.77			feet
Total Well Depth (TWD)	30			feet
Length of the water column (LWC=TWD-DGW)			8.23	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.34	gallons
5 casing volume (5 X CV)=		5	6.71	gallons

Total Volume of Water Purged Before Sampling 1.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	9:35	9:37						
pH (s.u.)	6.02	5.94						
Specific Conductivity (µmhos/cm)	36.4	28.8						
Water Temperature (°C)	17.8	16.9						
Dissolved Oxygen	6.06	5.71						
Turbidity (NTU)	14.2	123.6						
PID readings, if required								

Remarks: Sample Time: 9:37 **Dry @ 1.50 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-59

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	15.54			feet
Total Well Depth (TWD)	22			feet
Length of the water column (LWC=TWD-DGW)			6.46	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.05	gallons
5 casing volume (5 X CV)=		5	5.26	gallons

Total Volume of Water Purged Before Sampling 1.25 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	9:00	9:01						
pH (s.u.)	7.16	7.01						
Specific Conductivity (µmhos/cm)	35.2	26.6						
Water Temperature (°C)	18.6	17.6						
Dissolved Oxygen	2.77	2.60						
Turbidity (NTU)	15.5	191.5						
PID readings, if required								

Remarks: Sample Time: 9:01 **Dry @ 1.25 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-60

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	***0.03***			feet
Depth to Free Product (DFP)	29.88			feet
Depth to Ground Water (DGW)	29.85			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			15.15	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	2.47	gallons
5 casing volume (5 X CV)=		5	12.35	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-61

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	***0.05***			feet
Depth to Free Product (DFP)	29.33			feet
Depth to Ground Water (DGW)	29.28			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			15.72	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	2.56	gallons
5 casing volume (5 X CV)=		5	12.81	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		YSI 550A	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-62

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 4 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	29.36		feet
Total Well Depth (TWD)	45		feet
Length of the water column (LWC=TWD-DGW)		15.64	feet
1 casing volume (CV=LWC X C)= ____ X	0.66	10.32	gallons
5 casing volume (5 X CV)=	5	51.61	gallons

Total Volume of Water Purged Before Sampling 38 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	9:00	9:10	9:20	9:30				
pH (s.u.)	6.06	5.97	6.04	6.09				
Specific Conductivity (µmhos/cm)	271.8	306.4	321.9	347.1				
Water Temperature (°C)	19.2	17.9	17.8	17.7				
Dissolved Oxygen	1.17	1.09	0.99	1.06				
Turbidity (NTU)	16.7	98.1	126.2	149.8				
PID readings, if required								

Remarks: Sample Time: 9:30 **Dry @ 38.00 Gallons**

Duplicate Sample Collected

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-63

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	*0.02*			feet
Depth to Free Product (DFP)	29.01			feet
Depth to Ground Water (DGW)	28.99			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			16.01	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	2.61	gallons
5 casing volume (5 X CV)=		5	13.05	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-64

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	***0.01***		feet
Depth to Free Product (DFP)	28.55		feet
Depth to Ground Water (DGW)	28.54		feet
Total Well Depth (TWD)	45		feet
Length of the water column (LWC=TWD-DGW)		16.46	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	2.68	gallons
5 casing volume (5 X CV)=	5	13.41	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-65

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	*0.06*		feet
Depth to Free Product (DFP)	29.06		feet
Depth to Ground Water (DGW)	29.00		feet
Total Well Depth (TWD)	45		feet
Length of the water column (LWC=TWD-DGW)		16.00	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	2.61	gallons
5 casing volume (5 X CV)=	5	13.04	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-66

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	***0.05***			feet
Depth to Free Product (DFP)	26.98			feet
Depth to Ground Water (DGW)	26.93			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			18.07	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	2.95	gallons
5 casing volume (5 X CV)=		5	14.73	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-67

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	*0.04*		feet
Depth to Free Product (DFP)	27.00		feet
Depth to Ground Water (DGW)	26.96		feet
Total Well Depth (TWD)	45		feet
Length of the water column (LWC=TWD-DGW)		18.04	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	2.94	gallons
5 casing volume (5 X CV)=	5	14.70	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-68

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 4 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	28.79		feet
Total Well Depth (TWD)	46		feet
Length of the water column (LWC=TWD-DGW)		17.21	feet
1 casing volume (CV=LWC X C)= ____ X	0.66	11.36	gallons
5 casing volume (5 X CV)=	5	56.79	gallons

Total Volume of Water Purged Before Sampling 25 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	9:35	9:46	9:57					
pH (s.u.)	Sheen	Sheen	Sheen					
Specific Conductivity (µmhos/cm)	Sheen	Sheen	Sheen					
Water Temperature (°C)	Sheen	Sheen	Sheen					
Dissolved Oxygen	Sheen	Sheen	Sheen					
Turbidity (NTU)	Sheen	Sheen	Sheen					
PID readings, if required								

Remarks: Sample Time: 9:57 **Dry @ 25.00 Gallons**

Duplicate Sample Collected

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-69

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	*0.02*			feet
Depth to Free Product (DFP)	28.46			feet
Depth to Ground Water (DGW)	28.44			feet
Total Well Depth (TWD)	44			feet
Length of the water column (LWC=TWD-DGW)			15.56	feet
1 casing volume (CV=LWC X C)=		X 0.163	2.54	gallons
5 casing volume (5 X CV)=		5	12.68	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-70

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	*1.03*		feet
Depth to Free Product (DFP)	27.74		feet
Depth to Ground Water (DGW)	26.71		feet
Total Well Depth (TWD)	44		feet
Length of the water column (LWC=TWD-DGW)		17.29	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	2.82	gallons
5 casing volume (5 X CV)=	5	14.09	gallons

Total Volume of Water Purged Before Sampling ***PROD*** gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	***PROD***							
pH (s.u.)	***PROD***							
Specific Conductivity (µmhos/cm)	***PROD***							
Water Temperature (°C)	***PROD***							
Dissolved Oxygen	***PROD***							
Turbidity (NTU)	***PROD***							
PID readings, if required								

Remarks: Sample Time: ***PROD*** **PROD = Free Product Dectected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-1x

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	29.77		feet
Total Well Depth (TWD)	70		feet
Length of the water column (LWC=TWD-DGW)		40.23	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	6.56	gallons
5 casing volume (5 X CV)=	5	32.79	gallons

Total Volume of Water Purged Before Sampling 11 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:00	10:10						
pH (s.u.)	6.61	6.50						
Specific Conductivity (µmhos/cm)	178.1	152.7						
Water Temperature (°C)	19.4	17.9						
Dissolved Oxygen	2.21	2.06						
Turbidity (NTU)	11.8	29.4						
PID readings, if required								

Remarks: Sample Time: 10:10 **Dry @ 11.00 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-2x

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 1 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	21.15			feet
Total Well Depth (TWD)	43			feet
Length of the water column (LWC=TWD-DGW)			21.85	feet
1 casing volume (CV=LWC X C)= ____ X		0.047	1.03	gallons
5 casing volume (5 X CV)=		5	5.13	gallons

Total Volume of Water Purged Before Sampling 1.25 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:57	12:10						
pH (s.u.)	6.01	5.71						
Specific Conductivity (µmhos/cm)	154.8	127.9						
Water Temperature (°C)	20.7	20.0						
Dissolved Oxygen	2.11	1.91						
Turbidity (NTU)	15.8	106.1						
PID readings, if required								

Remarks: Sample Time: 12:10 **Dry @ 1.25 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-3x

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	DRY			feet
Total Well Depth (TWD)	28.64			feet
Length of the water column (LWC=TWD-DGW)			#VALUE!	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	#VALUE!	gallons
5 casing volume (5 X CV)=		5	7.22	gallons

Total Volume of Water Purged Before Sampling DRY gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	DRY							
pH (s.u.)	DRY							
Specific Conductivity (µmhos/cm)	DRY							
Water Temperature (°C)	DRY							
Dissolved Oxygen	DRY							
Turbidity (NTU)	DRY							
PID readings, if required								

Remarks: Sample Time: DRY **DRY = Well Gauged Dry**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-4x

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	DRY		feet
Total Well Depth (TWD)	20		feet
Length of the water column (LWC=TWD-DGW)		#VALUE!	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	#VALUE!	gallons
5 casing volume (5 X CV)=	5	7.22	gallons

Total Volume of Water Purged Before Sampling DRY gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	DRY							
pH (s.u.)	DRY							
Specific Conductivity (µmhos/cm)	DRY							
Water Temperature (°C)	DRY							
Dissolved Oxygen	DRY							
Turbidity (NTU)	DRY							
PID readings, if required								

Remarks: Sample Time: DRY **DRY = Well Gauged Dry**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-5x

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	NL		feet
Total Well Depth (TWD)	NA		feet
Length of the water column (LWC=TWD-DGW)		#VALUE!	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	#VALUE!	gallons
5 casing volume (5 X CV)=	5	#VALUE!	gallons

Total Volume of Water Purged Before Sampling NL gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	NL							
pH (s.u.)	NL							
Specific Conductivity (µmhos/cm)	NL							
Water Temperature (°C)	NL							
Dissolved Oxygen	NL							
Turbidity (NTU)	NL							
PID readings, if required								

Remarks: Sample Time: NL **NL =Not Located, Well Possibly Destroyed**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 8/11/2015-8/12/2015

Field Personnel: F. Mitlin, W. Huss, A. Best, P. Wylie

General Weather Conditions: Clear, Scattered Clouds

Ambient Air Temperature: 32.2 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Country Side 2

Site ID#: 06742 **Monitoring Well #** MW-6x

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 1 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	32.10			feet
Total Well Depth (TWD)	38			feet
Length of the water column (LWC=TWD-DGW)			5.90	feet
1 casing volume (CV=LWC X C)= ____ X		0.047	0.28	gallons
5 casing volume (5 X CV)=		5	1.39	gallons

Total Volume of Water Purged Before Sampling 0.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:00	11:05						
pH (s.u.)	Sheen	Sheen						
Specific Conductivity (µmhos/cm)	Sheen	Sheen						
Water Temperature (°C)	Sheen	Sheen						
Dissolved Oxygen	Sheen	Sheen						
Turbidity (NTU)	Sheen	Sheen						
PID readings, if required								

Remarks: Sample Time: 11:05 **Dry @ 0.50 Gallons**

Midlands
Environmental
Consultants, Inc.

August 18, 2015

Re: Treatment of Purge Water
Country Side 2
Westminster, South Carolina
SCDHEC Site ID Number 06742
MECI Project Number 15-5222

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.
2. No free-product was detected in any of the purge water drums.
3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.
4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.
5. Record of usage is maintained by Contractor.
6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.
7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

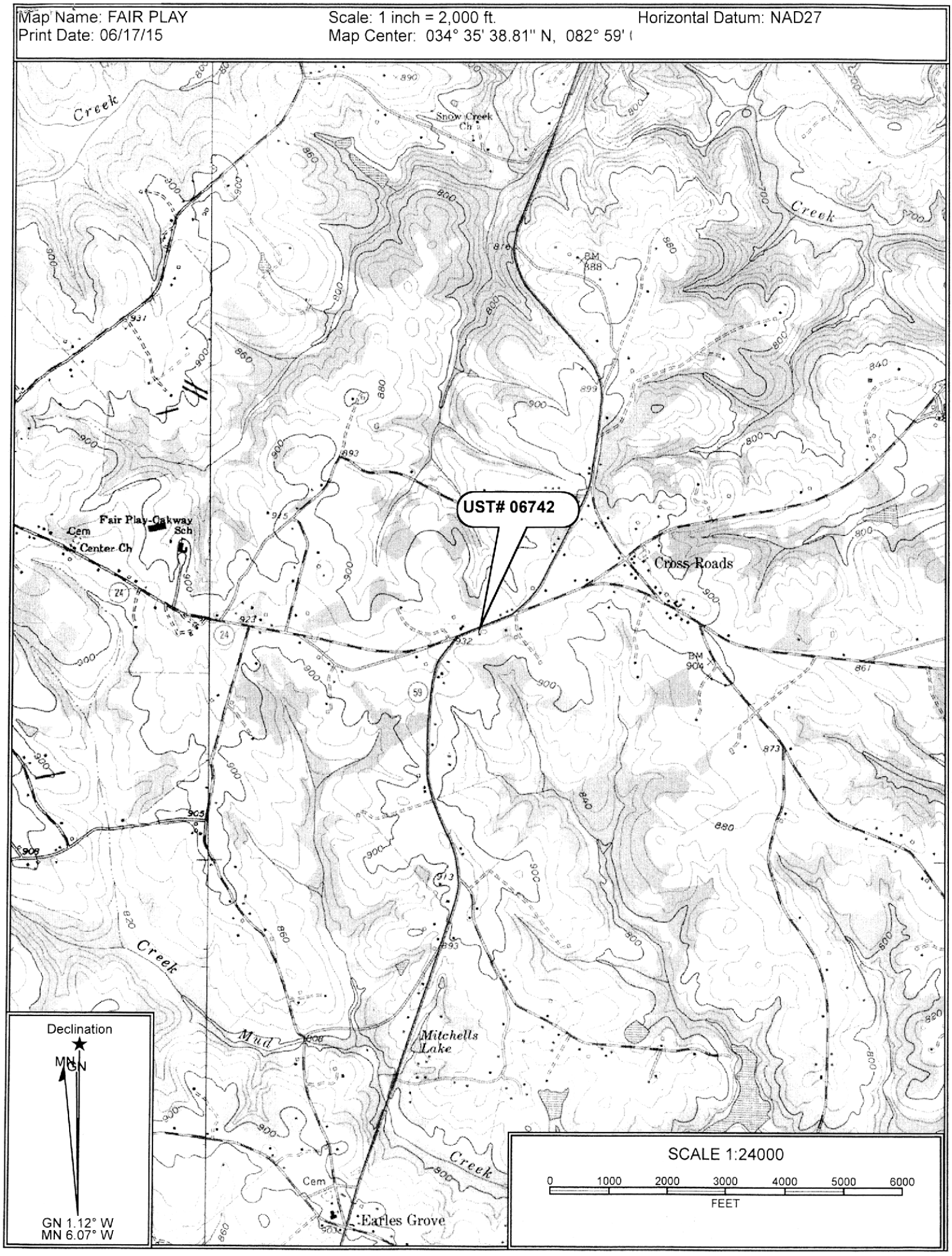
A total of 455.75 gallons were disposed on August 11 & 12, 2015, at the referenced site.

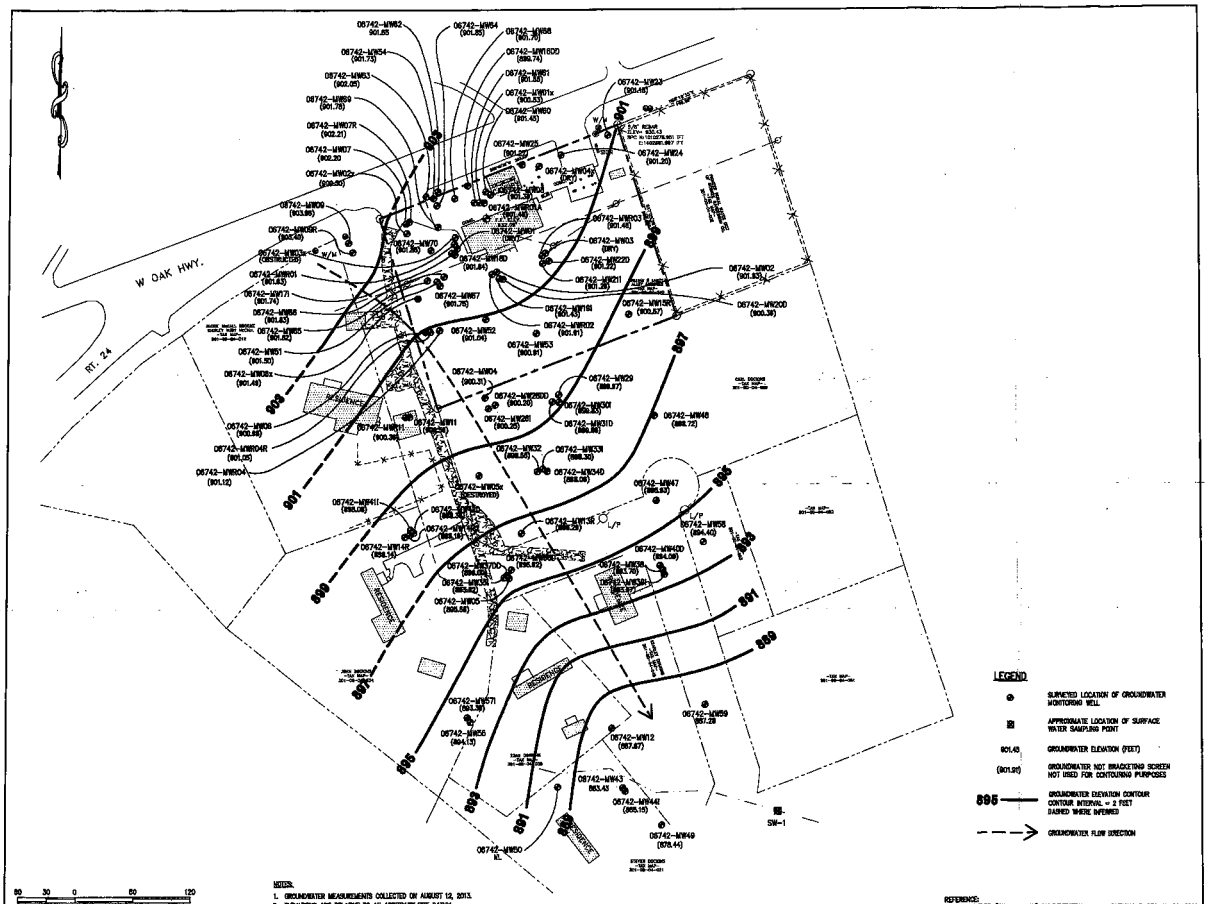
Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Biologist


Map Name: FAIR PLAY
Print Date: 06/17/15
Scale: 1 inch = 2,000 ft.
Map Center: 034° 35' 38.81" N, 082° 59' (
Horizontal Datum: NAD27
UST# 06742
Fair Play-Oakway Sch
Cem
Center Ch
Cross Roads
Snow Creek Ch
Mitchells Lake
Earles Grove
Cem
Creek
Mud Creek
Declination
MN
GN
GN 1.12° W
MN 6.07° W
SCALE 1:24000
0 1000 2000 3000 4000 5000 6000
FEET



NOTES:
1. GROUNDWATER MEASUREMENTS COLLECTED ON AUGUST 12, 2013.
2. ELEVATIONS ARE RELATIVE TO AN ARBITRARY SITE DATUM.

REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

REVISIONS						
No.	DESCRIPTION	BY	DRAWN: ACE	DATE: 09-24-13	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 FORDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: [illegible] FAX: [illegible]	GROUNDWATER ELEVATION CONTOUR MAP – AUGUST 2013 COUNTRY SIDE 2 UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA
			CHECKED: RAD	CAD FILE: FORMCRGROC-05WTM		FIGURE NO. 2
			APPROVED: DRM	JOB NO: J13-8940-05		

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Page: 1 of 8

1902512

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: SCDHEC - UST	Report To: J. Brent - UST	Attention:
Address: 2600 Bull St	Copy To:	Company Name:
Columbia, SC, 29201		Address:
Email To: BrentJ@dhec.sc.gov	Purchase Order No.: 4600122513	Pace Quote Reference:
Phone: 803-898-0666 Fax: 803-898-0673	Project Name: Country Side 2	Pace Project Manager: T. Carter
Requested Due Date/TAT:	Project Number: UST#06717/PACE QA# 50628	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC — Oconee

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX, Naph, MTBE	1,2 DCA	EDC	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW 1																					Not Sampled
2	MW R1																					Not Sampled
3	MW R1A	WT	G			8/11/15	11:13		6				6					X	X	X	X	[illegible] Shredder
4	MW 2																					Not Sampled
5	MW R2	WT	G			8/11/15	13:31		6				6					X	X	X	X	Organic Odor
6	MW 3																					Not Sampled
7	MW R3	WT	G			8/11/15	13:44		6				6					X	X	X	X	Organic Odor
8	MW 4	WT	G			8/11/15	14:25		6				6					X	X	X	X	No Odor
9	MW R4																					Not Sampled
10	MW R4R	WT	G			8/11/15	16:01		6				6					X	X	X	X	Odor
11	MW 5	WT	G			↓	16:07		↓				↓					X	X	X	X	No Odor
12	MW 6	WT	G			8/11/15	16:13		6				6					X	X	X	X	Strong Odor

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
MW R1A was sampled & is in cooler, sampled for everything for analysis	Frank Mitlin	8/12/15	17:00				

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Frank Mitlin

SIGNATURE of SAMPLER: Frank Mitlin

DATE Signed (MM/DD/YY): 8/12/15

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 8

1902513

Section A Required Client Information:

Company: SCDHEC - UST
Address: 2600 Bull St
Columbia, SC, 29201
Email To: Bycent-JC@dhec.sc.gov
Phone: 803-898-0666 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:

Report To: J. Bycent - UST
Copy To:
Purchase Order No.: 4/6004122513
Project Name: Country Side 2
Project Number: UST #06712 PACE LAB #50628

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Cotter
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Oconee

Section D Required Client Information:

SAMPLE ID
(A-Z, 0-9 / , -)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: 6010 Nitrate	1,2 DCA	8260 BTEX	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW 7	WT	6			8/12/15	11:32		6				6					X	X	X	X			Odor
2	MW 7R																							Not Sampled
3	MW 8																							Not Sampled
4	MW 9	WT	6			8/12/15	11:41		6				6					X	X	X	X			No Odor
5	MW 9R					8/12/15	11:53																	
6	MW 11					8/11/15	11:17																	
7	MW R11					8/11/15	11:23																	
8	MW 12					8/11/15	9:06																	
9	MW 13R						12:14																	
10	MW 14R						12:22																	
11	MW 14R2						12:28																	
12	MW 15R	WT	6			8/11/15	16:23		6				6					X	X	X	X			No Odor

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
		8/12/15	17:00				

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Frank Mathis
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 8/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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1902514

Section A Required Client Information:

Company: SCDHEC - UST
Address: 2600 Bull St
Columbia, SC 29201
Email To: Bycent3c@dhec.sc.gov
Phone: 803-898-0666 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:

Report To: J. Bycent - UST
Copy To:
Purchase Order No.: 4166472513
Project Name: Country Side 2
Project Number: UST #06742/PALE LA# 50628

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Oconee

Section D Required Client Information

Matrix Codes (MATRIX / CODE)

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX, Naph, Active	1,2 DCA	8260 XY	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW 16DD	WT	G			8/11/15	15:17		6				6					X	X	X	X		No Odor
2	MW 17i						15:43																
3	MW 18D						15:29																
4	MW 19i						15:53																
5	MW 20D						16:15																
6	MW 21i						16:08																
7	MW 22D	WT	G			8/11/15	15:03		6				6					X	X	X	X		No Odor
8	MW 23																						Not Sampled
9	MW 24	WT	G			8/12/15	10:18		6				6					X	X	X	X		No Odor
10	MW 25																						Not Sampled
11	MW 26i	WT	G			8/11/15	13:53		6				6					X	X	X	X		No Odor
12	MW 28DD	WT	G			8/11/15	14:09		6				6					X	X	X	X		No Odor

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Frank M.H.n	8/12/15	17:00				

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Frank M.H.n
SIGNATURE of SAMPLER: Frank M.H.n
DATE Signed (MM/DD/YY): 8/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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1902515

Section A Required Client Information:

Company:	SCDHEC - UST
Address:	2600 Bull St
	Columbia, SC, 29201
Email To:	ByrantJC@dhec.sc.gov
Phone:	803-898-0666
Fax:	803-898-0673
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	J. Byrant - UST
Copy To:	
Purchase Order No.:	4600422313
Project Name:	Country Side 2
Project Number:	UST#06742/PACE CA#50628

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	T. Carter
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Oconee

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	BTEX, Naph, MTBE	1,2-DCA	8-Oxy	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW 29	WT	G			8/11/15	13:14		6				6						X	X	X	X		No Odor
2	MW 30i						13:23																	
3	MW 31D						13:39																	
4	MW 32						10:39																	
5	MW 33i						10:47																	
6	MW 34D						10:56																	
7	MW 35i						11:36																	
8	MW 36D						11:46																	
9	MW 37DD						12:05																	
10	MW 38						9:46																	
11	MW 39i						9:59																	
12	MW 40D	WT	G			8/11/15	10:18		6				6						X	X	X	X		No Odor

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature]	8/12/15	17:00				

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Frank Martin

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 8/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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1902516

Section A Required Client Information:

Company: SCDHEC - UST
Address: 2600 Bull St
Columbia, SC 29201
Email To: BycottJC@dhec.sc.gov
Phone: 803-898-0606 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:

Report To: J. Bycott - UST
Copy To:
Purchase Order No.: 4600422513
Project Name: Country Side 2
Project Number: UST #06742 / PACE CN # 50628

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Oconee

Section D Required Client Information

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX, Naph, MTBE	1,2-DCA	8260	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW 41C	WT	G			8/11/15	12:10		6				6					X	X	X	X		No Oder
2	MW 42D						13:07																
3	MW 43						8:48																
4	MW 44C						8:55																
5	MW 46						10:24																
6	MW 47						10:30																
7	MW 49						9:33																
8	MW 50	WT	G			8/11/15	8:16		6				6					X	X	X	X		No Oder
9	MW 51																						Not Sampled
10	MW 52	WT	G			8/11/15	16:36		6				6					X	X	X	X		Oder
11	MW 53	WT	G			8/11/15	16:47		6				6					X	X	X	X		No Oder
12	MW 54																						Not Sampled

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Frank Mitlin	8/12/15	17:00				

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Frank Mitlin
SIGNATURE of SAMPLER: Frank Mitlin
DATE Signed (MM/DD/YY): 8/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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1902517

Section A Required Client Information:
Company: SCDHEC - UST
Address: 2600 Bull St
Columbia, SC, 29201
Email To: Byce#T@scdhec.sc.gov
Phone: 803-898-0606 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:
Report To: J. Byrent - UST
Copy To:
Purchase Order No.: 1/6601/22513
Project Name: Country Side 2
Project Number: UST#06742 / PACE CA# 56628

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Oconee

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX, Naphthalene	1,2-DCP	8260	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW 55	WT	G			8/11/15	9:17		6				6					X	X	X	X		No Other
2	MW 57i	↓	↓			↓	9:26		↓				↓					↓	↓	↓	↓		↓
3	MW 58	↓	↓			↓	9:37		↓				↓					↓	↓	↓	↓		↓
4	MW 59	WT	G			8/11/15	9:01		6				6					X	X	X	X		No Other
5	MW 60																						Not Sampled
6	MW 61																						Not Sampled
7	MW 62	WT	G			8/11/15	9:30		6				6					X	X	X	X		Other
8	MW 63																						Not Sampled
9	MW 64																						Not Sampled
10	MW 65																						Not Sampled
11	MW 66																						Not Sampled
12	MW 67																						Not Sampled

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Frank Miflin	8/12/15	17:00				

2

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Frank Miflin
SIGNATURE of SAMPLER: Frank Miflin
DATE Signed (MM/DD/YY): 8/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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1902518

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: SCDHEC-UST	Report To: J. Bycant-UST	Attention:
Address: 2600 Bull St	Copy To:	Company Name:
Columbia, SC, 29201		Address:
Email To: BycantJC@dhec.sc.gov	Purchase Order No.: 4600422513	Pace Quote Reference:
Phone: 803-898-0606 Fax: 803-898-0673	Project Name: Country Side 2	Pace Project Manager: T. Carter
Requested Due Date/TAT:	Project Number: UST#06742/PACE CA#50628	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Oconee

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	BTEX, Na, Hg, Mthe	1,2-DCA	8-Oxy	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW 68	WT	G			8/12/15	9:57		6				6						X	X	X	X		Odor
2	MW 69																							Not Sampled
3	MW 70																							Not Sampled
4	MW 1x	WT	G			8/12/15	10:10		6				6						X	X	X	X		No Odor
5	MW 2x	WT	G			8/12/15	12:10		6				6						X	X	X	X		Odor
6	MW 3x																							Not Sampled
7	MW 4x																							Not Sampled
8	MW 5x																							Not Sampled
9	MW 6x	WT	G			8/12/15	11:05		6				6						X	X	X	X		Odor
10	SW 1																							Not Sampled
11	MW 62 Duplicate	WT	G			8/12/15	9:30		6				6						X	X	X	X		Duplicate
12	MW 68 Duplicate	WT	G			8/12/15	9:57		6				6						X	X	X	X		Duplicate

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature]	8/12/15	17:04				

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Frank Mithin

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 8 of 8

1902519

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: SCDHEC - UST	Report To: J. Bycent - UST	Attention:
Address: 2600 Bull St	Copy To:	Company Name:
Columbia, SC, 29201		Address:
Email To: Bycent@scdhec.gov	Purchase Order No.: 4100422513	Pace Quote Reference:
Phone: 803-895-0606 Fax: 803-898-0673	Project Name: Country Side 2	Pace Project Manager: T. Carter
Requested Due Date/TAT:	Project Number: UST #06742/RACE ID# 50628	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC — Oconee

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX, Naph, MTBE	1,2 DCA	8260 Oxy	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW6R Duplicate	WT	G			8/12/15	11:53		6				6						X	X	X	X		Duplicate
2	~~Duplicate~~																							
3	Field Blank 1	WT	G			8/11/15	17:00		6				6						X	X	X	X		F.B.
4	Field Blank 2	↓	↓			8/12/15	12:15		6				6						↓	↓	↓	X		F.B.
5	Trip Blank 1	↓	↓			8/11/15	17:01		2				2						↓	↓	↓	X		T.B.
6	Trip Blank 2	WT	G			8/11/15	17:02		2				2						X	X	X			T.B.
7	~~Trip Blank 3~~																							
8	~~Trip Blank 4~~																							
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
No 4th Dup, Trip Blank 3 & 4	Frank Mitlin	8/12/15	17:40				
10 Coolers							

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Frank Mitlin

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

August 21, 2015

Mr. John Bryant
SCDHEC
UST Program
2600 Bull Street
Columbia, SC 29201

RE: Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Dear Mr. Bryant:
Enclosed are the analytical results for sample(s) received by the laboratory on August 13, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Trey Carter
trey.carter@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92263328001	MW R1A	Water	08/12/15 11:13	08/13/15 14:40
92263328002	MW R2	Water	08/11/15 13:31	08/13/15 14:40
92263328003	MW R3	Water	08/11/15 13:44	08/13/15 14:40
92263328004	MW 4	Water	08/11/15 14:25	08/13/15 14:40
92263328005	MW R4R	Water	08/11/15 16:01	08/13/15 14:40
92263328006	MW 5	Water	08/11/15 16:07	08/13/15 14:40
92263328007	MW 6	Water	08/11/15 16:13	08/13/15 14:40
92263328008	MW 7	Water	08/12/15 11:32	08/13/15 14:40
92263328009	MW 9	Water	08/12/15 11:41	08/13/15 14:40
92263328010	MW 9R	Water	08/12/15 11:53	08/13/15 14:40
92263328011	MW 11	Water	08/11/15 14:17	08/13/15 14:40
92263328012	MW R11	Water	08/11/15 14:23	08/13/15 14:40
92263328013	MW 12	Water	08/11/15 09:06	08/13/15 14:40
92263328014	MW 13R	Water	08/11/15 12:14	08/13/15 14:40
92263328015	MW 14R	Water	08/11/15 12:22	08/13/15 14:40
92263328016	MW 14R2	Water	08/11/15 12:28	08/13/15 14:40
92263328017	MW 15R	Water	08/11/15 16:23	08/13/15 14:40
92263328018	MW 16DD	Water	08/11/15 15:17	08/13/15 14:40
92263328019	MW 17I	Water	08/11/15 15:43	08/13/15 14:40
92263328020	MW 18D	Water	08/11/15 15:29	08/13/15 14:40
92263328021	MW 19I	Water	08/11/15 15:53	08/13/15 14:40
92263328022	MW 20D	Water	08/11/15 14:45	08/13/15 14:40
92263328023	MW 21I	Water	08/11/15 16:08	08/13/15 14:40
92263328024	MW 22D	Water	08/11/15 15:03	08/13/15 14:40
92263328025	MW 24	Water	08/12/15 10:18	08/13/15 14:40
92263328026	MW 26I	Water	08/11/15 13:53	08/13/15 14:40
92263328027	MW 28DD	Water	08/11/15 14:09	08/13/15 14:40
92263328028	MW 29	Water	08/11/15 13:14	08/13/15 14:40
92263328029	MW 30I	Water	08/11/15 13:23	08/13/15 14:40
92263328030	MW 31D	Water	08/11/15 13:39	08/13/15 14:40
92263328031	MW 32	Water	08/11/15 10:39	08/13/15 14:40
92263328032	MW 33I	Water	08/11/15 10:47	08/13/15 14:40
92263328033	MW 34D	Water	08/11/15 10:56	08/13/15 14:40
92263328034	MW 35I	Water	08/11/15 11:36	08/13/15 14:40
92263328035	MW 36D	Water	08/11/15 11:46	08/13/15 14:40
92263328036	MW 37DD	Water	08/11/15 12:05	08/13/15 14:40
92263328037	MW 38	Water	08/11/15 09:46	08/13/15 14:40

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

SAMPLE SUMMARY

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92263328038	MW 39I	Water	08/11/15 09:59	08/13/15 14:40
92263328039	MW 40D	Water	08/11/15 10:18	08/13/15 14:40
92263328040	MW 41I	Water	08/11/15 12:40	08/13/15 14:40
92263328041	MW 42D	Water	08/11/15 13:07	08/13/15 14:40
92263328042	MW 43	Water	08/11/15 08:48	08/13/15 14:40
92263328043	MW 44I	Water	08/11/15 08:55	08/13/15 14:40
92263328044	MW 46	Water	08/11/15 10:24	08/13/15 14:40
92263328045	MW 47	Water	08/11/15 10:30	08/13/15 14:40
92263328046	MW 49	Water	08/11/15 08:33	08/13/15 14:40
92263328047	MW 50	Water	08/11/15 08:40	08/13/15 14:40
92263328048	MW 52	Water	08/11/15 16:36	08/13/15 14:40
92263328049	MW 53	Water	08/11/15 16:47	08/13/15 14:40
92263328050	MW 55	Water	08/11/15 09:17	08/13/15 14:40
92263328051	MW 57I	Water	08/11/15 09:26	08/13/15 14:40
92263328052	MW 58	Water	08/11/15 09:37	08/13/15 14:40
92263328053	MW 59	Water	08/11/15 09:01	08/13/15 14:40
92263328054	MW 62	Water	08/12/15 09:30	08/13/15 14:40
92263328055	MW 68	Water	08/12/15 09:57	08/13/15 14:40
92263328056	MW 1x	Water	08/12/15 10:10	08/13/15 14:40
92263328057	MW 2x	Water	08/12/15 12:10	08/13/15 14:40
92263328058	MW 6x	Water	08/12/15 11:05	08/13/15 14:40
92263328059	MW 62 DUPLICATE	Water	08/12/15 09:30	08/13/15 14:40
92263328060	MW 68 DUPLICATE	Water	08/12/15 09:57	08/13/15 14:40
92263328061	MW 9R DUPLICATE	Water	08/12/15 11:53	08/13/15 14:40
92263328062	FIELD BLANK 1	Water	08/11/15 17:00	08/13/15 14:40
92263328063	FIELD BLANK 2	Water	08/12/15 12:15	08/13/15 14:40
92263328064	TRIP BLANK 1	Water	08/11/15 17:01	08/13/15 14:40
92263328065	TRIP BLANK 2	Water	08/11/15 17:02	08/13/15 14:40

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SAMPLE ANALYTE COUNT

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92263328001	MW R1A	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328002	MW R2	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328003	MW R3	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328004	MW 4	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328005	MW R4R	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328006	MW 5	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328007	MW 6	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328008	MW 7	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328009	MW 9	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328010	MW 9R	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328011	MW 11	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328012	MW R11	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328013	MW 12	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328014	MW 13R	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328015	MW 14R	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328016	MW 14R2	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328017	MW 15R	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328018	MW 16DD	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328019	MW 17I	EPA 8011	RES	2	PASI-C

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SAMPLE ANALYTE COUNT

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	CCL	20	PASI-C
92263328020	MW 18D	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328021	MW 19I	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328022	MW 20D	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328023	MW 21I	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328024	MW 22D	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328025	MW 24	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328026	MW 26I	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328027	MW 28DD	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328028	MW 29	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328029	MW 30I	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328030	MW 31D	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328031	MW 32	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328032	MW 33I	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328033	MW 34D	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328034	MW 35I	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328035	MW 36D	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328036	MW 37DD	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328037	MW 38	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C

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(704)875-9092

SAMPLE ANALYTE COUNT

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92263328038	MW 39I	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328039	MW 40D	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328040	MW 41I	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328041	MW 42D	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328042	MW 43	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328043	MW 44I	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328044	MW 46	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328045	MW 47	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328046	MW 49	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328047	MW 50	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328048	MW 52	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328049	MW 53	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328050	MW 55	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328051	MW 57I	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328052	MW 58	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328053	MW 59	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328054	MW 62	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328055	MW 68	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328056	MW 1x	EPA 8011	RES	2	PASI-C

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SAMPLE ANALYTE COUNT

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	CCL	20	PASI-C
92263328057	MW 2x	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328058	MW 6x	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328059	MW 62 DUPLICATE	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328060	MW 68 DUPLICATE	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328061	MW 9R DUPLICATE	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328062	FIELD BLANK 1	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328063	FIELD BLANK 2	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92263328064	TRIP BLANK 1	EPA 8260	CCL	20	PASI-C
92263328065	TRIP BLANK 2	EPA 8260	CCL	20	PASI-C

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Huntersville, NC 28078
(704)875-9092

SUMMARY OF DETECTION

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92263328001	**MW R1A**					
EPA 8011	1,2-Dibromoethane (EDB)	14.4	ug/L	0.39	08/19/15 17:14	
EPA 8260	tert-Amyl Alcohol	101000	ug/L	25000	08/15/15 11:01	
EPA 8260	tert-Amylmethyl ether	1550J	ug/L	2500	08/15/15 11:01	
EPA 8260	Benzene	31300	ug/L	1250	08/15/15 11:01	
EPA 8260	tert-Butyl Alcohol	29800	ug/L	25000	08/15/15 11:01	
EPA 8260	Diisopropyl ether	2050	ug/L	1250	08/15/15 11:01	
EPA 8260	Ethylbenzene	2520	ug/L	1250	08/15/15 11:01	
EPA 8260	Methyl-tert-butyl ether	231000	ug/L	12500	08/17/15 12:10	
EPA 8260	Naphthalene	2110	ug/L	1250	08/15/15 11:01	
EPA 8260	Toluene	47500	ug/L	1250	08/15/15 11:01	
EPA 8260	Xylene (Total)	31800	ug/L	2500	08/15/15 11:01	
EPA 8260	m&p-Xylene	21000	ug/L	2500	08/15/15 11:01	
EPA 8260	o-Xylene	10900	ug/L	1250	08/15/15 11:01	
92263328002	**MW R2**					
EPA 8260	Benzene	2.5J	ug/L	5.0	08/17/15 14:26	
EPA 8260	Naphthalene	7.7	ug/L	5.0	08/17/15 14:26	
EPA 8260	Toluene	3.1J	ug/L	5.0	08/17/15 14:26	
92263328004	**MW 4**					
EPA 8260	Benzene	1.8J	ug/L	5.0	08/15/15 11:52	
EPA 8260	Methyl-tert-butyl ether	20.1	ug/L	5.0	08/15/15 11:52	
EPA 8260	Naphthalene	3.1J	ug/L	5.0	08/15/15 11:52	
92263328005	**MW R4R**					
EPA 8011	1,2-Dibromoethane (EDB)	0.52	ug/L	0.020	08/18/15 22:58	C2
EPA 8260	tert-Amyl Alcohol	11800	ug/L	5000	08/17/15 17:15	
EPA 8260	Benzene	17400	ug/L	1000	08/18/15 12:44	
EPA 8260	Ethylbenzene	1660	ug/L	250	08/17/15 17:15	
EPA 8260	Methyl-tert-butyl ether	494	ug/L	250	08/17/15 17:15	
EPA 8260	Naphthalene	644	ug/L	250	08/17/15 17:15	
EPA 8260	Toluene	27600	ug/L	1000	08/18/15 12:44	
EPA 8260	Xylene (Total)	10200	ug/L	500	08/17/15 17:15	
EPA 8260	m&p-Xylene	6730	ug/L	500	08/17/15 17:15	
EPA 8260	o-Xylene	3430	ug/L	250	08/17/15 17:15	
92263328007	**MW 6**					
EPA 8011	1,2-Dibromoethane (EDB)	0.37	ug/L	0.020	08/18/15 23:17	
EPA 8260	Benzene	13500	ug/L	1000	08/17/15 17:49	
EPA 8260	Ethylbenzene	1330	ug/L	1000	08/17/15 17:49	
EPA 8260	Naphthalene	1240	ug/L	1000	08/17/15 17:49	
EPA 8260	Toluene	25800	ug/L	1000	08/17/15 17:49	
EPA 8260	Xylene (Total)	17000	ug/L	2000	08/17/15 17:49	
EPA 8260	m&p-Xylene	11000	ug/L	2000	08/17/15 17:49	
EPA 8260	o-Xylene	6030	ug/L	1000	08/17/15 17:49	
92263328008	**MW 7**					
EPA 8260	tert-Amyl Alcohol	10700	ug/L	2500	08/17/15 18:06	
EPA 8260	Benzene	3150	ug/L	125	08/17/15 18:06	

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SUMMARY OF DETECTION

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92263328008	**MW 7**					
EPA 8260	tert-Butyl Alcohol	1510J	ug/L	2500	08/17/15 18:06	
EPA 8260	Ethylbenzene	792	ug/L	125	08/17/15 18:06	
EPA 8260	Methyl-tert-butyl ether	1150	ug/L	125	08/17/15 18:06	
EPA 8260	Naphthalene	616	ug/L	125	08/17/15 18:06	
EPA 8260	Toluene	4040	ug/L	125	08/17/15 18:06	
EPA 8260	Xylene (Total)	8370	ug/L	250	08/17/15 18:06	
EPA 8260	m&p-Xylene	4990	ug/L	250	08/17/15 18:06	
EPA 8260	o-Xylene	3380	ug/L	125	08/17/15 18:06	
92263328010	**MW 9R**					
EPA 8260	Naphthalene	3.4J	ug/L	5.0	08/17/15 14:43	
92263328011	**MW 11**					
EPA 8260	Benzene	2.0J	ug/L	5.0	08/17/15 15:00	
EPA 8260	Methyl-tert-butyl ether	22.0	ug/L	5.0	08/17/15 15:00	
EPA 8260	Naphthalene	3.3J	ug/L	5.0	08/17/15 15:00	
92263328012	**MW R11**					
EPA 8260	Methyl-tert-butyl ether	3.6J	ug/L	5.0	08/17/15 15:17	
EPA 8260	Naphthalene	3.1J	ug/L	5.0	08/17/15 15:17	
92263328013	**MW 12**					
EPA 8260	Diisopropyl ether	4.3J	ug/L	5.0	08/17/15 21:29	
EPA 8260	Methyl-tert-butyl ether	59.7	ug/L	5.0	08/17/15 21:29	
92263328017	**MW 15R**					
EPA 8260	Methyl-tert-butyl ether	96.6	ug/L	5.0	08/17/15 15:50	
92263328018	**MW 16DD**					
EPA 8260	Methyl-tert-butyl ether	2.3J	ug/L	5.0	08/17/15 22:02	
92263328019	**MW 17I**					
EPA 8260	Methyl-tert-butyl ether	6.2	ug/L	5.0	08/18/15 07:05	
92263328020	**MW 18D**					
EPA 8260	Methyl-tert-butyl ether	2.4J	ug/L	5.0	08/17/15 16:07	
92263328021	**MW 19I**					
EPA 8260	Methyl-tert-butyl ether	6.2	ug/L	5.0	08/17/15 16:24	
92263328022	**MW 20D**					
EPA 8260	Methyl-tert-butyl ether	2.4J	ug/L	5.0	08/17/15 16:41	
92263328023	**MW 21I**					
EPA 8260	Methyl-tert-butyl ether	6.2	ug/L	5.0	08/17/15 16:58	
92263328024	**MW 22D**					
EPA 8260	Methyl-tert-butyl ether	2.3J	ug/L	5.0	08/17/15 19:13	
92263328025	**MW 24**					
EPA 8260	Diisopropyl ether	4.7J	ug/L	5.0	08/17/15 19:30	
EPA 8260	Methyl-tert-butyl ether	13.4	ug/L	5.0	08/17/15 19:30	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92263328026	**MW 26I**					
EPA 8260	Benzene	1.9J	ug/L	5.0	08/17/15 19:47	
EPA 8260	Methyl-tert-butyl ether	21.4	ug/L	5.0	08/17/15 19:47	
92263328027	**MW 28DD**					
EPA 8260	Methyl-tert-butyl ether	2.8J	ug/L	5.0	08/17/15 20:04	
92263328028	**MW 29**					
EPA 8260	Diisopropyl ether	4.5J	ug/L	5.0	08/17/15 20:38	
EPA 8260	Methyl-tert-butyl ether	54.4	ug/L	5.0	08/17/15 20:38	
92263328029	**MW 30I**					
EPA 8260	Diisopropyl ether	4.6J	ug/L	5.0	08/17/15 20:55	
EPA 8260	Methyl-tert-butyl ether	62.4	ug/L	5.0	08/17/15 20:55	
92263328031	**MW 32**					
EPA 8260	tert-Amyl Alcohol	2860	ug/L	500	08/18/15 04:49	
EPA 8260	Benzene	311	ug/L	25.0	08/18/15 04:49	
EPA 8260	tert-Butyl Alcohol	870	ug/L	500	08/18/15 04:49	L1
EPA 8260	Methyl-tert-butyl ether	1310	ug/L	100	08/18/15 13:18	
EPA 8260	Naphthalene	16.8J	ug/L	25.0	08/18/15 04:49	
EPA 8260	m&p-Xylene	17.6J	ug/L	50.0	08/18/15 04:49	
EPA 8260	o-Xylene	9.1J	ug/L	25.0	08/18/15 04:49	
92263328032	**MW 33I**					
EPA 8260	tert-Amyl Alcohol	2590	ug/L	500	08/18/15 05:06	
EPA 8260	Benzene	294	ug/L	25.0	08/18/15 05:06	
EPA 8260	tert-Butyl Alcohol	800	ug/L	500	08/18/15 05:06	L1
EPA 8260	Methyl-tert-butyl ether	1560	ug/L	100	08/18/15 13:35	
EPA 8260	Naphthalene	16.3J	ug/L	25.0	08/18/15 05:06	
EPA 8260	m&p-Xylene	16.1J	ug/L	50.0	08/18/15 05:06	
EPA 8260	o-Xylene	8.2J	ug/L	25.0	08/18/15 05:06	
92263328033	**MW 34D**					
EPA 8260	tert-Amyl Alcohol	2650	ug/L	500	08/18/15 05:23	
EPA 8260	Benzene	340	ug/L	25.0	08/18/15 05:23	
EPA 8260	tert-Butyl Alcohol	808	ug/L	500	08/18/15 05:23	L1
EPA 8260	Methyl-tert-butyl ether	1820	ug/L	100	08/18/15 13:52	
EPA 8260	Naphthalene	16.4J	ug/L	25.0	08/18/15 05:23	
EPA 8260	m&p-Xylene	18.2J	ug/L	50.0	08/18/15 05:23	
EPA 8260	o-Xylene	9.3J	ug/L	25.0	08/18/15 05:23	
92263328037	**MW 38**					
EPA 8260	Diisopropyl ether	4.6J	ug/L	5.0	08/18/15 02:50	
EPA 8260	Methyl-tert-butyl ether	61.2	ug/L	5.0	08/18/15 02:50	
92263328038	**MW 39I**					
EPA 8260	Diisopropyl ether	4.3J	ug/L	5.0	08/18/15 03:07	M1
EPA 8260	Methyl-tert-butyl ether	57.8	ug/L	5.0	08/18/15 03:07	M1
92263328039	**MW 40D**					
EPA 8260	Diisopropyl ether	4.1J	ug/L	5.0	08/18/15 03:24	

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SUMMARY OF DETECTION

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92263328039	**MW 40D**					
EPA 8260	Methyl-tert-butyl ether	59.9	ug/L	5.0	08/18/15 03:24	
92263328042	**MW 43**					
EPA 8260	Diisopropyl ether	4.7J	ug/L	5.0	08/18/15 03:58	
EPA 8260	Methyl-tert-butyl ether	58.9	ug/L	5.0	08/18/15 03:58	
92263328043	**MW 44I**					
EPA 8260	Diisopropyl ether	4.6J	ug/L	5.0	08/18/15 04:15	
EPA 8260	Methyl-tert-butyl ether	57.5	ug/L	5.0	08/18/15 04:15	
92263328044	**MW 46**					
EPA 8260	tert-Amyl Alcohol	2580	ug/L	500	08/18/15 06:14	
EPA 8260	Benzene	312	ug/L	25.0	08/18/15 06:14	
EPA 8260	tert-Butyl Alcohol	754	ug/L	500	08/18/15 06:14	L1
EPA 8260	Methyl-tert-butyl ether	1690	ug/L	100	08/18/15 14:08	
EPA 8260	Naphthalene	16.3J	ug/L	25.0	08/18/15 06:14	
EPA 8260	m&p-Xylene	17.4J	ug/L	50.0	08/18/15 06:14	
EPA 8260	o-Xylene	8.8J	ug/L	25.0	08/18/15 06:14	
92263328045	**MW 47**					
EPA 8260	tert-Amyl Alcohol	1680	ug/L	100	08/18/15 04:32	
EPA 8260	tert-Amylmethyl ether	4.9J	ug/L	10.0	08/18/15 04:32	
EPA 8260	Benzene	260	ug/L	62.5	08/18/15 13:01	
EPA 8260	tert-Butyl Alcohol	589	ug/L	100	08/18/15 04:32	L1
EPA 8260	Diisopropyl ether	3.0J	ug/L	5.0	08/18/15 04:32	
EPA 8260	Methyl-tert-butyl ether	1480	ug/L	62.5	08/18/15 13:01	
EPA 8260	Naphthalene	4.2J	ug/L	5.0	08/18/15 04:32	
EPA 8260	Xylene (Total)	19.3	ug/L	10.0	08/18/15 04:32	
EPA 8260	m&p-Xylene	12.6	ug/L	10.0	08/18/15 04:32	
EPA 8260	o-Xylene	6.6	ug/L	5.0	08/18/15 04:32	
92263328046	**MW 49**					
EPA 8260	Diisopropyl ether	4.9J	ug/L	5.0	08/18/15 10:46	
EPA 8260	Methyl-tert-butyl ether	57.2	ug/L	5.0	08/18/15 10:46	
EPA 8260	Naphthalene	3.8J	ug/L	5.0	08/18/15 10:46	
EPA 8260	Toluene	1.9J	ug/L	5.0	08/18/15 10:46	
92263328047	**MW 50**					
EPA 8260	Diisopropyl ether	4.5J	ug/L	5.0	08/18/15 07:22	
EPA 8260	Methyl-tert-butyl ether	61.1	ug/L	5.0	08/18/15 07:22	
92263328048	**MW 52**					
EPA 8260	Benzene	2430	ug/L	125	08/18/15 09:21	
EPA 8260	Ethylbenzene	2340	ug/L	125	08/18/15 09:21	
EPA 8260	Naphthalene	974	ug/L	125	08/18/15 09:21	
EPA 8260	Toluene	19000	ug/L	625	08/18/15 15:33	
EPA 8260	Xylene (Total)	12600	ug/L	250	08/18/15 09:21	
EPA 8260	m&p-Xylene	7660	ug/L	250	08/18/15 09:21	
EPA 8260	o-Xylene	4930	ug/L	125	08/18/15 09:21	

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SUMMARY OF DETECTION

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92263328050	**MW 55**					
EPA 8260	Diisopropyl ether	5.0	ug/L	5.0	08/18/15 07:56	
EPA 8260	Methyl-tert-butyl ether	65.8	ug/L	5.0	08/18/15 07:56	
92263328051	**MW 57I**					
EPA 8260	Diisopropyl ether	4.9J	ug/L	5.0	08/18/15 08:13	
EPA 8260	Methyl-tert-butyl ether	61.9	ug/L	5.0	08/18/15 08:13	
92263328052	**MW 58**					
EPA 8260	Diisopropyl ether	5.0J	ug/L	5.0	08/18/15 08:30	
EPA 8260	Methyl-tert-butyl ether	62.1	ug/L	5.0	08/18/15 08:30	
92263328053	**MW 59**					
EPA 8260	Diisopropyl ether	4.0J	ug/L	5.0	08/18/15 03:25	
EPA 8260	Methyl-tert-butyl ether	46.0	ug/L	5.0	08/18/15 03:25	
92263328054	**MW 62**					
EPA 8011	1,2-Dibromoethane (EDB)	1.4	ug/L	0.078	08/19/15 17:34	C2
EPA 8260	tert-Amyl Alcohol	10600	ug/L	2000	08/18/15 09:38	
EPA 8260	Benzene	36300	ug/L	2500	08/18/15 15:50	
EPA 8260	Diisopropyl ether	116	ug/L	100	08/18/15 09:38	
EPA 8260	Ethylbenzene	3270	ug/L	100	08/18/15 09:38	
EPA 8260	Methyl-tert-butyl ether	866	ug/L	100	08/18/15 09:38	
EPA 8260	Naphthalene	675	ug/L	100	08/18/15 09:38	
EPA 8260	Toluene	76200	ug/L	2500	08/18/15 15:50	
EPA 8260	Xylene (Total)	25900	ug/L	5000	08/18/15 15:50	
EPA 8260	m&p-Xylene	17100	ug/L	5000	08/18/15 15:50	
EPA 8260	o-Xylene	8830	ug/L	2500	08/18/15 15:50	
92263328055	**MW 68**					
EPA 8011	1,2-Dibromoethane (EDB)	15.0	ug/L	0.49	08/19/15 17:54	C2
EPA 8260	tert-Amyl Alcohol	36700	ug/L	12500	08/18/15 09:55	
EPA 8260	tert-Amylmethyl ether	1450	ug/L	1250	08/18/15 09:55	
EPA 8260	Benzene	47200	ug/L	2500	08/18/15 16:07	
EPA 8260	Diisopropyl ether	2200	ug/L	625	08/18/15 09:55	
EPA 8260	Ethylbenzene	3290	ug/L	625	08/18/15 09:55	
EPA 8260	Methyl-tert-butyl ether	43500	ug/L	2500	08/18/15 16:07	
EPA 8260	Naphthalene	1120	ug/L	625	08/18/15 09:55	
EPA 8260	Toluene	63300	ug/L	2500	08/18/15 16:07	
EPA 8260	Xylene (Total)	23100	ug/L	1250	08/18/15 09:55	
EPA 8260	m&p-Xylene	15000	ug/L	1250	08/18/15 09:55	
EPA 8260	o-Xylene	8060	ug/L	625	08/18/15 09:55	
92263328057	**MW 2x**					
EPA 8011	1,2-Dibromoethane (EDB)	0.47	ug/L	0.019	08/19/15 08:36	
EPA 8260	tert-Amyl Alcohol	3940	ug/L	2000	08/18/15 10:12	
EPA 8260	Benzene	19600	ug/L	1250	08/18/15 16:24	
EPA 8260	Ethylbenzene	1960	ug/L	100	08/18/15 10:12	
EPA 8260	Methyl-tert-butyl ether	1180	ug/L	100	08/18/15 10:12	
EPA 8260	Naphthalene	422	ug/L	100	08/18/15 10:12	
EPA 8260	Toluene	37900	ug/L	1250	08/18/15 16:24	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92263328057	**MW 2x**					
EPA 8260	Xylene (Total)	11500	ug/L	200	08/18/15 10:12	
EPA 8260	m&p-Xylene	7540	ug/L	200	08/18/15 10:12	
EPA 8260	o-Xylene	3960	ug/L	100	08/18/15 10:12	
92263328058	**MW 6x**					
EPA 8011	1,2-Dibromoethane (EDB)	0.94	ug/L	0.020	08/19/15 08:55	C2
EPA 8260	tert-Amyl Alcohol	18800	ug/L	2500	08/18/15 10:29	
EPA 8260	Benzene	31500	ug/L	1250	08/18/15 16:41	
EPA 8260	Ethylbenzene	2330	ug/L	125	08/18/15 10:29	
EPA 8260	Methyl-tert-butyl ether	1530	ug/L	125	08/18/15 10:29	
EPA 8260	Naphthalene	693	ug/L	125	08/18/15 10:29	
EPA 8260	Toluene	41600	ug/L	1250	08/18/15 16:41	
EPA 8260	Xylene (Total)	13300	ug/L	250	08/18/15 10:29	
EPA 8260	m&p-Xylene	8660	ug/L	250	08/18/15 10:29	
EPA 8260	o-Xylene	4660	ug/L	125	08/18/15 10:29	
92263328059	**MW 62 DUPLICATE**					
EPA 8011	1,2-Dibromoethane (EDB)	1.6	ug/L	0.078	08/19/15 18:32	C2
EPA 8260	tert-Amyl Alcohol	9720	ug/L	2000	08/18/15 01:07	
EPA 8260	Benzene	32600	ug/L	2500	08/18/15 14:42	
EPA 8260	tert-Butyl Alcohol	1660J	ug/L	2000	08/18/15 01:07	
EPA 8260	Diisopropyl ether	87.3J	ug/L	100	08/18/15 01:07	
EPA 8260	Ethylbenzene	3080	ug/L	100	08/18/15 01:07	
EPA 8260	Methyl-tert-butyl ether	821	ug/L	100	08/18/15 01:07	
EPA 8260	Naphthalene	759	ug/L	100	08/18/15 01:07	
EPA 8260	Toluene	70200	ug/L	2500	08/18/15 14:42	
EPA 8260	Xylene (Total)	23500	ug/L	5000	08/18/15 14:42	
EPA 8260	m&p-Xylene	15500	ug/L	5000	08/18/15 14:42	
EPA 8260	o-Xylene	8020	ug/L	2500	08/18/15 14:42	
92263328060	**MW 68 DUPLICATE**					
EPA 8011	1,2-Dibromoethane (EDB)	14.8	ug/L	0.50	08/19/15 18:52	C2
EPA 8260	tert-Amyl Alcohol	36500	ug/L	12500	08/18/15 01:24	
EPA 8260	tert-Amylmethyl ether	1370	ug/L	1250	08/18/15 01:24	
EPA 8260	Benzene	42800	ug/L	2500	08/18/15 14:59	
EPA 8260	Diisopropyl ether	1690	ug/L	625	08/18/15 01:24	
EPA 8260	Ethylbenzene	3810	ug/L	625	08/18/15 01:24	
EPA 8260	Methyl-tert-butyl ether	40900	ug/L	2500	08/18/15 14:59	
EPA 8260	Naphthalene	904	ug/L	625	08/18/15 01:24	
EPA 8260	Toluene	57300	ug/L	2500	08/18/15 14:59	
EPA 8260	Xylene (Total)	24200	ug/L	1250	08/18/15 01:24	
EPA 8260	m&p-Xylene	16000	ug/L	1250	08/18/15 01:24	
EPA 8260	o-Xylene	8260	ug/L	625	08/18/15 01:24	
92263328061	**MW 9R DUPLICATE**					
EPA 8260	tert-Butyl Alcohol	77.5J	ug/L	100	08/17/15 21:41	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW R1A **Lab ID: 92263328001** Collected: 08/12/15 11:13 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**14.4**	ug/L	0.39	0.39	20	08/18/15 17:45	08/19/15 17:14	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		20	08/18/15 17:45	08/19/15 17:14	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**101000**	ug/L	25000	19200	250		08/15/15 11:01	75-85-4	
tert-Amylmethyl ether	**1550J**	ug/L	2500	850	250		08/15/15 11:01	994-05-8	
Benzene	**31300**	ug/L	1250	425	250		08/15/15 11:01	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	25000	8020	250		08/15/15 11:01	624-95-3	
tert-Butyl Alcohol	**29800**	ug/L	25000	14400	250		08/15/15 11:01	75-65-0	
tert-Butyl Formate	ND	ug/L	12500	1820	250		08/15/15 11:01	762-75-4	
1,2-Dichloroethane	ND	ug/L	1250	450	250		08/15/15 11:01	107-06-2	
Diisopropyl ether	**2050**	ug/L	1250	425	250		08/15/15 11:01	108-20-3	
Ethanol	ND	ug/L	50000	34400	250		08/15/15 11:01	64-17-5	L3
Ethylbenzene	**2520**	ug/L	1250	400	250		08/15/15 11:01	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	2500	900	250		08/15/15 11:01	637-92-3	
Methyl-tert-butyl ether	**231000**	ug/L	12500	4250	2500		08/17/15 12:10	1634-04-4	
Naphthalene	**2110**	ug/L	1250	500	250		08/15/15 11:01	91-20-3	
Toluene	**47500**	ug/L	1250	400	250		08/15/15 11:01	108-88-3	
Xylene (Total)	**31800**	ug/L	2500	675	250		08/15/15 11:01	1330-20-7	
m&p-Xylene	**21000**	ug/L	2500	775	250		08/15/15 11:01	179601-23-1	
o-Xylene	**10900**	ug/L	1250	400	250		08/15/15 11:01	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		250		08/15/15 11:01	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		250		08/15/15 11:01	17060-07-0	
Toluene-d8 (S)	101	%	70-130		250		08/15/15 11:01	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW R2 **Lab ID: 92263328002** Collected: 08/11/15 13:31 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:20	08/15/15 06:46	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	127	%	60-140		1	08/14/15 16:20	08/15/15 06:46	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 14:26	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 14:26	994-05-8	
Benzene	**2.5J**	ug/L	5.0	1.7	1		08/17/15 14:26	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 14:26	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 14:26	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 14:26	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 14:26	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 14:26	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 14:26	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 14:26	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 14:26	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/17/15 14:26	1634-04-4	
Naphthalene	**7.7**	ug/L	5.0	2.0	1		08/17/15 14:26	91-20-3	
Toluene	**3.1J**	ug/L	5.0	1.6	1		08/17/15 14:26	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 14:26	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 14:26	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 14:26	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		08/17/15 14:26	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		08/17/15 14:26	17060-07-0	
Toluene-d8 (S)	111	%	70-130		1		08/17/15 14:26	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW R3 **Lab ID: 92263328003** Collected: 08/11/15 13:44 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	08/14/15 16:20	08/15/15 07:06	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	118	%	60-140		1	08/14/15 16:20	08/15/15 07:06	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/15/15 11:35	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/15/15 11:35	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/15/15 11:35	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/15/15 11:35	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/15/15 11:35	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/15/15 11:35	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/15/15 11:35	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/15/15 11:35	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/15/15 11:35	64-17-5	L3
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/15/15 11:35	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/15/15 11:35	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/15/15 11:35	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/15/15 11:35	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/15/15 11:35	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/15/15 11:35	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/15/15 11:35	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/15/15 11:35	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		08/15/15 11:35	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		08/15/15 11:35	17060-07-0	
Toluene-d8 (S)	112	%	70-130		1		08/15/15 11:35	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 4 **Lab ID: 92263328004** Collected: 08/11/15 14:25 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:20	08/15/15 07:27	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	122	%	60-140		1	08/14/15 16:20	08/15/15 07:27	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/15/15 11:52	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/15/15 11:52	994-05-8	
Benzene	**1.8J**	ug/L	5.0	1.7	1		08/15/15 11:52	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/15/15 11:52	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/15/15 11:52	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/15/15 11:52	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/15/15 11:52	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/15/15 11:52	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/15/15 11:52	64-17-5	L3
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/15/15 11:52	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/15/15 11:52	637-92-3	
Methyl-tert-butyl ether	**20.1**	ug/L	5.0	1.7	1		08/15/15 11:52	1634-04-4	
Naphthalene	**3.1J**	ug/L	5.0	2.0	1		08/15/15 11:52	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/15/15 11:52	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/15/15 11:52	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/15/15 11:52	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/15/15 11:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		08/15/15 11:52	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		08/15/15 11:52	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		08/15/15 11:52	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW R4R **Lab ID: 92263328005** Collected: 08/11/15 16:01 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.52**	ug/L	0.020	0.020	1	08/18/15 17:45	08/18/15 22:58	106-93-4	C2
Surrogates									
1-Chloro-2-bromopropane (S)	129	%	60-140		1	08/18/15 17:45	08/18/15 22:58	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**11800**	ug/L	5000	3840	50		08/17/15 17:15	75-85-4	
tert-Amylmethyl ether	ND	ug/L	500	170	50		08/17/15 17:15	994-05-8	
Benzene	**17400**	ug/L	1000	340	200		08/18/15 12:44	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	5000	1600	50		08/17/15 17:15	624-95-3	
tert-Butyl Alcohol	ND	ug/L	5000	2880	50		08/17/15 17:15	75-65-0	
tert-Butyl Formate	ND	ug/L	2500	365	50		08/17/15 17:15	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	250	90.0	50		08/17/15 17:15	107-06-2	
Diisopropyl ether	ND	ug/L	250	85.0	50		08/17/15 17:15	108-20-3	
Ethanol	ND	ug/L	10000	6890	50		08/17/15 17:15	64-17-5	
Ethylbenzene	**1660**	ug/L	250	80.0	50		08/17/15 17:15	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	500	180	50		08/17/15 17:15	637-92-3	
Methyl-tert-butyl ether	**494**	ug/L	250	85.0	50		08/17/15 17:15	1634-04-4	
Naphthalene	**644**	ug/L	250	100	50		08/17/15 17:15	91-20-3	
Toluene	**27600**	ug/L	1000	320	200		08/18/15 12:44	108-88-3	
Xylene (Total)	**10200**	ug/L	500	135	50		08/17/15 17:15	1330-20-7	
m&p-Xylene	**6730**	ug/L	500	155	50		08/17/15 17:15	179601-23-1	
o-Xylene	**3430**	ug/L	250	80.0	50		08/17/15 17:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		50		08/17/15 17:15	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		50		08/17/15 17:15	17060-07-0	
Toluene-d8 (S)	101	%	70-130		50		08/17/15 17:15	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 5 **Lab ID: 92263328006** Collected: 08/11/15 16:07 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	08/14/15 16:20	08/15/15 08:08	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	117	%	60-140		1	08/14/15 16:20	08/15/15 08:08	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 17:48	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 17:48	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 17:48	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 17:48	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 17:48	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 17:48	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 17:48	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 17:48	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 17:48	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 17:48	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 17:48	637-92-3	L3
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 17:48	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 17:48	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 17:48	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 17:48	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 17:48	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 17:48	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		08/18/15 17:48	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		08/18/15 17:48	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		08/18/15 17:48	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 6 **Lab ID: 92263328007** Collected: 08/11/15 16:13 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.37**	ug/L	0.020	0.020	1	08/18/15 17:45	08/18/15 23:17	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	221	%	60-140		1	08/18/15 17:45	08/18/15 23:17	301-79-56	S5
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	20000	15400	200		08/17/15 17:49	75-85-4	
tert-Amylmethyl ether	ND	ug/L	2000	680	200		08/17/15 17:49	994-05-8	
Benzene	**13500**	ug/L	1000	340	200		08/17/15 17:49	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	20000	6420	200		08/17/15 17:49	624-95-3	
tert-Butyl Alcohol	ND	ug/L	20000	11500	200		08/17/15 17:49	75-65-0	
tert-Butyl Formate	ND	ug/L	10000	1460	200		08/17/15 17:49	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	1000	360	200		08/17/15 17:49	107-06-2	
Diisopropyl ether	ND	ug/L	1000	340	200		08/17/15 17:49	108-20-3	
Ethanol	ND	ug/L	40000	27600	200		08/17/15 17:49	64-17-5	
Ethylbenzene	**1330**	ug/L	1000	320	200		08/17/15 17:49	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	2000	720	200		08/17/15 17:49	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1000	340	200		08/17/15 17:49	1634-04-4	
Naphthalene	**1240**	ug/L	1000	400	200		08/17/15 17:49	91-20-3	
Toluene	**25800**	ug/L	1000	320	200		08/17/15 17:49	108-88-3	
Xylene (Total)	**17000**	ug/L	2000	540	200		08/17/15 17:49	1330-20-7	
m&p-Xylene	**11000**	ug/L	2000	620	200		08/17/15 17:49	179601-23-1	
o-Xylene	**6030**	ug/L	1000	320	200		08/17/15 17:49	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		200		08/17/15 17:49	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		200		08/17/15 17:49	17060-07-0	
Toluene-d8 (S)	100	%	70-130		200		08/17/15 17:49	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 7 **Lab ID: 92263328008** Collected: 08/12/15 11:32 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:21	08/15/15 08:48	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	275	%	60-140		1	08/14/15 16:21	08/15/15 08:48	301-79-56	S5
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**10700**	ug/L	2500	1920	25		08/17/15 18:06	75-85-4	
tert-Amylmethyl ether	ND	ug/L	250	85.0	25		08/17/15 18:06	994-05-8	
Benzene	**3150**	ug/L	125	42.5	25		08/17/15 18:06	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2500	802	25		08/17/15 18:06	624-95-3	
tert-Butyl Alcohol	**1510J**	ug/L	2500	1440	25		08/17/15 18:06	75-65-0	
tert-Butyl Formate	ND	ug/L	1250	182	25		08/17/15 18:06	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	125	45.0	25		08/17/15 18:06	107-06-2	
Diisopropyl ether	ND	ug/L	125	42.5	25		08/17/15 18:06	108-20-3	
Ethanol	ND	ug/L	5000	3440	25		08/17/15 18:06	64-17-5	
Ethylbenzene	**792**	ug/L	125	40.0	25		08/17/15 18:06	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	250	90.0	25		08/17/15 18:06	637-92-3	
Methyl-tert-butyl ether	**1150**	ug/L	125	42.5	25		08/17/15 18:06	1634-04-4	
Naphthalene	**616**	ug/L	125	50.0	25		08/17/15 18:06	91-20-3	
Toluene	**4040**	ug/L	125	40.0	25		08/17/15 18:06	108-88-3	
Xylene (Total)	**8370**	ug/L	250	67.5	25		08/17/15 18:06	1330-20-7	
m&p-Xylene	**4990**	ug/L	250	77.5	25		08/17/15 18:06	179601-23-1	
o-Xylene	**3380**	ug/L	125	40.0	25		08/17/15 18:06	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		25		08/17/15 18:06	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		25		08/17/15 18:06	17060-07-0	
Toluene-d8 (S)	100	%	70-130		25		08/17/15 18:06	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 9 **Lab ID: 92263328009** Collected: 08/12/15 11:41 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:21	08/15/15 09:09	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	120	%	60-140		1	08/14/15 16:21	08/15/15 09:09	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 18:56	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 18:56	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 18:56	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 18:56	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 18:56	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 18:56	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 18:56	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 18:56	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 18:56	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 18:56	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 18:56	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/17/15 18:56	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 18:56	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 18:56	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 18:56	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 18:56	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 18:56	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/17/15 18:56	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		08/17/15 18:56	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		08/17/15 18:56	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 9R **Lab ID: 92263328010** Collected: 08/12/15 11:53 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:21	08/15/15 09:29	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	120	%	60-140		1	08/14/15 16:21	08/15/15 09:29	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 14:43	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 14:43	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 14:43	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 14:43	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 14:43	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 14:43	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 14:43	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 14:43	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 14:43	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 14:43	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 14:43	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/17/15 14:43	1634-04-4	
Naphthalene	**3.4J**	ug/L	5.0	2.0	1		08/17/15 14:43	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 14:43	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 14:43	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 14:43	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 14:43	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		08/17/15 14:43	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		08/17/15 14:43	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		08/17/15 14:43	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 11 **Lab ID: 92263328011** Collected: 08/11/15 14:17 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:21	08/15/15 09:50	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	122	%	60-140		1	08/14/15 16:21	08/15/15 09:50	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 15:00	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 15:00	994-05-8	
Benzene	**2.0J**	ug/L	5.0	1.7	1		08/17/15 15:00	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 15:00	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 15:00	75-65-0	M1
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 15:00	762-75-4	L3,P5
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 15:00	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 15:00	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 15:00	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 15:00	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 15:00	637-92-3	
Methyl-tert-butyl ether	**22.0**	ug/L	5.0	1.7	1		08/17/15 15:00	1634-04-4	
Naphthalene	**3.3J**	ug/L	5.0	2.0	1		08/17/15 15:00	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 15:00	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 15:00	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 15:00	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 15:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		08/17/15 15:00	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		08/17/15 15:00	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		08/17/15 15:00	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW R11 **Lab ID: 92263328012** Collected: 08/11/15 14:23 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:21	08/15/15 10:10	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	118	%	60-140		1	08/14/15 16:21	08/15/15 10:10	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 15:17	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 15:17	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 15:17	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 15:17	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 15:17	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 15:17	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 15:17	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 15:17	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 15:17	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 15:17	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 15:17	637-92-3	
Methyl-tert-butyl ether	**3.6J**	ug/L	5.0	1.7	1		08/17/15 15:17	1634-04-4	
Naphthalene	**3.1J**	ug/L	5.0	2.0	1		08/17/15 15:17	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 15:17	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 15:17	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 15:17	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 15:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		08/17/15 15:17	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		08/17/15 15:17	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		08/17/15 15:17	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 12 **Lab ID: 92263328013** Collected: 08/11/15 09:06 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	08/14/15 16:21	08/15/15 10:31	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	122	%	60-140		1	08/14/15 16:21	08/15/15 10:31	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 21:29	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 21:29	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 21:29	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 21:29	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 21:29	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 21:29	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 21:29	107-06-2	
Diisopropyl ether	**4.3J**	ug/L	5.0	1.7	1		08/17/15 21:29	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 21:29	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 21:29	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 21:29	637-92-3	
Methyl-tert-butyl ether	**59.7**	ug/L	5.0	1.7	1		08/17/15 21:29	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 21:29	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 21:29	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 21:29	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 21:29	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 21:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/17/15 21:29	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130		1		08/17/15 21:29	17060-07-0	
Toluene-d8 (S)	113	%	70-130		1		08/17/15 21:29	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 13R **Lab ID: 92263328014** Collected: 08/11/15 12:14 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:21	08/15/15 10:52	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	118	%	60-140		1	08/14/15 16:21	08/15/15 10:52	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 18:05	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 18:05	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 18:05	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 18:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 18:05	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 18:05	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 18:05	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 18:05	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 18:05	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 18:05	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 18:05	637-92-3	L3
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 18:05	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 18:05	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 18:05	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 18:05	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 18:05	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 18:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		08/18/15 18:05	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		08/18/15 18:05	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		08/18/15 18:05	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 14R **Lab ID: 92263328015** Collected: 08/11/15 12:22 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	08/14/15 16:21	08/15/15 11:12	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	122	%	60-140		1	08/14/15 16:21	08/15/15 11:12	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 21:45	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 21:45	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 21:45	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 21:45	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 21:45	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 21:45	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 21:45	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 21:45	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 21:45	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 21:45	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 21:45	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/17/15 21:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 21:45	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 21:45	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 21:45	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 21:45	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 21:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		08/17/15 21:45	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		08/17/15 21:45	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		08/17/15 21:45	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 14R2 **Lab ID: 92263328016** Collected: 08/11/15 12:28 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:21	08/15/15 11:33	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	120	%	60-140		1	08/14/15 16:21	08/15/15 11:33	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 18:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 18:22	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 18:22	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 18:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 18:22	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 18:22	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 18:22	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 18:22	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 18:22	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 18:22	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 18:22	637-92-3	L3
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 18:22	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 18:22	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 18:22	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 18:22	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 18:22	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 18:22	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/18/15 18:22	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		08/18/15 18:22	17060-07-0	
Toluene-d8 (S)	115	%	70-130		1		08/18/15 18:22	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 15R **Lab ID: 92263328017** Collected: 08/11/15 16:23 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:52	08/14/15 19:16	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	115	%	60-140		1	08/14/15 16:52	08/14/15 19:16	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 15:50	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 15:50	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 15:50	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 15:50	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 15:50	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 15:50	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 15:50	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 15:50	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 15:50	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 15:50	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 15:50	637-92-3	
Methyl-tert-butyl ether	**96.6**	ug/L	5.0	1.7	1		08/17/15 15:50	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 15:50	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 15:50	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 15:50	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 15:50	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 15:50	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		08/17/15 15:50	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		08/17/15 15:50	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		08/17/15 15:50	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 16DD **Lab ID: 92263328018** Collected: 08/11/15 15:17 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:53	08/14/15 19:36	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	124	%	60-140		1	08/14/15 16:53	08/14/15 19:36	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 22:02	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 22:02	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 22:02	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 22:02	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 22:02	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 22:02	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 22:02	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 22:02	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 22:02	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 22:02	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 22:02	637-92-3	
Methyl-tert-butyl ether	**2.3J**	ug/L	5.0	1.7	1		08/17/15 22:02	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 22:02	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 22:02	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 22:02	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 22:02	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 22:02	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		08/17/15 22:02	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-130		1		08/17/15 22:02	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		08/17/15 22:02	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 17I **Lab ID: 92263328019** Collected: 08/11/15 15:43 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:53	08/14/15 20:37	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	111	%	60-140		1	08/14/15 16:53	08/14/15 20:37	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 07:05	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 07:05	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 07:05	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 07:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 07:05	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 07:05	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 07:05	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 07:05	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 07:05	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 07:05	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 07:05	637-92-3	
Methyl-tert-butyl ether	**6.2**	ug/L	5.0	1.7	1		08/18/15 07:05	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 07:05	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 07:05	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 07:05	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 07:05	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 07:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/18/15 07:05	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		08/18/15 07:05	17060-07-0	
Toluene-d8 (S)	112	%	70-130		1		08/18/15 07:05	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 18D **Lab ID: 92263328020** Collected: 08/11/15 15:29 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:53	08/14/15 21:18	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	112	%	60-140		1	08/14/15 16:53	08/14/15 21:18	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 16:07	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 16:07	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 16:07	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 16:07	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 16:07	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 16:07	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 16:07	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 16:07	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 16:07	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 16:07	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 16:07	637-92-3	
Methyl-tert-butyl ether	**2.4J**	ug/L	5.0	1.7	1		08/17/15 16:07	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 16:07	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 16:07	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 16:07	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 16:07	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 16:07	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		08/17/15 16:07	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		08/17/15 16:07	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		08/17/15 16:07	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 19I **Lab ID: 92263328021** Collected: 08/11/15 15:53 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:54	08/14/15 21:38	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	115	%	60-140		1	08/14/15 16:54	08/14/15 21:38	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 16:24	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 16:24	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 16:24	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 16:24	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 16:24	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 16:24	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 16:24	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 16:24	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 16:24	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 16:24	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 16:24	637-92-3	
Methyl-tert-butyl ether	**6.2**	ug/L	5.0	1.7	1		08/17/15 16:24	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 16:24	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 16:24	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 16:24	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 16:24	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 16:24	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		08/17/15 16:24	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		08/17/15 16:24	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		08/17/15 16:24	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 20D **Lab ID: 92263328022** Collected: 08/11/15 14:45 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:54	08/14/15 21:58	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	116	%	60-140		1	08/14/15 16:54	08/14/15 21:58	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 16:41	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 16:41	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 16:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 16:41	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 16:41	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 16:41	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 16:41	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 16:41	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 16:41	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 16:41	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 16:41	637-92-3	
Methyl-tert-butyl ether	**2.4J**	ug/L	5.0	1.7	1		08/17/15 16:41	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 16:41	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 16:41	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 16:41	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 16:41	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 16:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/17/15 16:41	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		08/17/15 16:41	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		08/17/15 16:41	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 21I **Lab ID: 92263328023** Collected: 08/11/15 16:08 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:54	08/14/15 22:19	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	114	%	60-140		1	08/14/15 16:54	08/14/15 22:19	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 16:58	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 16:58	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 16:58	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 16:58	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 16:58	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 16:58	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 16:58	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 16:58	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 16:58	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 16:58	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 16:58	637-92-3	
Methyl-tert-butyl ether	**6.2**	ug/L	5.0	1.7	1		08/17/15 16:58	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 16:58	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 16:58	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 16:58	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 16:58	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 16:58	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		08/17/15 16:58	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130		1		08/17/15 16:58	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		08/17/15 16:58	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 22D **Lab ID: 92263328024** Collected: 08/11/15 15:03 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:54	08/14/15 22:39	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	118	%	60-140		1	08/14/15 16:54	08/14/15 22:39	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 19:13	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 19:13	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 19:13	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 19:13	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 19:13	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 19:13	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 19:13	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 19:13	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 19:13	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 19:13	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 19:13	637-92-3	
Methyl-tert-butyl ether	**2.3J**	ug/L	5.0	1.7	1		08/17/15 19:13	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 19:13	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 19:13	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 19:13	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 19:13	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 19:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/17/15 19:13	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		08/17/15 19:13	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		08/17/15 19:13	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 24 **Lab ID: 92263328025** Collected: 08/12/15 10:18 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:54	08/14/15 22:59	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	115	%	60-140		1	08/14/15 16:54	08/14/15 22:59	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 19:30	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 19:30	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 19:30	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 19:30	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 19:30	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 19:30	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 19:30	107-06-2	
Diisopropyl ether	**4.7J**	ug/L	5.0	1.7	1		08/17/15 19:30	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 19:30	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 19:30	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 19:30	637-92-3	
Methyl-tert-butyl ether	**13.4**	ug/L	5.0	1.7	1		08/17/15 19:30	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 19:30	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 19:30	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 19:30	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 19:30	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 19:30	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		08/17/15 19:30	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		08/17/15 19:30	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		08/17/15 19:30	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 26I **Lab ID: 92263328026** Collected: 08/11/15 13:53 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:54	08/14/15 23:20	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	118	%	60-140		1	08/14/15 16:54	08/14/15 23:20	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 19:47	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 19:47	994-05-8	
Benzene	**1.9J**	ug/L	5.0	1.7	1		08/17/15 19:47	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 19:47	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 19:47	75-65-0	M1
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 19:47	762-75-4	L3,P5
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 19:47	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 19:47	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 19:47	64-17-5	M1
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 19:47	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 19:47	637-92-3	
Methyl-tert-butyl ether	**21.4**	ug/L	5.0	1.7	1		08/17/15 19:47	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 19:47	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 19:47	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 19:47	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 19:47	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 19:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		08/17/15 19:47	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		08/17/15 19:47	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		08/17/15 19:47	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 28DD **Lab ID: 92263328027** Collected: 08/11/15 14:09 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:55	08/14/15 23:40	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	114	%	60-140		1	08/14/15 16:55	08/14/15 23:40	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 20:04	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 20:04	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 20:04	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 20:04	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 20:04	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 20:04	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 20:04	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 20:04	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 20:04	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 20:04	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 20:04	637-92-3	
Methyl-tert-butyl ether	**2.8J**	ug/L	5.0	1.7	1		08/17/15 20:04	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 20:04	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 20:04	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 20:04	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 20:04	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 20:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		08/17/15 20:04	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		08/17/15 20:04	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		08/17/15 20:04	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 29 **Lab ID: 92263328028** Collected: 08/11/15 13:14 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:55	08/15/15 00:00	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	113	%	60-140		1	08/14/15 16:55	08/15/15 00:00	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 20:38	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 20:38	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 20:38	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 20:38	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 20:38	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 20:38	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 20:38	107-06-2	
Diisopropyl ether	**4.5J**	ug/L	5.0	1.7	1		08/17/15 20:38	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 20:38	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 20:38	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 20:38	637-92-3	
Methyl-tert-butyl ether	**54.4**	ug/L	5.0	1.7	1		08/17/15 20:38	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 20:38	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 20:38	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 20:38	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 20:38	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 20:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/17/15 20:38	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		08/17/15 20:38	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		08/17/15 20:38	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 30I **Lab ID: 92263328029** Collected: 08/11/15 13:23 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:55	08/15/15 00:20	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	124	%	60-140		1	08/14/15 16:55	08/15/15 00:20	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 20:55	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 20:55	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 20:55	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 20:55	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 20:55	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 20:55	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 20:55	107-06-2	
Diisopropyl ether	**4.6J**	ug/L	5.0	1.7	1		08/17/15 20:55	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 20:55	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 20:55	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 20:55	637-92-3	
Methyl-tert-butyl ether	**62.4**	ug/L	5.0	1.7	1		08/17/15 20:55	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 20:55	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 20:55	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 20:55	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 20:55	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 20:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		08/17/15 20:55	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130		1		08/17/15 20:55	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		08/17/15 20:55	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 31D **Lab ID: 92263328030** Collected: 08/11/15 13:39 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:55	08/15/15 00:41	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	122	%	60-140		1	08/14/15 16:55	08/15/15 00:41	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 21:12	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 21:12	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 21:12	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 21:12	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/17/15 21:12	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 21:12	762-75-4	L3
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 21:12	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 21:12	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 21:12	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 21:12	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 21:12	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/17/15 21:12	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 21:12	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 21:12	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 21:12	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 21:12	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 21:12	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		08/17/15 21:12	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-130		1		08/17/15 21:12	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		08/17/15 21:12	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 32 **Lab ID: 92263328031** Collected: 08/11/15 10:39 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:55	08/15/15 01:01	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	123	%	60-140		1	08/14/15 16:55	08/15/15 01:01	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**2860**	ug/L	500	384	5		08/18/15 04:49	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	17.0	5		08/18/15 04:49	994-05-8	
Benzene	**311**	ug/L	25.0	8.5	5		08/18/15 04:49	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	160	5		08/18/15 04:49	624-95-3	
tert-Butyl Alcohol	**870**	ug/L	500	288	5		08/18/15 04:49	75-65-0	L1
tert-Butyl Formate	ND	ug/L	250	36.5	5		08/18/15 04:49	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	9.0	5		08/18/15 04:49	107-06-2	
Diisopropyl ether	ND	ug/L	25.0	8.5	5		08/18/15 04:49	108-20-3	
Ethanol	ND	ug/L	1000	689	5		08/18/15 04:49	64-17-5	
Ethylbenzene	ND	ug/L	25.0	8.0	5		08/18/15 04:49	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	18.0	5		08/18/15 04:49	637-92-3	
Methyl-tert-butyl ether	**1310**	ug/L	100	34.0	20		08/18/15 13:18	1634-04-4	
Naphthalene	**16.8J**	ug/L	25.0	10.0	5		08/18/15 04:49	91-20-3	
Toluene	ND	ug/L	25.0	8.0	5		08/18/15 04:49	108-88-3	
Xylene (Total)	ND	ug/L	50.0	13.5	5		08/18/15 04:49	1330-20-7	
m&p-Xylene	**17.6J**	ug/L	50.0	15.5	5		08/18/15 04:49	179601-23-1	
o-Xylene	**9.1J**	ug/L	25.0	8.0	5		08/18/15 04:49	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		5		08/18/15 04:49	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		5		08/18/15 04:49	17060-07-0	
Toluene-d8 (S)	100	%	70-130		5		08/18/15 04:49	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 33I **Lab ID: 92263328032** Collected: 08/11/15 10:47 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:55	08/15/15 01:21	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	118	%	60-140		1	08/14/15 16:55	08/15/15 01:21	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**2590**	ug/L	500	384	5		08/18/15 05:06	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	17.0	5		08/18/15 05:06	994-05-8	
Benzene	**294**	ug/L	25.0	8.5	5		08/18/15 05:06	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	160	5		08/18/15 05:06	624-95-3	
tert-Butyl Alcohol	**800**	ug/L	500	288	5		08/18/15 05:06	75-65-0	L1
tert-Butyl Formate	ND	ug/L	250	36.5	5		08/18/15 05:06	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	9.0	5		08/18/15 05:06	107-06-2	
Diisopropyl ether	ND	ug/L	25.0	8.5	5		08/18/15 05:06	108-20-3	
Ethanol	ND	ug/L	1000	689	5		08/18/15 05:06	64-17-5	
Ethylbenzene	ND	ug/L	25.0	8.0	5		08/18/15 05:06	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	18.0	5		08/18/15 05:06	637-92-3	
Methyl-tert-butyl ether	**1560**	ug/L	100	34.0	20		08/18/15 13:35	1634-04-4	
Naphthalene	**16.3J**	ug/L	25.0	10.0	5		08/18/15 05:06	91-20-3	
Toluene	ND	ug/L	25.0	8.0	5		08/18/15 05:06	108-88-3	
Xylene (Total)	ND	ug/L	50.0	13.5	5		08/18/15 05:06	1330-20-7	
m&p-Xylene	**16.1J**	ug/L	50.0	15.5	5		08/18/15 05:06	179601-23-1	
o-Xylene	**8.2J**	ug/L	25.0	8.0	5		08/18/15 05:06	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		5		08/18/15 05:06	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		5		08/18/15 05:06	17060-07-0	
Toluene-d8 (S)	100	%	70-130		5		08/18/15 05:06	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 34D **Lab ID: 92263328033** Collected: 08/11/15 10:56 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:56	08/15/15 01:41	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	121	%	60-140		1	08/14/15 16:56	08/15/15 01:41	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**2650**	ug/L	500	384	5		08/18/15 05:23	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	17.0	5		08/18/15 05:23	994-05-8	
Benzene	**340**	ug/L	25.0	8.5	5		08/18/15 05:23	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	160	5		08/18/15 05:23	624-95-3	
tert-Butyl Alcohol	**808**	ug/L	500	288	5		08/18/15 05:23	75-65-0	L1
tert-Butyl Formate	ND	ug/L	250	36.5	5		08/18/15 05:23	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	9.0	5		08/18/15 05:23	107-06-2	
Diisopropyl ether	ND	ug/L	25.0	8.5	5		08/18/15 05:23	108-20-3	
Ethanol	ND	ug/L	1000	689	5		08/18/15 05:23	64-17-5	
Ethylbenzene	ND	ug/L	25.0	8.0	5		08/18/15 05:23	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	18.0	5		08/18/15 05:23	637-92-3	
Methyl-tert-butyl ether	**1820**	ug/L	100	34.0	20		08/18/15 13:52	1634-04-4	
Naphthalene	**16.4J**	ug/L	25.0	10.0	5		08/18/15 05:23	91-20-3	
Toluene	ND	ug/L	25.0	8.0	5		08/18/15 05:23	108-88-3	
Xylene (Total)	ND	ug/L	50.0	13.5	5		08/18/15 05:23	1330-20-7	
m&p-Xylene	**18.2J**	ug/L	50.0	15.5	5		08/18/15 05:23	179601-23-1	
o-Xylene	**9.3J**	ug/L	25.0	8.0	5		08/18/15 05:23	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		5		08/18/15 05:23	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		5		08/18/15 05:23	17060-07-0	
Toluene-d8 (S)	105	%	70-130		5		08/18/15 05:23	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 35i **Lab ID: 92263328034** Collected: 08/11/15 11:36 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:56	08/15/15 02:01	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	125	%	60-140		1	08/14/15 16:56	08/15/15 02:01	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 18:39	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 18:39	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 18:39	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 18:39	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 18:39	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 18:39	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 18:39	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 18:39	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 18:39	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 18:39	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 18:39	637-92-3	L3
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 18:39	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 18:39	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 18:39	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 18:39	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 18:39	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 18:39	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		08/18/15 18:39	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		08/18/15 18:39	17060-07-0	
Toluene-d8 (S)	110	%	70-130		1		08/18/15 18:39	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 36D **Lab ID: 92263328035** Collected: 08/11/15 11:46 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:56	08/15/15 02:22	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	110	%	60-140		1	08/14/15 16:56	08/15/15 02:22	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 06:31	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 06:31	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 06:31	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 06:31	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 06:31	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 06:31	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 06:31	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 06:31	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 06:31	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 06:31	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 06:31	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 06:31	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 06:31	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 06:31	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 06:31	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 06:31	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 06:31	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/18/15 06:31	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-130		1		08/18/15 06:31	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		08/18/15 06:31	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 37DD **Lab ID: 92263328036** Collected: 08/11/15 12:05 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/14/15 16:56	08/15/15 02:42	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	127	%	60-140		1	08/14/15 16:56	08/15/15 02:42	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 06:48	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 06:48	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 06:48	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 06:48	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 06:48	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 06:48	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 06:48	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 06:48	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 06:48	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 06:48	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 06:48	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 06:48	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 06:48	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 06:48	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 06:48	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 06:48	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 06:48	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		08/18/15 06:48	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		08/18/15 06:48	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		08/18/15 06:48	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 38 **Lab ID: 92263328037** Collected: 08/11/15 09:46 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:45	08/18/15 23:36	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	60-140		1	08/18/15 17:45	08/18/15 23:36	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 02:50	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 02:50	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 02:50	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 02:50	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 02:50	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 02:50	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 02:50	107-06-2	
Diisopropyl ether	**4.6J**	ug/L	5.0	1.7	1		08/18/15 02:50	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 02:50	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 02:50	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 02:50	637-92-3	
Methyl-tert-butyl ether	**61.2**	ug/L	5.0	1.7	1		08/18/15 02:50	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 02:50	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 02:50	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 02:50	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 02:50	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 02:50	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		08/18/15 02:50	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		08/18/15 02:50	17060-07-0	
Toluene-d8 (S)	111	%	70-130		1		08/18/15 02:50	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 39I **Lab ID: 92263328038** Collected: 08/11/15 09:59 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:45	08/18/15 23:55	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	114	%	60-140		1	08/18/15 17:45	08/18/15 23:55	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 03:07	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 03:07	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 03:07	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 03:07	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 03:07	75-65-0	L3,M0
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 03:07	762-75-4	P5
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 03:07	107-06-2	
Diisopropyl ether	**4.3J**	ug/L	5.0	1.7	1		08/18/15 03:07	108-20-3	M1
Ethanol	ND	ug/L	200	138	1		08/18/15 03:07	64-17-5	M1
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 03:07	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 03:07	637-92-3	M1
Methyl-tert-butyl ether	**57.8**	ug/L	5.0	1.7	1		08/18/15 03:07	1634-04-4	M1
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 03:07	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 03:07	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 03:07	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 03:07	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 03:07	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		08/18/15 03:07	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		08/18/15 03:07	17060-07-0	
Toluene-d8 (S)	120	%	70-130		1		08/18/15 03:07	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 40D **Lab ID: 92263328039** Collected: 08/11/15 10:18 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:46	08/19/15 00:34	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	108	%	60-140		1	08/18/15 17:46	08/19/15 00:34	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 03:24	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 03:24	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 03:24	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 03:24	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 03:24	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 03:24	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 03:24	107-06-2	
Diisopropyl ether	**4.1J**	ug/L	5.0	1.7	1		08/18/15 03:24	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 03:24	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 03:24	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 03:24	637-92-3	
Methyl-tert-butyl ether	**59.9**	ug/L	5.0	1.7	1		08/18/15 03:24	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 03:24	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 03:24	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 03:24	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 03:24	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 03:24	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		08/18/15 03:24	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		08/18/15 03:24	17060-07-0	
Toluene-d8 (S)	127	%	70-130		1		08/18/15 03:24	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 41I **Lab ID: 92263328040** Collected: 08/11/15 12:40 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:46	08/19/15 00:54	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	103	%	60-140		1	08/18/15 17:46	08/19/15 00:54	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 18:56	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 18:56	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 18:56	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 18:56	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 18:56	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 18:56	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 18:56	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 18:56	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 18:56	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 18:56	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 18:56	637-92-3	L3
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 18:56	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 18:56	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 18:56	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 18:56	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 18:56	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 18:56	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		08/18/15 18:56	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-130		1		08/18/15 18:56	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		08/18/15 18:56	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 42D **Lab ID: 92263328041** Collected: 08/11/15 13:07 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	08/18/15 17:46	08/19/15 01:13	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	112	%	60-140		1	08/18/15 17:46	08/19/15 01:13	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 23:09	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 23:09	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 23:09	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 23:09	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 23:09	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 23:09	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 23:09	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 23:09	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 23:09	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 23:09	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 23:09	637-92-3	L3
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 23:09	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 23:09	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 23:09	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 23:09	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 23:09	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 23:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/18/15 23:09	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		08/18/15 23:09	17060-07-0	
Toluene-d8 (S)	125	%	70-130		1		08/18/15 23:09	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 43 **Lab ID: 92263328042** Collected: 08/11/15 08:48 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:46	08/19/15 01:32	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	103	%	60-140		1	08/18/15 17:46	08/19/15 01:32	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 03:58	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 03:58	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 03:58	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 03:58	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 03:58	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 03:58	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 03:58	107-06-2	
Diisopropyl ether	**4.7J**	ug/L	5.0	1.7	1		08/18/15 03:58	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 03:58	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 03:58	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 03:58	637-92-3	
Methyl-tert-butyl ether	**58.9**	ug/L	5.0	1.7	1		08/18/15 03:58	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 03:58	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 03:58	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 03:58	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 03:58	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 03:58	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/18/15 03:58	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		08/18/15 03:58	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		08/18/15 03:58	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 44I **Lab ID: 92263328043** Collected: 08/11/15 08:55 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:46	08/19/15 01:52	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	107	%	60-140		1	08/18/15 17:46	08/19/15 01:52	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 04:15	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 04:15	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 04:15	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 04:15	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 04:15	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 04:15	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 04:15	107-06-2	
Diisopropyl ether	**4.6J**	ug/L	5.0	1.7	1		08/18/15 04:15	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 04:15	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 04:15	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 04:15	637-92-3	
Methyl-tert-butyl ether	**57.5**	ug/L	5.0	1.7	1		08/18/15 04:15	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 04:15	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 04:15	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 04:15	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 04:15	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 04:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		08/18/15 04:15	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		08/18/15 04:15	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		08/18/15 04:15	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 46 **Lab ID: 92263328044** Collected: 08/11/15 10:24 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	08/18/15 17:46	08/19/15 02:11	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	116	%	60-140		1	08/18/15 17:46	08/19/15 02:11	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**2580**	ug/L	500	384	5		08/18/15 06:14	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	17.0	5		08/18/15 06:14	994-05-8	
Benzene	**312**	ug/L	25.0	8.5	5		08/18/15 06:14	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	160	5		08/18/15 06:14	624-95-3	
tert-Butyl Alcohol	**754**	ug/L	500	288	5		08/18/15 06:14	75-65-0	L1
tert-Butyl Formate	ND	ug/L	250	36.5	5		08/18/15 06:14	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	9.0	5		08/18/15 06:14	107-06-2	
Diisopropyl ether	ND	ug/L	25.0	8.5	5		08/18/15 06:14	108-20-3	
Ethanol	ND	ug/L	1000	689	5		08/18/15 06:14	64-17-5	
Ethylbenzene	ND	ug/L	25.0	8.0	5		08/18/15 06:14	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	18.0	5		08/18/15 06:14	637-92-3	
Methyl-tert-butyl ether	**1690**	ug/L	100	34.0	20		08/18/15 14:08	1634-04-4	
Naphthalene	**16.3J**	ug/L	25.0	10.0	5		08/18/15 06:14	91-20-3	
Toluene	ND	ug/L	25.0	8.0	5		08/18/15 06:14	108-88-3	
Xylene (Total)	ND	ug/L	50.0	13.5	5		08/18/15 06:14	1330-20-7	
m&p-Xylene	**17.4J**	ug/L	50.0	15.5	5		08/18/15 06:14	179601-23-1	
o-Xylene	**8.8J**	ug/L	25.0	8.0	5		08/18/15 06:14	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		5		08/18/15 06:14	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		5		08/18/15 06:14	17060-07-0	
Toluene-d8 (S)	100	%	70-130		5		08/18/15 06:14	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 47 **Lab ID: 92263328045** Collected: 08/11/15 10:30 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	08/18/15 17:46	08/19/15 02:30	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	112	%	60-140		1	08/18/15 17:46	08/19/15 02:30	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**1680**	ug/L	100	76.8	1		08/18/15 04:32	75-85-4	
tert-Amylmethyl ether	**4.9J**	ug/L	10.0	3.4	1		08/18/15 04:32	994-05-8	
Benzene	**260**	ug/L	62.5	21.2	12.5		08/18/15 13:01	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 04:32	624-95-3	
tert-Butyl Alcohol	**589**	ug/L	100	57.7	1		08/18/15 04:32	75-65-0	L1
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 04:32	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 04:32	107-06-2	
Diisopropyl ether	**3.0J**	ug/L	5.0	1.7	1		08/18/15 04:32	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 04:32	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 04:32	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 04:32	637-92-3	
Methyl-tert-butyl ether	**1480**	ug/L	62.5	21.2	12.5		08/18/15 13:01	1634-04-4	
Naphthalene	**4.2J**	ug/L	5.0	2.0	1		08/18/15 04:32	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 04:32	108-88-3	
Xylene (Total)	**19.3**	ug/L	10.0	2.7	1		08/18/15 04:32	1330-20-7	
m&p-Xylene	**12.6**	ug/L	10.0	3.1	1		08/18/15 04:32	179601-23-1	
o-Xylene	**6.6**	ug/L	5.0	1.6	1		08/18/15 04:32	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		08/18/15 04:32	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		08/18/15 04:32	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		08/18/15 04:32	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 49 **Lab ID: 92263328046** Collected: 08/11/15 08:33 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:46	08/19/15 02:50	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	107	%	60-140		1	08/18/15 17:46	08/19/15 02:50	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 10:46	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 10:46	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 10:46	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 10:46	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 10:46	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 10:46	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 10:46	107-06-2	
Diisopropyl ether	**4.9J**	ug/L	5.0	1.7	1		08/18/15 10:46	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 10:46	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 10:46	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 10:46	637-92-3	L3
Methyl-tert-butyl ether	**57.2**	ug/L	5.0	1.7	1		08/18/15 10:46	1634-04-4	
Naphthalene	**3.8J**	ug/L	5.0	2.0	1		08/18/15 10:46	91-20-3	
Toluene	**1.9J**	ug/L	5.0	1.6	1		08/18/15 10:46	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 10:46	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 10:46	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 10:46	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		08/18/15 10:46	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		08/18/15 10:46	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		08/18/15 10:46	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 50 **Lab ID: 92263328047** Collected: 08/11/15 08:40 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:46	08/19/15 03:09	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	60-140		1	08/18/15 17:46	08/19/15 03:09	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 07:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 07:22	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 07:22	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 07:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 07:22	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 07:22	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 07:22	107-06-2	
Diisopropyl ether	**4.5J**	ug/L	5.0	1.7	1		08/18/15 07:22	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 07:22	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 07:22	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 07:22	637-92-3	L3
Methyl-tert-butyl ether	**61.1**	ug/L	5.0	1.7	1		08/18/15 07:22	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 07:22	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 07:22	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 07:22	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 07:22	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 07:22	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		08/18/15 07:22	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		08/18/15 07:22	17060-07-0	
Toluene-d8 (S)	118	%	70-130		1		08/18/15 07:22	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 52 **Lab ID: 92263328048** Collected: 08/11/15 16:36 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:47	08/19/15 03:28	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	124	%	60-140		1	08/18/15 17:47	08/19/15 03:28	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	2500	1920	25		08/18/15 09:21	75-85-4	
tert-Amylmethyl ether	ND	ug/L	250	85.0	25		08/18/15 09:21	994-05-8	
Benzene	**2430**	ug/L	125	42.5	25		08/18/15 09:21	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2500	802	25		08/18/15 09:21	624-95-3	
tert-Butyl Alcohol	ND	ug/L	2500	1440	25		08/18/15 09:21	75-65-0	L3
tert-Butyl Formate	ND	ug/L	1250	182	25		08/18/15 09:21	762-75-4	
1,2-Dichloroethane	ND	ug/L	125	45.0	25		08/18/15 09:21	107-06-2	
Diisopropyl ether	ND	ug/L	125	42.5	25		08/18/15 09:21	108-20-3	
Ethanol	ND	ug/L	5000	3440	25		08/18/15 09:21	64-17-5	
Ethylbenzene	**2340**	ug/L	125	40.0	25		08/18/15 09:21	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	250	90.0	25		08/18/15 09:21	637-92-3	L3
Methyl-tert-butyl ether	ND	ug/L	125	42.5	25		08/18/15 09:21	1634-04-4	
Naphthalene	**974**	ug/L	125	50.0	25		08/18/15 09:21	91-20-3	
Toluene	**19000**	ug/L	625	200	125		08/18/15 15:33	108-88-3	
Xylene (Total)	**12600**	ug/L	250	67.5	25		08/18/15 09:21	1330-20-7	
m&p-Xylene	**7660**	ug/L	250	77.5	25		08/18/15 09:21	179601-23-1	
o-Xylene	**4930**	ug/L	125	40.0	25		08/18/15 09:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		25		08/18/15 09:21	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		25		08/18/15 09:21	17060-07-0	
Toluene-d8 (S)	104	%	70-130		25		08/18/15 09:21	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 53 **Lab ID: 92263328049** Collected: 08/11/15 16:47 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:47	08/19/15 03:47	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	60-140		1	08/18/15 17:47	08/19/15 03:47	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 07:39	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 07:39	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 07:39	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 07:39	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 07:39	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 07:39	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 07:39	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 07:39	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 07:39	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 07:39	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 07:39	637-92-3	L3
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 07:39	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 07:39	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 07:39	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 07:39	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 07:39	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 07:39	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/18/15 07:39	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130		1		08/18/15 07:39	17060-07-0	
Toluene-d8 (S)	111	%	70-130		1		08/18/15 07:39	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 55 **Lab ID: 92263328050** Collected: 08/11/15 09:17 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:47	08/19/15 04:06	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	109	%	60-140		1	08/18/15 17:47	08/19/15 04:06	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 07:56	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 07:56	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 07:56	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 07:56	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 07:56	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 07:56	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 07:56	107-06-2	
Diisopropyl ether	**5.0**	ug/L	5.0	1.7	1		08/18/15 07:56	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 07:56	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 07:56	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 07:56	637-92-3	L3
Methyl-tert-butyl ether	**65.8**	ug/L	5.0	1.7	1		08/18/15 07:56	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 07:56	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 07:56	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 07:56	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 07:56	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 07:56	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		08/18/15 07:56	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130		1		08/18/15 07:56	17060-07-0	
Toluene-d8 (S)	111	%	70-130		1		08/18/15 07:56	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 57I **Lab ID: 92263328051** Collected: 08/11/15 09:26 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	08/18/15 17:48	08/19/15 05:43	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	102	%	60-140		1	08/18/15 17:48	08/19/15 05:43	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 08:13	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 08:13	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 08:13	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 08:13	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 08:13	75-65-0	L3,M0
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 08:13	762-75-4	P5
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 08:13	107-06-2	
Diisopropyl ether	**4.9J**	ug/L	5.0	1.7	1		08/18/15 08:13	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 08:13	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 08:13	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 08:13	637-92-3	L3,M0
Methyl-tert-butyl ether	**61.9**	ug/L	5.0	1.7	1		08/18/15 08:13	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 08:13	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 08:13	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 08:13	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 08:13	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 08:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/18/15 08:13	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		08/18/15 08:13	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		08/18/15 08:13	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 58 **Lab ID: 92263328052** Collected: 08/11/15 09:37 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:48	08/19/15 06:02	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	114	%	60-140		1	08/18/15 17:48	08/19/15 06:02	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 08:30	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 08:30	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 08:30	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 08:30	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 08:30	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 08:30	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 08:30	107-06-2	
Diisopropyl ether	**5.0J**	ug/L	5.0	1.7	1		08/18/15 08:30	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 08:30	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 08:30	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 08:30	637-92-3	L3
Methyl-tert-butyl ether	**62.1**	ug/L	5.0	1.7	1		08/18/15 08:30	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 08:30	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 08:30	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 08:30	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 08:30	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 08:30	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		08/18/15 08:30	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		08/18/15 08:30	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		08/18/15 08:30	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 59 **Lab ID: 92263328063** Collected: 08/11/15 09:01 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:48	08/19/15 06:21	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	110	%	60-140		1	08/18/15 17:48	08/19/15 06:21	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 03:25	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 03:25	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 03:25	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 03:25	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 03:25	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 03:25	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 03:25	107-06-2	
Diisopropyl ether	**4.0J**	ug/L	5.0	1.7	1		08/18/15 03:25	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 03:25	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 03:25	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 03:25	637-92-3	
Methyl-tert-butyl ether	**46.0**	ug/L	5.0	1.7	1		08/18/15 03:25	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 03:25	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 03:25	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 03:25	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 03:25	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 03:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		08/18/15 03:25	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		08/18/15 03:25	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		08/18/15 03:25	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 62 **Lab ID: 92263328054** Collected: 08/12/15 09:30 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**1.4**	ug/L	0.078	0.078	4	08/18/15 17:49	08/19/15 17:34	106-93-4	C2
Surrogates									
1-Chloro-2-bromopropane (S)	157	%	60-140		4	08/18/15 17:49	08/19/15 17:34	301-79-56	S5
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**10600**	ug/L	2000	1540	20		08/18/15 09:38	75-85-4	
tert-Amylmethyl ether	ND	ug/L	200	68.0	20		08/18/15 09:38	994-05-8	
Benzene	**36300**	ug/L	2500	850	500		08/18/15 15:50	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2000	642	20		08/18/15 09:38	624-95-3	
tert-Butyl Alcohol	ND	ug/L	2000	1150	20		08/18/15 09:38	75-65-0	L3
tert-Butyl Formate	ND	ug/L	1000	146	20		08/18/15 09:38	762-75-4	
1,2-Dichloroethane	ND	ug/L	100	36.0	20		08/18/15 09:38	107-06-2	
Diisopropyl ether	**116**	ug/L	100	34.0	20		08/18/15 09:38	108-20-3	
Ethanol	ND	ug/L	4000	2760	20		08/18/15 09:38	64-17-5	
Ethylbenzene	**3270**	ug/L	100	32.0	20		08/18/15 09:38	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	200	72.0	20		08/18/15 09:38	637-92-3	L3
Methyl-tert-butyl ether	**866**	ug/L	100	34.0	20		08/18/15 09:38	1634-04-4	
Naphthalene	**675**	ug/L	100	40.0	20		08/18/15 09:38	91-20-3	
Toluene	**76200**	ug/L	2500	800	500		08/18/15 15:50	108-88-3	
Xylene (Total)	**25900**	ug/L	5000	1350	500		08/18/15 15:50	1330-20-7	
m&p-Xylene	**17100**	ug/L	5000	1550	500		08/18/15 15:50	179601-23-1	
o-Xylene	**8830**	ug/L	2500	800	500		08/18/15 15:50	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		20		08/18/15 09:38	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		20		08/18/15 09:38	17060-07-0	
Toluene-d8 (S)	105	%	70-130		20		08/18/15 09:38	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 68 **Lab ID: 92263328055** Collected: 08/12/15 09:57 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**15.0**	ug/L	0.49	0.49	25	08/18/15 17:49	08/19/15 17:54	106-93-4	C2
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		25	08/18/15 17:49	08/19/15 17:54	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**36700**	ug/L	12500	9600	125		08/18/15 09:55	75-85-4	
tert-Amylmethyl ether	**1450**	ug/L	1250	425	125		08/18/15 09:55	994-05-8	
Benzene	**47200**	ug/L	2500	850	500		08/18/15 16:07	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	12500	4010	125		08/18/15 09:55	624-95-3	
tert-Butyl Alcohol	ND	ug/L	12500	7210	125		08/18/15 09:55	75-65-0	L3
tert-Butyl Formate	ND	ug/L	6250	912	125		08/18/15 09:55	762-75-4	
1,2-Dichloroethane	ND	ug/L	625	225	125		08/18/15 09:55	107-06-2	
Diisopropyl ether	**2200**	ug/L	625	212	125		08/18/15 09:55	108-20-3	
Ethanol	ND	ug/L	25000	17200	125		08/18/15 09:55	64-17-5	
Ethylbenzene	**3290**	ug/L	625	200	125		08/18/15 09:55	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1250	450	125		08/18/15 09:55	637-92-3	L3
Methyl-tert-butyl ether	**43500**	ug/L	2500	850	500		08/18/15 16:07	1634-04-4	
Naphthalene	**1120**	ug/L	625	250	125		08/18/15 09:55	91-20-3	
Toluene	**63300**	ug/L	2500	800	500		08/18/15 16:07	108-88-3	
Xylene (Total)	**23100**	ug/L	1250	338	125		08/18/15 09:55	1330-20-7	
m&p-Xylene	**15000**	ug/L	1250	388	125		08/18/15 09:55	179601-23-1	
o-Xylene	**8060**	ug/L	625	200	125		08/18/15 09:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		125		08/18/15 09:55	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		125		08/18/15 09:55	17060-07-0	
Toluene-d8 (S)	101	%	70-130		125		08/18/15 09:55	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 1x **Lab ID: 92263328056** Collected: 08/12/15 10:10 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	08/18/15 17:49	08/19/15 08:17	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	103	%	60-140		1	08/18/15 17:49	08/19/15 08:17	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 09:04	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 09:04	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 09:04	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 09:04	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 09:04	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 09:04	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 09:04	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 09:04	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 09:04	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 09:04	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 09:04	637-92-3	L3
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 09:04	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 09:04	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 09:04	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 09:04	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 09:04	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 09:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		08/18/15 09:04	460-00-4	
1,2-Dichloroethane-d4 (S)	121	%	70-130		1		08/18/15 09:04	17060-07-0	
Toluene-d8 (S)	112	%	70-130		1		08/18/15 09:04	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 2x **Lab ID: 92263328057** Collected: 08/12/15 12:10 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.47**	ug/L	0.019	0.019	1	08/18/15 17:49	08/19/15 08:36	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	242	%	60-140		1	08/18/15 17:49	08/19/15 08:36	301-79-56	S5
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**3940**	ug/L	2000	1540	20		08/18/15 10:12	75-85-4	
tert-Amylmethyl ether	ND	ug/L	200	68.0	20		08/18/15 10:12	994-05-8	
Benzene	**19600**	ug/L	1250	425	250		08/18/15 16:24	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2000	642	20		08/18/15 10:12	624-95-3	
tert-Butyl Alcohol	ND	ug/L	2000	1150	20		08/18/15 10:12	75-65-0	L3
tert-Butyl Formate	ND	ug/L	1000	146	20		08/18/15 10:12	762-75-4	
1,2-Dichloroethane	ND	ug/L	100	36.0	20		08/18/15 10:12	107-06-2	
Diisopropyl ether	ND	ug/L	100	34.0	20		08/18/15 10:12	108-20-3	
Ethanol	ND	ug/L	4000	2760	20		08/18/15 10:12	64-17-5	
Ethylbenzene	**1960**	ug/L	100	32.0	20		08/18/15 10:12	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	200	72.0	20		08/18/15 10:12	637-92-3	L3
Methyl-tert-butyl ether	**1180**	ug/L	100	34.0	20		08/18/15 10:12	1634-04-4	
Naphthalene	**422**	ug/L	100	40.0	20		08/18/15 10:12	91-20-3	
Toluene	**37900**	ug/L	1250	400	250		08/18/15 16:24	108-88-3	
Xylene (Total)	**11500**	ug/L	200	54.0	20		08/18/15 10:12	1330-20-7	
m&p-Xylene	**7540**	ug/L	200	62.0	20		08/18/15 10:12	179601-23-1	
o-Xylene	**3960**	ug/L	100	32.0	20		08/18/15 10:12	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		20		08/18/15 10:12	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		20		08/18/15 10:12	17060-07-0	
Toluene-d8 (S)	100	%	70-130		20		08/18/15 10:12	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 6x **Lab ID: 92263328058** Collected: 08/12/15 11:05 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.94**	ug/L	0.020	0.020	1	08/18/15 17:49	08/19/15 08:55	106-93-4	C2
Surrogates									
1-Chloro-2-bromopropane (S)	125	%	60-140		1	08/18/15 17:49	08/19/15 08:55	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**18800**	ug/L	2500	1920	25		08/18/15 10:29	75-85-4	
tert-Amylmethyl ether	ND	ug/L	250	85.0	25		08/18/15 10:29	994-05-8	
Benzene	**31500**	ug/L	1250	425	250		08/18/15 16:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2500	802	25		08/18/15 10:29	624-95-3	
tert-Butyl Alcohol	ND	ug/L	2500	1440	25		08/18/15 10:29	75-65-0	L3
tert-Butyl Formate	ND	ug/L	1250	182	25		08/18/15 10:29	762-75-4	
1,2-Dichloroethane	ND	ug/L	125	45.0	25		08/18/15 10:29	107-06-2	
Diisopropyl ether	ND	ug/L	125	42.5	25		08/18/15 10:29	108-20-3	
Ethanol	ND	ug/L	5000	3440	25		08/18/15 10:29	64-17-5	
Ethylbenzene	**2330**	ug/L	125	40.0	25		08/18/15 10:29	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	250	90.0	25		08/18/15 10:29	637-92-3	L3
Methyl-tert-butyl ether	**1530**	ug/L	125	42.5	25		08/18/15 10:29	1634-04-4	
Naphthalene	**693**	ug/L	125	50.0	25		08/18/15 10:29	91-20-3	
Toluene	**41600**	ug/L	1250	400	250		08/18/15 16:41	108-88-3	
Xylene (Total)	**13300**	ug/L	250	67.5	25		08/18/15 10:29	1330-20-7	
m&p-Xylene	**8660**	ug/L	250	77.5	25		08/18/15 10:29	179601-23-1	
o-Xylene	**4660**	ug/L	125	40.0	25		08/18/15 10:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		25		08/18/15 10:29	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		25		08/18/15 10:29	17060-07-0	
Toluene-d8 (S)	101	%	70-130		25		08/18/15 10:29	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 62 DUPLICATE **Lab ID: 92263328059** Collected: 08/12/15 09:30 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**1.6**	ug/L	0.078	0.078	4	08/18/15 17:49	08/19/15 18:32	106-93-4	C2
Surrogates									
1-Chloro-2-bromopropane (S)	162	%	60-140		4	08/18/15 17:49	08/19/15 18:32	301-79-56	S5
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**9720**	ug/L	2000	1540	20		08/18/15 01:07	75-85-4	
tert-Amylmethyl ether	ND	ug/L	200	68.0	20		08/18/15 01:07	994-05-8	
Benzene	**32600**	ug/L	2500	850	500		08/18/15 14:42	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2000	642	20		08/18/15 01:07	624-95-3	
tert-Butyl Alcohol	**1660J**	ug/L	2000	1150	20		08/18/15 01:07	75-65-0	
tert-Butyl Formate	ND	ug/L	1000	146	20		08/18/15 01:07	762-75-4	
1,2-Dichloroethane	ND	ug/L	100	36.0	20		08/18/15 01:07	107-06-2	
Diisopropyl ether	**87.3J**	ug/L	100	34.0	20		08/18/15 01:07	108-20-3	
Ethanol	ND	ug/L	4000	2760	20		08/18/15 01:07	64-17-5	
Ethylbenzene	**3080**	ug/L	100	32.0	20		08/18/15 01:07	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	200	72.0	20		08/18/15 01:07	637-92-3	
Methyl-tert-butyl ether	**821**	ug/L	100	34.0	20		08/18/15 01:07	1634-04-4	
Naphthalene	**759**	ug/L	100	40.0	20		08/18/15 01:07	91-20-3	
Toluene	**70200**	ug/L	2500	800	500		08/18/15 14:42	108-88-3	
Xylene (Total)	**23500**	ug/L	5000	1350	500		08/18/15 14:42	1330-20-7	
m&p-Xylene	**15500**	ug/L	5000	1550	500		08/18/15 14:42	179601-23-1	
o-Xylene	**8020**	ug/L	2500	800	500		08/18/15 14:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		20		08/18/15 01:07	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		20		08/18/15 01:07	17060-07-0	
Toluene-d8 (S)	99	%	70-130		20		08/18/15 01:07	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 68 DUPLICATE **Lab ID: 92263328060** Collected: 08/12/15 09:57 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**14.8**	ug/L	0.50	0.50	25	08/18/15 17:49	08/19/15 18:52	106-93-4	C2
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		25	08/18/15 17:49	08/19/15 18:52	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**36500**	ug/L	12500	9600	125		08/18/15 01:24	75-85-4	
tert-Amylmethyl ether	**1370**	ug/L	1250	425	125		08/18/15 01:24	994-05-8	
Benzene	**42800**	ug/L	2500	850	500		08/18/15 14:59	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	12500	4010	125		08/18/15 01:24	624-95-3	
tert-Butyl Alcohol	ND	ug/L	12500	7210	125		08/18/15 01:24	75-65-0	
tert-Butyl Formate	ND	ug/L	6250	912	125		08/18/15 01:24	762-75-4	
1,2-Dichloroethane	ND	ug/L	625	225	125		08/18/15 01:24	107-06-2	
Diisopropyl ether	**1690**	ug/L	625	212	125		08/18/15 01:24	108-20-3	
Ethanol	ND	ug/L	25000	17200	125		08/18/15 01:24	64-17-5	
Ethylbenzene	**3810**	ug/L	625	200	125		08/18/15 01:24	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1250	450	125		08/18/15 01:24	637-92-3	
Methyl-tert-butyl ether	**40900**	ug/L	2500	850	500		08/18/15 14:59	1634-04-4	
Naphthalene	**904**	ug/L	625	250	125		08/18/15 01:24	91-20-3	
Toluene	**57300**	ug/L	2500	800	500		08/18/15 14:59	108-88-3	
Xylene (Total)	**24200**	ug/L	1250	338	125		08/18/15 01:24	1330-20-7	
m&p-Xylene	**16000**	ug/L	1250	388	125		08/18/15 01:24	179601-23-1	
o-Xylene	**8260**	ug/L	625	200	125		08/18/15 01:24	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		125		08/18/15 01:24	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		125		08/18/15 01:24	17060-07-0	
Toluene-d8 (S)	100	%	70-130		125		08/18/15 01:24	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: MW 9R DUPLICATE **Lab ID: 92263328061** Collected: 08/12/15 11:53 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	08/18/15 17:50	08/19/15 09:53	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	08/18/15 17:50	08/19/15 09:53	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/17/15 21:41	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/17/15 21:41	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/17/15 21:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/17/15 21:41	624-95-3	
tert-Butyl Alcohol	**77.5J**	ug/L	100	57.7	1		08/17/15 21:41	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/17/15 21:41	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/17/15 21:41	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/17/15 21:41	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/17/15 21:41	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/17/15 21:41	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/17/15 21:41	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/17/15 21:41	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/17/15 21:41	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/17/15 21:41	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/17/15 21:41	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/17/15 21:41	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/17/15 21:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/17/15 21:41	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		08/17/15 21:41	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		08/17/15 21:41	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: FIELD BLANK 1 **Lab ID: 92263328062** Collected: 08/11/15 17:00 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	08/18/15 17:50	08/19/15 10:12	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	96	%	60-140		1	08/18/15 17:50	08/19/15 10:12	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 01:25	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 01:25	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 01:25	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 01:25	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 01:25	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 01:25	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 01:25	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 01:25	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 01:25	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 01:25	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 01:25	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 01:25	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 01:25	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 01:25	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 01:25	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 01:25	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 01:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		08/18/15 01:25	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		08/18/15 01:25	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		08/18/15 01:25	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: FIELD BLANK 2 **Lab ID: 92263328063** Collected: 08/12/15 12:15 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	08/18/15 17:50	08/19/15 10:31	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	102	%	60-140		1	08/18/15 17:50	08/19/15 10:31	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 01:42	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 01:42	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 01:42	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 01:42	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 01:42	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 01:42	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 01:42	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 01:42	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 01:42	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 01:42	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 01:42	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 01:42	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 01:42	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 01:42	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 01:42	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 01:42	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 01:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		08/18/15 01:42	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		08/18/15 01:42	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		08/18/15 01:42	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: TRIP BLANK 1 **Lab ID: 92263328064** Collected: 08/11/15 17:01 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 01:59	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 01:59	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 01:59	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 01:59	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 01:59	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 01:59	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 01:59	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 01:59	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 01:59	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 01:59	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 01:59	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 01:59	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 01:59	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 01:59	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 01:59	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 01:59	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 01:59	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		08/18/15 01:59	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		08/18/15 01:59	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		08/18/15 01:59	2037-26-5	

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ANALYTICAL RESULTS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Sample: TRIP BLANK 2 **Lab ID: 92263328065** Collected: 08/11/15 17:02 Received: 08/13/15 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		08/18/15 02:16	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		08/18/15 02:16	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		08/18/15 02:16	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		08/18/15 02:16	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		08/18/15 02:16	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		08/18/15 02:16	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		08/18/15 02:16	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		08/18/15 02:16	108-20-3	
Ethanol	ND	ug/L	200	138	1		08/18/15 02:16	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		08/18/15 02:16	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		08/18/15 02:16	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		08/18/15 02:16	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		08/18/15 02:16	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		08/18/15 02:16	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/18/15 02:16	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		08/18/15 02:16	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		08/18/15 02:16	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		08/18/15 02:16	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		08/18/15 02:16	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		08/18/15 02:16	2037-26-5	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

QC Batch: MSV/32989 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92263328001, 92263328003, 92263328004

METHOD BLANK: 1534204 Matrix: Water
Associated Lab Samples: 92263328001, 92263328003, 92263328004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	08/15/15 01:57	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	08/15/15 01:57	
Benzene	ug/L	ND	5.0	08/15/15 01:57	
Diisopropyl ether	ug/L	ND	5.0	08/15/15 01:57	
Ethanol	ug/L	ND	200	08/15/15 01:57	
Ethyl-tert-butyl ether	ug/L	ND	10.0	08/15/15 01:57	
Ethylbenzene	ug/L	ND	5.0	08/15/15 01:57	
m&p-Xylene	ug/L	ND	10.0	08/15/15 01:57	
Methyl-tert-butyl ether	ug/L	ND	5.0	08/15/15 01:57	
Naphthalene	ug/L	ND	5.0	08/15/15 01:57	
o-Xylene	ug/L	ND	5.0	08/15/15 01:57	
tert-Amyl Alcohol	ug/L	ND	100	08/15/15 01:57	
tert-Amylmethyl ether	ug/L	ND	10.0	08/15/15 01:57	
tert-Butyl Alcohol	ug/L	ND	100	08/15/15 01:57	
tert-Butyl Formate	ug/L	ND	50.0	08/15/15 01:57	
Toluene	ug/L	ND	5.0	08/15/15 01:57	
Xylene (Total)	ug/L	ND	10.0	08/15/15 01:57	
1,2-Dichloroethane-d4 (S)	%	103	70-130	08/15/15 01:57	
4-Bromofluorobenzene (S)	%	102	70-130	08/15/15 01:57	
Toluene-d8 (S)	%	108	70-130	08/15/15 01:57	

LABORATORY CONTROL SAMPLE: 1534205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	41.6	83	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	978	98	70-130	
Benzene	ug/L	50	48.4	97	70-130	
Diisopropyl ether	ug/L	50	53.5	107	70-130	
Ethanol	ug/L	2000	2630	132	70-130	L0
Ethyl-tert-butyl ether	ug/L	100	114	114	70-130	
Ethylbenzene	ug/L	50	45.4	91	70-130	
m&p-Xylene	ug/L	100	97.1	97	70-130	
Methyl-tert-butyl ether	ug/L	50	51.8	104	70-130	
Naphthalene	ug/L	50	48.5	97	70-130	
o-Xylene	ug/L	50	51.1	102	70-130	
tert-Amyl Alcohol	ug/L	1000	1010	101	70-130	
tert-Amylmethyl ether	ug/L	100	99.0	99	70-130	
tert-Butyl Alcohol	ug/L	500	626	125	70-130	
tert-Butyl Formate	ug/L	400	422	106	70-130	
Toluene	ug/L	50	43.4	87	70-130	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

LABORATORY CONTROL SAMPLE: 1534205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	148	99	70-130	
1,2-Dichloroethane-d4 (S)	%			95	70-130	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE SAMPLE: 1534206

Parameter	Units	92263084005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	19.4	96	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	427	107	70-130	
Benzene	ug/L	ND	20	23.2	116	70-130	
Diisopropyl ether	ug/L	ND	20	24.3	121	70-130	
Ethanol	ug/L	ND	800	1030	129	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	49.7	124	70-130	
Ethylbenzene	ug/L	ND	20	21.8	109	70-130	
m&p-Xylene	ug/L	ND	40	45.9	115	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	23.4	116	70-130	
Naphthalene	ug/L	ND	20	23.7	118	70-130	
o-Xylene	ug/L	ND	20	23.7	119	70-130	
tert-Amyl Alcohol	ug/L	ND	400	422	105	70-130	
tert-Amylmethyl ether	ug/L	ND	40	42.4	106	70-130	
tert-Butyl Alcohol	ug/L	ND	200	367	183	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	20.5	103	70-130	
1,2-Dichloroethane-d4 (S)	%				98	70-130	
4-Bromofluorobenzene (S)	%				105	70-130	
Toluene-d8 (S)	%				95	70-130	

SAMPLE DUPLICATE: 1534207

Parameter	Units	92263084006 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	7.7	7.6	1	30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	417	406	3	30	E
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

SAMPLE DUPLICATE: 1534207

Parameter	Units	92263084006 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	114	110	4	30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	111	111	0		
4-Bromofluorobenzene (S)	%	107	104	2		
Toluene-d8 (S)	%	96	99	2		

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

QC Batch: MSV/33019 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92263328002, 92263328005, 92263328007, 92263328008, 92263328009, 92263328010, 92263328011, 92263328012, 92263328017, 92263328020, 92263328021, 92263328022, 92263328023

METHOD BLANK: 1535257 Matrix: Water
Associated Lab Samples: 92263328002, 92263328005, 92263328007, 92263328008, 92263328009, 92263328010, 92263328011, 92263328012, 92263328017, 92263328020, 92263328021, 92263328022, 92263328023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	08/17/15 12:45	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	08/17/15 12:45	
Benzene	ug/L	ND	5.0	08/17/15 12:45	
Diisopropyl ether	ug/L	ND	5.0	08/17/15 12:45	
Ethanol	ug/L	ND	200	08/17/15 12:45	
Ethyl-tert-butyl ether	ug/L	ND	10.0	08/17/15 12:45	
Ethylbenzene	ug/L	ND	5.0	08/17/15 12:45	
m&p-Xylene	ug/L	ND	10.0	08/17/15 12:45	
Methyl-tert-butyl ether	ug/L	ND	5.0	08/17/15 12:45	
Naphthalene	ug/L	ND	5.0	08/17/15 12:45	
o-Xylene	ug/L	ND	5.0	08/17/15 12:45	
tert-Amyl Alcohol	ug/L	ND	100	08/17/15 12:45	
tert-Amylmethyl ether	ug/L	ND	10.0	08/17/15 12:45	
tert-Butyl Alcohol	ug/L	ND	100	08/17/15 12:45	
tert-Butyl Formate	ug/L	ND	50.0	08/17/15 12:45	
Toluene	ug/L	ND	5.0	08/17/15 12:45	
Xylene (Total)	ug/L	ND	10.0	08/17/15 12:45	
1,2-Dichloroethane-d4 (S)	%	114	70-130	08/17/15 12:45	
4-Bromofluorobenzene (S)	%	108	70-130	08/17/15 12:45	
Toluene-d8 (S)	%	101	70-130	08/17/15 12:45	

LABORATORY CONTROL SAMPLE: 1535258

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	47.0	94	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	991	99	70-130	
Benzene	ug/L	50	51.8	104	70-130	
Diisopropyl ether	ug/L	50	56.1	112	70-130	
Ethanol	ug/L	2000	2140	107	70-130	
Ethyl-tert-butyl ether	ug/L	100	124	124	70-130	
Ethylbenzene	ug/L	50	49.1	98	70-130	
m&p-Xylene	ug/L	100	105	105	70-130	
Methyl-tert-butyl ether	ug/L	50	56.1	112	70-130	
Naphthalene	ug/L	50	50.5	101	70-130	
o-Xylene	ug/L	50	55.4	111	70-130	
tert-Amyl Alcohol	ug/L	1000	1070	107	70-130	
tert-Amylmethyl ether	ug/L	100	114	114	70-130	
tert-Butyl Alcohol	ug/L	500	641	128	70-130	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

LABORATORY CONTROL SAMPLE: 1535258

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Formate	ug/L	400	563	141	70-130	L0
Toluene	ug/L	50	48.7	97	70-130	
Xylene (Total)	ug/L	150	161	107	70-130	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1535259

Parameter	Units	92263328011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	21.4	106	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	366	91	70-130	
Benzene	ug/L	2.0J	20	25.2	116	70-130	
Diisopropyl ether	ug/L	ND	20	24.6	123	70-130	
Ethanol	ug/L	ND	800	876	109	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	51.7	129	70-130	
Ethylbenzene	ug/L	ND	20	20.8	103	70-130	
m&p-Xylene	ug/L	ND	40	43.4	107	70-130	
Methyl-tert-butyl ether	ug/L	22.0	20	47.4	127	70-130	
Naphthalene	ug/L	3.3J	20	20.4	86	70-130	
o-Xylene	ug/L	ND	20	22.2	109	70-130	
tert-Amyl Alcohol	ug/L	ND	400	393	98	70-130	
tert-Amylmethyl ether	ug/L	ND	40	43.0	107	70-130	
tert-Butyl Alcohol	ug/L	ND	200	325	160	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	22.0	108	70-130	
1,2-Dichloroethane-d4 (S)	%				104	70-130	
4-Bromofluorobenzene (S)	%				105	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 1535260

Parameter	Units	92263328012 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	3.6J	3.3J		30	
Naphthalene	ug/L	3.1J	ND		30	
o-Xylene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

SAMPLE DUPLICATE: 1535260

Parameter	Units	92263328012 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	109	111	2		
4-Bromofluorobenzene (S)	%	106	107	1		
Toluene-d8 (S)	%	103	100	2		

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

QC Batch: MSV/33020 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92263328013, 92263328015, 92263328018, 92263328024, 92263328025, 92263328026, 92263328027, 92263328028, 92263328029, 92263328030

METHOD BLANK: 1535273 Matrix: Water
Associated Lab Samples: 92263328013, 92263328015, 92263328018, 92263328024, 92263328025, 92263328026, 92263328027, 92263328028, 92263328029, 92263328030

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	08/17/15 13:01	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	08/17/15 13:01	
Benzene	ug/L	ND	5.0	08/17/15 13:01	
Diisopropyl ether	ug/L	ND	5.0	08/17/15 13:01	
Ethanol	ug/L	ND	200	08/17/15 13:01	
Ethyl-tert-butyl ether	ug/L	ND	10.0	08/17/15 13:01	
Ethylbenzene	ug/L	ND	5.0	08/17/15 13:01	
m&p-Xylene	ug/L	ND	10.0	08/17/15 13:01	
Methyl-tert-butyl ether	ug/L	ND	5.0	08/17/15 13:01	
Naphthalene	ug/L	ND	5.0	08/17/15 13:01	
o-Xylene	ug/L	ND	5.0	08/17/15 13:01	
tert-Amyl Alcohol	ug/L	ND	100	08/17/15 13:01	
tert-Amylmethyl ether	ug/L	ND	10.0	08/17/15 13:01	
tert-Butyl Alcohol	ug/L	ND	100	08/17/15 13:01	
tert-Butyl Formate	ug/L	ND	50.0	08/17/15 13:01	
Toluene	ug/L	ND	5.0	08/17/15 13:01	
Xylene (Total)	ug/L	ND	10.0	08/17/15 13:01	
1,2-Dichloroethane-d4 (S)	%	114	70-130	08/17/15 13:01	
4-Bromofluorobenzene (S)	%	106	70-130	08/17/15 13:01	
Toluene-d8 (S)	%	107	70-130	08/17/15 13:01	

LABORATORY CONTROL SAMPLE: 1535274

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	44.7	89	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	945	95	70-130	
Benzene	ug/L	50	49.7	99	70-130	
Diisopropyl ether	ug/L	50	55.1	110	70-130	
Ethanol	ug/L	2000	1850	92	70-130	
Ethyl-tert-butyl ether	ug/L	100	121	121	70-130	
Ethylbenzene	ug/L	50	46.9	94	70-130	
m&p-Xylene	ug/L	100	98.4	98	70-130	
Methyl-tert-butyl ether	ug/L	50	54.9	110	70-130	
Naphthalene	ug/L	50	48.4	97	70-130	
o-Xylene	ug/L	50	51.9	104	70-130	
tert-Amyl Alcohol	ug/L	1000	1010	101	70-130	
tert-Amylmethyl ether	ug/L	100	111	111	70-130	
tert-Butyl Alcohol	ug/L	500	589	118	70-130	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

LABORATORY CONTROL SAMPLE: 1535274

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Formate	ug/L	400	540	135	70-130	L0
Toluene	ug/L	50	47.4	95	70-130	
Xylene (Total)	ug/L	150	150	100	70-130	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1535275

Parameter	Units	92263328026 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.9	103	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	420	105	70-130	
Benzene	ug/L	1.9J	20	25.2	117	70-130	
Diisopropyl ether	ug/L	ND	20	24.3	121	70-130	
Ethanol	ug/L	ND	800	1360	171	70-130	M1
Ethyl-tert-butyl ether	ug/L	ND	40	51.2	128	70-130	
Ethylbenzene	ug/L	ND	20	20.1	101	70-130	
m&p-Xylene	ug/L	ND	40	42.5	104	70-130	
Methyl-tert-butyl ether	ug/L	21.4	20	46.4	125	70-130	
Naphthalene	ug/L	ND	20	20.9	105	70-130	
o-Xylene	ug/L	ND	20	21.4	105	70-130	
tert-Amyl Alcohol	ug/L	ND	400	459	115	70-130	
tert-Amylmethyl ether	ug/L	ND	40	43.8	110	70-130	
tert-Butyl Alcohol	ug/L	ND	200	408	199	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	22.3	110	70-130	
1,2-Dichloroethane-d4 (S)	%				102	70-130	
4-Bromofluorobenzene (S)	%				103	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 1535276

Parameter	Units	92263328027 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	2.8J	2.1J		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

SAMPLE DUPLICATE: 1535276

Parameter	Units	92263328027 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	112	113	1		
4-Bromofluorobenzene (S)	%	105	109	4		
Toluene-d8 (S)	%	103	102	1		

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

QC Batch: MSV/33021 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92263328019, 92263328031, 92263328032, 92263328033, 92263328035, 92263328036, 92263328037, 92263328038, 92263328039, 92263328042, 92263328043, 92263328044, 92263328045, 92263328062, 92263328063, 92263328064, 92263328065

METHOD BLANK: 1535342 Matrix: Water
Associated Lab Samples: 92263328019, 92263328031, 92263328032, 92263328033, 92263328035, 92263328036, 92263328037, 92263328038, 92263328039, 92263328042, 92263328043, 92263328044, 92263328045, 92263328062, 92263328063, 92263328064, 92263328065

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	08/18/15 00:52	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	08/18/15 00:52	
Benzene	ug/L	ND	5.0	08/18/15 00:52	
Diisopropyl ether	ug/L	ND	5.0	08/18/15 00:52	
Ethanol	ug/L	ND	200	08/18/15 00:52	
Ethyl-tert-butyl ether	ug/L	ND	10.0	08/18/15 00:52	
Ethylbenzene	ug/L	ND	5.0	08/18/15 00:52	
m&p-Xylene	ug/L	ND	10.0	08/18/15 00:52	
Methyl-tert-butyl ether	ug/L	ND	5.0	08/18/15 00:52	
Naphthalene	ug/L	ND	5.0	08/18/15 00:52	
o-Xylene	ug/L	ND	5.0	08/18/15 00:52	
tert-Amyl Alcohol	ug/L	ND	100	08/18/15 00:52	
tert-Amylmethyl ether	ug/L	ND	10.0	08/18/15 00:52	
tert-Butyl Alcohol	ug/L	ND	100	08/18/15 00:52	
tert-Butyl Formate	ug/L	ND	50.0	08/18/15 00:52	
Toluene	ug/L	ND	5.0	08/18/15 00:52	
Xylene (Total)	ug/L	ND	10.0	08/18/15 00:52	
1,2-Dichloroethane-d4 (S)	%	109	70-130	08/18/15 00:52	
4-Bromofluorobenzene (S)	%	110	70-130	08/18/15 00:52	
Toluene-d8 (S)	%	102	70-130	08/18/15 00:52	

LABORATORY CONTROL SAMPLE: 1535343

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	45.7	91	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	934	93	70-130	
Benzene	ug/L	50	51.4	103	70-130	
Diisopropyl ether	ug/L	50	57.8	116	70-130	
Ethanol	ug/L	2000	2360	118	70-130	
Ethyl-tert-butyl ether	ug/L	100	124	124	70-130	
Ethylbenzene	ug/L	50	44.1	88	70-130	
m&p-Xylene	ug/L	100	90.8	91	70-130	
Methyl-tert-butyl ether	ug/L	50	55.5	111	70-130	
Naphthalene	ug/L	50	45.9	92	70-130	
o-Xylene	ug/L	50	47.7	95	70-130	
tert-Amyl Alcohol	ug/L	1000	1010	101	70-130	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

LABORATORY CONTROL SAMPLE: 1535343

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Amylmethyl ether	ug/L	100	109	109	70-130	
tert-Butyl Alcohol	ug/L	500	655	131	70-130	L0
tert-Butyl Formate	ug/L	400	460	115	70-130	
Toluene	ug/L	50	48.3	97	70-130	
Xylene (Total)	ug/L	150	139	92	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE SAMPLE: 1535344

Parameter	Units	92263328038 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	22.2	109	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	476	119	70-130	
Benzene	ug/L	ND	20	25.4	124	70-130	
Diisopropyl ether	ug/L	4.3J	20	32.1	139	70-130	M1
Ethanol	ug/L	ND	800	1830	229	70-130	M1
Ethyl-tert-butyl ether	ug/L	ND	40	56.3	141	70-130	M1
Ethylbenzene	ug/L	ND	20	21.0	105	70-130	
m&p-Xylene	ug/L	ND	40	43.2	108	70-130	
Methyl-tert-butyl ether	ug/L	57.8	20	86.0	141	70-130	M1
Naphthalene	ug/L	ND	20	23.0	115	70-130	
o-Xylene	ug/L	ND	20	22.2	111	70-130	
tert-Amyl Alcohol	ug/L	ND	400	514	128	70-130	
tert-Amylmethyl ether	ug/L	ND	40	47.1	117	70-130	
tert-Butyl Alcohol	ug/L	ND	200	469	229	70-130	M0
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	23.2	116	70-130	
1,2-Dichloroethane-d4 (S)	%				101	70-130	
4-Bromofluorobenzene (S)	%				102	70-130	
Toluene-d8 (S)	%				101	70-130	

SAMPLE DUPLICATE: 1535345

Parameter	Units	92263328039 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	4.1J	4.7J		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	59.9	61.2	2	30	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

SAMPLE DUPLICATE: 1535345

Parameter	Units	92263328039 Result	Dup Result	RPD	Max RPD	Qualifiers
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	115	116	1		
4-Bromofluorobenzene (S)	%	104	108	3		
Toluene-d8 (S)	%	127	106	18		

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

QC Batch: MSV/33022 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92263328046, 92263328047, 92263328048, 92263328049, 92263328050, 92263328051, 92263328052, 92263328054, 92263328055, 92263328056, 92263328057, 92263328058

METHOD BLANK: 1535348 Matrix: Water
Associated Lab Samples: 92263328046, 92263328047, 92263328048, 92263328049, 92263328050, 92263328051, 92263328052, 92263328054, 92263328055, 92263328056, 92263328057, 92263328058

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	08/18/15 01:09	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	08/18/15 01:09	
Benzene	ug/L	ND	5.0	08/18/15 01:09	
Diisopropyl ether	ug/L	ND	5.0	08/18/15 01:09	
Ethanol	ug/L	ND	200	08/18/15 01:09	
Ethyl-tert-butyl ether	ug/L	ND	10.0	08/18/15 01:09	
Ethylbenzene	ug/L	ND	5.0	08/18/15 01:09	
m&p-Xylene	ug/L	ND	10.0	08/18/15 01:09	
Methyl-tert-butyl ether	ug/L	ND	5.0	08/18/15 01:09	
Naphthalene	ug/L	ND	5.0	08/18/15 01:09	
o-Xylene	ug/L	ND	5.0	08/18/15 01:09	
tert-Amyl Alcohol	ug/L	ND	100	08/18/15 01:09	
tert-Amylmethyl ether	ug/L	ND	10.0	08/18/15 01:09	
tert-Butyl Alcohol	ug/L	ND	100	08/18/15 01:09	
tert-Butyl Formate	ug/L	ND	50.0	08/18/15 01:09	
Toluene	ug/L	ND	5.0	08/18/15 01:09	
Xylene (Total)	ug/L	ND	10.0	08/18/15 01:09	
1,2-Dichloroethane-d4 (S)	%	112	70-130	08/18/15 01:09	
4-Bromofluorobenzene (S)	%	110	70-130	08/18/15 01:09	
Toluene-d8 (S)	%	103	70-130	08/18/15 01:09	

LABORATORY CONTROL SAMPLE: 1535349

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	51.5	103	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	907	91	70-130	
Benzene	ug/L	50	58.2	116	70-130	
Diisopropyl ether	ug/L	50	63.9	128	70-130	
Ethanol	ug/L	2000	2200	110	70-130	
Ethyl-tert-butyl ether	ug/L	100	136	136	70-130	L0
Ethylbenzene	ug/L	50	50.4	101	70-130	
m&p-Xylene	ug/L	100	106	106	70-130	
Methyl-tert-butyl ether	ug/L	50	60.9	122	70-130	
Naphthalene	ug/L	50	46.5	93	70-130	
o-Xylene	ug/L	50	55.7	111	70-130	
tert-Amyl Alcohol	ug/L	1000	1060	106	70-130	
tert-Amylmethyl ether	ug/L	100	114	114	70-130	
tert-Butyl Alcohol	ug/L	500	684	137	70-130	L0

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

LABORATORY CONTROL SAMPLE: 1535349

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Formate	ug/L	400	499	125	70-130	
Toluene	ug/L	50	52.9	106	70-130	
Xylene (Total)	ug/L	150	162	108	70-130	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1535350

Parameter	Units	92263328051 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.8	102	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	411	103	70-130	
Benzene	ug/L	ND	20	24.2	118	70-130	
Diisopropyl ether	ug/L	4.9J	20	30.3	127	70-130	
Ethanol	ug/L	ND	800	1020	127	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	53.3	133	70-130	M0
Ethylbenzene	ug/L	ND	20	20.8	104	70-130	
m&p-Xylene	ug/L	ND	40	43.8	110	70-130	
Methyl-tert-butyl ether	ug/L	61.9	20	81.4	98	70-130	
Naphthalene	ug/L	ND	20	21.9	109	70-130	
o-Xylene	ug/L	ND	20	22.2	111	70-130	
tert-Amyl Alcohol	ug/L	ND	400	430	107	70-130	
tert-Amylmethyl ether	ug/L	ND	40	43.8	109	70-130	
tert-Butyl Alcohol	ug/L	ND	200	402	196	70-130	M0
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	21.5	108	70-130	
1,2-Dichloroethane-d4 (S)	%				102	70-130	
4-Bromofluorobenzene (S)	%				107	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1535351

Parameter	Units	92263328052 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	5.0J	5.3		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	62.1	66.8	7	30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

SAMPLE DUPLICATE: 1535351

Parameter	Units	92263328052 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	117	118	1		
4-Bromofluorobenzene (S)	%	107	109	2		
Toluene-d8 (S)	%	105	104	1		

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(704)875-9092

QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

QC Batch: MSV/33029 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92263328053, 92263328059, 92263328060, 92263328061

METHOD BLANK: 1535399 Matrix: Water
Associated Lab Samples: 92263328053, 92263328059, 92263328060, 92263328061

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	08/17/15 21:07	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	08/17/15 21:07	
Benzene	ug/L	ND	5.0	08/17/15 21:07	
Diisopropyl ether	ug/L	ND	5.0	08/17/15 21:07	
Ethanol	ug/L	ND	200	08/17/15 21:07	
Ethyl-tert-butyl ether	ug/L	ND	10.0	08/17/15 21:07	
Ethylbenzene	ug/L	ND	5.0	08/17/15 21:07	
m&p-Xylene	ug/L	ND	10.0	08/17/15 21:07	
Methyl-tert-butyl ether	ug/L	ND	5.0	08/17/15 21:07	
Naphthalene	ug/L	ND	5.0	08/17/15 21:07	
o-Xylene	ug/L	ND	5.0	08/17/15 21:07	
tert-Amyl Alcohol	ug/L	ND	100	08/17/15 21:07	
tert-Amylmethyl ether	ug/L	ND	10.0	08/17/15 21:07	
tert-Butyl Alcohol	ug/L	ND	100	08/17/15 21:07	
tert-Butyl Formate	ug/L	ND	50.0	08/17/15 21:07	
Toluene	ug/L	ND	5.0	08/17/15 21:07	
Xylene (Total)	ug/L	ND	10.0	08/17/15 21:07	
1,2-Dichloroethane-d4 (S)	%	102	70-130	08/17/15 21:07	
4-Bromofluorobenzene (S)	%	99	70-130	08/17/15 21:07	
Toluene-d8 (S)	%	102	70-130	08/17/15 21:07	

LABORATORY CONTROL SAMPLE: 1535400

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	44.8	90	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1010	101	70-130	
Benzene	ug/L	50	49.9	100	70-130	
Diisopropyl ether	ug/L	50	51.3	103	70-130	
Ethanol	ug/L	2000	2030	101	70-130	
Ethyl-tert-butyl ether	ug/L	100	109	109	70-130	
Ethylbenzene	ug/L	50	47.0	94	70-130	
m&p-Xylene	ug/L	100	94.2	94	70-130	
Methyl-tert-butyl ether	ug/L	50	53.0	106	70-130	
Naphthalene	ug/L	50	51.4	103	70-130	
o-Xylene	ug/L	50	47.6	95	70-130	
tert-Amyl Alcohol	ug/L	1000	974	97	70-130	
tert-Amylmethyl ether	ug/L	100	100	100	70-130	
tert-Butyl Alcohol	ug/L	500	467	93	70-130	
tert-Butyl Formate	ug/L	400	415	104	70-130	
Toluene	ug/L	50	46.4	93	70-130	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

LABORATORY CONTROL SAMPLE: 1535400

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	142	95	70-130	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1535401

Parameter	Units	92263407004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.1	100	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	501	125	70-130	
Benzene	ug/L	ND	20	23.1	115	70-130	
Diisopropyl ether	ug/L	ND	20	22.5	113	70-130	
Ethanol	ug/L	ND	800	1170	147	70-130	M1
Ethyl-tert-butyl ether	ug/L	ND	40	47.1	118	70-130	
Ethylbenzene	ug/L	ND	20	21.4	107	70-130	
m&p-Xylene	ug/L	ND	40	42.8	107	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	23.1	116	70-130	
Naphthalene	ug/L	ND	20	22.0	110	70-130	
o-Xylene	ug/L	ND	20	21.3	107	70-130	
tert-Amyl Alcohol	ug/L	ND	400	474	119	70-130	
tert-Amylmethyl ether	ug/L	ND	40	42.0	105	70-130	
tert-Butyl Alcohol	ug/L	ND	200	323	161	70-130	M1
tert-Butyl Formate	ug/L	ND	160	22.1J	14	70-130	P5
Toluene	ug/L	ND	20	21.3	106	70-130	
1,2-Dichloroethane-d4 (S)	%				103	70-130	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1535402

Parameter	Units	92263407005 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

SAMPLE DUPLICATE: 1535402

Parameter	Units	92263407005 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	104	107	3		
4-Bromofluorobenzene (S)	%	100	100	0		
Toluene-d8 (S)	%	100	105	5		

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

QC Batch: MSV/33046 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92263328006, 92263328014, 92263328016, 92263328034, 92263328040, 92263328041

METHOD BLANK: 1536120 Matrix: Water
Associated Lab Samples: 92263328006, 92263328014, 92263328016, 92263328034, 92263328040, 92263328041

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	08/18/15 17:31	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	08/18/15 17:31	
Benzene	ug/L	ND	5.0	08/18/15 17:31	
Diisopropyl ether	ug/L	ND	5.0	08/18/15 17:31	
Ethanol	ug/L	ND	200	08/18/15 17:31	
Ethyl-tert-butyl ether	ug/L	ND	10.0	08/18/15 17:31	
Ethylbenzene	ug/L	ND	5.0	08/18/15 17:31	
m&p-Xylene	ug/L	ND	10.0	08/18/15 17:31	
Methyl-tert-butyl ether	ug/L	ND	5.0	08/18/15 17:31	
Naphthalene	ug/L	ND	5.0	08/18/15 17:31	
o-Xylene	ug/L	ND	5.0	08/18/15 17:31	
tert-Amyl Alcohol	ug/L	ND	100	08/18/15 17:31	
tert-Amylmethyl ether	ug/L	ND	10.0	08/18/15 17:31	
tert-Butyl Alcohol	ug/L	ND	100	08/18/15 17:31	
tert-Butyl Formate	ug/L	ND	50.0	08/18/15 17:31	
Toluene	ug/L	ND	5.0	08/18/15 17:31	
Xylene (Total)	ug/L	ND	10.0	08/18/15 17:31	
1,2-Dichloroethane-d4 (S)	%	111	70-130	08/18/15 17:31	
4-Bromofluorobenzene (S)	%	108	70-130	08/18/15 17:31	
Toluene-d8 (S)	%	105	70-130	08/18/15 17:31	

LABORATORY CONTROL SAMPLE: 1536121

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	49.7	99	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	940	94	70-130	
Benzene	ug/L	50	56.5	113	70-130	
Diisopropyl ether	ug/L	50	61.9	124	70-130	
Ethanol	ug/L	2000	2380	119	70-130	
Ethyl-tert-butyl ether	ug/L	100	132	132	70-130	L0
Ethylbenzene	ug/L	50	48.3	97	70-130	
m&p-Xylene	ug/L	100	104	104	70-130	
Methyl-tert-butyl ether	ug/L	50	58.7	117	70-130	
Naphthalene	ug/L	50	46.6	93	70-130	
o-Xylene	ug/L	50	54.2	108	70-130	
tert-Amyl Alcohol	ug/L	1000	1050	105	70-130	
tert-Amylmethyl ether	ug/L	100	113	113	70-130	
tert-Butyl Alcohol	ug/L	500	652	130	70-130	
tert-Butyl Formate	ug/L	400	488	122	70-130	
Toluene	ug/L	50	52.5	105	70-130	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

LABORATORY CONTROL SAMPLE: 1536121

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	158	105	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE SAMPLE: 1536122

Parameter	Units	92263623025 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	22.1	110	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	378	94	70-130	
Benzene	ug/L	ND	20	24.0	120	70-130	
Diisopropyl ether	ug/L	ND	20	25.1	125	70-130	
Ethanol	ug/L	ND	800	937	117	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	52.4	131	70-130	M0
Ethylbenzene	ug/L	ND	20	20.5	103	70-130	
m&p-Xylene	ug/L	ND	40	43.3	108	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	24.0	120	70-130	
Naphthalene	ug/L	ND	20	20.4	102	70-130	
o-Xylene	ug/L	ND	20	21.7	109	70-130	
tert-Amyl Alcohol	ug/L	ND	400	418	105	70-130	
tert-Amylmethyl ether	ug/L	ND	40	43.3	108	70-130	
tert-Butyl Alcohol	ug/L	ND	200	373	186	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	22.6	112	70-130	
1,2-Dichloroethane-d4 (S)	%				105	70-130	
4-Bromofluorobenzene (S)	%				106	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 1536123

Parameter	Units	92263623026 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

SAMPLE DUPLICATE: 1536123

Parameter	Units	92263623026 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	115	114	0		
4-Bromofluorobenzene (S)	%	106	107	0		
Toluene-d8 (S)	%	123	132	7		S3

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

QC Batch: OEXT/37068 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92263328002, 92263328003, 92263328004, 92263328006, 92263328008, 92263328009, 92263328010, 92263328011, 92263328012, 92263328013, 92263328014, 92263328015, 92263328016

METHOD BLANK: 1533928 Matrix: Water
Associated Lab Samples: 92263328002, 92263328003, 92263328004, 92263328006, 92263328008, 92263328009, 92263328010, 92263328011, 92263328012, 92263328013, 92263328014, 92263328015, 92263328016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	08/15/15 03:22	
1-Chloro-2-bromopropane (S)	%	118	60-140	08/15/15 03:22	

LABORATORY CONTROL SAMPLE & LCSD: 1533929 1533930

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.32	0.33	112	120	60-140	5	20	
1-Chloro-2-bromopropane (S)	%				114	120	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1533931 1533932

Parameter	Units	92263190023 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.34	0.35	120	124	60-140	3	20	
1-Chloro-2-bromopropane (S)	%						120	124	60-140			

SAMPLE DUPLICATE: 1533933

Parameter	Units	92263190024 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	123	127	4		

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

QC Batch: OEXT/37069 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92263328017, 92263328018, 92263328019, 92263328020, 92263328021, 92263328022, 92263328023, 92263328024, 92263328025, 92263328026, 92263328027, 92263328028, 92263328029, 92263328030, 92263328031, 92263328032, 92263328033, 92263328034, 92263328035, 92263328036

METHOD BLANK: 1533936 Matrix: Water
Associated Lab Samples: 92263328017, 92263328018, 92263328019, 92263328020, 92263328021, 92263328022, 92263328023, 92263328024, 92263328025, 92263328026, 92263328027, 92263328028, 92263328029, 92263328030, 92263328031, 92263328032, 92263328033, 92263328034, 92263328035, 92263328036

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	08/14/15 18:14	
1-Chloro-2-bromopropane (S)	%	112	60-140	08/14/15 18:14	

LABORATORY CONTROL SAMPLE & LCSD: 1533937 1533938

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.29	0.34	0.34	120	120	60-140	0	20	
1-Chloro-2-bromopropane (S)	%				112	111	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1533939 1533940

Parameter	Units	92263328018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.29	.29	0.32	0.32	112	112	60-140	0	20	
1-Chloro-2-bromopropane (S)	%						117	116	60-140			

SAMPLE DUPLICATE: 1533941

Parameter	Units	92263328019 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	111	115	3		

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QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

QC Batch: OEXT/37124 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92263328001, 92263328005, 92263328007, 92263328037, 92263328038, 92263328039, 92263328040, 92263328041, 92263328042, 92263328043, 92263328044, 92263328045, 92263328046, 92263328047, 92263328048, 92263328049, 92263328050

METHOD BLANK: 1535756 Matrix: Water
Associated Lab Samples: 92263328001, 92263328005, 92263328007, 92263328037, 92263328038, 92263328039, 92263328040, 92263328041, 92263328042, 92263328043, 92263328044, 92263328045, 92263328046, 92263328047, 92263328048, 92263328049, 92263328050

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.019	08/18/15 20:23	
1-Chloro-2-bromopropane (S)	%	102	60-140	08/18/15 20:23	

LABORATORY CONTROL SAMPLE & LCSD: 1535757 1535758

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.31	0.31	112	110	60-140	2	20	
1-Chloro-2-bromopropane (S)	%				105	104	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1535759 1535760

Parameter	Units	92263190026 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.30	0.30	106	108	60-140	2	20	
1-Chloro-2-bromopropane (S)	%						60	56	60-140			S0

SAMPLE DUPLICATE: 1535761

Parameter	Units	92263328038 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	114	104	8		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

QC Batch: OEXT/37125 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92263328051, 92263328052, 92263328053, 92263328054, 92263328055, 92263328056, 92263328057, 92263328058, 92263328059, 92263328060, 92263328061, 92263328062, 92263328063

METHOD BLANK: 1535763 Matrix: Water
Associated Lab Samples: 92263328051, 92263328052, 92263328053, 92263328054, 92263328055, 92263328056, 92263328057, 92263328058, 92263328059, 92263328060, 92263328061, 92263328062, 92263328063

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.019	08/19/15 04:45	
1-Chloro-2-bromopropane (S)	%	109	60-140	08/19/15 04:45	

LABORATORY CONTROL SAMPLE & LCSD: 1535764 1535765

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.31	0.31	110	110	60-140	1	20	
1-Chloro-2-bromopropane (S)	%				107	108	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1535766 1535767

Parameter	Units	92263328053 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.37	0.34	134	124	60-140	8	20	
1-Chloro-2-bromopropane (S)	%						118	117	60-140			

SAMPLE DUPLICATE: 1535768

Parameter	Units	92263328055 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	15.0	14.6	2	20	C2
1-Chloro-2-bromopropane (S)	%	0	0			S4

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

C2	Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.
S0	Surrogate recovery outside laboratory control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.
S5	Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92263328001	MW R1A	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328002	MW R2	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328003	MW R3	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328004	MW 4	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328005	MW R4R	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328006	MW 5	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328007	MW 6	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328008	MW 7	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328009	MW 9	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328010	MW 9R	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328011	MW 11	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328012	MW R11	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328013	MW 12	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328014	MW 13R	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328015	MW 14R	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328016	MW 14R2	EPA 8011	OEXT/37068	EPA 8011	GCSV/22278
92263328017	MW 15R	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328018	MW 16DD	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328019	MW 17I	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328020	MW 18D	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328021	MW 19I	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328022	MW 20D	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328023	MW 21I	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328024	MW 22D	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328025	MW 24	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328026	MW 26I	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328027	MW 28DD	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328028	MW 29	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328029	MW 30I	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328030	MW 31D	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328031	MW 32	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328032	MW 33I	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328033	MW 34D	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328034	MW 35I	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328035	MW 36D	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328036	MW 37DD	EPA 8011	OEXT/37069	EPA 8011	GCSV/22279
92263328037	MW 38	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328038	MW 39I	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328039	MW 40D	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328040	MW 41I	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328041	MW 42D	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328042	MW 43	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328043	MW 44I	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328044	MW 46	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328045	MW 47	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306

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(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92263328046	MW 49	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328047	MW 50	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328048	MW 52	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328049	MW 53	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328050	MW 55	EPA 8011	OEXT/37124	EPA 8011	GCSV/22306
92263328051	MW 57I	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328052	MW 58	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328053	MW 59	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328054	MW 62	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328055	MW 68	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328056	MW 1x	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328057	MW 2x	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328058	MW 6x	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328059	MW 62 DUPLICATE	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328060	MW 68 DUPLICATE	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328061	MW 9R DUPLICATE	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328062	FIELD BLANK 1	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328063	FIELD BLANK 2	EPA 8011	OEXT/37125	EPA 8011	GCSV/22307
92263328001	MW R1A	EPA 8260	MSV/32989		
92263328002	MW R2	EPA 8260	MSV/33019		
92263328003	MW R3	EPA 8260	MSV/32989		
92263328004	MW 4	EPA 8260	MSV/32989		
92263328005	MW R4R	EPA 8260	MSV/33019		
92263328006	MW 5	EPA 8260	MSV/33046		
92263328007	MW 6	EPA 8260	MSV/33019		
92263328008	MW 7	EPA 8260	MSV/33019		
92263328009	MW 9	EPA 8260	MSV/33019		
92263328010	MW 9R	EPA 8260	MSV/33019		
92263328011	MW 11	EPA 8260	MSV/33019		
92263328012	MW R11	EPA 8260	MSV/33019		
92263328013	MW 12	EPA 8260	MSV/33020		
92263328014	MW 13R	EPA 8260	MSV/33046		
92263328015	MW 14R	EPA 8260	MSV/33020		
92263328016	MW 14R2	EPA 8260	MSV/33046		
92263328017	MW 15R	EPA 8260	MSV/33019		
92263328018	MW 16DD	EPA 8260	MSV/33020		
92263328019	MW 17I	EPA 8260	MSV/33021		
92263328020	MW 18D	EPA 8260	MSV/33019		
92263328021	MW 19I	EPA 8260	MSV/33019		
92263328022	MW 20D	EPA 8260	MSV/33019		
92263328023	MW 21I	EPA 8260	MSV/33019		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: COUNTRY SD 2 CA#50628 UST06742
Pace Project No.: 92263328

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92263328024	MW 22D	EPA 8260	MSV/33020		
92263328025	MW 24	EPA 8260	MSV/33020		
92263328026	MW 26I	EPA 8260	MSV/33020		
92263328027	MW 28DD	EPA 8260	MSV/33020		
92263328028	MW 29	EPA 8260	MSV/33020		
92263328029	MW 30I	EPA 8260	MSV/33020		
92263328030	MW 31D	EPA 8260	MSV/33020		
92263328031	MW 32	EPA 8260	MSV/33021		
92263328032	MW 33I	EPA 8260	MSV/33021		
92263328033	MW 34D	EPA 8260	MSV/33021		
92263328034	MW 35I	EPA 8260	MSV/33046		
92263328035	MW 36D	EPA 8260	MSV/33021		
92263328036	MW 37DD	EPA 8260	MSV/33021		
92263328037	MW 38	EPA 8260	MSV/33021		
92263328038	MW 39I	EPA 8260	MSV/33021		
92263328039	MW 40D	EPA 8260	MSV/33021		
92263328040	MW 41I	EPA 8260	MSV/33046		
92263328041	MW 42D	EPA 8260	MSV/33046		
92263328042	MW 43	EPA 8260	MSV/33021		
92263328043	MW 44I	EPA 8260	MSV/33021		
92263328044	MW 46	EPA 8260	MSV/33021		
92263328045	MW 47	EPA 8260	MSV/33021		
92263328046	MW 49	EPA 8260	MSV/33022		
92263328047	MW 50	EPA 8260	MSV/33022		
92263328048	MW 52	EPA 8260	MSV/33022		
92263328049	MW 53	EPA 8260	MSV/33022		
92263328050	MW 55	EPA 8260	MSV/33022		
92263328051	MW 57I	EPA 8260	MSV/33022		
92263328052	MW 58	EPA 8260	MSV/33022		
92263328053	MW 59	EPA 8260	MSV/33029		
92263328054	MW 62	EPA 8260	MSV/33022		
92263328055	MW 68	EPA 8260	MSV/33022		
92263328056	MW 1x	EPA 8260	MSV/33022		
92263328057	MW 2x	EPA 8260	MSV/33022		
92263328058	MW 6x	EPA 8260	MSV/33022		
92263328059	MW 62 DUPLICATE	EPA 8260	MSV/33029		
92263328060	MW 68 DUPLICATE	EPA 8260	MSV/33029		
92263328061	MW 9R DUPLICATE	EPA 8260	MSV/33029		
92263328062	FIELD BLANK 1	EPA 8260	MSV/33021		
92263328063	FIELD BLANK 2	EPA 8260	MSV/33021		
92263328064	TRIP BLANK 1	EPA 8260	MSV/33021		
92263328065	TRIP BLANK 2	EPA 8260	MSV/33021		

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Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: May 18, 2015 Page 1 of 2*
	Document Number: F-CHR-CS-003-rev.16	Issuing Authority: Pace Huntersville Quality Office

Client Name: SCDHEC-UST

* Page 2 of 2 is for Internal Use Only

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☑ Other _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals Intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used: IR Gun T1401 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Temp Correction Factor T1401 No Correction

Corrected Cooler Temp.: 1.7 °C Biological Tissue is Frozen: Yes No N/A

Date and Initials of person examining contents: _____

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☑No ☐N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review:	TC	Date:	8/15/15
SRF Review:	TC	Date:	8/13/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace

WO# : 92263328

92263328

Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: May 16, 2016 Page 1 of 2*
	Document Number: F-CHR-CS-003-rev.16	Issuing Authority: Pace Huntersville Quality Office

Client Name: SCDHEC-UST

* Page 2 of 2 is for Internal Use Only

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☐ no Seals Intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun T1401 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Temp Correction Factor T1401 No Correction

Corrected Cooler Temp.:_____ °C Biological Tissue is Frozen: Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 11/8/15

		Comments:
Chain of Custody Present:	☐Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☐Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☐Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☐No ☐N/A	7.
Sufficient Volume:	☐Yes ☐No ☐N/A	8.
Correct Containers Used:	☐Yes ☐No ☐N/A	9.
-Pace Containers Used:	☐Yes ☐No ☐N/A	
Containers Intact:	☐Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☐N/A	11.
Sample Labels match COC:	☐Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix:_____		
All containers needing preservation have been checked.	☐Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☐N/A	15.
Trip Blank Present:	☐Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted:_____ Date/Time:_____

Comments/ Resolution:_____

SCURF Review:_____ Date:_____

SRF Review:_____ Date:_____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace label here

OR

Handwrite project number (if no label available)

_____

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 8 of 8

1902519

Section A Required Client Information:
Company: SCDHEC-UST
Address: 2600 Bull St
Columbia, SC, 29201
Email To: BycantJ@scdhec.sc.gov
Phone: 803-898-0606 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:
Report To: J. Bycant - UST
Copy To:
Purchase Order No.: 4600422513
Project Name: Country Side 2
Project Number: UST#06742/PACE CA#50628

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC — Oconee

Section D Required Client Information

Matrix Codes (MATRIX / CODE)
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: BTEX, Naphth, MTBE	1,2-DCA	8-OXY EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92263328
1	MWGR Duplicate	WT	G			8/12/15	11:53		6				6						X	X	X	X		Duplicate 061
2	Duplicate																							—
3	Field Blank 1	WT	G			8/11/15	17:00		6				6						X	X	X	X		F.B. 062
4	Field Blank 2	"	"			8/12/15	12:15		6				6						"	"	"	X		F.B. 063
5	Trip Blank 1	"	"			8/11/15	17:01		2				2						"	"	"	*		T.B. 064
6	Trip Blank 2	WT	G			8/11/15	17:02		2				2						X	X	X			T.B. 065
7	~~Trip Blank 3~~																							—
8	~~Trip Blank 4~~																							—
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
No 4th Dup, Trip Blank 3 & 4 in coolers	[signature] Pace	8/12/15	17:00	[signature] Pace	8/13	0811				
	[signature] Pace	8/13	1440	[signature] HwL	8/13	1440	17	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Frank Mihin
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/12/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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1902518

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: SCDHEC-UST	Report To: J. Byrant-UST	Attention:
Address: 2600 Bull St	Copy To:	Company Name:
Columbia, SC, 29201		Address:
Email To: BryantJ@dhec.sc.gov	Purchase Order No.: 4600422513	Pace Quote Reference:
Phone: 803-898-0606 Fax: 803-898-0673	Project Name: Country Side 2	Pace Project Manager: T. Carter
Requested Due Date/TAT:	Project Number: UST#06742/PACE CA#50628	Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: SC Oconee

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE	MATRIX CODE (use valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: BTEX, Naph, MTBE	1,2-DCA	8-OXY EDB									Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92263328
1	MW 68	Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT	WT	G			8/12/15	9:57		6				6						X	X	X	X									Odor	055
2	MW 69																															Not Sampled	—
3	MW 70																															Not Sampled	—
4	MW 1x		WT	G			8/12/15	10:10		6				6						X	X	X	X									No Odor	056
5	MW 2x		WT	G			8/12/15	12:10		6				6						X	X	X	X									Odor	057
6	MW 3x																															Not Sampled	—
7	MW 4x																															Not Sampled	—
8	MW 5x																															Not Sampled	—
9	MW 6x		WT	G			8/12/15	11:05		6				6						X	X	X	X									Odor	058
10	SW 1																															Not Sampled	—
11	MW 62 Duplicate		WT	G			8/12/15	9:30		6				6						X	X	X	X									Duplicate	059
12	MW 68 Duplicate		WT	G			8/12/15	9:57		6				6						X	X	X	X									Duplicate	060

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		8/12/15	17:00		8/13	0815				
		8/13/15	1446		8/13	1440	1.7	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Frank Mihin

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/12/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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1902517

Section A Required Client Information:
Company: SCDHEC - UST
Address: 2600 Bull St
Columbia, SC, 29201
Email To: BycantJ@dhec.sc.gov
Phone: 803-898-0606 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:
Report To: J. Bycant - UST
Copy To:
Purchase Order No.: 4600422513
Project Name: Country Side 2
Project Number: UST#06742 / PACE CA#50628

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER
Site Location STATE: SC — Oconee

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): BTEX, Naph, MTBE	1,2-DCA	8-Oxy	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92263328
1	MW 55	WT	6			8/11/15	9:17		6				6						X	X	X	X		No Odor	050
2	MW 57c	↓	↓			↓	9:26		↓				↓						↓	↓	↓	↓		↓	051
3	MW 58	↓	↓			↓	9:37		↓				↓						↓	↓	↓	↓		↓	052
4	MW 59	WT	6			8/11/15	9:01		6				6						X	X	X	X		No Odor	053
5	MW 60																							Not Sampled	—
6	MW 61																							Not Sampled	—
7	MW 62	WT	6			8/12/15	9:30		6				6						X	X	X	X		Odor	054
8	MW 63																							Not Sampled	—
9	MW 64																							Not Sampled	—
10	MW 65																							Not Sampled	—
11	MW 66																							Not Sampled	—
12	MW 67																							Not Sampled	—

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		8/12/15	17:00		8/13/15	08:11				
		8/13/15	1440		8.13	14:40	1.7	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Frank Mitlin
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/12/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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1902516

Section A Required Client Information:
Company: SCDHEC - UST
Address: 2600 Bull St
Columbia, SC, 29201
Email To: ByrantJ@dhec.sc.gov
Phone: 803-898-0606 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:
Report To: J. Byrant-UST
Copy To:
Purchase Order No.: 4600422513
Project Name: Country Side 2
Project Number: UST #06742 / PACE LA # 50628

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER
Site Location STATE: SC — Oconee

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): BTEX, Naph, MTBE	1,2-DCA	8:0xy	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92263328
1	MW 41E	WT	G			8/11/15	12:40		6				6					X	X	X	X				040
2	MW 42D	"	"			"	13:07		"				"					"	"	"	"				041
3	MW 43	"	"			"	8:48		"				"					"	"	"	"				042
4	MW 44E	"	"			"	8:55		"				"					"	"	"	"				043
5	MW 46	"	"			"	10:24		"				"					"	"	"	"				044
6	MW 47	"	"			"	10:30		"				"					"	"	"	"				045
7	MW 49	↓	↓			↓	8:33		↓				↓					↓	↓	↓	↓				↓
8	MW 50	WT	G			8/11/15	8:40		6				6					X	X	X	X				No Odor 046
9	MW 51																								Not Sampled —
10	MW 52	WT	G			8/11/15	16:36		6				6					X	X	X	X				Odor 048
11	MW 53	WT	G			8/11/15	16:47		6				6					X	X	X	X				No Odor 049
12	MW 54																								Not Sampled —

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		8/12/15	17:00		8/13/15	09				
	Pace	8/13/15	1440	John Johnson Hill	8/13	1440	1.7	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Frank Martin
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/12/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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1902515

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: SCDHEC - UST	Report To: J. Byrant - UST	Attention:
Address: 2600 Bull St	Copy To:	Company Name:
Columbia, SC, 29201		Address:
Email To: ByrantJC@dhec.sc.gov	Purchase Order No.: 4600422513	Pace Quote Reference:
Phone: 803-898-0606 Fax: 803-898-0673	Project Name: Country Side 2	Pace Project Manager: T. Carter
Requested Due Date/TAT:	Project Number: UST#06742/PACE CA#50628	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: SC Oconee

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	BTEX, Napth, Mtbe	1,2-DCA	8-Oxy	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92263328
1	MW 29	WT	G			8/11/15	13:14		6				6						X	X	X	X		No Odor 028
2	MW 30i						13:23																	029
3	MW 31D						13:39																	030
4	MW 32						10:39																	031
5	MW 33i						10:47																	032
6	MW 34D						10:56																	033
7	MW 35i						11:36																	034
8	MW 36D						11:46																	035
9	MW 37DD						12:05																	036
10	MW 38						9:46																	037
11	MW 39i						9:59																	038
12	MW 40D	WT	G			8/11/15	10:18		6				6						X	X	X	X		No Odor 039

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	8/12/15	17:00	[signature] Pace	8/13/15	[illegible]				
	[signature] Pace	8-13-15	1440	[signature] HUL	813	1440	1.7	y	n	y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Frank Mattin

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 8/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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1902514

Section A Required Client Information:
Company: SCDHEC - UST
Address: 2600 Bull St
Columbia, SC, 29201
Email To: Byrantsl@dhec.sc.gov
Phone: 803-898-0666 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:
Report To: J. Byrant - UST
Copy To:
Purchase Order No.: 4600422513
Project Name: Country Side 2
Project Number: UST #06742 / PACE LA # 50628

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER
Site Location STATE: SC — Oconee

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Matrix Codes (see valid codes to left)	Sample Type (G=GRAB C=COMP)	Collected: Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	Sample Temp at Collection	# of Containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX, Naph, MTBE	1,2-DCA	8-Oxy EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92263328
1	MW 16DD	WT	6			8/11/15	15:17		6				6					X	X	X	No Odor	018
2	MW 17i						15:43															019
3	MW 18D						15:29															020
4	MW 19i						15:53															021
5	MW 20D						14:45															022
6	MW 21i	↓	↓			↓	16:08	↓	↓				↓					↓	↓	↓	↓	023
7	MW 22D	WT	6			8/11/15	15:03		6				6					X	X	X	No Odor	024
8	MW 23																				Not Sampled	—
9	MW 24	WT	6			8/12/15	10:18		6				6					X	X	X	No Odor	025
10	MW 25																				Not Sampled	—
11	MW 26i	WT	6			8/11/15	13:53		6				6					X	X	X	No Odor	026
12	MW 28DD	WT	6			8/11/15	14:09		6				6					X	X	X	No Odor	027

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		8/12/15	17:00		8/12/15	08:11				
		8-12-15	1440		8-13	1440	1.7	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Frank Mitlin
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 8/12/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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1902513

Section A Required Client Information:
Company: SCDHEC - UST
Address: 2600 Bull St
Columbia, SC, 29201
Email To: BryantJC@dhec.sc.gov
Phone: 803-898-0606 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:
Report To: J. Bryant - UST
Copy To:
Purchase Order No.: 4600422513
Project Name: Country Side 2
Project Number: UST #06742 PACE LA #50628

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER
Site Location STATE: SC Oconee

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX, Naph, Ether	1,2-DCA	8-Oxy	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92263328
1	MW 7	Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT	WT	6			8/12/15	11:32		6				6						X	X	X	X		Odor	008
2	MW 7R																								Not Sampled	—
3	MW 8																								Not Sampled	—
4	MW 9		WT	6			8/12/15	11:41		6				6						X	X	X	X		No Odor	009
5	MW 9R		"	"			8/12/15	11:53		"				"						"	"	"	"			010
6	MW 11		"	"			8/11/15	14:17		"				"						"	"	"	"			011
7	MW R11		"	"			8/11/15	14:23		"				"						"	"	"	"			012
8	MW 12		"	"			8/11/15	9:06		"				"						"	"	"	"			013
9	MW 13R		"	"			"	12:14		"				"						"	"	"	"			014
10	MW 14R		"	"			"	12:32		"				"						"	"	"	"			015
11	MW 14R2		"	"			"	12:28		"				"						"	"	"	"			016
12	MW 15R		WT	6			8/11/15	16:23		6				6						X	X	X	X		No Odor	017

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		8/12/15	17:00							
		8-13-15	1440		8/13	1440	1.7	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Frank Mathis
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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1902512

Section A Required Client Information:
Company: SCDHEC - UST
Address: 2600 Bull St
Columbia, SC, 29201
Email To: BryantJL@dhec.sc.gov
Phone: 803-898-0606 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:
Report To: J. Bryant-UST
Copy To:
Purchase Order No.: 4600422513
Project Name: Country Side 2
Project Number: UST#06742/PACE CA# 50628

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #: 849-1

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER
Site Location STATE: SC Oconee

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX, Naph, MTBE	1,2-DCA	EDC	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92263328
1	MW 1																						Not Sampled —
2	MW R1																						Not Sampled —
3	MW R1A	WT	G			8/12/15	11:13		6				6					X	X	X	X		Strong Odor 001
4	MW 2																						Not Sampled —
5	MW R2	WT	G			8/11/15	13:31		6				6					X	X	X	X		Organic Odor 002
6	MW 3																						Not Sampled —
7	MW R3	WT	G			8/11/15	13:44		6				6					X	X	X	X		Organic Odor 003
8	MW 4	WT	G			8/11/15	14:25		6				6					X	X	X	X		No Odor 004
9	MW R4																						Not Sampled —
10	MW R4R	WT	G			8/11/15	16:01		6				6					X	X	X	X		Odor 005
11	MW 5	WT	G			↓	16:07		↓				↓					X	X	X	X		No Odor 006
12	MW 6	WT	G			8/11/15	16:13		6				6					X	X	X	X		Strong Odor 007

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
MW R1A was sampled & is in cooler, sampled for everything for analysis		8/12/15	17:00		8/13	0917				
	Pace	8-13-15	1440	HVL	8/13	1440	1.7	Y	n	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Frank Mitlin
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 8/12/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Countryside 2- Post-ACA data
UST Permit #06742

	AR	MR	MR
MW-1	5/8/07	8/13/13	8/11/15
DTW	well	well	well
Benzene	dry	dry	dry
Toluene			
Ethylbenzene			
Xylenes			
MTBE			
Naphthalene			
DCA			
EDB			
DIPE			
TAA			
TAME			
TBA			
Lead			

MWR-1	5/8/07	8/13/13	8/11/15
DTW	FP	29.65	FP
Benzene	(1.25')	**38000**	(0.04')
Toluene		**48000**	
Ethylbenzene		**3500**	
Xylenes		**19000**	
MTBE		**45000**	
Naphthalene		**1000**	
DCA		**<2500**	
EDB		**1.60**	
DIPE		**<2500**	
TAA		**73000**	
TAME		**180**	
TBA		**10000**	
Lead		na	

MWR-1A	5/8/07	8/13/13	8/11/15
DTW	33.23	30.05	29.69
Benzene	<5	**38000**	**31300**
Toluene	<5	**63000**	**47500**
Ethylbenzene	<5	**3300**	**2520**
Xylenes	<15	**30000**	**31800**
MTBE	<5	**250000**	**231000**
Naphthalene	10	**1000**	**2110**
DCA	<5	**<2500**	**<1250**
EDB	<0.02	**9.90**	**14.40**
DIPE	<5	**1800**	**2050**
TAA	<100	**66000**	**101000**
TAME	<10	**1400**	**1550**
TBA	<50	**13000**	**29800**
Lead	<5	na	na

MW-2	5/8/07	8/13/13	8/11/15
DTW	well	27.38	well
Benzene	dry	<1	dry
Toluene		<5	
Ethylbenzene		<5	
Xylenes		<5	
MTBE		<5	
Naphthalene		<5	
DCA		<5	
EDB		<0.02	
DIPE		<5	
TAA		23	
TAME		<10	
TBA		13	
Lead		na	

MWR-2	5/8/07	8/13/13	8/11/15
DTW	30.63	27.05	27.04
Benzene	**58**	**7**	2
Toluene	170	19	3
Ethylbenzene	56	<50	<5
Xylenes	<15	38	<10
MTBE	<5	**<50**	<5
Naphthalene	16	**<50**	8
DCA	<5	**<50**	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<50	<5
TAA	**540**	140	<100
TAME	<10	<100	<10
TBA	<50	<200	<100
Lead	<5	na	na

MW-3	5/8/07	8/13/13	8/11/15
DTW	well	well	well
Benzene	dry	dry	not
Toluene			located
Ethylbenzene			
Xylenes			
MTBE			
Naphthalene			
DCA			
EDB			
DIPE			
TAA			
TAME			
TBA			
Lead			

MWR-3	5/8/07	8/13/13	8/11/15
DTW	30.81	27.51	27.00
Benzene	<5	<5	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	<5	<5	<5
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	<5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	<5	na	na

MW-4	5/8/07	8/13/13	8/11/15
DTW	25.74	18.40	23.89
Benzene	**12000**	**8500**	2
Toluene	**31000**	**4900**	<5
Ethylbenzene	**5000**	650	<5
Xylenes	**27200**	4600	<10
MTBE	**3900**	**8300**	20
Naphthalene	**1600**	**300**	3
DCA	**<250**	**180**	<5
EDB	**<0.02**	**0.13**	<0.02
DIPE	**<250**	**<500**	<5
TAA	**16000**	**15000**	<100
TAME	**<500**	20	<10
TBA	**<2500**	**3200**	<100
Lead	**58**	na	na

MWR-4	5/8/07	8/13/13	8/11/15
DTW	**FP**	24.50	**FP**
Benzene	(0.29')	**28000**	(0.02')
Toluene		**43000**	
Ethylbenzene		**3500**	
Xylenes		**20000**	
MTBE		**7100**	
Naphthalene		**1200**	
DCA		**<2500**	
EDB		**0.81**	
DIPE		**<2500**	
TAA		**36000**	
TAME		**<5000**	
TBA		**<10000**	
Lead		na	

MWR-4R	5/8/07	8/13/13	8/11/15
DTW	**FP**	24.52	27.80
Benzene	(0.58')	**13000**	**17400**
Toluene		**24000**	**27600**
Ethylbenzene		**2400**	**1660**
Xylenes		**14000**	**10200**
MTBE		**540**	**494**
Naphthalene		**820**	**644**
DCA		**<1000**	**<250**
EDB		**0.41**	**0.52**
DIPE		**<1000**	**<250**
TAA		**19000**	**11800**
TAME		**<2000**	**<500**
TBA		**1400**	**<5000**
Lead		na	na

MW-5	5/8/07	8/13/13	8/11/15
DTW	14.51	11.66	14.08
Benzene	<5	<5	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	<5	<5	<5
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	<5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	<5	na	na

MW-6	5/8/07	8/13/13	8/11/15
DTW	27.49	24.28	26.89
Benzene	**16000**	**5000**	**13500**
Toluene	**14000**	**9200**	**25800**
Ethylbenzene	**3800**	470	**1330**
Xylenes	**25000**	7200	**17000**
MTBE	**850**	**<1000**	**<1000**
Naphthalene	**1800**	**350**	**1240**
DCA	**<500**	**<1000**	**<1000**
EDB	**0.26**	<0.02	**0.37**
DIPE	**<500**	**<1000**	**<1000**
TAME	**<1000**	**<2000**	**<2000**
TAA	**<10000**	**1400**	**<20000**
TBA	**<5000**	**<4000**	**<20000**
Lead	**28**	na	na

MW-7	5/8/07	8/13/13	8/11/15
DTW	31.14	28.01	28.04
Benzene	**12000**	**1300**	**3150**
Toluene	**38000**	**7700**	**4040**
Ethylbenzene	**24000**	**4600**	**792**
Xylenes	**141000**	**31000**	8370
MTBE	**1300**	**<2500**	**1150**
Naphthalene	**8700**	**1500**	**616**
DCA	**<1200**	**<2500**	**<125**
EDB	<0.02	<0.02	<0.02
DIPE	**<1200**	**<2500**	**<125**
TAA	**<25000**	**<10000**	**10700**
TAME	**<2500**	**<5000**	**<250**
TBA	**<12000**	**<10000**	**1510**
Lead	**72**	na	na

MW-7R	5/8/07	8/13/13	8/11/15
DTW	31.57	28.41	**FP**
Benzene	**6100**	**270**	(0.01')
Toluene	**19000**	**5700**	
Ethylbenzene	**4300**	**2000**	
Xylenes	**23000**	**11000**	
MTBE	**<500**	**<500**	
Naphthalene	**1600**	**610**	
DCA	**<500**	**<500**	
EDB	<0.02	<0.02	
DIPE	**<500**	**<500**	
TAA	**11000**	**<2000**	
TAME	**<1000**	**<1000**	
TBA	**<5000**	**<2000**	
Lead	<5	na	

MW-8	5/8/07	8/13/13	8/11/15
DTW	**FP**	**FP**	**FP**
Benzene	(0.44')	(0.58')	(0.01')
Toluene			
Ethylbenzene			
Xylenes			
MTBE			
Naphthalene			
Lead			
DCA			
EDB			
DIPE			
TAA			
TAME			
TBA			
Lead			

MW-9	5/8/07	8/13/13	8/11/15
DTW	29.12	25.03	24.89
Benzene		<5	<5
Toluene		<5	<5
Ethylbenzene		<5	<5
Xylenes		<5	<10
MTBE		<5	<5
Naphthalene		<5	<5
DCA		<5	<5
EDB		<0.02	<0.02
DIPE		<5	<5
TAA		<20	<100
TAME		<10	<10
TBA		<20	<100
Lead		na	na

MW-9R	5/8/07	8/13/13	8/11/15
DTW	29.47	25.40	25.01
Benzene	<5	<5	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	<5	<5	<5
Naphthalene	<5	<5	3
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	<5
TAA	**390**	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	<5	na	na

MW-11	5/8/07	8/13/13	8/11/15
DTW	22.35	18.81	21.79
Benzene	**88**	**13**	2
Toluene	430	22	<5
Ethylbenzene	340	7	<5
Xylenes	2000	110	<10
MTBE	**<50**	<5	22
Naphthalene	**200**	9	3
DCA	**<25**	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<25	<5	<5
TAA	**<500**	170	<100
TAME	<50	<10	<10
TBA	<250	120	<100
Lead	**77**	na	na

MWR-11	5/8/07	8/13/13	8/11/15
DTW	22.42	18.90	22.01
Benzene	ns	**10**	<5
Toluene		120	<5
Ethylbenzene		360	<5
Xylenes		2500	<10
MTBE		**<250**	4
Naphthalene		**340**	3
DCA		**<250**	<5
EDB		<0.02	<0.02
DIPE		**<250**	<5
TAA		**<1000**	<100
TAME		**<500**	<10
TBA		<1000	<100
Lead		na	na

MW-12	5/8/07	8/13/13	8/11/15
DTW	9.62	7.09	8.99
Benzene	**14**	<5	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	<5	<5	**60**
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	4
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<100	<20	<100
Lead	**37**	na	na

MW13R	5/8/07	8/13/13	8/11/15
DTW	14.87	11.61	6.14
Benzene	**6600**	**3600**	<5
Toluene	87	160	<5
Ethylbenzene	100	240	<5
Xylenes	250	240	<10
MTBE	**4400**	**2600**	<5
Naphthalene	**89**	**100**	<5
DCA	**<50**	**75**	<5
EDB	<0.02	<0.02	<0.02
DIPE	<50	**<250**	<5
TAA	**4600**	**7500**	<100
TAME	<100	13	<10
TBA	<500	1000	<100
Lead	<5	na	na

MW-14R	5/8/07	8/13/13	8/11/15
DTW	16.80	13.25	16.26
Benzene	<5	<5	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	<5	<5	<5
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	<5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	<5	na	na

MW-14R2	5/8/07	8/13/13	8/11/15
DTW	16.73	13.20	16.09
Benzene	**11100**	**110**	<5
Toluene	**1800**	580	<5
Ethylbenzene	**1000**	400	<5
Xylenes	7300	2400	<10
MTBE	**92**	**<100**	<5
Naphthalene	**650**	**250**	<5
DCA	**<50**	**<100**	<5
EDB	<0.02	<0.02	<0.02
DIPE	<50	<100	<5
TAA	**6300**	**<400**	<100
TAME	<100	**<200**	<10
TBA	<500	<400	<100
Lead	**24**	na	na

MW-15R	5/8/07	8/13/13	8/11/15
DTW	27.74	24.49	26.90
Benzene	<5	**<50**	<5
Toluene	<5	<50	<5
Ethylbenzene	<5	<50	<5
Xylenes	<15	<50	<10
MTBE	<5	**1700**	**97**
Naphthalene	<5	**<50**	<5
DCA	<5	**<50**	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<50	<5
TAA	<100	<200	<100
TAME	<10	18	<10
TBA	<50	<200	<100
Lead	11	na	na

MW-16DD	5/8/07	8/13/13	8/11/15
DTW	37.86	31.85	34.76
Benzene	<5	**65**	<5
Toluene	9	190	<5
Ethylbenzene	<5	37	<5
Xylenes	<15	200	<10
MTBE	<5	23	2
Naphthalene	<5	9	<5
DCA	<5	**<25**	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<25	<5
TAA	<100	<100	<100
TAME	<10	<50	<10
TBA	<50	<100	<100
Lead	11	na	na

MW-17i	5/8/07	8/13/13	8/11/15
DTW	31.93	28.80	30.71
Benzene	**7900**	**5800**	<5
Toluene	**14000**	**16000**	<5
Ethylbenzene	**3700**	**2000**	<5
Xylenes	**20600**	**11000**	<10
MTBE	**2800**	**350**	6
Naphthalene	**1300**	**500**	<5
DCA	<5	**<500**	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	**<500**	<5
TAA	**2600**	**3900**	<100
TAME	<10	**<1000**	<10
TBA	<50	**<2000**	<100
Lead	12	na	na

MW-18D	5/8/07	8/13/13	8/11/15
DTW	31.99	28.87	30.94
Benzene	**2000**	**730**	<5
Toluene	**3600**	560	<5
Ethylbenzene	620	220	<5
Xylenes	3700	1500	<10
MTBE	**1700**	**42**	2
Naphthalene	**160**	**100**	<5
DCA	<5	**16**	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<100	<5
TAA	**2000**	**550**	<100
TAME	<10	<200	<10
TBA	<50	<400	<100
Lead	<5	na	na

MW-19i	5/8/07	8/13/13	8/11/15
DTW	30.37	26.97	29.99
Benzene	**3600**	**26000**	<5
Toluene	**4800**	**37000**	<5
Ethylbenzene	400	**2400**	<5
Xylenes	2130	**14000**	<10
MTBE	**1700**	**19000**	6
Naphthalene	**130**	**490**	<5
DCA	<5	**<1000**	<5
EDB	**0.14**	**6.30**	<0.02
DIPE	40	**<1000**	<5
TAA	**<5000**	**37000**	<100
TAME	26	**310**	<10
TBA	<50	**4400**	<100
Lead	5	na	na

MW-20D	5/8/07	8/13/13	8/11/15
DTW	30.32	27.87	29.66
Benzene	**430**	**270**	<5
Toluene	570	<25	<5
Ethylbenzene	41	<25	<5
Xylenes	240	<25	<10
MTBE	**570**	**470**	2
Naphthalene	21	9	<5
DCA	<5	<25	<5
EDB	**0.24**	<0.02	<0.02
DIPE	15	12	<5
TAA	**2200**	**1200**	<100
TAME	<10	7	<10
TBA	<50	220	<100
Lead	6	na	na

MW-21I	5/8/07	8/13/13	8/11/15
DTW	30.36	27.10	29.97
Benzene	**3400**	**6400**	<5
Toluene	**3800**	<1000	<5
Ethylbenzene	300	540	<5
Xylenes	1630	2200	<10
MTBE	**6800**	**21000**	6
Naphthalene	**38**	**<1000**	<5
DCA	<5	**<1000**	<5
EDB	**0.30**	0.09	<0.02
DIPE	84	**260**	<5
TAA	**1300**	**6800**	<100
TAME	32	**130**	<10
TBA	<50	**1400**	<100
Lead	9	na	na

MW-22D	5/8/07	8/13/13	8/11/15
DTW	32.13	27.38	31.29
Benzene	**82**	<5	<5
Toluene	81	<5	<5
Ethylbenzene	8	<5	<5
Xylenes	53	<5	<10
MTBE	**530**	2	2
Naphthalene	6	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	5	<5	<5
TAA	**970**	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	6	na	na

MW-23	5/8/07	8/13/13	8/11/15
DTW	32.02	29.11	well
Benzene	<5	<5	abandoned
Toluene	<5	<5	
Ethylbenzene	<5	<5	
Xylenes	<15	<5	
MTBE	<5	<5	
Naphthalene	<5	<5	
DCA	<5	<5	
EDB	<0.02	<0.02	
DIPE	<5	<5	
TAA	140	<20	
TAME	<10	<10	
TBA	<50	<20	
Lead	11	na	

MW-24	5/8/07	8/13/13	8/11/15
DTW	32.64	29.83	28.81
Benzene	**160**	**76**	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	29	15	<10
MTBE	<5	5	13
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	2	4
TAA	<100	20	<100
TAME	<10	<10	<10
TBA	<50	9	<100
Lead	7	na	na

MW-25	5/8/07	8/13/13	8/11/15
DTW	33.05	30.33	well
Benzene	**3100**	**3300**	abandoned
Toluene	490	<100	
Ethylbenzene	36	<100	
Xylenes	850	420	
MTBE	**1300**	**2100**	
Naphthalene	21	**51**	
DCA	<5	**<100**	
EDB	<0.02	<0.02	
DIPE	**40**	78	
TAA	**930**	**1900**	
TAME	<10	36	
TBA	<50	220	
Lead	6	na	

MW-26i	5/8/07	8/13/13	8/11/15
DTW	21.85	18.45	21.16
Benzene	**9800**	**790**	2
Toluene	890	<25	<5
Ethylbenzene	**730**	29	<5
Xylenes	4300	<25	<10
MTBE	**2900**	**560**	21
Naphthalene	**130**	14	<5
DCA	<5	17	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<25	<5
TAA	**<10000**	**1100**	<100
TAME	<10	2	<10
TBA	**8900**	230	<100
Lead	<5	na	na

MW-28DD	5/8/07	8/13/13	8/11/15
DTW	21.98	18.47	21.29
Benzene	**9**	**21**	<5
Toluene	<5	77	<5
Ethylbenzene	<5	11	<5
Xylenes	<15	60	<10
MTBE	28	12	3
Naphthalene	<5	4	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	<5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	11	na	na

MW-29	5/8/07	8/13/13	8/11/15
DTW	21.90	18.52	21.73
Benzene	<5	<5	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	<5	<5	**54**
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	4
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	**33**	na	na

MW-30I	5/8/07	8/13/13	8/11/15
DTW	21.59	18.19	21.51
Benzene	**41**	**700**	<5
Toluene	20	51	<5
Ethylbenzene	8	57	<5
Xylenes	40	340	<10
MTBE	<5	**770**	**62**
Naphthalene	<5	**34**	<5
DCA	<5	**<50**	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	18	5
TAA	<100	**460**	<100
TAME	<10	<100	<10
TBA	<50	120	<100
Lead	6	na	na

MW-31D	5/8/07	8/13/13	8/11/15
DTW	21.71	18.33	21.60
Benzene	**570**	**97**	<5
Toluene	260	17	<5
Ethylbenzene	31	<25	<5
Xylenes	182	28	<10
MTBE	**350**	**1100**	<5
Naphthalene	9	<25	<5
DCA	<5	<25	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	11	<5
TAA	**830**	**1100**	<100
TAME	<10	7	<10
TBA	<50	250	<100
Lead	<5	na	na

MW-32	5/8/07	8/13/13	8/11/15
DTW	17.55	13.94	17.02
Benzene	**3000**	**20**	**311**
Toluene	7	<100	<25
Ethylbenzene	18	<100	<25
Xylenes	<16	<100	<50
MTBE	**540**	**180**	**1310**
Naphthalene	8	**<100**	17
DCA	<5	**<100**	**<25**
EDB	<0.02	<0.02	<0.02
DIPE	<5	<100	<25
TAA	**3300**	**620**	**2860**
TAME	<10	**<200**	<50
TBA	<50	<400	870
Lead	14	na	na

MW-33i	5/8/07	8/13/13	8/11/15
DTW	17.90	14.33	17.51
Benzene	**860**	**2500**	**294**
Toluene	<5	3	<25
Ethylbenzene	<5	<5	<25
Xylenes	28	3	<50
MTBE	**50**	**380**	**1560**
Naphthalene	12	17	16
DCA	<5	<5	**<25**
EDB	<0.02	<0.02	<0.02
DIPE	<5	<1	<25
TAA	**1800**	**3800**	**2590**
TAME	<10	2	<50
TBA	<50	350	800
Lead	<5	na	na

MW-34D	5/8/07	8/13/13	8/11/15
DTW	18.12	14.61	17.70
Benzene	**380**	**2700**	**340**
Toluene	<5	57	<25
Ethylbenzene	13	<100	<25
Xylenes	78	330	<50
MTBE	**260**	**1300**	**1820**
Naphthalene	8	**54**	16
DCA	<5	**<100**	**<25**
EDB	<0.02	<0.02	<0.02
DIPE	<5	<100	<25
TAA	**530**	**2600**	**2650**
TAME	<10	9	<50
TBA	<50	510	808
Lead	10	na	na

MW-35i	5/8/07	8/13/13	8/11/15
DTW	14.62	11.57	13.87
Benzene	**1900**	**1600**	<5
Toluene	83	<250	<5
Ethylbenzene	180	130	<5
Xylenes	1087	<250	<10
MTBE	**83**	**110**	<5
Naphthalene	**440**	**<250**	<5
DCA	<5	**<250**	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	**<250**	<5
TAA	**1400**	**1500**	<100
TAME	<10	**<500**	<10
TBA	<50	**<1000**	<100
Lead	13	na	na

MW-36D	5/8/07	8/13/13	8/11/15
DTW	13.98	10.85	13.64
Benzene	**1400**	**1300**	<5
Toluene	56	<100	<5
Ethylbenzene	130	65	<5
Xylenes	546	50	<10
MTBE	**230**	**820**	<5
Naphthalene	**210**	**<100**	<5
DCA	<5	**<100**	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<100	<5
TAA	**1700**	**2800**	<100
TAME	<10	<200	<10
TBA	<50	410	<100
Lead	11	na	na

MW-37DD	5/8/07	8/13/13	8/11/15
DTW	14.39	11.33	13.94
Benzene	<5	4	<5
Toluene	<5	22	<5
Ethylbenzene	<5	3	<5
Xylenes	<15	17	<10
MTBE	<5	2	<5
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	<5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	10	na	na

MW-38	5/8/07	8/13/13	8/11/15
DTW	21.53	18.57	21.15
Benzene	<5	<5	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	25	<1	**61**
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	**88**	na	na

MW-39i	5/8/07	8/13/13	8/11/15
DTW	21.51	18.54	21.07
Benzene	**61**	**36**	<5
Toluene	<5	40	<5
Ethylbenzene	<5	39	<5
Xylenes	<15	54	<10
MTBE	**890**	**1000**	**60**
Naphthalene	8	24	<5
DCA	<5	**<50**	<5
EDB	<0.02	<0.02	<0.02
DIPE	<50	<50	4
TAA	**1600**	**2500**	<100
TAME	<10	8	<10
TBA	<50	420	<100
Lead	10	na	na

MW-40D	5/8/07	8/13/13	8/11/15
DTW	21.49	18.32	20.96
Benzene	**330**	**96**	<5
Toluene	<5	370	<5
Ethylbenzene	<5	41	<5
Xylenes	<25	200	<10
MTBE	**340**	**850**	**60**
Naphthalene	6	18	<5
DCA	<5	<25	<5
EDB	**0.16**	0.03	<0.02
DIPE	<5	4	4
TAA	**1400**	**270**	<100
TAME	<10	7	<10
TBA	<50	81	<100
Lead	10	na	na

MW-41i	5/8/07	8/13/13	8/11/15
DTW	16.50	13.10	16.07
Benzene	<5	<5	<5
Toluene	14	<5	<5
Ethylbenzene	29	<5	<5
Xylenes	180	<5	<10
MTBE	25	<5	<5
Naphthalene	7	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	<5
TAA	**250**	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	11	na	na

MW-42D	5/8/07	8/13/13	8/11/15
DTW	16.35	12.81	15.99
Benzene	**8**	3	<5
Toluene	46	7	<5
Ethylbenzene	40	3	<5
Xylenes	241	8	<10
MTBE	<5	<5	<5
Naphthalene	33	3	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	<5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	10	na	na

MW-43	5/8/07	8/13/13	8/11/15
DTW	11.60	9.14	10.54
Benzene	<5	<5	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	25	<1	**60**
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	13	na	na

MW-44i	5/8/07	8/13/13	8/11/15
DTW	9.11	7.25	12.41
Benzene	<5	3	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	25	<5	**60**
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	12	na	na

MW-46	5/8/07	8/13/13	8/11/15
DTW	23.02	19.47	22.71
Benzene	<5	**<25**	**312**
Toluene	<5	<25	<25
Ethylbenzene	<5	<25	<25
Xylenes	<15	<25	<50
MTBE	25	**540**	**1690**
Naphthalene	<5	<25	16
DCA	<5	**<25**	**<25**
EDB	<0.02	<0.02	<0.02
DIPE	<5	<25	<25
TAA	<100	<100	2580
TAME	<10	6	<50
TBA	<50	<100	754
Lead	10	na	na

MW-47	5/8/07	8/13/13	8/11/15
DTW	22.12	18.89	21.64
Benzene	<5	<5	**260**
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	19
MTBE	25	<5	**1480**
Naphthalene	<5	<5	4
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	3
TAA	<100	<20	**1680**
TAME	<10	<10	5.00
TBA	<50	<20	589
Lead	10	na	na

MW-49	5/8/07	8/13/13	8/11/15
DTW	14.92	14.06	13.73
Benzene	<5	<5	<5
Toluene	<5	<5	2
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	25	5	**57**
Naphthalene	<5	<5	4
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	**120**	na	na

MW-50	5/8/07	8/13/13	8/11/15
DTW	10.95	well	10.36
Benzene	<5	not	<5
Toluene	<5	located	<5
Ethylbenzene	<5		<5
Xylenes	<15		<10
MTBE	25		**61**
Naphthalene	<5		<5
DCA	<5		<5
EDB	<0.02		<0.02
DIPE	<5		4
TAA	<100		<100
TAME	<10		<10
TBA	<50		<100
Lead	**15**		na

MW-51	5/8/07	8/13/13	8/11/15
DTW	30.85	**FP**	**FP**
Benzene	**27000**	(0.22')	(0.03')
Toluene	**37000**		
Ethylbenzene	**3800**		
Xylenes	**19100**		
MTBE	**31000**		
Naphthalene	**820**		
DCA	**<500**		
EDB	**0.23**		
DIPE	**<500**		
TAA	**28000**		
TAME	**<1000**		
TBA	**7000**		
Lead	**24**		

MW-52	5/8/07	8/13/13	8/11/15
DTW	27.22	23.97	26.91
Benzene	**11000**	**3000**	**2430**
Toluene	**23000**	**11000**	**19000**
Ethylbenzene	**3000**	**1700**	**2340**
Xylenes	**16000**	7200	**12600**
MTBE	**<250**	**84**	**<125**
Naphthalene	**930**	**470**	**974**
DCA	**<250**	**<500**	**<125**
EDB	<0.02	**0.16**	<0.02
DIPE	**<250**	**<500**	<125
TAA	**<5000**	**4100**	**<2500**
TAME	**<500**	**<1000**	**<250**
TBA	**<2500**	**<2000**	**<2500**
Lead	**20**	na	na

MW-53	5/8/07	8/13/13	8/11/15
DTW	26.22	22.85	25.87
Benzene	<5	<5	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	25	<5	<5
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	<5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	10	na	na

MW-54	5/8/07	8/13/13	8/11/15
DTW	32.31	29.57	well
Benzene	**36000**	**28000**	abandoned
Toluene	**62000**	**62000**	
Ethylbenzene	**4300**	**4600**	
Xylenes	**22600**	**24000**	
MTBE	**<250**	**<2500**	
Naphthalene	**890**	**<2500**	
DCA	**<250**	**<2500**	
EDB	**0.32**	**3.90**	
DIPE	**<250**	**<2500**	
TAA	**<5000**	**<10000**	
TAME	**<500**	**<5000**	
TBA	**<2500**	**<1000**	
Lead	11	na	

MW-55	5/8/07	8/13/13	8/11/15
DTW	11.23	7.61	11.02
Benzene	<5	<5	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	<5	<5	**66**
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	10	na	na

MW-57i	5/8/07	8/13/13	8/11/15
DTW	12.05	9.24	11.90
Benzene	<5	**58**	<5
Toluene	<5	<25	<5
Ethylbenzene	<5	31	<5
Xylenes	<15	150	<10
MTBE	<5	<25	**62**
Naphthalene	<5	16	<5
DCA	<5	<25	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<25	5
TAA	<100	<100	<100
TAME	<10	<50	<10
TBA	<50	<100	<100
Lead	13	na	na

MW-58	5/8/07	8/13/13	8/11/15
DTW	22.16	19.15	21.77
Benzene	<5	<5	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	<5	<5	**62**
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	<0.02	<0.02	<0.02
DIPE	<5	<5	5
TAA	<100	<20	<100
TAME	<10	<10	<10
TBA	<50	<20	<100
Lead	11	na	na

MW-59	5/8/07	8/13/13	8/11/15
DTW	16.08	16.76	15.54
Benzene	**9**	2	<5
Toluene	<5	<5	<5
Ethylbenzene	<5	<5	<5
Xylenes	<15	<5	<10
MTBE	**280**	**89**	**46**
Naphthalene	<5	<5	<5
DCA	<5	<5	<5
EDB	**0.06**	<0.02	<0.02
DIPE	<5	<5	4
TAA	**320**	41	<100
TAME	<10	<1	<10
TBA	69	11	<100
Lead	**32**	na	na

MW-60		8/13/13	8/11/15
DTW		**FP**	**FP**
Benzene		(0.01')	(0.03')
Toluene			
Ethylbenzene			
Xylenes			
MTBE			
Naphthalene			
DCA			
EDB			
DIPE			
TAA			
TAME			
TBA			
Lead			

MW-61		8/13/13	8/11/15
DTW		29.40	FP
Benzene		7900	(0.05')
Toluene		17000	
Ethylbenzene		1700	
Xylenes		8900	
MTBE		5200	
Naphthalene		340	
DCA		<1000	
EDB		1.80	
DIPE		110	
TAA		2300	
TAME		<2500	
TBA		<4000	
Lead		na	

MW-62		8/13/13	8/11/15
DTW		29.40	29.36
Benzene		17000	36300
Toluene		56000	76200
Ethylbenzene		4700	3270
Xylenes		22000	25900
MTBE		<2500	866
Naphthalene		1600	675
DCA		<2500	<100
EDB		2.10	1.40
DIPE		<2500	116
TAA		<10000	10600
TAME		<5000	<200
TBA		<10000	<2000
Lead		na	na

MW-63		8/13/13	8/11/15
DTW		28.84	FP
Benzene		8300	(0.02')
Toluene		45000	
Ethylbenzene		4000	
Xylenes		21000	
MTBE		<1000	
Naphthalene		650	
DCA		180	
EDB		0.96	
DIPE		<1000	
TAA		1800	
TAME		<2000	
TBA		<4000	
Lead		na	

MW-64		8/13/13	8/11/15
DTW		29.30	FP
Benzene		41000	(0.01')
Toluene		65000	
Ethylbenzene		4400	
Xylenes		23000	
MTBE		<2500	
Naphthalene		<2500	
DCA		870	
EDB		9.00	
DIPE		520	
TAA		7800	
TAME		340	
TBA		<10000	
Lead		na	

MW-65		8/13/13	8/11/15
DTW		26.70	FP
Benzene		16000	(0.06')
Toluene		32000	
Ethylbenzene		2500	
Xylenes		13000	
MTBE		4400	
Naphthalene		650	
DCA		<1000	
EDB		0.48	
DIPE		<1000	
TAA		17000	
TAME		<2000	
TBA		1300	
Lead		na	

MW-66		8/13/13	8/11/15
DTW		27.29	FP
Benzene		8000	(0.05')
Toluene		30000	
Ethylbenzene		2500	
Xylenes		16000	
MTBE		4300	
Naphthalene		820	
DCA		<1000	
EDB		0.20	
DIPE		<1000	
TAA		6400	
TAME		<2000	
TBA		<4000	
Lead		na	

MW-67		8/13/13	8/11/15
DTW		27.28	FP
Benzene		25000	(0.04')
Toluene		39000	
Ethylbenzene		3300	
Xylenes		17000	
MTBE		26000	
Naphthalene		810	
DCA		<1000	
EDB		0.58	
DIPE		<1000	
TAA		25000	
TAME		<2000	
TBA		3500	
Lead		na	

MW-68		8/13/13	8/11/15
DTW		29.95	28.79
Benzene		43000	47200
Toluene		77000	63300
Ethylbenzene		5200	3290
Xylenes		27000	23100
MTBE		8100	43500
Naphthalene		<10000	1120
DCA		<10000	<625
EDB		13.00	15.00
DIPE		<10000	2200
TAA		<40000	36700
TAME		<20000	1460
TBA		<40000	<12500
Lead		na	na

MW-69		8/13/13	8/11/15
DTW		29.42	FP
Benzene		18000	(0.02')
Toluene		39000	
Ethylbenzene		3700	
Xylenes		21000	
MTBE		2700	
Naphthalene		780	
DCA		390	
EDB		2.70	
DIPE		81	
TAA		8300	
TAME		52	
TBA		<4000	
Lead		na	

MW-70		8/13/13	8/11/15
DTW		28.34	FP
Benzene		19000	(1.03')
Toluene		30000	
Ethylbenzene		2900	
Xylenes		15000	
MTBE		30000	
Naphthalene		870	
DCA		<1000	
EDB		0.95	
DIPE		<1000	
TAA		65000	
TAME		87	
TBA		7500	
Lead		na	

MW-1X		8/13/13	8/11/15
DTW		30.73	29.77
Benzene		**77**	<5
Toluene		130	<5
Ethylbenzene		33	<5
Xylenes		180	<10
MTBE		11	<5
Naphthalene		18	<5
DCA		<5	<5
EDB		<0.02	<0.02
DIPE		<5	<5
TAA		<20	<100
TAME		<1	<10
TBA		<20	<100
Lead		na	na

MW-2X		8/13/13	8/11/15
DTW		20.42	21.15
Benzene		**24000**	**19600**
Toluene		**34000**	**37900**
Ethylbenzene		**2600**	**1960**
Xylenes		**15000**	**11500**
MTBE		**3400**	**1180**
Naphthalene		**<2500**	**422**
DCA		**510**	**<100**
EDB		**0.92**	**0.47**
DIPE		**<2500**	<100
TAA		**<10000**	**3940**
TAME		**<5000**	**<200**
TBA		**<10000**	**<2000**
Lead		na	na

MW-3X		8/13/13	8/11/15
DTW		well	well
Benzene		dry	dry
Toluene			
Ethylbenzene			
Xylenes			
MTBE			
Naphthalene			
DCA			
EDB			
DIPE			
TAA			
TAME			
TBA			
Lead			

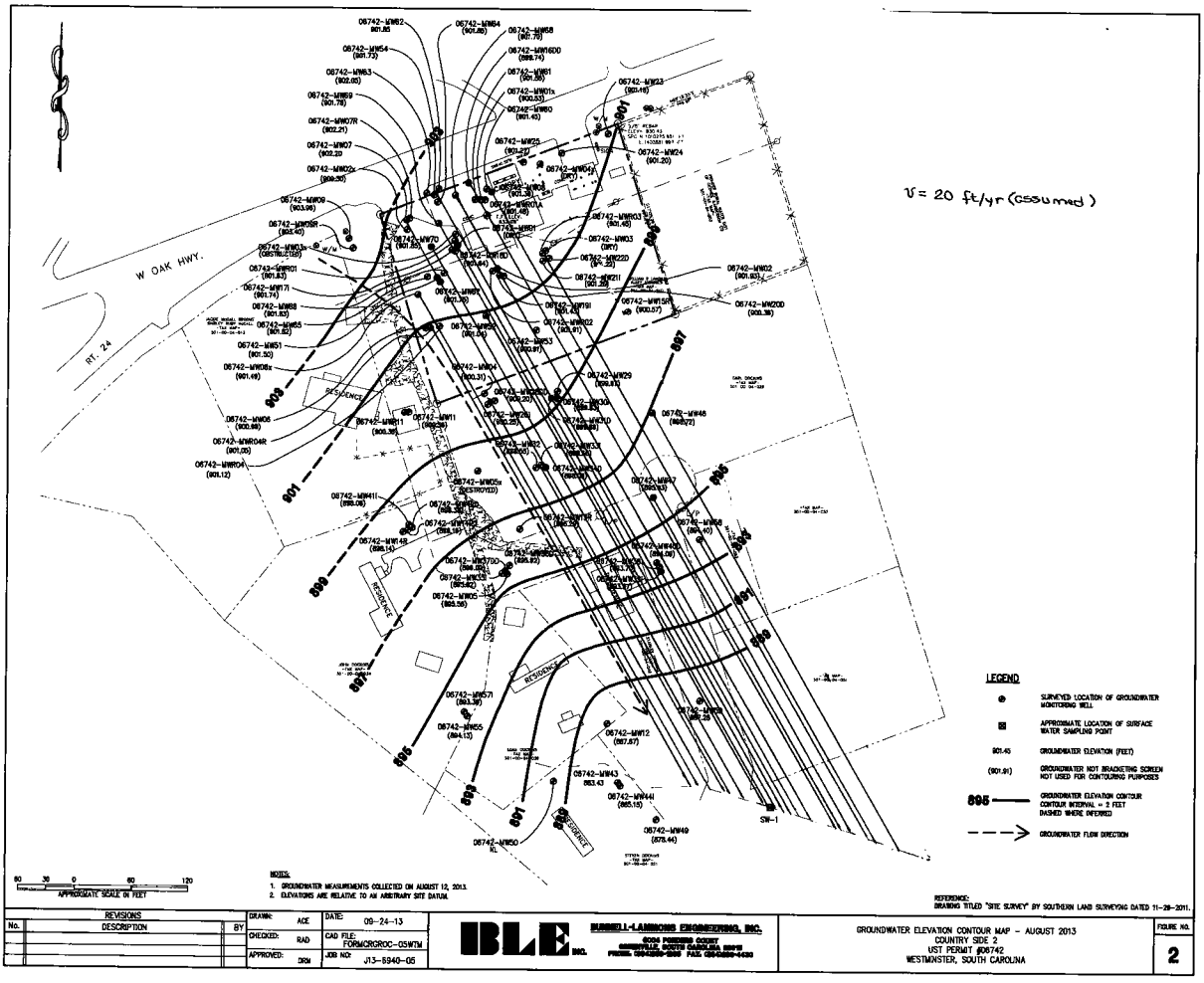
MW-4X		8/13/13	8/11/15
DTW		well	well
Benzene		dry	dry
Toluene			
Ethylbenzene			
Xylenes			
MTBE			
Naphthalene			
DCA			
EDB			
DIPE			
TAA			
TAME			
TBA			
Lead			

MW-5X		8/13/13	
DTW		well	
Benzene		destroyed	
Toluene			
Ethylbenzene			
Xylenes			
MTBE			
Naphthalene			
DCA			
EDB			
DIPE			
TAA			
TAME			
TBA			
Lead			

MW-6X		8/13/13	8/11/15
DTW		26.23	32.10
Benzene		**16000**	**31500**
Toluene		**34000**	**41600**
Ethylbenzene		**2300**	**2330**
Xylenes		**13000**	**13300**
MTBE		**270**	**1530**
Naphthalene		**610**	**693**
DCA		**<1000**	**<125**
EDB		**0.56**	**0.94**
DIPE		**<1000**	<125
TAA		**11000**	**18800**
TAME		**<2000**	**<250**
TBA		**<4000**	**<2500**
Lead		na	na

SW-1	5/8/07	8/13/13	8/11/15
DTW			creek
Benzene	<5	3	dry
Toluene	<5	<5	
Ethylbenzene	<5	<5	
Xylenes	<15	<5	
MTBE	**300**	**210**	
Naphthalene	<5	<5	
DCA	<5	<5	
EDB	<0.02	<0.02	
DIPE	<5	<1	
TAA	220	**280**	
TAME	<10	1	
TBA	86	62	
Lead	na	na	

FP- free-phase product
na- not analyzed
nd- not detected
nm- not measured
ns- not sampled



V = 20 ft/yr (assumed)

NOTES:
1. GROUNDWATER MEASUREMENTS COLLECTED ON AUGUST 12, 2013.
2. ELEVATIONS ARE RELATIVE TO AN ARBITRARY SITE DATUM.

REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

REVISIONS						
No.	DESCRIPTION	BY	DRAWN: ACE	DATE: 09-24-13	BLE INC.	BUSSELL-LAMMONS ENGINEERING, INC.
			CHECKED: RAD	CAD FILE: FORMCRGROC-05WTM		
			APPROVED: DRM	JOB NO: J13-6940-05		

GROUNDWATER ELEVATION CONTOUR MAP - AUGUST 2013
COUNTRY SIDE 2
UST PERMIT #06742
WESTMINSTER, SOUTH CAROLINA

FIGURE NO. 2

UST DOCKETING 68tech

UST Permit: 06742
Facility: Countryside 2
County: Oconee

Well #	Distance to Receptor	Well #	Distance to Receptor
MW-1	694'	MW-47	413'
MW-1x	767'	MW-51	630'
MWR-1	694'	MW-52	598'
MWR-1A	767'	MW-53	598'
MW-2	671'	MW-54	753'
MW-2x	698'	MW-57	630'
MWR-2	671'	MW-58	372'
MW-3	718'	MW-60	783'
MW-3x	694'	MW-61	767'
MWR-3	718'	MW-62	753'
MW-4	478'	MW-63	753'
MWR-4	557'	MW-64	753'
MWR-4R	557'	MW-65	681'
MW-6	557'	MW-66	681'
MW-6x	600'	MW-67	681'
MW-7	698'	MW-68	765'
MW-7R	698'	MW-69	714'
MW-8	783'	MW-70	675'
MW-16DD	791'		
MW-17i	681'		
MW-18D	681'		
MW-19i	671'		
MW-20D	671'		
MW-21i	718'		
MW-22D	718'		
MW-26i	557'		
MW-28DD	557'		
MW-29	508'		
MW-30i	508'		
MW-31D	508'		
MW-32	403'		
MW-33	403'		
MW-34D	403'		
MW-38	305'		
MW-39i	305'		
MW-40	305'		
MW-46	533'		

Domenico Model

UST # 06742
Site Name: Country Side 2
Modeler: J. Padgett
Date: 9/25/2015

Groundwater Flow Parameters

K	70	ft/yr
dh/dx	0.1	
θ	0.25	dec. %
v_x	20	ft/yr

Transport Parameters

x_{max}	96	ft
y_{max}	6	ft
z	0	ft
Source Width	30	ft
Source Thickness	15	ft
Plume Length	700	ft
α_x	20.96042	ft
α_y	2.096042	ft
α_z	1.00E-99	ft

Simulation Time

t_{sim} 40 yrs

Aquifer Characteristics

ρ_d	1.7	kg/L
f_{oc}	0.0002	

Source Area CoC Data

CoC	C_{source} (mg/L)	K_{oc} (L/kg)
Benzene	8.5	81
Toluene	4.9	133
Ethylbenzene	3.5	176
Xylenes	20	639
Naphthalene	1.2	1543
MtBE	7.1	11
EDB		28
1,2-DCA		17.5

Retarded Velocity (ft/yr)

CoC	R	v_R
Benzene	1.110	18.02
Toluene	1.181	16.94
Ethylbenzene	1.239	16.14
Xylenes	1.869	10.70
Naphthalene	3.098	6.45
MtBE	1.015	19.71
EDB	1.038	19.27
1,2-DCA	1.024	19.54

Simulation Points for Breakthrough Curves

	MW-32		
x	96	ft	
y	6	ft	
z	0	ft	

x		ft
y		ft
z		ft

$$C(x,y,z,t) = \left(\frac{C_0}{8}\right)\exp\left[\left(\frac{x}{2\alpha_x}\right)\left(1-\sqrt{1+\frac{4\lambda\alpha_x}{v}}\right)\right] erfc\left[\frac{x-vt\sqrt{1+\frac{4\lambda\alpha_x}{v}}}{2\sqrt{\alpha_x vt}}\right]\left\{erf\left[\frac{y+\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]-erf\left[\frac{y-\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]\right\}\left\{erf\left[\frac{z+Z}{2\sqrt{\alpha_z x}}\right]-erf\left[\frac{z-Z}{2\sqrt{\alpha_z x}}\right]\right\}$$

Benzene Calibration

Spatial Calibration Data (centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	8.5	8.5
9.6		4.859
19.2		2.609
28.8		1.389
38.4		0.745
48		0.404
57.6		0.220
67.2		0.121
76.8		0.067
86.4		0.037
96	0.02	0.021

Temporal Calibration Data

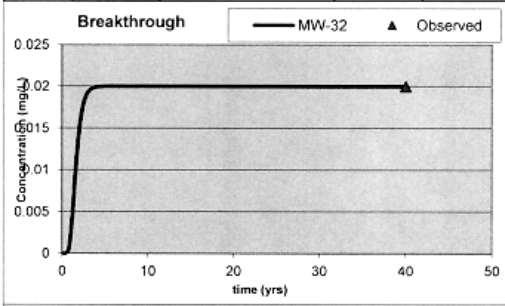
	MW-32		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0		8.5
4		0.020		8.500
8		0.020		8.500
12		0.020		8.500
16		0.020		8.500
20		0.020		8.500
24		0.020		8.500
28		0.020		8.500
32		0.020		8.500
36		0.020		8.500
40	0.02	0.020		8.500

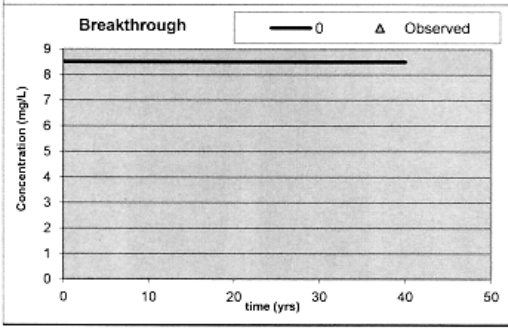
Site ID 06742

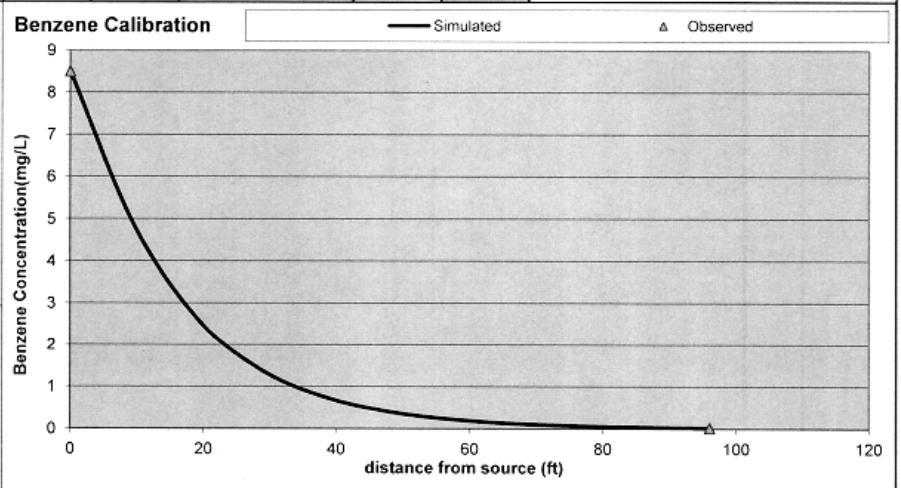
Site Name Country Side 2

Model Calibration Parameters

$t_{1/2}$	0.313	yrs	λ	2.21406	yr^{-1}
v_x	20	ft/yr			
R	1.110				
v_R	18.015	ft/yr	C_{source}	8.5	mg/L
L_p	700	ft			
α_x	20.96042	ft	t_{sim}	40	yrs
α_y	2.096042	ft			
α_z	1E-99	ft			







Source	9.6	19.2	28.8	38.4	48	57.6	67.2	76.8	86.4	96
6	4.56045304	2.39853399	1.28430478	0.69533817	0.37965639	0.208709	0.115377	0.06408	0.035729	0.019989
3	4.79261135	2.55579557	1.36192551	0.73233396	0.39742274	0.217372	0.119667	0.066234	0.036825	0.020551
0	4.85937833	2.60879687	1.38855687	0.74504141	0.40351343	0.2203348	0.121131	0.066968	0.037197	0.020742
3	4.79261135	2.55579557	1.36192551	0.73233396	0.39742274	0.217372	0.119667	0.066234	0.036825	0.020551
6	4.56045304	2.39853399	1.28430478	0.69533817	0.37965639	0.208709	0.115377	0.06408	0.035729	0.019989

Toluene Calibration

Spatial Calibration Data (centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	4.9	4.9
9.6		2.665
19.2		1.361
28.8		0.689
38.4		0.352
48		0.181
57.6		0.094
67.2		0.049
76.8		0.026
86.4		0.014
96	0.007	0.007

Temporal Calibration Data

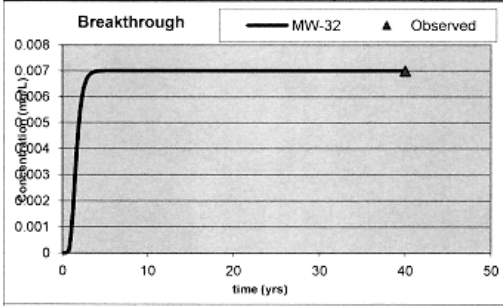
t (yrs)	MW-32 C_{obs} (mg/L)	MW-32 C_{sim} (mg/L)	0 C_{obs} (mg/L)	0 C_{sim} (mg/L)
0		0		4.9
4		0.007		4.900
8		0.007		4.900
12		0.007		4.900
16		0.007		4.900
20		0.007		4.900
24		0.007		4.900
28		0.007		4.900
32		0.007		4.900
36		0.007		4.900
40	0.007	0.007		4.900

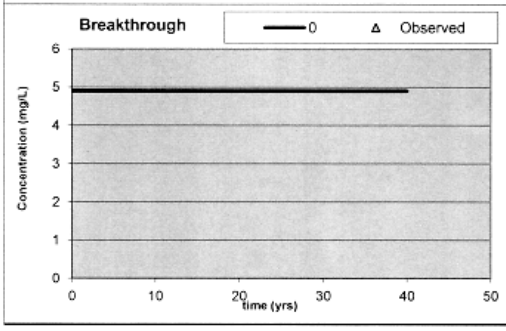
Site ID 06742

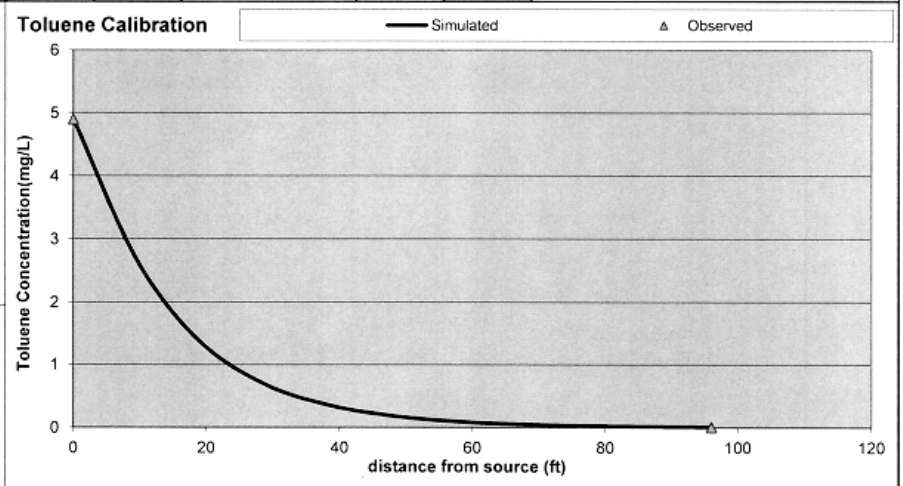
Site Name Country Side 2

Model Calibration Parameters

$t_{1/2}$	0.2904	yrs	λ	2.38636	yr^{-1}
v_x	20	ft/yr			
R	1.181				
v_R	16.937	ft/yr	C_{source}	4.9	mg/L
L_p	700	ft			
α_x	20.96042	ft	t_{sim}	40	yrs
α_y	2.096042	ft			
α_z	1E-99	ft			







Source	9.6	19.2	28.8	38.4	48	57.6	67.2	76.8	86.4	96
6	2.50126835	1.25162239	0.63763286	0.32845344	0.17062537	0.089242	0.046938	0.024803	0.013158	0.007003
3	2.62860005	1.3336859	0.67617007	0.34592895	0.17860993	0.0929462	0.048683	0.025637	0.013561	0.007201
0	2.66521968	1.36134346	0.68939204	0.35193151	0.18134721	0.0942131	0.049279	0.025921	0.013698	0.007267
3	2.62860005	1.3336859	0.67617007	0.34592895	0.17860993	0.0929462	0.048683	0.025637	0.013561	0.007201
6	2.50126835	1.25162239	0.63763286	0.32845344	0.17062537	0.089242	0.046938	0.024803	0.013158	0.007003

Ethylbenzene Calibration

Spatial Calibration Data (centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	3.5	3.5
9.6		2.164
19.2		1.256
28.8		0.723
38.4		0.419
48		0.246
57.6		0.145
67.2		0.086
76.8		0.052
86.4		0.031
96	0.018	0.019

Temporal Calibration Data

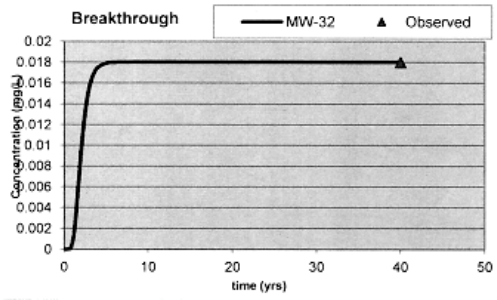
	MW-32		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0		3.5
4		0.017		3.500
8		0.018		3.500
12		0.018		3.500
16		0.018		3.500
20		0.018		3.500
24		0.018		3.500
28		0.018		3.500
32		0.018		3.500
36		0.018		3.500
40	0.018	0.018		3.500

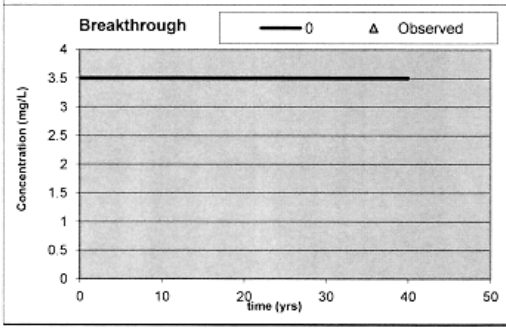
Site ID 06742

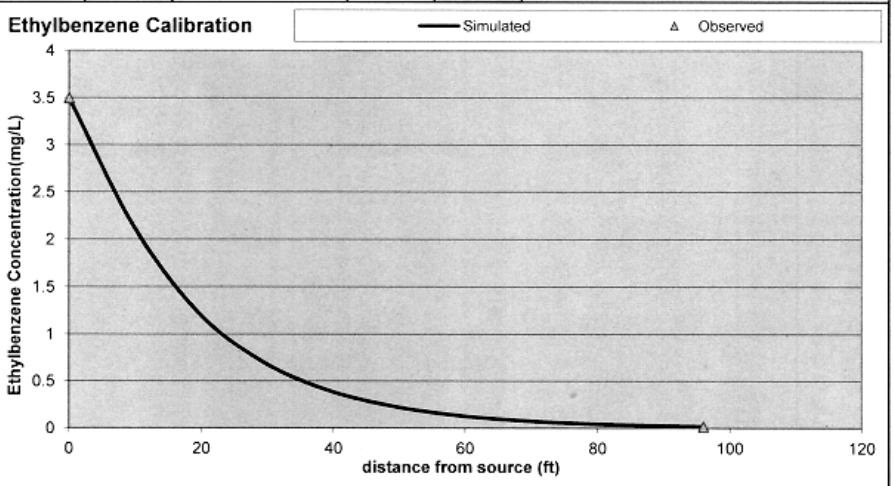
Site Name Country Side 2

Model Calibration Parameters

$t_{1/2}$	**0.4432**	yrs	λ	1.56363	yr^{-1}
v_x	20	ft/yr			
R	1.239				
v_R	16.137	ft/yr	C_{source}	3.5	mg/L
L_p	700	ft			
α_x	20.96042	ft	t_{sim}	40	yrs
α_y	2.096042	ft			
α_z	1E-99	ft			







Source	9.6	19.2	28.8	38.4	48	57.6	67.2	76.8	86.4	96
6	2.03061587	1.1548786	0.66869677	0.39149648	0.23114962	0.1374087	0.082142	0.049333	0.029745	0.017994
3	2.13398813	1.23059903	0.70911142	0.41232623	0.24196646	0.1431122	0.085196	0.050991	0.030656	0.018501
0	2.16371721	1.25611881	0.72297753	0.41948091	0.24567471	0.1450628	0.086238	0.051556	0.030966	0.018673
3	2.13398813	1.23059903	0.70911142	0.41232623	0.24196646	0.1431122	0.085196	0.050991	0.030656	0.018501
6	2.03061587	1.1548786	0.66869677	0.39149648	0.23114962	0.1374087	0.082142	0.049333	0.029745	0.017994

Xylenes Calibration

Spatial Calibration Data (centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	20	20
9.6		10.265
19.2		4.948
28.8		2.364
38.4		1.139
48		0.554
57.6		0.272
67.2		0.134
76.8		0.067
86.4		0.033
96	0.016	0.017

Temporal Calibration Data

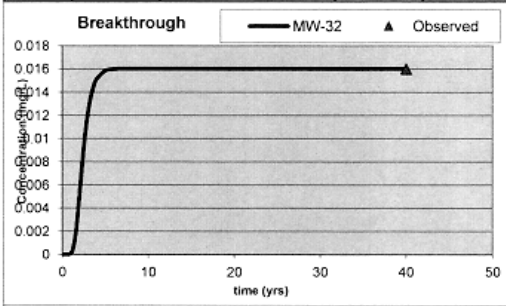
	MW-32			0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0		20
4		0.015		20.000
8		0.016		20.000
12		0.016		20.000
16		0.016		20.000
20		0.016		20.000
24		0.016		20.000
28		0.016		20.000
32		0.016		20.000
36		0.016		20.000
40	0.016	0.016		20.000

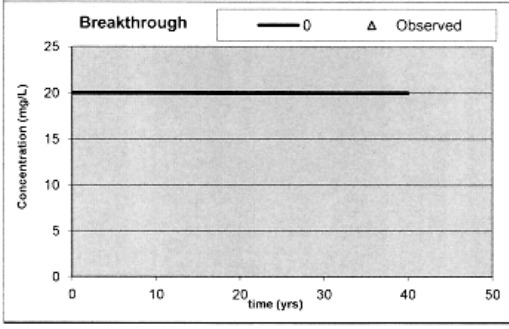
Site ID 06742

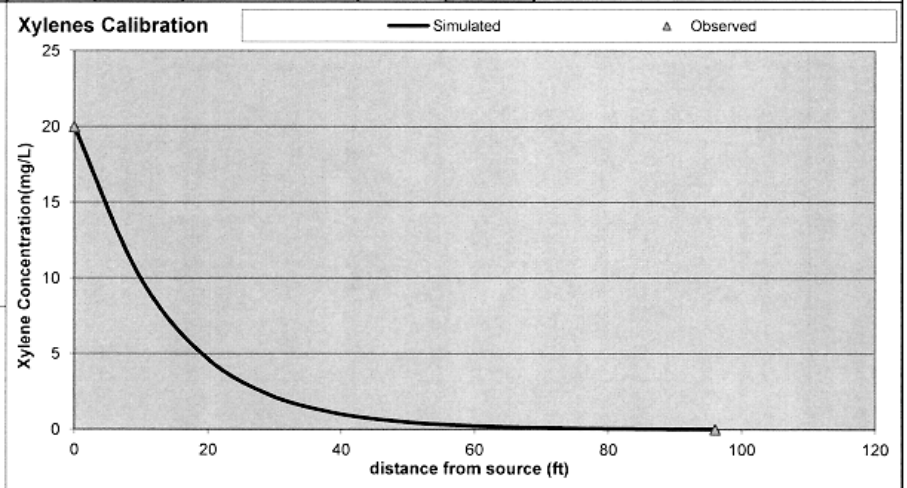
Site Name Country Side 2

Model Calibration Parameters

$t_{1/2}$	0.3966	yrs	λ	1.74735	yr^{-1}
v_x	20	ft/yr			
R	1.869				
v_R	10.701	ft/yr	C_{source}	20	mg/L
L_p	700	ft			
α_x	20.96042	ft	t_{sim}	40	yrs
α_y	2.096042	ft			
α_z	1E-99	ft			







Source	9.6	19.2	28.8	38.4	48	57.6	67.2	76.8	86.4	96
6	9.63393104	4.54910435	2.18691847	1.06302883	0.52110371	0.257193	0.127651	0.063651	0.031864	0.016004
3	10.1243641	4.84736959	2.31909132	1.11958776	0.5454892	0.2678684	0.132397	0.065791	0.03284	0.016455
0	10.265409	4.94789284	2.36443929	1.13901484	0.55384908	0.2715195	0.134016	0.06652	0.033172	0.016608
3	10.1243641	4.84736959	2.31909132	1.11958776	0.5454892	0.2678684	0.132397	0.065791	0.03284	0.016455
6	9.63393104	4.54910435	2.18691847	1.06302883	0.52110371	0.257193	0.127651	0.063651	0.031864	0.016004

MtBE Calibration

Spatial Calibration Data (centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	7.1	7.1
9.6		5.149
19.2		3.506
28.8		2.367
38.4		1.611
48		1.107
57.6		0.766
67.2		0.534
76.8		0.375
86.4		0.264
96	0.18	0.187

Temporal Calibration Data

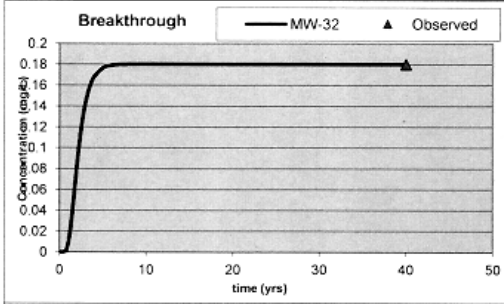
	MW-32			0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0		7.1
4		0.168		7.100
8		0.180		7.100
12		0.180		7.100
16		0.180		7.100
20		0.180		7.100
24		0.180		7.100
28		0.180		7.100
32		0.180		7.100
36		0.180		7.100
40	0.18	0.180		7.100

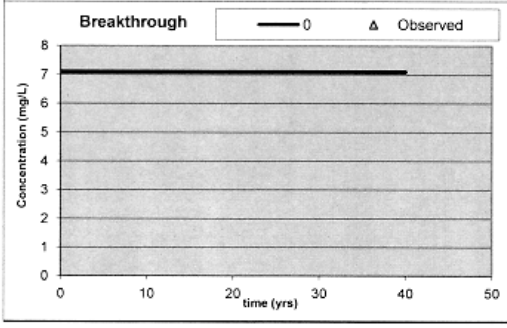
Site ID 06742

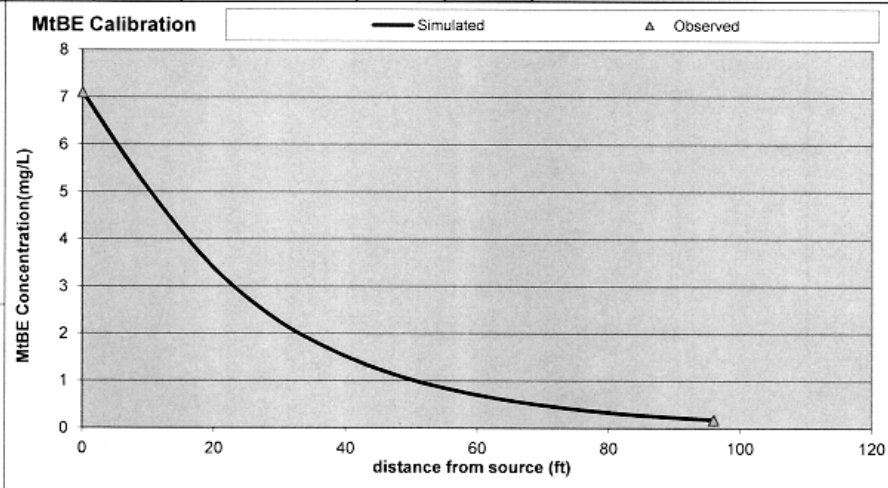
Site Name Country Side 2

Model Calibration Parameters

$t_{1/2}$	0.6701	yrs	λ	1.03417	yr^{-1}
v_x	20	ft/yr			
R	1.015				
v_R	19.705	ft/yr	C_{source}	7.1	mg/L
L_p	700	ft			
α_x	20.96042	ft	t_{sim}	40	yrs
α_y	2.096042	ft			
α_z	1E-99	ft			







Source	9.6	19.2	28.8	38.4	48	57.6	67.2	76.8	86.4	96
6	4.83183037	3.2233973	2.18927504	1.50346239	1.04124153	0.7260495	0.509108	0.358653	0.253655	0.179997
3	5.07780365	3.43474163	2.32159031	1.58345479	1.08996732	0.7561859	0.528037	0.370711	0.26143	0.185063
0	5.14854371	3.50597023	2.36698716	1.61093089	1.10667157	0.7664928	0.534497	0.374817	0.264073	0.186783
3	5.07780365	3.43474163	2.32159031	1.58345479	1.08996732	0.7561859	0.528037	0.370711	0.26143	0.185063
6	4.83183037	3.2233973	2.18927504	1.50346239	1.04124153	0.7260495	0.509108	0.358653	0.253655	0.179997

Naphthalene Calibration

Spatial Calibration Data (centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	1.2	1.2
9.6		0.761
19.2		0.454
28.8		0.268
38.4		0.160
48		0.096
57.6		0.058
67.2		0.035
76.8		0.022
86.4		0.013
96	0.008	0.008

Temporal Calibration Data

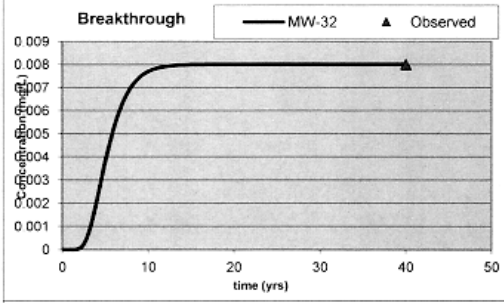
	MW-32		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0		1.2
4		0.002		1.200
8		0.007		1.200
12		0.008		1.200
16		0.008		1.200
20		0.008		1.200
24		0.008		1.200
28		0.008		1.200
32		0.008		1.200
36		0.008		1.200
40	0.008	0.008		1.200

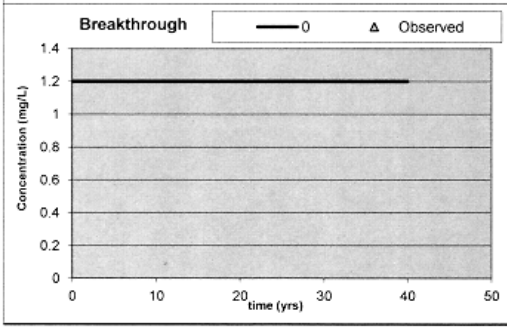
Site ID 06742

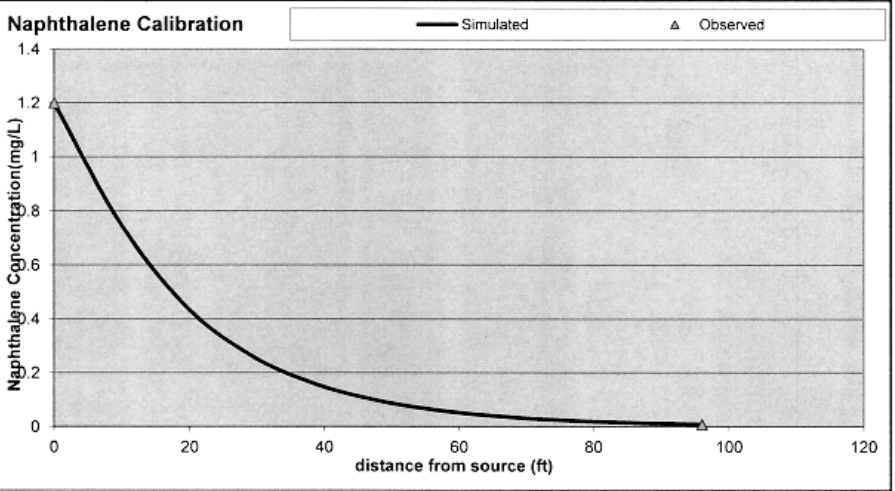
Site Name Country Side 2

Model Calibration Parameters

$t_{1/2}$	1.2082	yrs	λ	0.57358	yr^{-1}
v_x	20	ft/yr			
R	3.098				
v_R	6.455	ft/yr	C_{source}	1.2	mg/L
L_p	700	ft			
α_x	20.96042	ft	t_{sim}	40	yrs
α_y	2.096042	ft			
α_z	1E-99	ft			







Source	9.6	19.2	28.8	38.4	48	57.6	67.2	76.8	86.4	96
6	0.7145655	0.41711102	0.24788236	0.14895165	0.0902634	0.0550724	0.03379	0.020828	0.012889	0.008003
3	0.75094178	0.4444592	0.26286386	0.15687669	0.09448736	0.0573583	0.035046	0.021529	0.013285	0.008228
0	0.76140332	0.45367626	0.26800395	0.15959882	0.09593542	0.0581401	0.035475	0.021767	0.013419	0.008305
3	0.75094178	0.4444592	0.26286386	0.15687669	0.09448736	0.0573583	0.035046	0.021529	0.013285	0.008228
6	0.7145655	0.41711102	0.24788236	0.14895165	0.0902634	0.0550724	0.03379	0.020828	0.012889	0.008003

SSTLs t 1000 yrs

UST Permit # 06742
Site Name: Country Side 2

SSTLs in mg/L			RBSLs (mg/L):	0.005	1.000	0.700	10.000	0.040	0.025		
MW #	x (ft)	y (ft)	z (ft)	Benzene SSTL	Toluene SSTL	Ethylbenzene SSTL	Xylenes SSTL	MtBE SSTL	Naphthalene SSTL		
MW-1	694	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-1X	767	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MWR-1	694	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MWR-1A	767	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-2	671	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-2x	698	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MWR-2	671	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-3	718	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-3x	694	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MWR-3	718	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-4	478	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MWR-4	557	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MWR-4R	557	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-6	557	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-6x	600	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-7	698	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-7R	698	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-8	783	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-16DD	791	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-17i	681	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
			λ (yr^{-1}):	2.214	2.386	1.564	1.747	1.034	0.574		
			R:	1.110	1.181	1.239	1.869	1.015	3.098		
			Pure Substance Solubility:	1750	526	169	175	5110	31		
			Effective Solubility:	44.39	26.54	3.7	21.68	173	6.7		

UST Permit # 06742

SSTLs t 1000 yrs Site Name: Country Side 2

SSTLs in mg/L			RBSLs (mg/L):	0.005	1.000	0.700	10.000	0.040	0.025		
MW #	x (ft)	y (ft)	z (ft)	Benzene SSTL	Toluene SSTL	Ethylbenzene SSTL	Xylenes SSTL	MtBE SSTL	Naphthalene SSTL		
MW-18D	681	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-19i	671	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-20D	671	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-21i	718	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-22D	718	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-26i	557	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-28DD	557	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-29	508	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-30i	508	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-31D	508	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-32	403	0	0	>99999	>99999	>99999	>99999	47259.790	>99999		
MW-33	403	0	0	>99999	>99999	>99999	>99999	47259.790	>99999		
MW-34D	403	0	0	>99999	>99999	>99999	>99999	47259.790	>99999		
MW-38	305	0	0	>99999	>99999	>99999	>99999	1874.902	81532.324		
MW-39i	305	0	0	>99999	>99999	>99999	>99999	1874.902	81532.324		
MW-40	305	0	0	>99999	>99999	>99999	>99999	1874.902	81532.324		
MW-46	533	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-47	413	0	0	>99999	>99999	>99999	>99999	65574.103	>99999		
MW-51	630	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-52	598	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
			λ (yr^{-1}):	2.214	2.386	1.564	1.747	1.034	0.574		
			R:	1.110	1.181	1.239	1.869	1.015	3.098		
			Pure Substance Solubility:	1750	526	169	175	5110	31		
			Effective Solubility:	44.39	26.54	3.7	21.68	173	6.7		

SSTLs t 1000 yrs

UST Permit # 06742
Site Name: Country Side 2

SSTLs in mg/L			RBSLs (mg/L):	0.005	1.000	0.700	10.000	0.040	0.025		
MW #	x (ft)	y (ft)	z (ft)	Benzene SSTL	Toluene SSTL	Ethylbenzene SSTL	Xylenes SSTL	MtBE SSTL	Naphthalene SSTL		
MW-53	598	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-54	753	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-57	630	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-58	372	0	0	>99999	>99999	>99999	>99999	17090.011	>99999		
MW-60	783	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-61	767	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-62	753	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-63	753	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-64	753	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-65	681	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-66	681	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-67	681	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-68	765	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-69	714	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
MW-70	675	0	0	>99999	>99999	>99999	>99999	>99999	>99999		
			λ (yr^{-1}):	2.214	2.386	1.564	1.747	1.034	0.574		
			R:	1.110	1.181	1.239	1.869	1.015	3.098		
			Pure Substance Solubility:	1750	526	169	175	5110	31		
			Effective Solubility:	44.39	26.54	3.7	21.68	173	6.7		

Domenico Model

UST # 06742
Site Name: Country Side 2
Modeler: J. Padgett
Date: 9/25/2015

Groundwater Flow Parameters

K	70	ft/yr
dh/dx	0.1	
θ	0.25	dec. %
v_x	20	ft/yr

Transport Parameters

x_{max}	81	ft
y_{max}	0	ft
z	0	ft
Source Width	30	ft
Source Thickness	15	ft
Plume Length	700	ft
α_x	20.96042	ft
α_y	2.096042	ft
α_z	1.00E-99	ft

Simulation Time

t_{sim} 40 yrs

Aquifer Characteristics

ρ_d	1.7	kg/L
f_{oc}	0.0002	

Source Area CoC Data

CoC		K_{oc} (L/kg)
Benzene		81
Toluene		133
Ethylbenzene		176
Xylenes		639
Naphthalene		1543
MtBE		11
EDB	0.0015	28
1,2-DCA		17.5

Retarded Velocity (ft/yr)

CoC	R	v_R
Benzene	1.110	18.02
Toluene	1.181	16.94
Ethylbenzene	1.239	16.14
Xylenes	1.869	10.70
Naphthalene	3.098	6.45
MtBE	1.015	19.71
EDB	1.038	19.27
1,2-DCA	1.024	19.54

Simulation Points for Breakthrough Curves

	MW-52		
x	81	ft	
y	0	ft	
z	0	ft	

x		ft
y		ft
z		ft

$$C(x,y,z,t) = \left(\frac{C_0}{8}\right)\exp\left[\left(\frac{x}{2\alpha_x}\right)\left(1-\sqrt{1+\frac{4\lambda\alpha_x}{v}}\right)\right] erfc\left[\frac{x-vt\sqrt{1+\frac{4\lambda\alpha_x}{v}}}{2\sqrt{\alpha_x vt}}\right]\left\{erf\left[\frac{y+\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]-erf\left[\frac{y-\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]\right\}\left\{erf\left[\frac{z+Z}{2\sqrt{\alpha_z x}}\right]-erf\left[\frac{z-Z}{2\sqrt{\alpha_z x}}\right]\right\}$$

EDB Calibration

Spatial Calibration Data (centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	0.0015	0.00150
8.1		0.00126
16.2		0.00100
24.3		0.00078
32.4		0.00062
40.5		0.00049
48.6		0.00039
56.7		0.00031
64.8		0.00025
72.9		0.00020
81	0.00016	0.00016

Temporal Calibration Data

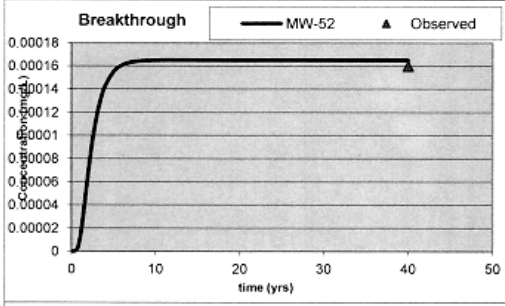
	MW-52		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0.00000		0.00150
4		0.00014		0.00150
8		0.00016		0.00150
12		0.00016		0.00150
16		0.00016		0.00150
20		0.00016		0.00150
24		0.00016		0.00150
28		0.00016		0.00150
32		0.00016		0.00150
36		0.00016		0.00150
40	0.00016	0.00016		0.00150

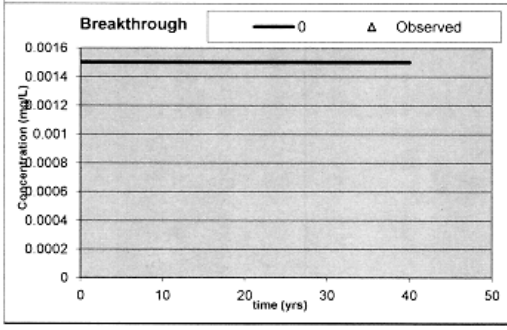
Site ID 06742

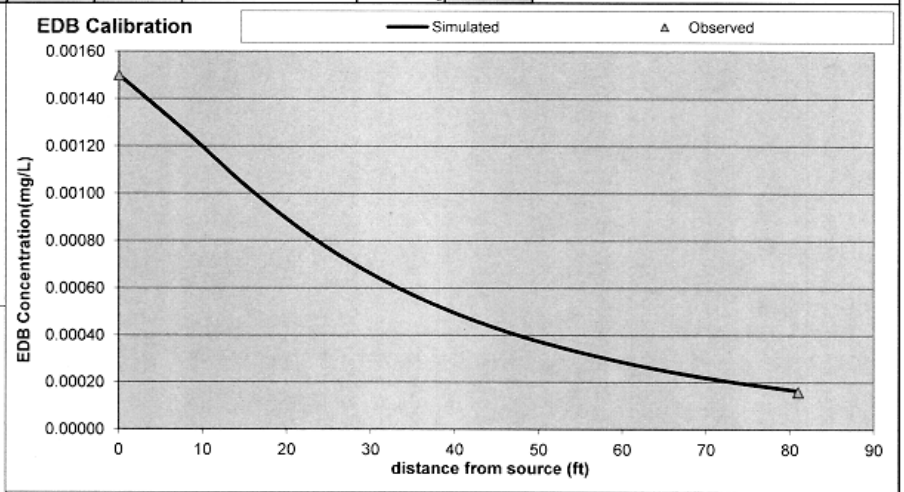
Site Name Country Side 2

Model Calibration Parameters

$t_{1/2}$	1.2181	yrs	λ 0.56892	yr^{-1}
v_x	20	ft/yr		
R	1.038			
v_R	19.266	ft/yr	C_{source} 0.0015	mg/L
L_p	700	ft		
α_x	20.96042	ft	t_{sim} 40	yrs
α_y	2.096042	ft		
α_z	1E-99	ft		







Source	8.1	16.2	24.3	32.4	40.5	48.6	56.7	64.8	72.9	81
0	0.00125653	0.00100024	0.00078414	0.00061674	0.00048831	0.0003892	0.000312	0.000251	0.000203	0.000165
0	0.00125653	0.00100024	0.00078414	0.00061674	0.00048831	0.0003892	0.000312	0.000251	0.000203	0.000165
0	0.00125653	0.00100024	0.00078414	0.00061674	0.00048831	0.0003892	0.000312	0.000251	0.000203	0.000165
0	0.00125653	0.00100024	0.00078414	0.00061674	0.00048831	0.0003892	0.000312	0.000251	0.000203	0.000165
0	0.00125653	0.00100024	0.00078414	0.00061674	0.00048831	0.0003892	0.000312	0.000251	0.000203	0.000165

SSTLs t 1000 yrs

UST Permit # 06742
Site Name: Country Side 2

SSTLs in mg/L		RBSLs (mg/L):								0.00005	
MW #	x (ft)	y (ft)	z (ft)							EDB SSTL	
MW-1	694	0	0							373.94888	
MW-1X	767	0	0							1768.80402	
MWR-1	694	0	0							373.94888	
MWR-1A	767	0	0							1768.80402	
MW-2	671	0	0							228.94469	
MW-2x	698	0	0							407.23621	
MWR-2	671	0	0							228.94469	
MW-3	718	0	0							623.61570	
MW-3x	694	0	0							373.94888	
MWR-3	718	0	0							623.61570	
MW-4	478	0	0							3.63226	
MWR-4	557	0	0							19.93688	
MWR-4R	557	0	0							19.93688	
MW-6	557	0	0							19.93688	
MW-6x	600	0	0							50.15962	
MW-7	698	0	0							407.23621	
MW-7R	698	0	0							407.23621	
MW-8	783	0	0							2485.03243	
MW-16DD	791	0	0							2945.27290	
MW-17i	681	0	0							283.40243	
			λ (yr^{-1}):							0.569	
			R:							1.038	
			Pure Substance Solubility:							4321	
			Effective Solubility:							1.9	

SSTLs t 1000 yrs

UST Permit # 06742
Site Name: Country Side 2

SSTLs in mg/L			RBSLs (mg/L):								0.00005	
MW #	x (ft)	y (ft)	z (ft)								EDB SSTL	
MW-18D	681	0	0								283.40243	
MW-19i	671	0	0								228.94469	
MW-20D	671	0	0								228.94469	
MW-21i	718	0	0								623.61570	
MW-22D	718	0	0								623.61570	
MW-26i	557	0	0								19.93688	
MW-28DD	557	0	0								19.93688	
MW-29	508	0	0								6.94314	
MW-30i	508	0	0								6.94314	
MW-31D	508	0	0								6.94314	
MW-32	403	0	0								0.71288	
MW-33	403	0	0								0.71288	
MW-34D	403	0	0								0.71288	
MW-38	305	0	0								0.08280	
MW-39i	305	0	0								0.08280	
MW-40	305	0	0								0.08280	
MW-46	533	0	0								11.89859	
MW-47	413	0	0								0.88645	
MW-51	630	0	0								95.34075	
MW-52	598	0	0								48.05534	
			λ (yr^{-1}):								0.569	
			R:								1.038	
			Pure Substance Solubility:								4321	
			Effective Solubility:								1.9	

UST Permit # 06742

SSTLs t 1000 yrs Site Name: Country Side 2

SSTLs in mg/L		**RBSLs (mg/L):**								**0.00005**	
MW #	x (ft)	y (ft)	z (ft)							EDB SSTL	
MW-53	598	0	0							48.05534	
MW-54	753	0	0							1313.43952	
MW-57	630	0	0							95.34075	
MW-58	372	0	0							0.36211	
MW-60	783	0	0							2485.03243	
MW-61	767	0	0							1768.80402	
MW-62	753	0	0							1313.43952	
MW-63	753	0	0							1313.43952	
MW-64	753	0	0							1313.43952	
MW-65	681	0	0							283.40243	
MW-66	681	0	0							283.40243	
MW-67	681	0	0							283.40243	
MW-68	765	0	0							1695.18425	
MW-69	714	0	0							572.68527	
MW-70	675	0	0							249.34760	
			λ (yr^{-1}):							0.569	
			R:							1.038	
			Pure Substance Solubility:							4321	
			Effective Solubility:							1.9	

Domenico Model (Oxygenates)

UST # 06742
Site Name: Country Side 2
Modeler: J. Padgett
Date: 9/25/2015

Groundwater Flow Parameters

K	500	ft/yr
dh/dx	0.01	
θ	0.25	dec. %
v_x	20	ft/yr

Transport Parameters

x_{max}	96	ft
y_{max}	6	ft
z	0	ft
Source Width	30	ft
Source Thickness	15	ft
Plume Length	700	ft
α_x	20.96042	ft
α_y	2.096042	ft
α_z	1.00E-99	ft

Simulation Time

t_{sim} 40 yrs

Aquifer Characteristics

ρ_d	1.7	kg/L
f_{oc}	0.0002	

Source Area CoC Data

CoC	C_{source} (mg/L)	K_{oc} (L/kg)
tBA		1
tAA	15	1
DIPE		1.5
tAME		1.5
EtBE		1.5
Ethanol		0.5

Retarded Velocity (ft/yr)

CoC	R	v_R
tBA	1.001	19.97
tAA	1.001	19.97
DIPE	1.002	19.96
tAME	1.002	19.96
EtBE	1.002	19.96
Ethanol	1.001	19.99

Simulation Points for Breakthrough Curves

MW-32		
x	96	ft
y	6	ft
z	0	ft

x		ft
y		ft
z		ft

$$C(x,y,z,t) = \left(\frac{C_0}{8}\right)\exp\left[\left(\frac{x}{2\alpha_x}\right)\left(1-\sqrt{1+\frac{4\lambda\alpha_x}{v}}\right)\right] erfc\left[\frac{x-vt\sqrt{1+\frac{4\lambda\alpha_x}{v}}}{2\sqrt{\alpha_x vt}}\right]\left\{erf\left[\frac{y+\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]-erf\left[\frac{y-\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]\right\}\left\{erf\left[\frac{z+Z}{2\sqrt{\alpha_z x}}\right]-erf\left[\frac{z-Z}{2\sqrt{\alpha_z x}}\right]\right\}$$

tAA Calibration

Spatial Calibration Data (centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	15	15
9.6		11.422
19.2		8.168
28.8		5.790
38.4		4.138
48		2.985
57.6		2.171
67.2		1.590
76.8		1.171
86.4		0.866
96	0.62	0.643

Temporal Calibration Data

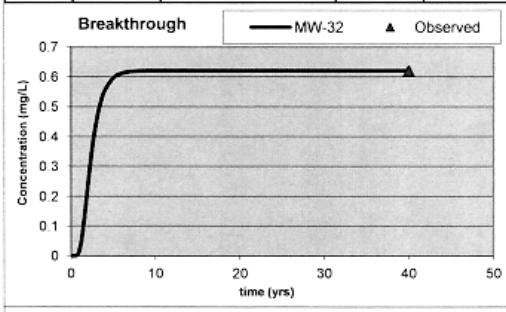
	MW-32			0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0		15
4		0.555		15.000
8		0.619		15.000
12		0.620		15.000
16		0.620		15.000
20		0.620		15.000
24		0.620		15.000
28		0.620		15.000
32		0.620		15.000
36		0.620		15.000
40	0.62	0.620		15.000

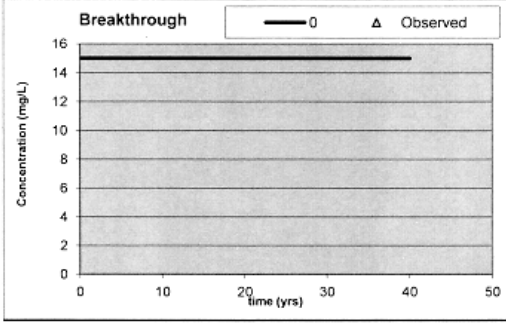
Site ID 06742

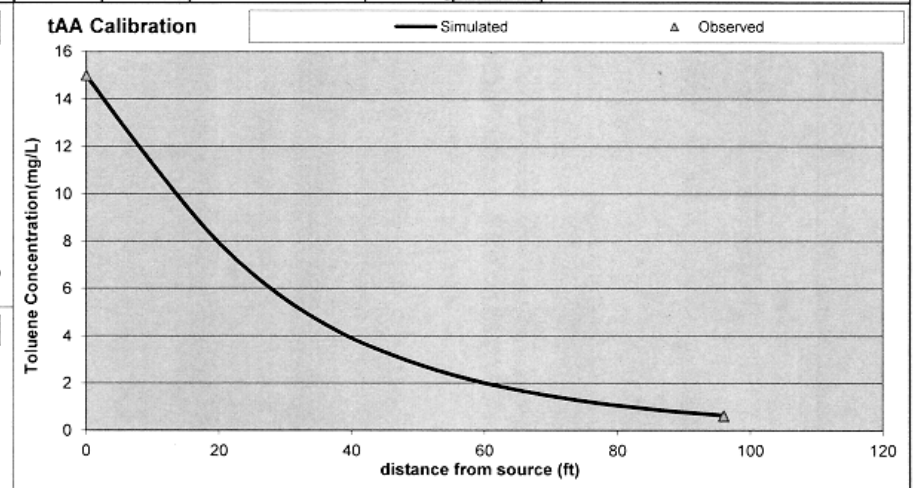
Site Name Country Side 2

Model Calibration Parameters

$t_{1/2}$	0.8423	yrs	λ	0.82275	yr^{-1}
v_x	20	ft/yr			
R	1.001				
v_R	19.973	ft/yr	C_{source}	15	mg/L
L_p	700	ft			
α_x	20.96042	ft	t_{sim}	40	yrs
α_y	2.096042	ft			
α_z	1E-99	ft			







Source	9.6	19.2	28.8	38.4	48	57.6	67.2	76.8	86.4	96
6	10.7194682	7.50937939	5.35573627	3.86224727	2.80884412	2.0567003	1.514408	1.120307	0.832022	0.619989
3	11.2651625	8.00173716	5.67942593	4.06773989	2.94028637	2.1420685	1.570717	1.15797	0.857523	0.637439
0	11.4221001	8.1676747	5.79048256	4.13832329	2.98534763	2.1712652	1.589932	1.170797	0.866193	0.643363
3	11.2651625	8.00173716	5.67942593	4.06773989	2.94028637	2.1420685	1.570717	1.15797	0.857523	0.637439
6	10.7194682	7.50937939	5.35573627	3.86224727	2.80884412	2.0567003	1.514408	1.120307	0.832022	0.619989

SSTLs t 1000 yrs

UST Permit # 06742
Site Name: Country Side :

SSTLs in mg/L		RBSLs (mg/L):			0.240				
MW #	x (ft)	y (ft)	z (ft)		tAA SSTL				
MW-1	694	0	0		>99999				
MW-1X	767	0	0		>99999				
MWR-1	694	0	0		>99999				
MWR-1A	767	0	0		>99999				
MW-2	671	0	0		>99999				
MW-2x	698	0	0		>99999				
MWR-2	671	0	0		>99999				
MW-3	718	0	0		>99999				
MW-3x	694	0	0		>99999				
MWR-3	718	0	0		>99999				
MW-4	478	0	0		>99999				
MWR-4	557	0	0		>99999				
MWR-4R	557	0	0		>99999				
MW-6	557	0	0		>99999				
MW-6x	600	0	0		>99999				
MW-7	698	0	0		>99999				
MW-7R	698	0	0		>99999				
MW-8	783	0	0		>99999				
MW-16DD	791	0	0		>99999				
MW-17i	681	0	0		>99999				
			λ (yr^{-1}):		0.823				
			R:		1.001				

UST Permit # 06742

SSTLs t 1000 yrs Site Name: Country Side

SSTLs in mg/L		RBSLs (mg/L):			0.240				
MW #	x (ft)	y (ft)	z (ft)		tAA SSTL				
MW-18D	681	0	0		>99999				
MW-19i	671	0	0		>99999				
MW-20D	671	0	0		>99999				
MW-21i	718	0	0		>99999				
MW-22D	718	0	0		>99999				
MW-26i	557	0	0		>99999				
MW-28DD	557	0	0		>99999				
MW-29	508	0	0		>99999				
MW-30i	508	0	0		>99999				
MW-31D	508	0	0		>99999				
MW-32	403	0	0		36431.919				
MW-33	403	0	0		36431.919				
MW-34D	403	0	0		36431.919				
MW-38	305	0	0		2380.554				
MW-39i	305	0	0		2380.554				
MW-40	305	0	0		2380.554				
MW-46	533	0	0		>99999				
MW-47	413	0	0		48040.713				
MW-51	630	0	0		>99999				
MW-52	598	0	0		>99999				
			λ (yr^{-1}):		0.823				
			R:		1.001				

UST Permit # 06742

SSTLs t 1000 yrs Site Name: Country Side

SSTLs in mg/L		RBSLs (mg/L):			0.240				
MW #	x (ft)	y (ft)	z (ft)		tAA SSTL				
MW-53	598	0	0		>99999				
MW-54	753	0	0		>99999				
MW-57	630	0	0		>99999				
MW-58	372	0	0		15427.070				
MW-60	783	0	0		>99999				
MW-61	767	0	0		>99999				
MW-62	753	0	0		>99999				
MW-63	753	0	0		>99999				
MW-64	753	0	0		>99999				
MW-65	681	0	0		>99999				
MW-66	681	0	0		>99999				
MW-67	681	0	0		>99999				
MW-68	765	0	0		>99999				
MW-69	714	0	0		>99999				
MW-70	675	0	0		>99999				
			λ (yr^{-1}):		0.823				
			R:		1.001				

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MWR-1 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	211.530	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.1934)	=	2.0000
ERF(0.0194)	=	0.0219
ERF(0.1003)	=	0.1128

Decay is NOT considered

Ax:	21.1530
Ay:	7.0510
Az:	1.0577

Results:

Csstl :	51791.2717	ug/L
Csstl :	51.7912717	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MWR-1 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	211.530	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.1934)	=	2.0000
ERF(0.0194)	=	0.0219
ERF(0.1003)	=	0.1128

Decay is NOT considered

Ax:	21.1530
Ay:	7.0510
Az:	1.0577

Results:

Csstl :	**********	ug/L
Csstl :	566.4670337	mg/L

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Program Developed by Sriram Madabhushi.
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SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MWR-1A Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	233.780	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.7643)	=	2.0000
ERF(0.0176)	=	0.0198
ERF(0.0907)	=	0.1021

Decay is NOT considered

Ax:	23.3780
Ay:	7.7927
Az:	1.1689

Results:

Csstl :	**********	ug/L
Csstl :	691.4876085	mg/L

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SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MWR-1A Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	233.780	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.7643)	=	2.0000
ERF(0.0176)	=	0.0198
ERF(0.0907)	=	0.1021

Decay is NOT considered

Ax:	23.3780
Ay:	7.7927
Az:	1.1689

Results:

Csstl :	63221.7242	ug/L
Csstl :	63.2217242	mg/L

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SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-2X Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	212.750	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.1682)	=	2.0000
ERF(0.0193)	=	0.0218
ERF(0.0997)	=	0.1122

Decay is NOT considered

Ax:	21.2750
Ay:	7.0917
Az:	1.0638

Results:

Csstl :	52388.4213	ug/L
Csstl :	52.3884213	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
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SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-2X Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	212.750	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.1682)	=	2.0000
ERF(0.0193)	=	0.0218
ERF(0.0997)	=	0.1122

Decay is NOT considered

Ax:	21.2750
Ay:	7.0917
Az:	1.0638

Results:

Csstl :	**********	ug/L
Csstl :	572.9983582	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MWR-4 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	168.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.2395)	=	2.0000
ERF(0.0243)	=	0.0275
ERF(0.1257)	=	0.1411

Decay is NOT considered

Ax:	16.8770
Ay:	5.6257
Az:	0.8439

Results:

Csstl :	33031.2081	ug/L
Csstl :	33.0312081	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MWR-4 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	168.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.2395)	=	2.0000
ERF(0.0243)	=	0.0275
ERF(0.1257)	=	0.1411

Decay is NOT considered

Ax:	16.8770
Ay:	5.6257
Az:	0.8439

Results:

Csstl :	**********	ug/L
Csstl :	361.2788385	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MWR-4R Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	168.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.2395)	=	2.0000
ERF(0.0243)	=	0.0275
ERF(0.1257)	=	0.1411

Decay is NOT considered

Ax:	16.8770
Ay:	5.6257
Az:	0.8439

Results:

Csstl :	33031.2081	ug/L
Csstl :	33.0312081	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MWR-4R Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	168.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.2395)	=	2.0000
ERF(0.0243)	=	0.0275
ERF(0.1257)	=	0.1411

Decay is NOT considered

Ax:	16.8770
Ay:	5.6257
Az:	0.8439

Results:

Csstl :	**********	ug/L
Csstl :	361.2788385	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-6 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	168.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.2395)	=	2.0000
ERF(0.0243)	=	0.0275
ERF(0.1257)	=	0.1411

Decay is NOT considered

Ax:	16.8770
Ay:	5.6257
Az:	0.8439

Results:

Csstl :	33031.2081	ug/L
Csstl :	33.0312081	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-6 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	168.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.2395)	=	2.0000
ERF(0.0243)	=	0.0275
ERF(0.1257)	=	0.1411

Decay is NOT considered

Ax:	16.8770
Ay:	5.6257
Az:	0.8439

Results:

Csstl :	**********	ug/L
Csstl :	361.2788385	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-6X Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	182.880	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.8548)	=	2.0000
ERF(0.0225)	=	0.0253
ERF(0.1160)	=	0.1303

Decay is NOT considered

Ax:	18.2880
Ay:	6.0960
Az:	0.9144

Results:

Csstl :	38755.3111	ug/L
Csstl :	38.7553111	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-6X Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	182.880	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.8548)	=	2.0000
ERF(0.0225)	=	0.0253
ERF(0.1160)	=	0.1303

Decay is NOT considered

Ax:	18.2880
Ay:	6.0960
Az:	0.9144

Results:

Csstl :	**********	ug/L
Csstl :	423.8862152	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-7 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	212.750	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.1682)	=	2.0000
ERF(0.0193)	=	0.0218
ERF(0.0997)	=	0.1122

Decay is NOT considered

Ax:	21.2750
Ay:	7.0917
Az:	1.0638

Results:

Csstl :	52388.4213	ug/L
Csstl :	52.3884213	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-7 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	212.750	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.1682)	=	2.0000
ERF(0.0193)	=	0.0218
ERF(0.0997)	=	0.1122

Decay is NOT considered

Ax:	21.2750
Ay:	7.0917
Az:	1.0638

Results:

Csstl :	**********	ug/L
Csstl :	572.9983582	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-7R Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	212.750	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.1682)	=	2.0000
ERF(0.0193)	=	0.0218
ERF(0.0997)	=	0.1122

Decay is NOT considered

Ax:	21.2750
Ay:	7.0917
Az:	1.0638

Results:

Csstl :	52388.4213	ug/L
Csstl :	52.3884213	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-7R Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	212.750	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.1682)	=	2.0000
ERF(0.0193)	=	0.0218
ERF(0.0997)	=	0.1122

Decay is NOT considered

Ax:	21.2750
Ay:	7.0917
Az:	1.0638

Results:

Csstl :	**********	ug/L
Csstl :	572.9983582	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-8 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	238.660	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.6781)	=	2.0000
ERF(0.0172)	=	0.0194
ERF(0.0889)	=	0.1000

Decay is NOT considered

Ax:	23.8660
Ay:	7.9553
Az:	1.1933

Results:

Csstl :	65881.4545	ug/L
Csstl :	65.8814545	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-8 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	238.660	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.6781)	=	2.0000
ERF(0.0172)	=	0.0194
ERF(0.0889)	=	0.1000

Decay is NOT considered

Ax:	23.8660
Ay:	7.9553
Az:	1.1933

Results:

Csstl :	**********	ug/L
Csstl :	720.5784088	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-51 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	192.020	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.6281)	=	2.0000
ERF(0.0214)	=	0.0241
ERF(0.1105)	=	0.1242

Decay is NOT considered

Ax:	19.2020
Ay:	6.4007
Az:	0.9601

Results:

Csstl :	42708.3571	ug/L
Csstl :	42.7083571	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-51 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	192.020	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.6281)	=	2.0000
ERF(0.0214)	=	0.0241
ERF(0.1105)	=	0.1242

Decay is NOT considered

Ax:	19.2020
Ay:	6.4007
Az:	0.9601

Results:

Csstl :	**********	ug/L
Csstl :	467.1226562	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-52 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	192.020	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.6281)	=	2.0000
ERF(0.0214)	=	0.0241
ERF(0.1105)	=	0.1242

Decay is NOT considered

Ax:	19.2020
Ay:	6.4007
Az:	0.9601

Results:

Csstl :	42708.3571	ug/L
Csstl :	42.7083571	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-52 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	192.020	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.6281)	=	2.0000
ERF(0.0214)	=	0.0241
ERF(0.1105)	=	0.1242

Decay is NOT considered

Ax:	19.2020
Ay:	6.4007
Az:	0.9601

Results:

Csstl :	**********	ug/L
Csstl :	467.1226562	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-60 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	238.660	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.6781)	=	2.0000
ERF(0.0172)	=	0.0194
ERF(0.0889)	=	0.1000

Decay is NOT considered

Ax:	23.8660
Ay:	7.9553
Az:	1.1933

Results:

Csstl :	65881.4545	ug/L
Csstl :	65.8814545	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-60 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	238.660	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.6781)	=	2.0000
ERF(0.0172)	=	0.0194
ERF(0.0889)	=	0.1000

Decay is NOT considered

Ax:	23.8660
Ay:	7.9553
Az:	1.1933

Results:

Csstl :	**********	ug/L
Csstl :	720.5784088	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-61 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	233.780	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.7643)	=	2.0000
ERF(0.0176)	=	0.0198
ERF(0.0907)	=	0.1021

Decay is NOT considered

Ax:	23.3780
Ay:	7.7927
Az:	1.1689

Results:

Csstl :	63221.7242	ug/L
Csstl :	63.2217242	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-61 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	233.780	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.7643)	=	2.0000
ERF(0.0176)	=	0.0198
ERF(0.0907)	=	0.1021

Decay is NOT considered

Ax:	23.3780
Ay:	7.7927
Az:	1.1689

Results:

Csstl :	**********	ug/L
Csstl :	691.4876085	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-62 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	229.510	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.8419)	=	2.0000
ERF(0.0179)	=	0.0202
ERF(0.0924)	=	0.1040

Decay is NOT considered

Ax:	22.9510
Ay:	7.6503
Az:	1.1476

Results:

Csstl :	60939.5338	ug/L
Csstl :	60.9395338	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-62 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	229.510	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.8419)	=	2.0000
ERF(0.0179)	=	0.0202
ERF(0.0924)	=	0.1040

Decay is NOT considered

Ax:	22.9510
Ay:	7.6503
Az:	1.1476

Results:

Csstl :	**********	ug/L
Csstl :	666.5261509	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-63 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	229.510	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.8419)	=	2.0000
ERF(0.0179)	=	0.0202
ERF(0.0924)	=	0.1040

Decay is NOT considered

Ax:	22.9510
Ay:	7.6503
Az:	1.1476

Results:

Csstl :	60939.5338	ug/L
Csstl :	60.9395338	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-63 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	229.510	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.8419)	=	2.0000
ERF(0.0179)	=	0.0202
ERF(0.0924)	=	0.1040

Decay is NOT considered

Ax:	22.9510
Ay:	7.6503
Az:	1.1476

Results:

Csstl :	**********	ug/L
Csstl :	666.5261509	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-64 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	229.510	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.8419)	=	2.0000
ERF(0.0179)	=	0.0202
ERF(0.0924)	=	0.1040

Decay is NOT considered

Ax:	22.9510
Ay:	7.6503
Az:	1.1476

Results:

Csstl :	60939.5338	ug/L
Csstl :	60.9395338	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-64 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	229.510	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.8419)	=	2.0000
ERF(0.0179)	=	0.0202
ERF(0.0924)	=	0.1040

Decay is NOT considered

Ax:	22.9510
Ay:	7.6503
Az:	1.1476

Results:

Csstl :	**********	ug/L
Csstl :	666.5261509	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-65 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	207.570	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.2768)	=	2.0000
ERF(0.0198)	=	0.0223
ERF(0.1022)	=	0.1149

Decay is NOT considered

Ax:	20.7570
Ay:	6.9190
Az:	1.0379

Results:

Csstl :	49876.6472	ug/L
Csstl :	49.8766472	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-65 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	207.570	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.2768)	=	2.0000
ERF(0.0198)	=	0.0223
ERF(0.1022)	=	0.1149

Decay is NOT considered

Ax:	20.7570
Ay:	6.9190
Az:	1.0379

Results:

Csstl :	**********	ug/L
Csstl :	545.5258283	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-66 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	207.570	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.2768)	=	2.0000
ERF(0.0198)	=	0.0223
ERF(0.1022)	=	0.1149

Decay is NOT considered

Ax:	20.7570
Ay:	6.9190
Az:	1.0379

Results:

Csstl :	49876.6472	ug/L
Csstl :	49.8766472	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-67 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	207.570	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.2768)	=	2.0000
ERF(0.0198)	=	0.0223
ERF(0.1022)	=	0.1149

Decay is NOT considered

Ax:	20.7570
Ay:	6.9190
Az:	1.0379

Results:

Csstl :	49876.6472	ug/L
Csstl :	49.8766472	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-67 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	207.570	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.2768)	=	2.0000
ERF(0.0198)	=	0.0223
ERF(0.1022)	=	0.1149

Decay is NOT considered

Ax:	20.7570
Ay:	6.9190
Az:	1.0379

Results:

Csstl :	**********	ug/L
Csstl :	545.5258283	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-68 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	233.170	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.7753)	=	2.0000
ERF(0.0176)	=	0.0199
ERF(0.0910)	=	0.1024

Decay is NOT considered

Ax:	23.3170
Ay:	7.7723
Az:	1.1659

Results:

Csstl :	62893.1214	ug/L
Csstl :	62.8931214	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-68 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	233.170	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.7753)	=	2.0000
ERF(0.0176)	=	0.0199
ERF(0.0910)	=	0.1024

Decay is NOT considered

Ax:	23.3170
Ay:	7.7723
Az:	1.1659

Results:

Csstl :	**********	ug/L
Csstl :	687.8935149	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-69 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	217.630	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.0694)	=	2.0000
ERF(0.0189)	=	0.0213
ERF(0.0975)	=	0.1097

Decay is NOT considered

Ax:	21.7630
Ay:	7.2543
Az:	1.0882

Results:

Csstl :	54811.3619	ug/L
Csstl :	54.8113619	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-69 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	217.630	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.0694)	=	2.0000
ERF(0.0189)	=	0.0213
ERF(0.0975)	=	0.1097

Decay is NOT considered

Ax:	21.7630
Ay:	7.2543
Az:	1.0882

Results:

Csstl :	**********	ug/L
Csstl :	599.4992707	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TAME

Source: MW-70 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	205.740	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3161)	=	2.0000
ERF(0.0200)	=	0.0225
ERF(0.1031)	=	0.1160

Decay is NOT considered

Ax:	20.5740
Ay:	6.8580
Az:	1.0287

Results:

Csstl :	49004.0823	ug/L
Csstl :	49.0040823	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 09/29/2015 CoC : TBA

Source: MW-70 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	205.740	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3161)	=	2.0000
ERF(0.0200)	=	0.0225
ERF(0.1031)	=	0.1160

Decay is NOT considered

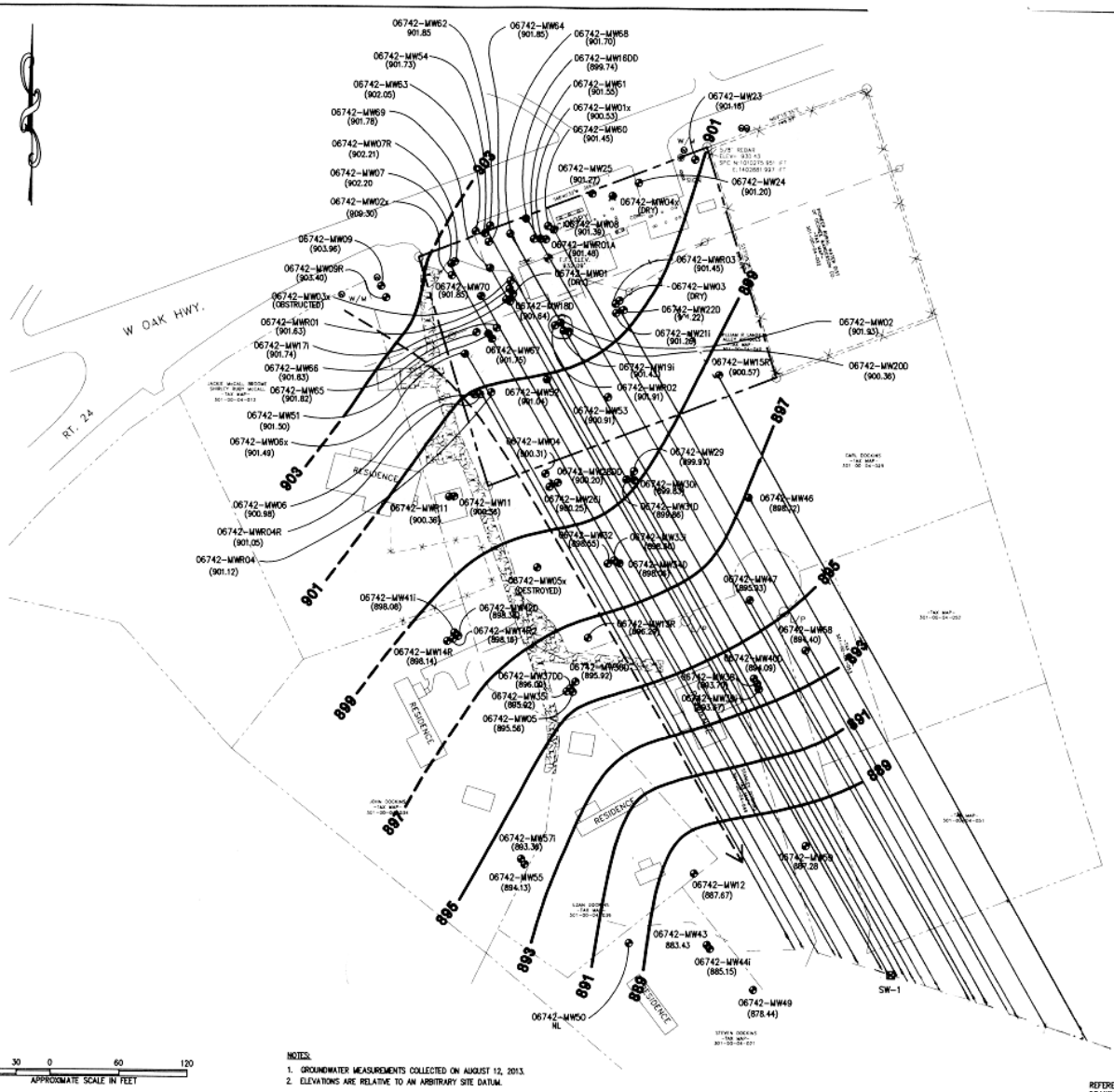
Ax:	20.5740
Ay:	6.8580
Az:	1.0287

Results:

Csstl :	**********	ug/L
Csstl :	535.9821503	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.



NOTES:
1. GROUNDWATER MEASUREMENTS COLLECTED ON AUGUST 12, 2013.
2. ELEVATIONS ARE RELATIVE TO AN ARBITRARY SITE DATUM.

REFERENCE:
DRAWING TITLED "SITE SURVEY" BY SOUTHERN LAND SURVEYING DATED 11-29-2011.

REVISIONS			DRAWN: ACE	DATE: 09-24-13	BURNELL-LAMMONS ENGINEERING, INC.	GROUNDWATER ELEVATION CONTOUR MAP - AUGUST 2013	FIGURE NO.
No.	DESCRIPTION	BY	CHECKED: RAD	CAD FILE: FORMCRGROC-05WTM	6004 FOWLERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	COUNTRY SIDE 2 UST PERMIT #06742 WESTMINSTER, SOUTH CAROLINA	2
			APPROVED: DRW	JOB NO: J13-6940-05			

UST 69 Feet DOCKETING

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MWR-1A Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	233.780	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.7643)	=	2.0000
ERF(0.0176)	=	0.0198
ERF(0.0907)	=	0.1021

Decay is NOT considered

Ax:	23.3780
Ay:	7.7927
Az:	1.1689

Results:

Csstl :	74087.9581	ug/L
Csstl :	74.0879581	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-2 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	204.520	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3426)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1037)	=	0.1166

Decay is NOT considered

Ax:	20.4520
Ay:	6.8173
Az:	1.0226

Results:

Csstl :	56749.9982	ug/L
Csstl :	56.7499982	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-2 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	204.520	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000
ERFC(-8.3426) = 2.0000
ERF(0.0201) = 0.0227
ERF(0.1037) = 0.1166

Decay is NOT considered

Ax: 20.4520
Ay: 6.8173
Az: 1.0226

Results:

Csstl :	48426.6652	ug/L
Csstl :	48.4266652	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-2 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	204.520	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3426)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1037)	=	0.1166

Decay is NOT considered

Ax:	20.4520
Ay:	6.8173
Az:	1.0226

Results:

Csstl :	**********	ug/L
Csstl :	529.6666501	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MWR-2 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	204.520	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3426)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1037)	=	0.1166

Decay is NOT considered

Ax:	20.4520
Ay:	6.8173
Az:	1.0226

Results:

Csstl :	56749.9982	ug/L
Csstl :	56.7499982	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MWR-2 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	204.520	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3426)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1037)	=	0.1166

Decay is NOT considered

Ax:	20.4520
Ay:	6.8173
Az:	1.0226

Results:

Csstl :	48426.6652	ug/L
Csstl :	48.4266652	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MWR-2 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	204.520	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3426)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1037)	=	0.1166

Decay is NOT considered

Ax:	20.4520
Ay:	6.8173
Az:	1.0226

Results:

Csstl :	**********	ug/L
Csstl :	529.6666501	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MWR-3 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	218.850	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.0452)	=	2.0000
ERF(0.0188)	=	0.0212
ERF(0.0969)	=	0.1090

Decay is NOT considered

Ax:	21.8850
Ay:	7.2950
Az:	1.0943

Results:

Csstl :	64951.9717	ug/L
Csstl :	64.9519717	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MWR-3 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	218.850	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.0452)	=	2.0000
ERF(0.0188)	=	0.0212
ERF(0.0969)	=	0.1090

Decay is NOT considered

Ax:	21.8850
Ay:	7.2950
Az:	1.0943

Results:

Csstl :	55425.6825	ug/L
Csstl :	55.4256825	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MWR-3 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	218.850	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.0452)	=	2.0000
ERF(0.0188)	=	0.0212
ERF(0.0969)	=	0.1090

Decay is NOT considered

Ax:	21.8850
Ay:	7.2950
Az:	1.0943

Results:

Csstl :	**********	ug/L
Csstl :	606.2184023	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-4 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	145.690	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.9832)	=	2.0000
ERF(0.0282)	=	0.0318
ERF(0.1456)	=	0.1632

Decay is NOT considered

Ax:	14.5690
Ay:	4.8563
Az:	0.7284

Results:

Csstl :	28896.5897	ug/L
Csstl :	28.8965897	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-4 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	145.690	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.9832)	=	2.0000
ERF(0.0282)	=	0.0318
ERF(0.1456)	=	0.1632

Decay is NOT considered

Ax:	14.5690
Ay:	4.8563
Az:	0.7284

Results:

Csstl :	24658.4232	ug/L
Csstl :	24.6584232	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-4 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	145.690	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.9832)	=	2.0000
ERF(0.0282)	=	0.0318
ERF(0.1456)	=	0.1632

Decay is NOT considered

Ax:	14.5690
Ay:	4.8563
Az:	0.7284

Results:

Csstl :	**********	ug/L
Csstl :	269.7015038	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MWR-4R Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	169.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000
ERFC(-9.2107) = 2.0000
ERF(0.0242) = 0.0273
ERF(0.1250) = 0.1403

Decay is NOT considered

Ax: 16.9770
Ay: 5.6590
Az: 0.8489

Results:

Csstl :	39166.1258	ug/L
Csstl :	39.1661258	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-6 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	169.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000
ERFC(-9.2107) = 2.0000
ERF(0.0242) = 0.0273
ERF(0.1250) = 0.1403

Decay is NOT considered

Ax: 16.9770
Ay: 5.6590
Az: 0.8489

Results:

Csstl :	39166.1258	ug/L
Csstl :	39.1661258	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-7 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	212.750	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.1682)	=	2.0000
ERF(0.0193)	=	0.0218
ERF(0.0997)	=	0.1122

Decay is NOT considered

Ax:	21.2750
Ay:	7.0917
Az:	1.0638

Results:

Csstl :	61392.6812	ug/L
Csstl :	61.3926812	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-15R Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	203.910	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3559)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1040)	=	0.1170

Decay is NOT considered

Ax:	20.3910
Ay:	6.7970
Az:	1.0196

Results:

Csstl :	56413.1770	ug/L
Csstl :	56.4131770	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-15R Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	203.910	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3559)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1040)	=	0.1170

Decay is NOT considered

Ax:	20.3910
Ay:	6.7970
Az:	1.0196

Results:

Csstl :	48139.2444	ug/L
Csstl :	48.1392444	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-15R Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	203.910	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3559)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1040)	=	0.1170

Decay is NOT considered

Ax:	20.3910
Ay:	6.7970
Az:	1.0196

Results:

Csstl :	**********	ug/L
Csstl :	526.5229855	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-16DD Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	241.100	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.6360)	=	2.0000
ERF(0.0170)	=	0.0192
ERF(0.0880)	=	0.0990

Decay is NOT considered

Ax:	24.1100
Ay:	8.0367
Az:	1.2055

Results:

Csstl :	78787.4118	ug/L
Csstl :	78.7874118	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-16DD Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	241.100	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.6360)	=	2.0000
ERF(0.0170)	=	0.0192
ERF(0.0880)	=	0.0990

Decay is NOT considered

Ax:	24.1100
Ay:	8.0367
Az:	1.2055

Results:

Csstl :	67231.9248	ug/L
Csstl :	67.2319248	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-16DD Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	241.100	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.6360)	=	2.0000
ERF(0.0170)	=	0.0192
ERF(0.0880)	=	0.0990

Decay is NOT considered

Ax:	24.1100
Ay:	8.0367
Az:	1.2055

Results:

Csstl :	**********	ug/L
Csstl :	735.3491770	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-17i Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	207.570	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.2768)	=	2.0000
ERF(0.0198)	=	0.0223
ERF(0.1022)	=	0.1149

Decay is NOT considered

Ax:	20.7570
Ay:	6.9190
Az:	1.0379

Results:

Csstl :	58449.1959	ug/L
Csstl :	58.4491959	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-17i Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	207.570	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.2768)	=	2.0000
ERF(0.0198)	=	0.0223
ERF(0.1022)	=	0.1149

Decay is NOT considered

Ax:	20.7570
Ay:	6.9190
Az:	1.0379

Results:

Csstl :	49876.6472	ug/L
Csstl :	49.8766472	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-17i Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	207.570	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.2768)	=	2.0000
ERF(0.0198)	=	0.0223
ERF(0.1022)	=	0.1149

Decay is NOT considered

Ax:	20.7570
Ay:	6.9190
Az:	1.0379

Results:

Csstl :	**********	ug/L
Csstl :	545.5258283	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-18D Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	207.570	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.2768)	=	2.0000
ERF(0.0198)	=	0.0223
ERF(0.1022)	=	0.1149

Decay is NOT considered

Ax:	20.7570
Ay:	6.9190
Az:	1.0379

Results:

Csstl :	58449.1959	ug/L
Csstl :	58.4491959	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-18D Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	207.570	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.2768)	=	2.0000
ERF(0.0198)	=	0.0223
ERF(0.1022)	=	0.1149

Decay is NOT considered

Ax:	20.7570
Ay:	6.9190
Az:	1.0379

Results:

Csstl :	49876.6472	ug/L
Csstl :	49.8766472	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-18D Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	207.570	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.2768)	=	2.0000
ERF(0.0198)	=	0.0223
ERF(0.1022)	=	0.1149

Decay is NOT considered

Ax:	20.7570
Ay:	6.9190
Az:	1.0379

Results:

Csstl :	**********	ug/L
Csstl :	545.5258283	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-19i Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	204.520	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3426)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1037)	=	0.1166

Decay is NOT considered

Ax:	20.4520
Ay:	6.8173
Az:	1.0226

Results:

Csstl :	56749.9982	ug/L
Csstl :	56.7499982	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-19i Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	204.520	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3426)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1037)	=	0.1166

Decay is NOT considered

Ax:	20.4520
Ay:	6.8173
Az:	1.0226

Results:

Csstl :	48426.6652	ug/L
Csstl :	48.4266652	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-19i Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	204.520	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3426)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1037)	=	0.1166

Decay is NOT considered

Ax:	20.4520
Ay:	6.8173
Az:	1.0226

Results:

Csstl :	**********	ug/L
Csstl :	529.6666501	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-20D Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	204.520	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3426)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1037)	=	0.1166

Decay is NOT considered

Ax:	20.4520
Ay:	6.8173
Az:	1.0226

Results:

Csstl :	56749.9982	ug/L
Csstl :	56.7499982	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-20D Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	204.520	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3426)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1037)	=	0.1166

Decay is NOT considered

Ax:	20.4520
Ay:	6.8173
Az:	1.0226

Results:

Csstl :	48426.6652	ug/L
Csstl :	48.4266652	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-20D Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	204.520	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.3426)	=	2.0000
ERF(0.0201)	=	0.0227
ERF(0.1037)	=	0.1166

Decay is NOT considered

Ax:	20.4520
Ay:	6.8173
Az:	1.0226

Results:

Csstl :	**********	ug/L
Csstl :	529.6666501	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-21i Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	218.850	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.0452)	=	2.0000
ERF(0.0188)	=	0.0212
ERF(0.0969)	=	0.1090

Decay is NOT considered

Ax:	21.8850
Ay:	7.2950
Az:	1.0943

Results:

Csstl :	64951.9717	ug/L
Csstl :	64.9519717	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-21i Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	218.850	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.0452)	=	2.0000
ERF(0.0188)	=	0.0212
ERF(0.0969)	=	0.1090

Decay is NOT considered

Ax:	21.8850
Ay:	7.2950
Az:	1.0943

Results:

Csstl :	55425.6825	ug/L
Csstl :	55.4256825	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-21i Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	218.850	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.0452)	=	2.0000
ERF(0.0188)	=	0.0212
ERF(0.0969)	=	0.1090

Decay is NOT considered

Ax:	21.8850
Ay:	7.2950
Az:	1.0943

Results:

Csstl :	**********	ug/L
Csstl :	606.2184023	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-22D Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	218.850	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.0452)	=	2.0000
ERF(0.0188)	=	0.0212
ERF(0.0969)	=	0.1090

Decay is NOT considered

Ax:	21.8850
Ay:	7.2950
Az:	1.0943

Results:

Csstl :	64951.9717	ug/L
Csstl :	64.9519717	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-22D Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	218.850	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000
ERFC(-8.0452) = 2.0000
ERF(0.0188) = 0.0212
ERF(0.0969) = 0.1090

Decay is NOT considered

Ax: 21.8850
Ay: 7.2950
Az: 1.0943

Results:

Csstl :	55425.6825	ug/L
Csstl :	55.4256825	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-22D Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	218.850	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.0452)	=	2.0000
ERF(0.0188)	=	0.0212
ERF(0.0969)	=	0.1090

Decay is NOT considered

Ax:	21.8850
Ay:	7.2950
Az:	1.0943

Results:

Csstl :	**********	ug/L
Csstl :	606.2184023	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-26i Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	169.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.2107)	=	2.0000
ERF(0.0242)	=	0.0273
ERF(0.1250)	=	0.1403

Decay is NOT considered

Ax:	16.9770
Ay:	5.6590
Az:	0.8489

Results:

Csstl :	39166.1258	ug/L
Csstl :	39.1661258	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-26i Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	169.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.2107)	=	2.0000
ERF(0.0242)	=	0.0273
ERF(0.1250)	=	0.1403

Decay is NOT considered

Ax:	16.9770
Ay:	5.6590
Az:	0.8489

Results:

Csstl :	33421.7607	ug/L
Csstl :	33.4217607	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-26i Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	169.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000
ERFC(-9.2107) = 2.0000
ERF(0.0242) = 0.0273
ERF(0.1250) = 0.1403

Decay is NOT considered

Ax: 16.9770
Ay: 5.6590
Az: 0.8489

Results:

Csstl :	**********	ug/L
Csstl :	365.5505071	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-28DD Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	169.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.2107)	=	2.0000
ERF(0.0242)	=	0.0273
ERF(0.1250)	=	0.1403

Decay is NOT considered

Ax:	16.9770
Ay:	5.6590
Az:	0.8489

Results:

Csstl :	**********	ug/L
Csstl :	365.5505071	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-28DD Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	169.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.2107)	=	2.0000
ERF(0.0242)	=	0.0273
ERF(0.1250)	=	0.1403

Decay is NOT considered

Ax:	16.9770
Ay:	5.6590
Az:	0.8489

Results:

Csstl :	33421.7607	ug/L
Csstl :	33.4217607	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-28DD Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	169.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.2107)	=	2.0000
ERF(0.0242)	=	0.0273
ERF(0.1250)	=	0.1403

Decay is NOT considered

Ax:	16.9770
Ay:	5.6590
Az:	0.8489

Results:

Csstl :	**********	ug/L
Csstl :	365.5505071	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
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SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-29 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	154.840	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.6688)	=	2.0000
ERF(0.0265)	=	0.0299
ERF(0.1370)	=	0.1537

Decay is NOT considered

Ax:	15.4840
Ay:	5.1613
Az:	0.7742

Results:

Csstl :	32614.1530	ug/L
Csstl :	32.6141530	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-29 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	154.840	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000
ERFC(-9.6688) = 2.0000
ERF(0.0265) = 0.0299
ERF(0.1370) = 0.1537

Decay is NOT considered

Ax: 15.4840
Ay: 5.1613
Az: 0.7742

Results:

Csstl :	27830.7439	ug/L
Csstl :	27.8307439	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-29 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	154.840	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.6688)	=	2.0000
ERF(0.0265)	=	0.0299
ERF(0.1370)	=	0.1537

Decay is NOT considered

Ax:	15.4840
Ay:	5.1613
Az:	0.7742

Results:

Csstl :	**********	ug/L
Csstl :	304.3987615	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-30i Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	154.840	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.6688)	=	2.0000
ERF(0.0265)	=	0.0299
ERF(0.1370)	=	0.1537

Decay is NOT considered

Ax:	15.4840
Ay:	5.1613
Az:	0.7742

Results:

Csstl :	32614.1530	ug/L
Csstl :	32.6141530	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-30i Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	154.840	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.6688)	=	2.0000
ERF(0.0265)	=	0.0299
ERF(0.1370)	=	0.1537

Decay is NOT considered

Ax:	15.4840
Ay:	5.1613
Az:	0.7742

Results:

Csstl :	27830.7439	ug/L
Csstl :	27.8307439	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-30i Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	154.840	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.6688)	=	2.0000
ERF(0.0265)	=	0.0299
ERF(0.1370)	=	0.1537

Decay is NOT considered

Ax:	15.4840
Ay:	5.1613
Az:	0.7742

Results:

Csstl :	**********	ug/L
Csstl :	304.3987615	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-31D Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	154.840	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.6688)	=	2.0000
ERF(0.0265)	=	0.0299
ERF(0.1370)	=	0.1537

Decay is NOT considered

Ax:	15.4840
Ay:	5.1613
Az:	0.7742

Results:

Csstl :	32614.1530	ug/L
Csstl :	32.6141530	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-31D Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	154.840	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.6688)	=	2.0000
ERF(0.0265)	=	0.0299
ERF(0.1370)	=	0.1537

Decay is NOT considered

Ax:	15.4840
Ay:	5.1613
Az:	0.7742

Results:

Csstl :	27830.7439	ug/L
Csstl :	27.8307439	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-31D Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	154.840	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.6688)	=	2.0000
ERF(0.0265)	=	0.0299
ERF(0.1370)	=	0.1537

Decay is NOT considered

Ax:	15.4840
Ay:	5.1613
Az:	0.7742

Results:

Csstl :	**********	ug/L
Csstl :	304.3987615	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-32 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	122.830	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-10.9143)	=	2.0000
ERF(0.0334)	=	0.0377
ERF(0.1727)	=	0.1930

Decay is NOT considered

Ax:	12.2830
Ay:	4.0943
Az:	0.6142

Results:

Csstl :	20598.0774	ug/L
Csstl :	20.5980774	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-32 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	122.830	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-10.9143)	=	2.0000
ERF(0.0334)	=	0.0377
ERF(0.1727)	=	0.1930

Decay is NOT considered

Ax:	12.2830
Ay:	4.0943
Az:	0.6142

Results:

Csstl :	17577.0260	ug/L
Csstl :	17.5770260	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-32 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	122.830	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-10.9143)	=	2.0000
ERF(0.0334)	=	0.0377
ERF(0.1727)	=	0.1930

Decay is NOT considered

Ax:	12.2830
Ay:	4.0943
Az:	0.6142

Results:

Csstl :	**********	ug/L
Csstl :	192.2487223	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-33i Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	122.830	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000
ERFC(-10.9143) = 2.0000
ERF(0.0334) = 0.0377
ERF(0.1727) = 0.1930

Decay is NOT considered

Ax: 12.2830
Ay: 4.0943
Az: 0.6142

Results:

Csstl :	20598.0774	ug/L
Csstl :	20.5980774	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-33i Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	122.830	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-10.9143)	=	2.0000
ERF(0.0334)	=	0.0377
ERF(0.1727)	=	0.1930

Decay is NOT considered

Ax:	12.2830
Ay:	4.0943
Az:	0.6142

Results:

Csstl :	17577.0260	ug/L
Csstl :	17.5770260	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-33i Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	122.830	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-10.9143)	=	2.0000
ERF(0.0334)	=	0.0377
ERF(0.1727)	=	0.1930

Decay is NOT considered

Ax:	12.2830
Ay:	4.0943
Az:	0.6142

Results:

Csstl :	17577.0260	ug/L
Csstl :	17.5770260	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-34D Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	122.830	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-10.9143)	=	2.0000
ERF(0.0334)	=	0.0377
ERF(0.1727)	=	0.1930

Decay is NOT considered

Ax:	12.2830
Ay:	4.0943
Az:	0.6142

Results:

Csstl :	20598.0774	ug/L
Csstl :	20.5980774	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-34D Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	122.830	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-10.9143)	=	2.0000
ERF(0.0334)	=	0.0377
ERF(0.1727)	=	0.1930

Decay is NOT considered

Ax:	12.2830
Ay:	4.0943
Az:	0.6142

Results:

Csstl :	17577.0260	ug/L
Csstl :	17.5770260	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-34D Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	122.830	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-10.9143)	=	2.0000
ERF(0.0334)	=	0.0377
ERF(0.1727)	=	0.1930

Decay is NOT considered

Ax:	12.2830
Ay:	4.0943
Az:	0.6142

Results:

Csstl :	**********	ug/L
Csstl :	192.2487223	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-38 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	92.960	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-12.6086)	=	2.0000
ERF(0.0442)	=	0.0498
ERF(0.2282)	=	0.2533

Decay is NOT considered

Ax:	9.2960
Ay:	3.0987
Az:	0.4648

Results:

Csstl :	11884.3123	ug/L
Csstl :	11.8843123	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-38 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	92.960	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-12.6086)	=	2.0000
ERF(0.0442)	=	0.0498
ERF(0.2282)	=	0.2533

Decay is NOT considered

Ax:	9.2960
Ay:	3.0987
Az:	0.4648

Results:

Csstl :	10141.2798	ug/L
Csstl :	10.1412798	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-38 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	92.960	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-12.6086)	=	2.0000
ERF(0.0442)	=	0.0498
ERF(0.2282)	=	0.2533

Decay is NOT considered

Ax:	9.2960
Ay:	3.0987
Az:	0.4648

Results:

Csstl :	**********	ug/L
Csstl :	110.9202483	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-39i Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	92.960	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-12.6086)	=	2.0000
ERF(0.0442)	=	0.0498
ERF(0.2282)	=	0.2533

Decay is NOT considered

Ax:	9.2960
Ay:	3.0987
Az:	0.4648

Results:

Csstl :	11884.3123	ug/L
Csstl :	11.8843123	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-39i Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	92.960	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-12.6086)	=	2.0000
ERF(0.0442)	=	0.0498
ERF(0.2282)	=	0.2533

Decay is NOT considered

Ax:	9.2960
Ay:	3.0987
Az:	0.4648

Results:

Csstl :	10141.2798	ug/L
Csstl :	10.1412798	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-39i Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	92.960	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-12.6086)	=	2.0000
ERF(0.0442)	=	0.0498
ERF(0.2282)	=	0.2533

Decay is NOT considered

Ax:	9.2960
Ay:	3.0987
Az:	0.4648

Results:

Csstl :	**********	ug/L
Csstl :	110.9202483	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-40D Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	92.960	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-12.6086)	=	2.0000
ERF(0.0442)	=	0.0498
ERF(0.2282)	=	0.2533

Decay is NOT considered

Ax:	9.2960
Ay:	3.0987
Az:	0.4648

Results:

Csstl :	11884.3123	ug/L
Csstl :	11.8843123	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-40D Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	92.960	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-12.6086)	=	2.0000
ERF(0.0442)	=	0.0498
ERF(0.2282)	=	0.2533

Decay is NOT considered

Ax:	9.2960
Ay:	3.0987
Az:	0.4648

Results:

Csstl :	10141.2798	ug/L
Csstl :	10.1412798	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-40D Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	92.960	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-12.6086)	=	2.0000
ERF(0.0442)	=	0.0498
ERF(0.2282)	=	0.2533

Decay is NOT considered

Ax:	9.2960
Ay:	3.0987
Az:	0.4648

Results:

Csstl :	**********	ug/L
Csstl :	110.9202483	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-46 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	162.460	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.4272)	=	2.0000
ERF(0.0253)	=	0.0285
ERF(0.1306)	=	0.1465

Decay is NOT considered

Ax:	16.2460
Ay:	5.4153
Az:	0.8123

Results:

Csstl :	35882.8539	ug/L
Csstl :	35.8828539	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-46 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	162.460	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000
ERFC(-9.4272) = 2.0000
ERF(0.0253) = 0.0285
ERF(0.1306) = 0.1465

Decay is NOT considered

Ax: 16.2460
Ay: 5.4153
Az: 0.8123

Results:

Csstl :	30620.0354	ug/L
Csstl :	30.6200354	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-46 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	162.460	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-9.4272)	=	2.0000
ERF(0.0253)	=	0.0285
ERF(0.1306)	=	0.1465

Decay is NOT considered

Ax:	16.2460
Ay:	5.4153
Az:	0.8123

Results:

Csstl :	**********	ug/L
Csstl :	334.9066367	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-47 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	125.880	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000
ERFC(-10.7758) = 2.0000
ERF(0.0326) = 0.0368
ERF(0.1685) = 0.1884

Decay is NOT considered

Ax: 12.5880
Ay: 4.1960
Az: 0.6294

Results:

Csstl :	21623.5843	ug/L
Csstl :	21.6235843	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-47 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	125.880	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-10.7758)	=	2.0000
ERF(0.0326)	=	0.0368
ERF(0.1685)	=	0.1884

Decay is NOT considered

Ax:	12.5880
Ay:	4.1960
Az:	0.6294

Results:

Csstl :	18452.1252	ug/L
Csstl :	18.4521252	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-47 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	125.880	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-10.7758)	=	2.0000
ERF(0.0326)	=	0.0368
ERF(0.1685)	=	0.1884

Decay is NOT considered

Ax:	12.5880
Ay:	4.1960
Az:	0.6294

Results:

Csstl :	**********	ug/L
Csstl :	201.8201197	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-52 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	182.270	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.8705)	=	2.0000
ERF(0.0225)	=	0.0254
ERF(0.1164)	=	0.1308

Decay is NOT considered

Ax:	18.2270
Ay:	6.0757
Az:	0.9114

Results:

Csstl :	45115.2513	ug/L
Csstl :	45.1152513	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-52 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	182.270	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000
ERFC(-8.8705) = 2.0000
ERF(0.0225) = 0.0254
ERF(0.1164) = 0.1308

Decay is NOT considered

Ax: 18.2270
Ay: 6.0757
Az: 0.9114

Results:

Csstl :	38498.3477	ug/L
Csstl :	38.4983477	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-52 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	182.270	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.8705)	=	2.0000
ERF(0.0225)	=	0.0254
ERF(0.1164)	=	0.1308

Decay is NOT considered

Ax:	18.2270
Ay:	6.0757
Az:	0.9114

Results:

Csstl :	**********	ug/L
Csstl :	421.0756784	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-53 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	182.270	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.8705)	=	2.0000
ERF(0.0225)	=	0.0254
ERF(0.1164)	=	0.1308

Decay is NOT considered

Ax:	18.2270
Ay:	6.0757
Az:	0.9114

Results:

Csstl :	45115.2513	ug/L
Csstl :	45.1152513	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-53 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	182.270	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.8705)	=	2.0000
ERF(0.0225)	=	0.0254
ERF(0.1164)	=	0.1308

Decay is NOT considered

Ax:	18.2270
Ay:	6.0757
Az:	0.9114

Results:

Csstl :	38498.3477	ug/L
Csstl :	38.4983477	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-53 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	182.270	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.8705)	=	2.0000
ERF(0.0225)	=	0.0254
ERF(0.1164)	=	0.1308

Decay is NOT considered

Ax:	18.2270
Ay:	6.0757
Az:	0.9114

Results:

Csstl :	**********	ug/L
Csstl :	421.0756784	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-57i Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	192.020	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.6281)	=	2.0000
ERF(0.0214)	=	0.0241
ERF(0.1105)	=	0.1242

Decay is NOT considered

Ax:	19.2020
Ay:	6.4007
Az:	0.9601

Results:

Csstl :	50048.8560	ug/L
Csstl :	50.0488560	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-57i Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	192.020	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.6281)	=	2.0000
ERF(0.0214)	=	0.0241
ERF(0.1105)	=	0.1242

Decay is NOT considered

Ax:	19.2020
Ay:	6.4007
Az:	0.9601

Results:

Csstl :	42708.3571	ug/L
Csstl :	42.7083571	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-57i Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	192.020	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.6281)	=	2.0000
ERF(0.0214)	=	0.0241
ERF(0.1105)	=	0.1242

Decay is NOT considered

Ax:	19.2020
Ay:	6.4007
Az:	0.9601

Results:

Csstl :	**********	ug/L
Csstl :	467.1226562	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-58 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	113.390	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-11.3775)	=	2.0000
ERF(0.0362)	=	0.0409
ERF(0.1871)	=	0.2088

Decay is NOT considered

Ax:	11.3390
Ay:	3.7797
Az:	0.5670

Results:

Csstl :	17583.4585	ug/L
Csstl :	17.5834585	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TAME

Source: MW-58 Receptor: Creek

Input Parameters:

CoC RBSL:	0.128	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	113.390	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-11.3775)	=	2.0000
ERF(0.0362)	=	0.0409
ERF(0.1871)	=	0.2088

Decay is NOT considered

Ax:	11.3390
Ay:	3.7797
Az:	0.5670

Results:

Csstl :	15004.5513	ug/L
Csstl :	15.0045513	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : TBA

Source: MW-58 Receptor: Creek

Input Parameters:

CoC RBSL:	1.400	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	113.390	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-11.3775)	=	2.0000
ERF(0.0362)	=	0.0409
ERF(0.1871)	=	0.2088

Decay is NOT considered

Ax:	11.3390
Ay:	3.7797
Az:	0.5670

Results:

Csstl :	**********	ug/L
Csstl :	164.1122794	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-62 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	229.510	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.8419)	=	2.0000
ERF(0.0179)	=	0.0202
ERF(0.0924)	=	0.1040

Decay is NOT considered

Ax:	22.9510
Ay:	7.6503
Az:	1.1476

Results:

Csstl :	71413.5162	ug/L
Csstl :	71.4135162	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-68 Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	233.170	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.7753)	=	2.0000
ERF(0.0176)	=	0.0199
ERF(0.0910)	=	0.1024

Decay is NOT considered

Ax:	23.3170
Ay:	7.7723
Az:	1.1659

Results:

Csstl :	73702.8766	ug/L
Csstl :	73.7028766	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-1X Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	233.770	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-7.7645)	=	2.0000
ERF(0.0176)	=	0.0198
ERF(0.0907)	=	0.1021

Decay is NOT considered

Ax:	23.3770
Ay:	7.7923
Az:	1.1689

Results:

Csstl :	74081.6371	ug/L
Csstl :	74.0816371	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-2X Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	212.750	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-8.1682)	=	2.0000
ERF(0.0193)	=	0.0218
ERF(0.0997)	=	0.1122

Decay is NOT considered

Ax:	21.2750
Ay:	7.0917
Az:	1.0638

Results:

Csstl :	61392.6812	ug/L
Csstl :	61.3926812	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 06742 11/02/2015 CoC : DIPE

Source: MW-6X Receptor: Creek

Input Parameters:

CoC RBSL:	0.150	mg/L
Width across flow dir.:	3.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	212.750	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001933	m/s
Time of transport:	1000.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000
ERFC(-8.1682) = 2.0000
ERF(0.0193) = 0.0218
ERF(0.0997) = 0.1122

Decay is NOT considered

Ax: 21.2750
Ay: 7.0917
Az: 1.0638

Results:

Csstl :	61392.6812	ug/L
Csstl :	61.3926812	mg/L

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Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

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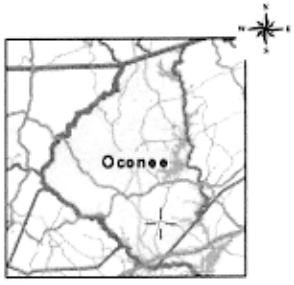
UST DOCKETING 10/16

Country Side 2, UST Permit #06742

Parcel: 301-00-04-040 Acres: 1.3

Name:	LAND WILLIAM R II & ALLEY ANTIQUES S	Land Value:	24680
Site:	8050 WEST OAK HIGHWAY	Improvement Value:	91381
Sale:	$350000 on 2004-01-02 Reason=0 Qual=Q	Accessory Value:	0
Mail:	705 S OAK ST SENECA, SC 29678	Total Value:	116061



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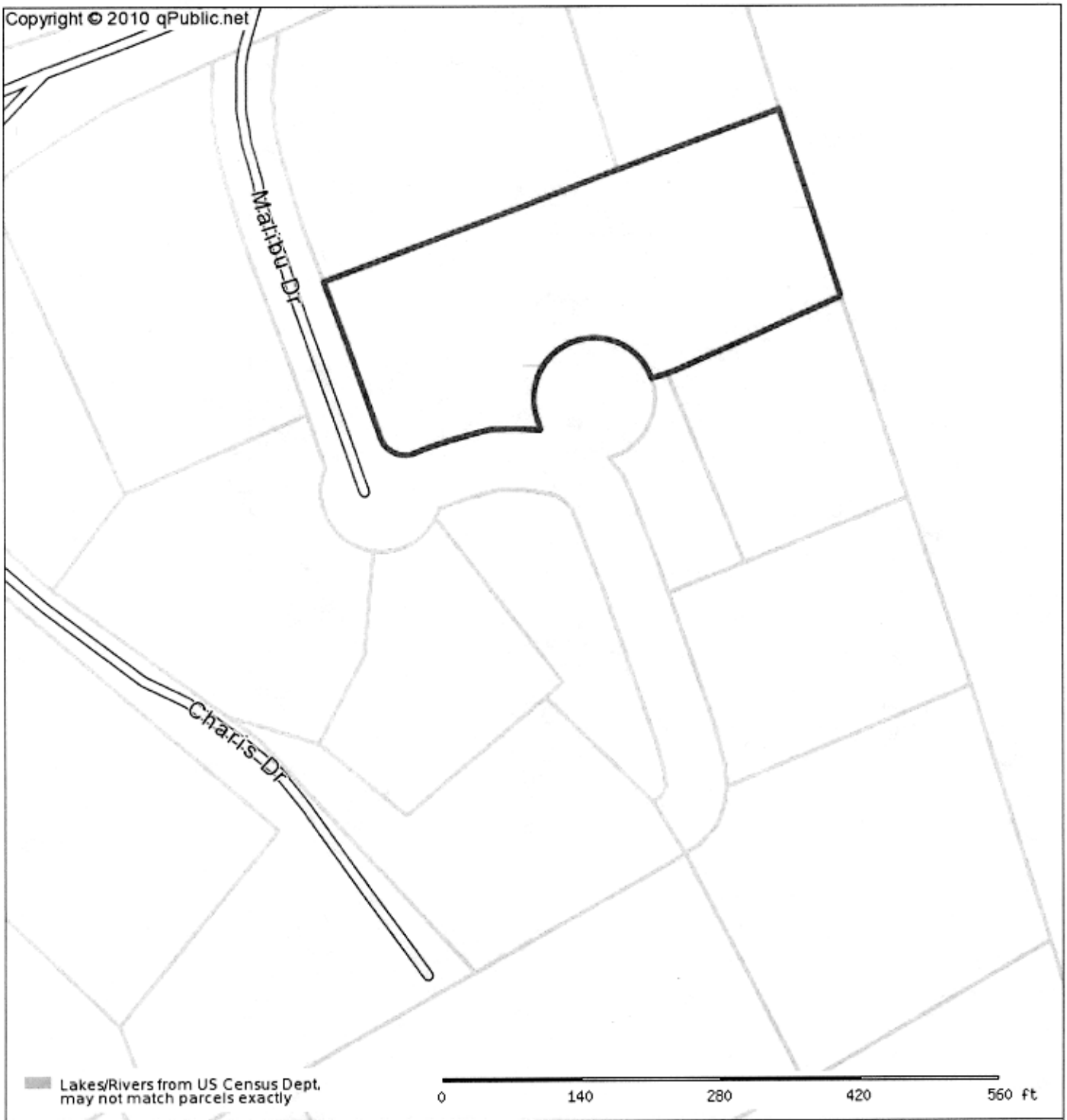
Date printed: 11/03/15 : 10:17:32



Country Side 2m, UST Permit #06742

Parcel: 301-00-04-029 Acres: 1.69

Name:	DOCKINS CARL	Land Value:	6880
Site:	MALIBU DR	Improvement Value:	0
Sale:	$25000 on 2001-06-05 Reason=0 Qual=Q	Accessory Value:	0
Mail:	138 MALIBU DR WESTMINSTER, SC 296930000	Total Value:	6880

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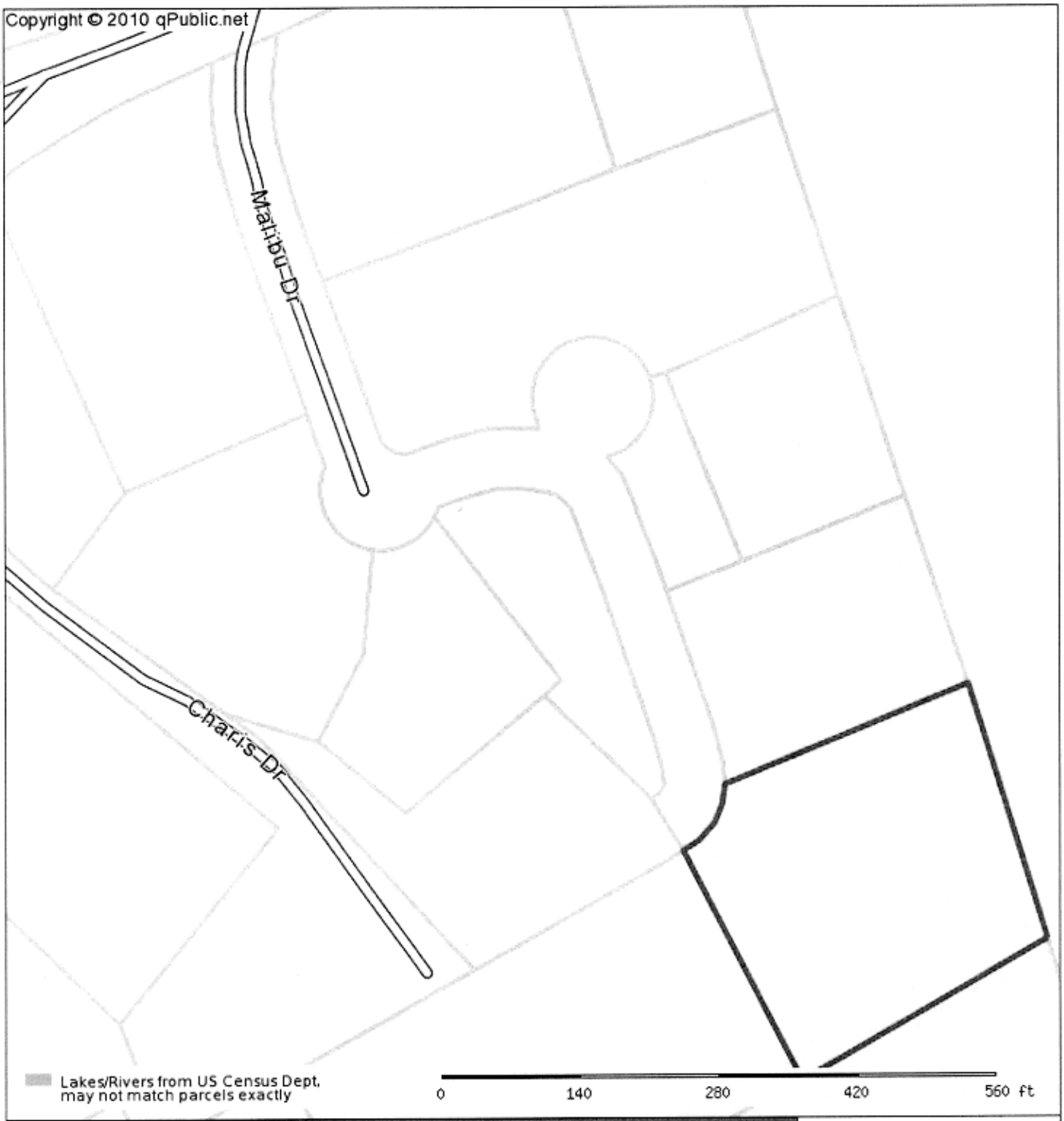
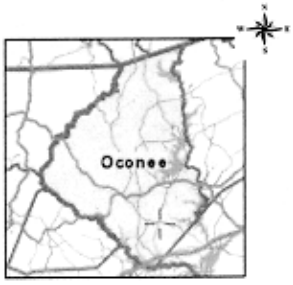


Country Side 2, UST Permit #06742

Parcel: 301-00-04-050 Acres: 1.34

Name:	DOCKINS CARL	Land Value:	6180
Site:		Improvement Value:	0
Sale:	$0 on 2006-04-14 Reason=0 Qual=Q	Accessory Value:	0
Mail:	138 MALIBU DR WESTMINSTER, SC 296930000	Total Value:	6180



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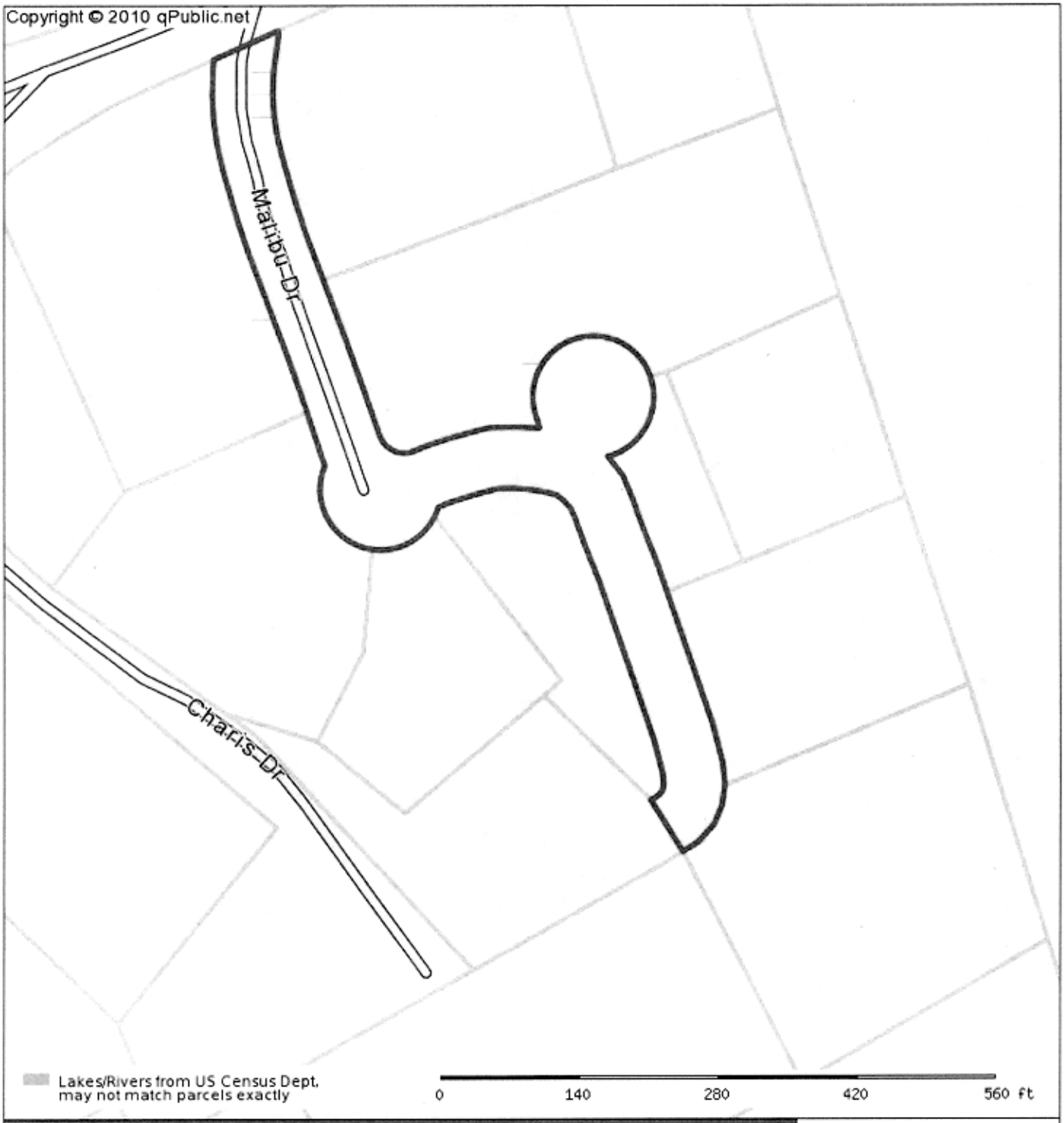
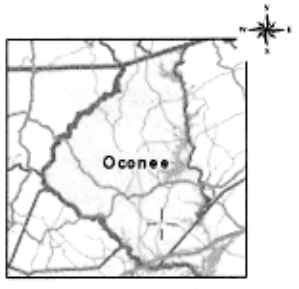


Country Side 2, UST Permit #06742

Parcel: 301-00-04-001 Acres: 1.26

Name:	HUGHES HARVEY C JR & PAMELA H	Land Value:	2880
Site:		Improvement Value:	0
Sale:	$1 on 1995-12-31 Reason=0 Qual=Q	Accessory Value:	0
Mail:	5525 BOONE CT SUWANEE, GA 30024	Total Value:	2880



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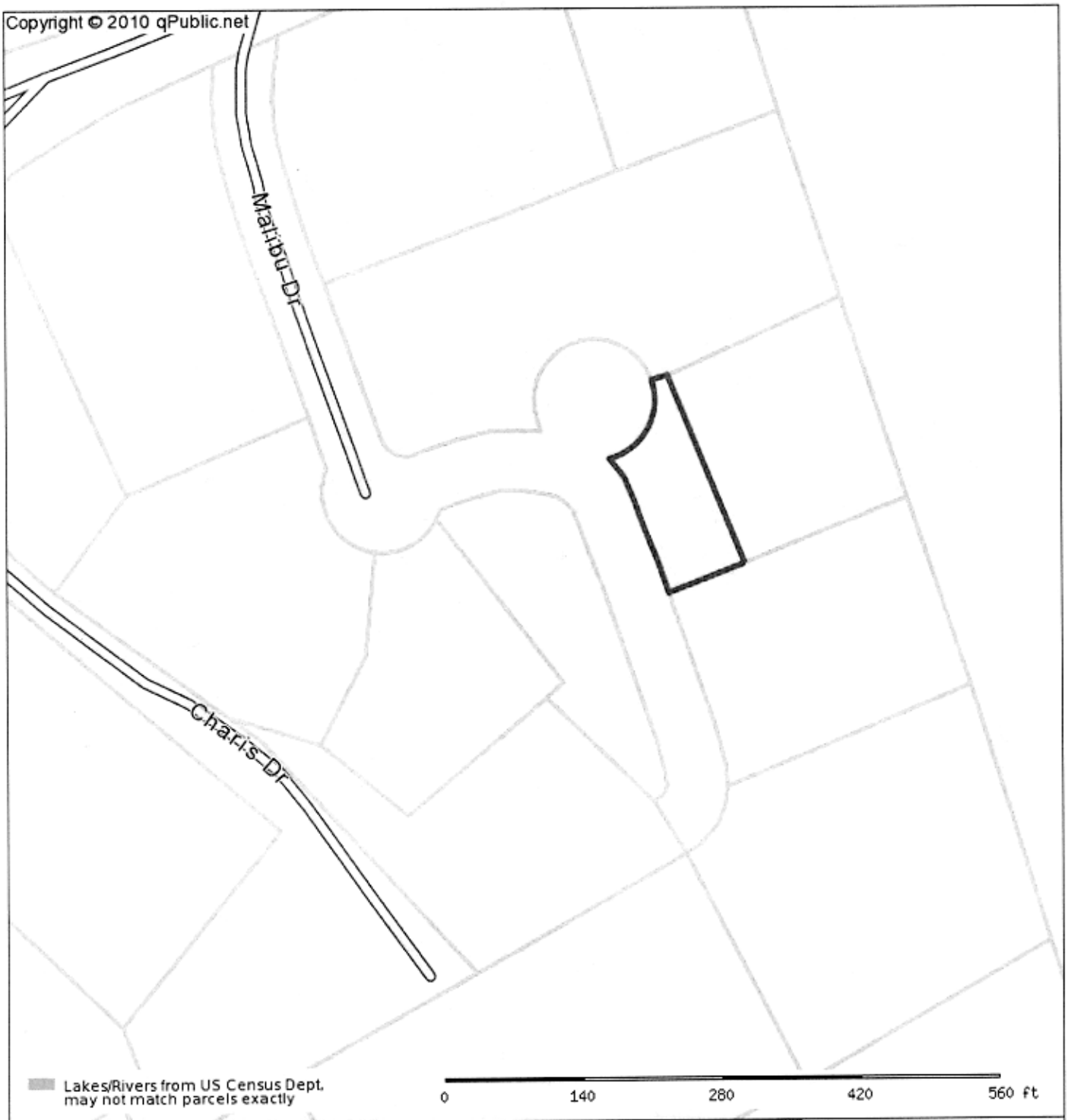
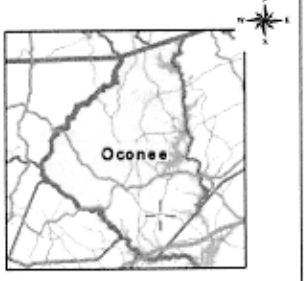


Country Side 2, UST Permit #06742

Parcel: 301-00-04-053 Acres: 0.2

Name:	DOCKINS STANLEY	Land Value:	2420
Site:		Improvement Value:	0
Sale:		Accessory Value:	0
Mail:	132 MALIBU DR WESTMINSTER, SC 296930000	Total Value:	2420



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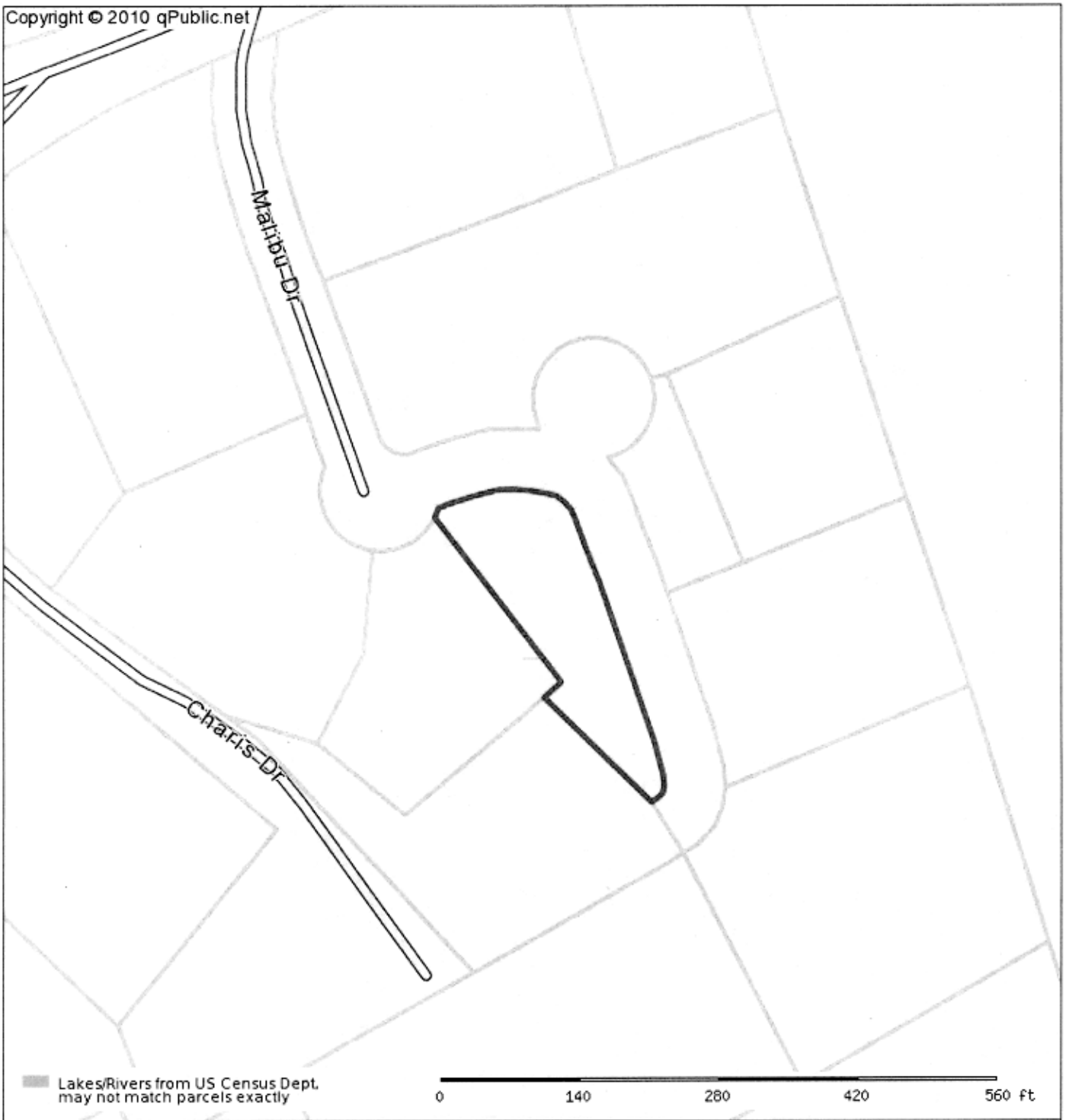
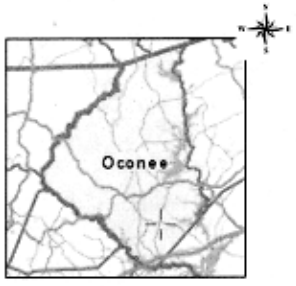


Country side 2, UST Permit #06742

Parcel: 301-00-04-049 Acres: 0.58

Name:	DOCKINS STANLEY LEE	Land Value:	4560
Site:		Improvement Value:	0
Sale:		Accessory Value:	0
Mail:	135 MALIBU DR WESTMINSTER, SC 296930000	Total Value:	4560



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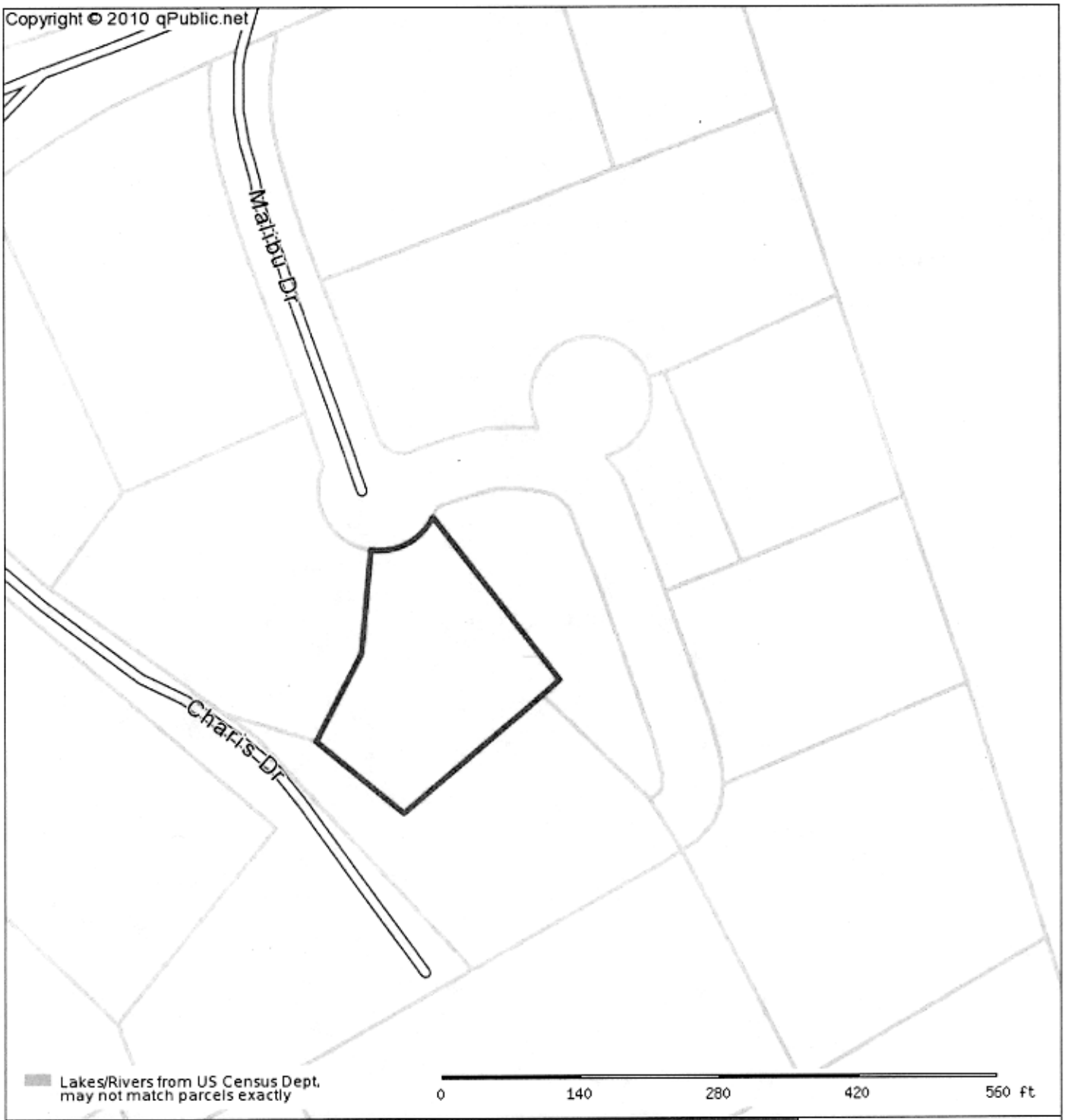
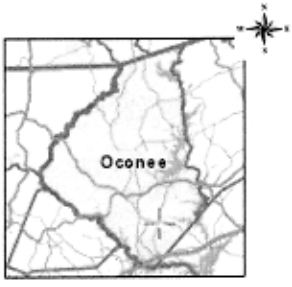


Country Side 2, UST Permit #06742

Parcel: 301-00-04-039 Acres: 0.51

Name:	DOCKINS EDNA M L/E	Land Value:	4180
Site:	138 MALIBU DR	Improvement Value:	6490
Sale:	$18600 on 2008-09-23 Reason=0 Qual=Q	Accessory Value:	0
Mail:	PO BOX 572 WESTMINSTER, SC 29693	Total Value:	10670



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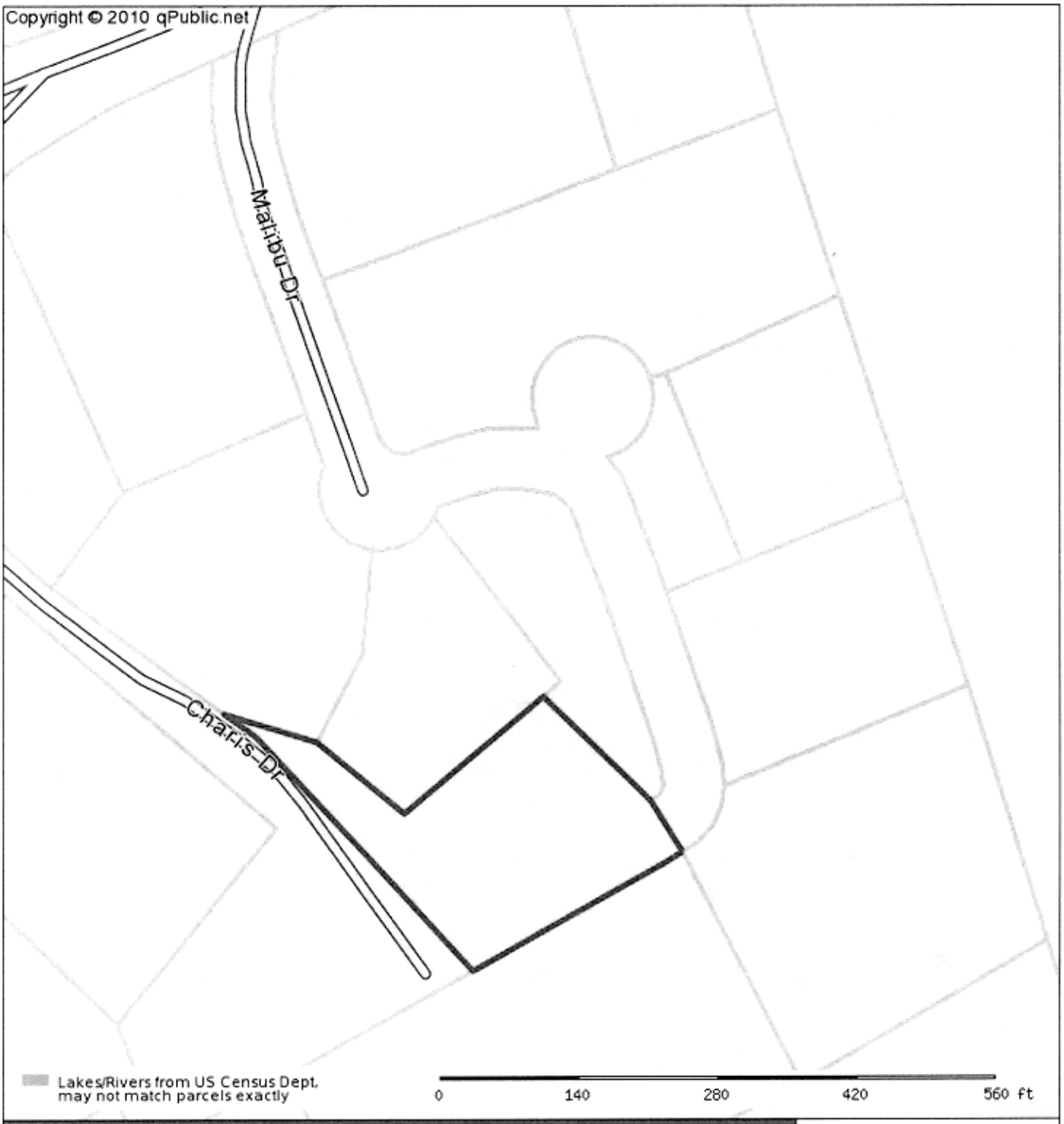
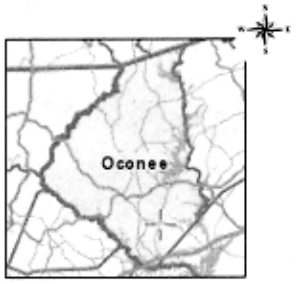


Country Side 2, UST Permit #06742			
Parcel: 301-00-04-021 Acres: 0.59			
Name:	DOCKINS STEVEN F	Land Value:	4610
Site:	355 CHARIS DR	Improvement Value:	2730
Sale:	$5000 on 2008-06-24 Reason=0 Qual=Q	Accessory Value:	0
Mail:	PO BOX 572 WESTMINSTER, SC 29693	Total Value:	7340



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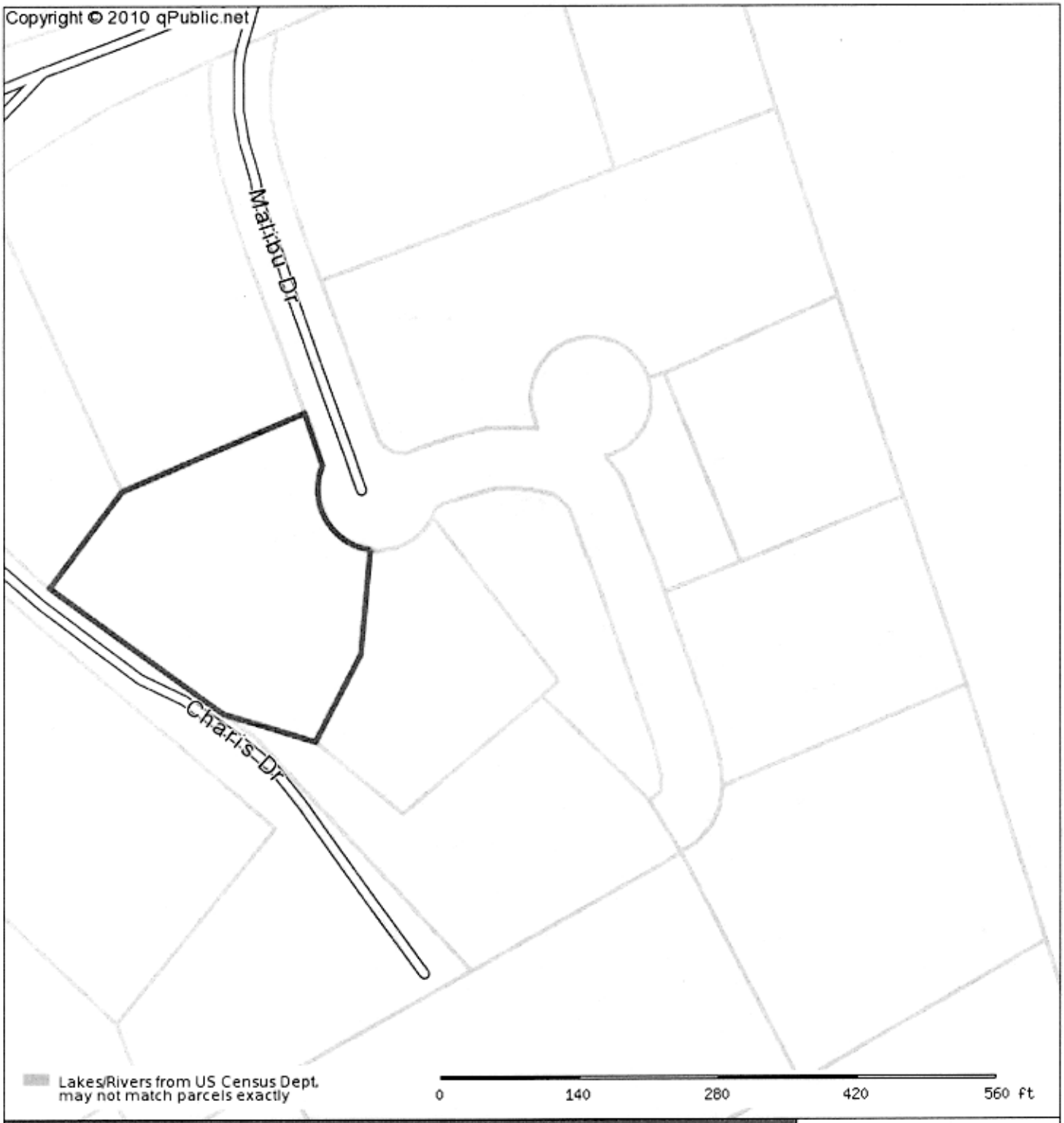
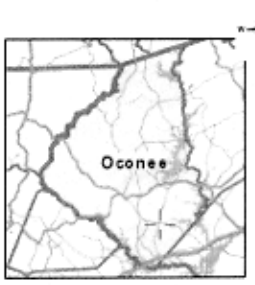


Country Side 2, UST Permit #06742

Parcel: 301-00-04-034 Acres: 0.91

Name:	DOCKINS JOHN B & CARL LEE	Land Value:	4770
Site:	132 MALIBU DR	Improvement Value:	4490
Sale:	$0 on 2000-06-23 Reason=0 Qual=Q	Accessory Value:	0
Mail:	135 MALIBU DR WESTMINSTER, SC 29693	Total Value:	9260



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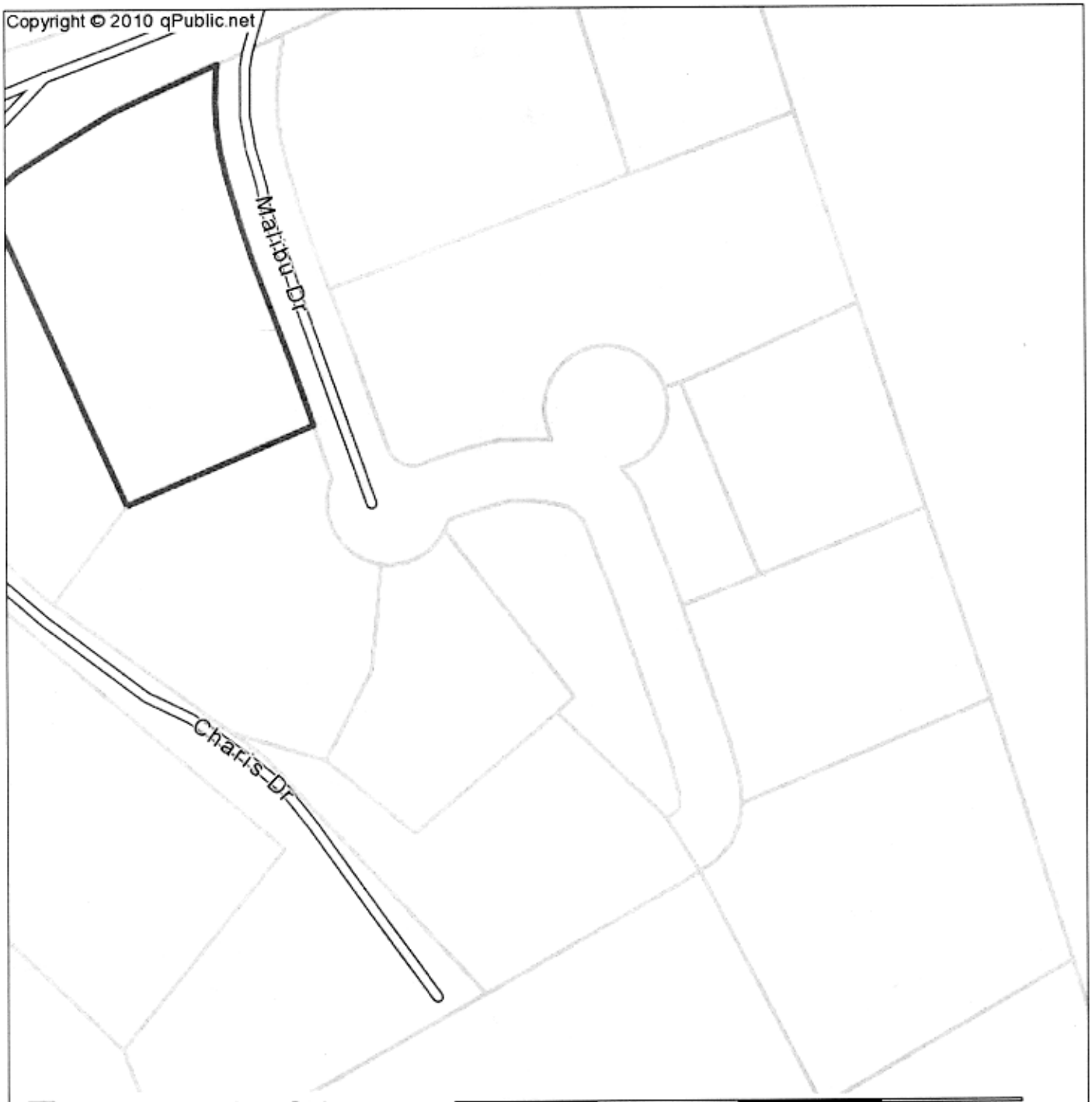

Country Side 2, UST Permit #06742

Parcel: 301-00-04-012 Acres: 0.94

Name:	BROOME JACKIE M & HOLLIDAY SHIRLEY R	Land Value:	5480
Site:	120 MALIBU DR	Improvement Value:	50240
Sale:	$9000 on 2001-12-08 Reason=0 Qual=Q	Accessory Value:	0
Mail:	120 MALIBU DR WESTMINSTER, SC 29693	Total Value:	55720

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Date printed: 11/03/15 : 10:27:22

UST
Joel
JAN 07 2010
PROGRAM

UNDERGROUND STORAGE TANK (UST)
OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

06742

As the UST Owner/Operator of UST Permit # 6742, I would like to use the contractor or person(s) listed below and request that they represent me for:

☐ Current Work Scope Only
☑ All future assessment scopes **

Name of Contractor/Person(s) BUNNELL-LAMMONS ENGINEERING

Address 6004 PONDERS COURT

GREENVILLE, SC

29615

Telephone Number (864) 288-1265

Note: After September 20, 1997, rehabilitation activities must be performed by a SC Certified Site Rehabilitation Contractor.

*Indicate if the person listed is your own employee

**** If you would like the contractor to perform all future assessment activities at this and/or other UST sites that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.**

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above?
_____ Yes ___✓___ No (please initial)

Financial Relationship: A connection or association through a material interest of sources of income, which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancé.

3. PAYMENT

You can pay the contractor and, upon the submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment, be compensated from the SUPERB Account, or have payment issued directly from the SUPERB Account to the contractor. (Check one)

_____ I request that payment be made to me after I have paid the contractor.

___✓___ I request that payment be made directly to the contractor.

(Note: all costs must receive prior financial approval from the Department regardless of payment option.)

Underground Storage Tank Owner/Operator Signature _____

Date Jan. 5, 2010

UST
DOCKET
3/3 Tech

MI tech.

SCANNED

RECEIVED

NOV 2 0 1998

DIVISION OF UNDERGROUND STORAGE TANK MGMT

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

PERMISSION FORM - FACILITY ID #(06742)

If you are the owner of the former or existing underground storage tanks and the property owner, please complete this form.

I, R. NEIL ALEXANDER, certify that I am the legal owner of the underground storage tanks and property located at the facility identified below or serve as the authorized representative for the owner. I grant permission to the South Carolina Department of Health and Environmental Control (SCDHEC) to secure on my behalf contractor services to conduct assessment and corrective action activities as required, and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to accomplish these site rehabilitation tasks. The contractor(s) will be designated as my contractor for only the required site rehabilitation activities. Compensation to the contractor(s) will be from the SUPERB Account and I will have no obligation to pay the contractor(s). I understand that SCDHEC will be responsible for notifying me of all activities that are necessary prior to their initiation and will promptly provide to me a copy of each environmental report. I understand that I may choose to select my own contractor at the completion of any phase of work by notifying the Division of Underground Storage Tank Management in writing.

Name of Facility CROSSROADS GROCERY Phone # 864-972-3489

Street Address of Facility 8050 W. OAK Hwy.

Town, City, District, Suburb WESTMINSTER, S.C. 29693

Name of nearest intersecting street, road, highway, alley
Hwy. 24 OR 59.

Is this facility within the city limits? (yes or no) NO

Is this facility serviced by a public water or sewer utility? (yes or no) NO, if no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines SELF, phone number SAME

Were underground storage tanks previously removed from the ground at this facility? (yes or no) YES, if yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation RANDY McCORKLE,
Phone number 864-882-6708

Is the property currently leased or rented to someone? (yes or no) NO, if yes, please provide their name _____ and phone number _____ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of UST/property owner (Please Print): R. NEIL ALEXANDER

Phone Number (home) 864-882-8372 (work) 864-972-3489

Signature of UST/property Owner: R Neil Alexander

Witness: _____

Date: NOV. Month 18 Day 1998 Year

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

RECEIVED

DEC 1 1 1998

PERMISSION FORM - FACILITY ID #(06742) DIVISION OF UNDERGROUND STORAGE TANK MGMT.

If you are the owner of the former or existing underground storage tanks and the property owner, please complete this form.

I, NEIL ALEXANDER, certify that I am the legal owner of the underground storage tanks and property located at the facility identified below or serve as the authorized representative for the owner. I grant permission to the South Carolina Department of Health and Environmental Control (SCDHEC) to secure on my behalf contractor services to conduct assessment and corrective action activities as required, and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to accomplish these site rehabilitation tasks. The contractor(s) will be designated as my contractor for only the required site rehabilitation activities. Compensation to the contractor(s) will be from the SUPERB Account and I will have no obligation to pay the contractor(s). I understand that SCDHEC will be responsible for notifying me of all activities that are necessary prior to their initiation and will promptly provide to me a copy of each environmental report. I understand that I may choose to select my own contractor at the completion of any phase of work by notifying the Division of Underground Storage Tank Management in writing.

Name of Facility CROSSROADS GROCERY Phone # 864-972-3489

Street Address of Facility 8050 WEST OAK HWY.

Town, City, District, Suburb WESTMINSTER, S.C. 29693

Name of nearest intersecting street, road, highway, alley
HWY. #59

Is this facility within the city limits? (yes or no) NO

Is this facility serviced by a public water or sewer utility? (yes or no) NO, if no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines NEIL ALEXANDER, phone number 864-972-3489

Were underground storage tanks previously removed from the ground at this facility? (yes or no) YES, if yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation RANDY MCCORKLE, Phone number 864-882-6708

Is the property currently leased or rented to someone? (yes or no) NO, if yes, please provide their name _____ and phone number _____ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of UST/property owner (Please Print): NEIL ALEXANDER

Phone Number (home) 864-882-8372 (work) 864-972-3489

Signature of UST/property Owner: Neil Alexander

Witness: Kathy Hay

Date: DEC Month 9 Day 1998 Year

RECEIVED
1999
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

Read S. Miner

PROPERTY OWNER

RIGHT OF ENTRY - UST Permit # 06742/12765

If you are the Property Owner or are the authorized representative for that person, but did not own the former or existing underground storage tanks at the time the release was reported, please complete this form.

I, Judith A. Laughter, Agent, certify that I am the legal owner of the property identified below or serve as the authorized representative for the property owner. I authorize the South Carolina Department of Health and Environmental Control (SCDHEC), or a contractor selected by SCDHEC, to enter this property at reasonable times only to conduct assessment and corrective action activities, as required. The contractor will be designated as the contractor for the UST owner or operator for only the required environmental site rehabilitation activities. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that SCDHEC will notify me of all activities that are necessary prior to their initiation and will promptly provide to me a summary of the data upon request.

Name of Facility Hot Spot #2040 Phone # 864-585-2784 Ext 116

Street Address of Facility 8050 West Oak Highway

Town, City, District, Suburb Westminister, S.C. 29693 (Oconee County)

Name of nearest intersecting street, road, highway, alley
Malibu Drive (Gravel) & Hwy 59

Is this facility within the city limits? (yes or no) No

Is this facility serviced by a public water or sewer utility? (yes or no) *, if no, please provide the name of a person we can contact that can assist in the location of private water and septic tank lines Name _____, phone number _____

* Public Water * Septic Tank

Were underground storage tanks previously removed from the ground at this facility? (yes or no) yes. if yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation See DHEC File. Phone number _____

Is the property currently leased or rented to someone? (yes or no) No, if yes, please provide their name _____ and phone number _____ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of property owner (Please Print): R. L. Jordan Oil Company of North Carolina, Inc.

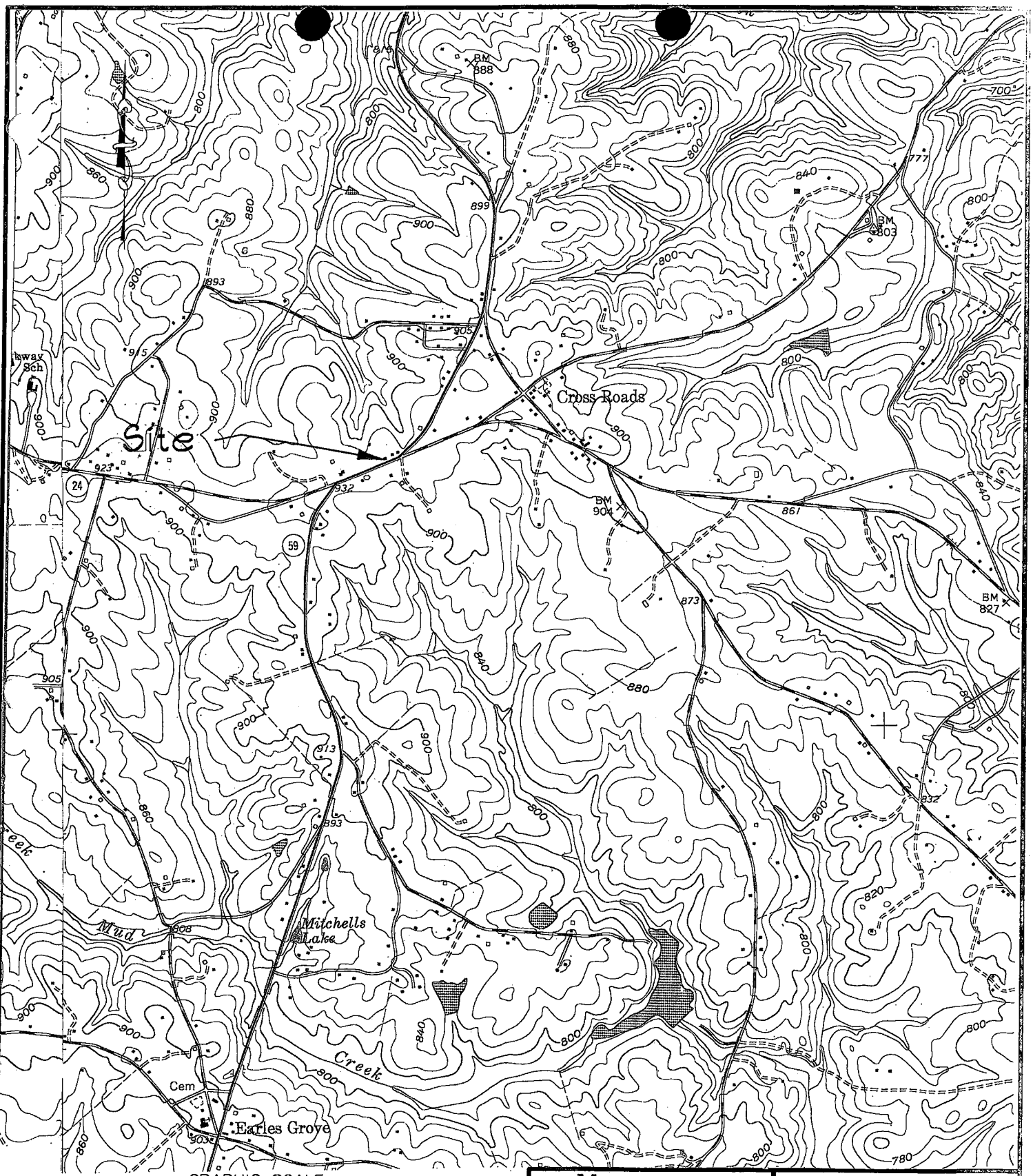
Phone Number (home) 864-969-2526 (work) 864-585-2784 Ext. 116

Current Mailing Address P.O. Box 2527, Spartanburg, SC 29304

Signature of Property ~~Owner~~ Agent: Judith A. Laughter, Agent

Witness: Lillie Wolfe

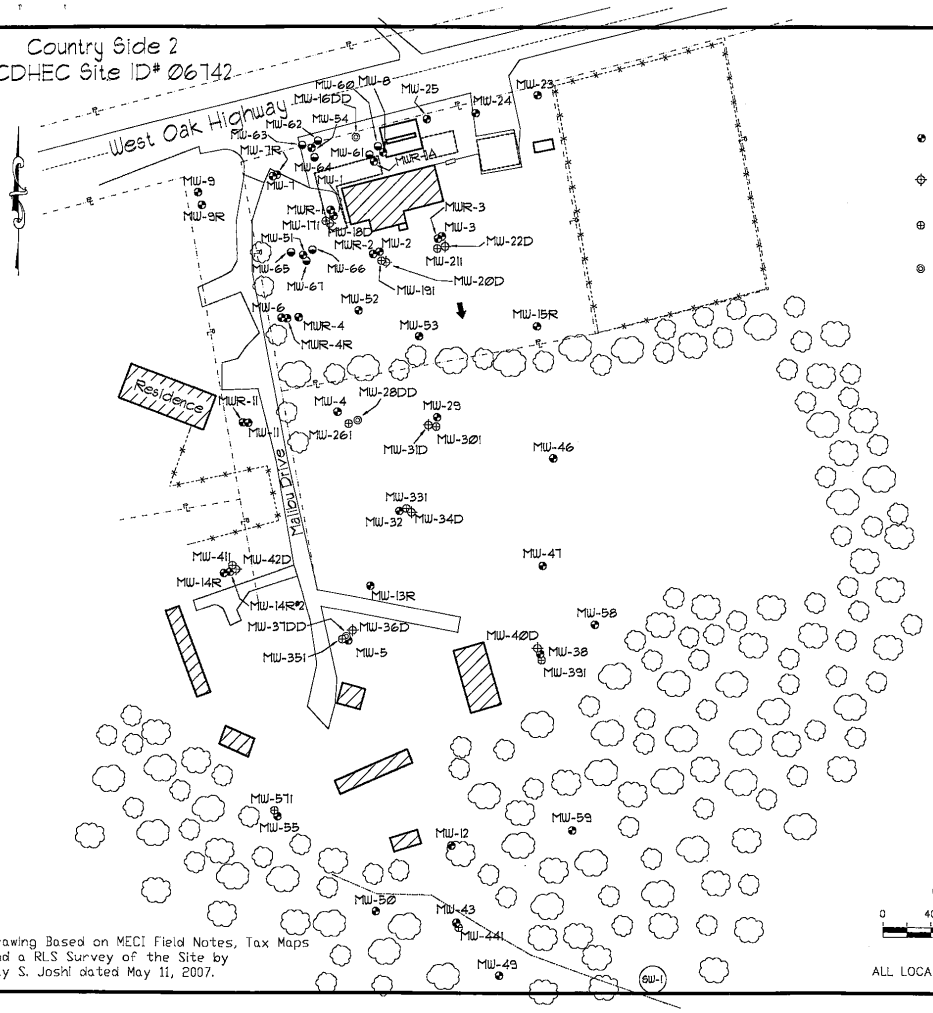
Date: August Month 31 Day 1999 Year



Reference: Fair Play, South Carolina
Oakway, South Carolina
USGS 7.5 Min. Quad
Contour Interval = 10 Feet

Midlands Environmental Consultants, Inc.	Site Location
Country Side 2 Westminster, South Carolina SCDHEC Site ID# 06742	
Figure 1	MECI 07-1121

Country Side 2
SCDHEC Site ID# 06742



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well (Top of Rock)
- Location of Doubled Cased Monitoring Well (Intermediate)
- Location of Double Cased Monitoring Well (Rock)
- Location of 4-inch Diameter Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Groundwater Elevation Data

Well #	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation (feet)	Groundwater Elevation (feet)
MW-60	37.09	37.47	0.38	99.02	61.87
MW-61	---	36.92	---	99.39	62.47
MW-62	---	37.97	---	99.32	61.35
MW-63	---	36.61	---	98.96	62.35
MW-64	---	36.90	---	99.20	62.30
MW-65	---	34.77	---	96.58	61.81
MW-66	35.31	35.38	0.07	97.19	61.81
MW-67	---	35.38	---	97.10	61.72

Notes:

Depth to groundwater measured on August 20, 2008.

Groundwater elevation for MW-60 and MW-66 corrected for the presence of free phase petroleum product using a specific gravity of fuel of 0.85.

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 11, 2007.

GRAPHIC SCALE
0 40 80 120 160
1IN = 80FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

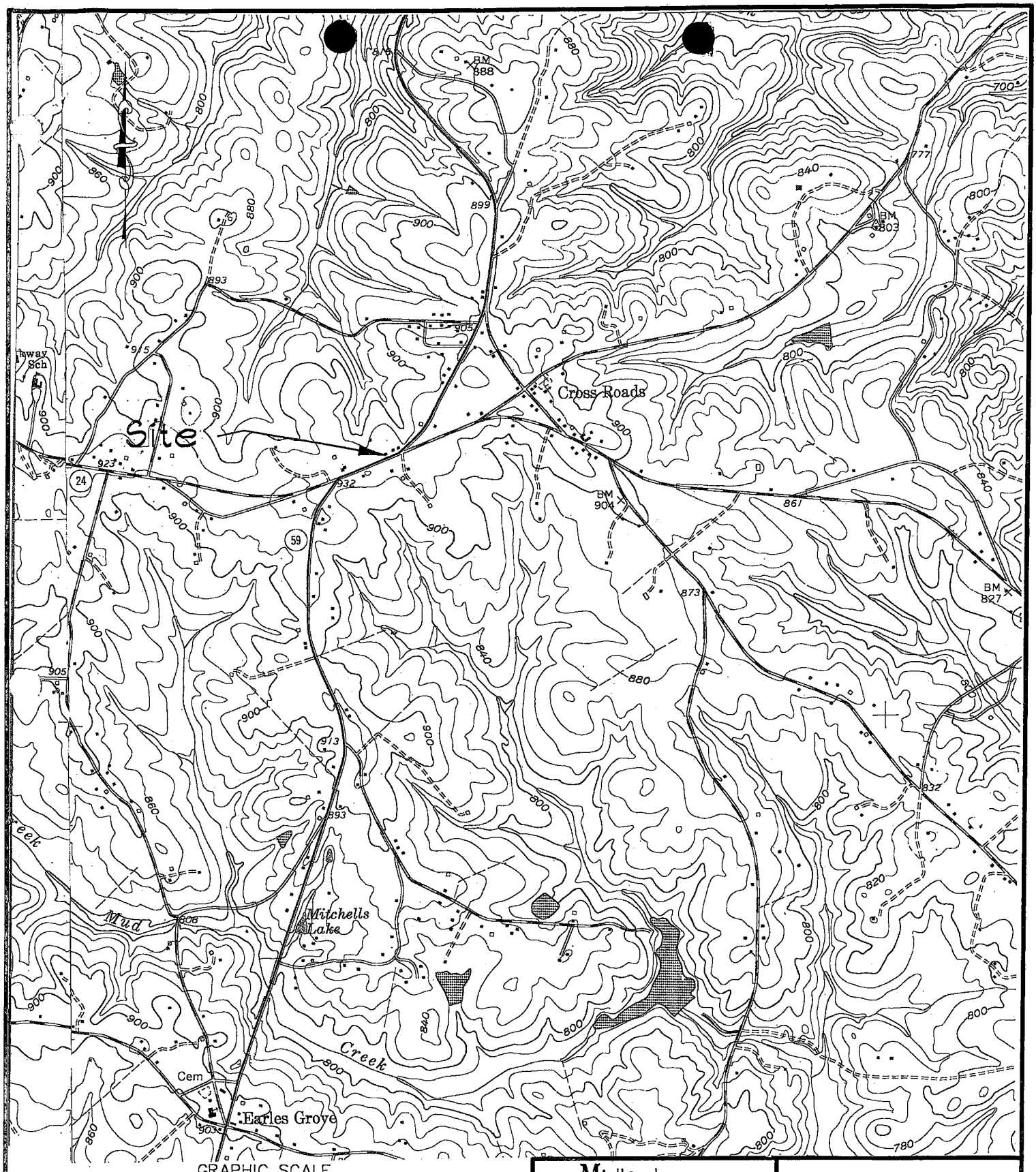
Country Side 2
Westminster, South Carolina
SCDHEC Site ID 06742

Midlands Environmental Consultants, Inc.

JOB NO. 08-1787
DATE September 2, 2008
FIGURE 2

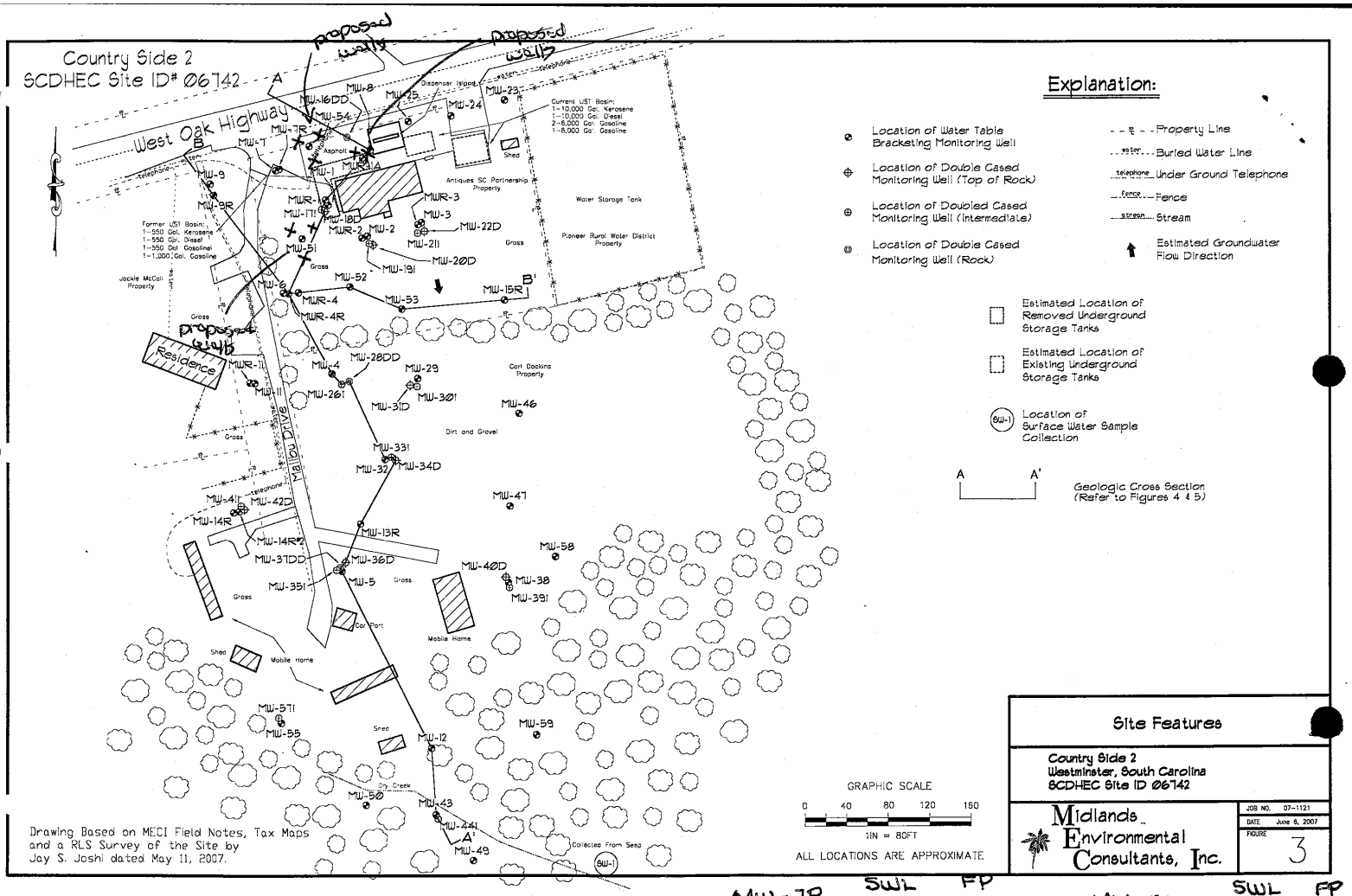
UST Permit: 06742
Facility: Country Side 2
County: Oconee

Screened Interval	
MWR-1	30-45'
MWR-1A	65-70'
MWR-2	25-40'
MWR-3	30-40'
MW-4	15-25'
MWR-4	25-40'
MWR-4R	28-38'
MW-5	10-20'
MW-6	20-35'
MW-7	24-39'
MW-7R	35-45'
MW-8	25-45'
MW-9	17-32'
MW-9R	35-45'
MW-11	22-35'
MWR-11R	30-40'
MW-12	7-12'
MW-13R	25-35'
MW-14R	25-35'
MW-14R2	10-25'
MW-15R	30-45'
MW-16DD	90-95'
MW-17i	47-52'
MW-18D	56-61'
MW-19i	50-55'
MW-20D	71-76'
MW-21i	50-55'
MW-22D	70-75'
MW-23	25-40'
MW-24	25-40'
MW-25	30-45'
MW-26i	40-45'
MW-28DD	91-96'
MW-29	20-33'
MW-30i	40-45'
MW-31D	61-66'
MW-32	15-30'
MW-33i	35-40'
MW-34D	46-51'
MW-35i	30-35'
MW-36D	31-36'
MW-37DD	52-57'
MW-38	15-25'
MW-38i	40-45'
MW-40D	61-66'
MW-41i	40-45'
MW-42D	55-60'
MW-43	5-15'
MW-44i	20-25'
MW-46	20-35'
MW-47	15-30'
MW-49	5-20'
MW-50	5-20'
MW-51	30-45'
MW-52	30-45'
MW-53	25-45'
MW-54	30-45'
MW-55	5-20'
MW-57i	25-30'
MW-58	20-30'
MW-59	7-22'
MW-60	25-45'
MW-61	25-45'
MW-62	25-45'
MW-63	25-45'
MW-64	25-45'
MW-65	25-45'
MW-66	25-45'
MW-67	25-45'



Reference: Fair Play, South Carolina
Oakway, South Carolina
USGS 7.5 Min. Quad
Contour Interval = 10 Feet

Midlands Environmental Consultants, Inc.	Site Location
Country Side 2 Westminster, South Carolina SCDHEC Site ID# 06742	
Figure 1	MECI 07-1121



Gauge MW-1R, MW-8, MW-54, MWR-4
MW-7R, MW-51 for FP

7/22/08 J. Padgett
B. Fuller
A. Shrader

√MWR-1A 4" by bailer 0.33

	SWL	FP
√MW-7R	35.63	—
√MW-7	35.22	—
MW-54	37.85	35.98 1.87
√MW-8	36.95	—
√MWR-1	33.66	
MW-1	29.65	—

	SWL	FP
MW-51	~~34.83~~	~~35~~ 0.45
MWR-4	35.28	34.83
MWR-4R	31.84	—
	31.84	—
MW-6	31.51	—

RECEIVED
SEP 01 1999
DIVISION OF UNDERGROUND STORAGE TANK MGMT.

Read S. Miner

PROPERTY OWNER

RIGHT OF ENTRY - UST Permit # 06742/12765

If you are the Property Owner or are the authorized representative for that person, but did not own the former or existing underground storage tanks at the time the release was reported, please complete this form.

I, Judith A. Laughter, Agent, certify that I am the legal owner of the property identified below or serve as the authorized representative for the property owner. I authorize the South Carolina Department of Health and Environmental Control (SCDHEC), or a contractor selected by SCDHEC, to enter this property at reasonable times only to conduct assessment and corrective action activities, as required. The contractor will be designated as the contractor for the UST owner or operator for only the required environmental site rehabilitation activities. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that SCDHEC will notify me of all activities that are necessary prior to their initiation and will promptly provide to me a summary of the data upon request.

Name of Facility Hot Spot #2040 Phone # 864-585-2784 Ext 116

Street Address of Facility 8050 West Oak Highway

Town, City, District, Suburb Westminister, S.C. 29693 (Oconee County)

Name of nearest intersecting street, road, highway, alley
Malibu Drive (Gravel) & Hwy 59

Is this facility within the city limits? (yes or no) No

Is this facility serviced by a public water or sewer utility? (yes or no) *, if no, please provide the name of a person we can contact that can assist in the location of private water and septic tank lines Name _____, phone number _____

* Public Water * Septic Tank

Were underground storage tanks previously removed from the ground at this facility? (yes or no) yes. if yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation See DHEC File. Phone number _____

Is the property currently leased or rented to someone? (yes or no) No, if yes, please provide their name _____ and phone number _____ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of property owner (Please Print): R. L. Jordan Oil Company of North Carolina, Inc.

Phone Number (home) 864-969-2526 (work) 864-585-2784 Ext. 116

Current Mailing Address P.O. Box 2527, Spartanburg, SC 29304

Signature of Property ~~Owner~~ Agent: Judith A. Laughter, Agent

Witness: Billi Wolfe

Date: August Month 31 Day 1999 Year

AUG.30'1999 11:37 18038984330 DIV UST MGMT #6428 P.002/002

Donnee RSM

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

RECEIVED

DEC 1 1 1998

DIVISION OF UNDERGROUND STORAGE TANK MGMT.

PERMISSION FORM - FACILITY ID #(06742)

If you are the owner of the former or existing underground storage tanks and the property owner, please complete this form.

I, Neil Alexander, certify that I am the legal owner of the underground storage tanks and property located at the facility identified below or serve as the authorized representative for the owner. I grant permission to the South Carolina Department of Health and Environmental Control (SCDHEC) to secure on my behalf contractor services to conduct assessment and corrective action activities as required, and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to accomplish these site rehabilitation tasks. The contractor(s) will be designated as my contractor for only the required site rehabilitation activities. Compensation to the contractor(s) will be from the SUPERB Account and I will have no obligation to pay the contractor(s). I understand that SCDHEC will be responsible for notifying me of all activities that are necessary prior to their initiation and will promptly provide to me a copy of each environmental report. I understand that I may choose to select my own contractor at the completion of any phase of work by notifying the Division of Underground Storage Tank Management in writing.

Name of Facility Crossroads Grocery Phone # 864-972-3489

Street Address of Facility 8050 West Oak Hwy.

Town, City, District, Suburb Westminster, S.C. 29693

Name of nearest intersecting street, road, highway, alley
Hwy. #59

Is this facility within the city limits? (yes or no) No

Is this facility serviced by a public water or sewer utility? (yes or no) No, if no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines Neil Alexander, phone number 864-972-3489

Were underground storage tanks previously removed from the ground at this facility? (yes or no) YES, if yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation Randy McCorkle,
Phone number 864-882-6708

Is the property currently leased or rented to someone? (yes or no) No, if yes, please provide their name _____ and phone number _____ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of UST/property owner (Please Print): Neil Alexander

Phone Number (home) 864-882-8372 (work) 864-972-3489

Signature of UST/property Owner: L. Neil Alexander

Witness: Kathy Hay

Date: DEC. Month 9 Day 1998 Year

[redacted]

RECEIVED
NOV 2 0 1998
DIVISION OF UNDERGROUND STORAGE TANK MGMT

RSM

AC

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

PERMISSION FORM - FACILITY ID #(06742)

If you are the owner of the former or existing underground storage tanks and the property owner, please complete this form.

I, R. Neil Alexander, certify that I am the legal owner of the underground storage tanks and property located at the facility identified below or serve as the authorized representative for the owner. I grant permission to the South Carolina Department of Health and Environmental Control (SCDHEC) to secure on my behalf contractor services to conduct assessment and corrective action activities as required, and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to accomplish these site rehabilitation tasks. The contractor(s) will be designated as my contractor for only the required site rehabilitation activities. Compensation to the contractor(s) will be from the SUPERB Account and I will have no obligation to pay the contractor(s). I understand that SCDHEC will be responsible for notifying me of all activities that are necessary prior to their initiation and will promptly provide to me a copy of each environmental report. I understand that I may choose to select my own contractor at the completion of any phase of work by notifying the Division of Underground Storage Tank Management in writing.

Name of Facility Crossroads Grocery Phone # 864-972-3489

Street Address of Facility 8050 W. Oak Hwy.

Town, City, District, Suburb Westminster, S.C. 29693

Name of nearest intersecting street, road, highway, alley
Hwy. 24 or 59.

Is this facility within the city limits? (yes or no) No

Is this facility serviced by a public water or sewer utility? (yes or no) No, if no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines Self, phone number Same

Were underground storage tanks previously removed from the ground at this facility? (yes or no) YES, if yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation Randy McCorkle,
Phone number 864-882-6708

Is the property currently leased or rented to someone? (yes or no) No, if yes, please provide their name _____ and phone number _____ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of UST/property owner (Please Print): R. Neil Alexander

Phone Number (home) 864-882-8372 (work) 864-972-3489

Signature of UST/property Owner: R Neil Alexander

Witness: _____

Date: Nov. Month 18 Day 1998 Year

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

OCT 07 2005

Joel,
According to the sign-out sheet, you have this file. Please clip this in the technical file.
Thank you,
Heather Price

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071-0854

Re: **Notice to Proceed**
Former Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742, CA #25711
Bid #SB-26144-7/27/04-EMW; PO #543967
Oconee County

Dear Mr. Shane:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) requests an two 8-hour Aggressive Fluid Vapor Recovery (AFVR) events to remove free-phase product documented on August 3, 2005 in monitoring wells MWR-1 (0.01 feet), MWR-4R (0.96 feet), and MW-8 (0.26 feet), and reduce dissolved CoC concentrations in MWR-4. This work is being directed to assist ongoing pay-for-performance corrective action being conducted by Smith Monitoring and Maintenance Engineering at the referenced site. Please conduct the first event on MW-8 and MWR-1 and the second event on MWR-4 and MWR-4R. Midlands Environmental may proceed with the AFVR events upon receipt of this correspondence.

An AFVR report and final invoice are due within **60 days** from the date of this letter. Cost Agreement #25711 has been approved in the amount shown on the enclosed cost agreement spreadsheet for the AFVR events, and will be kept on-file for compensation from the SUPERB Account. SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with bid number SB-26144-7/27/04-EMW. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable, and the right to audit project records at any time during the project or after completion of the work.

Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the Department is obtained. If for any reason there is a change in this cost agreement, any associated changes to this cost agreement must be pre-approved by the Department in order for Midlands Environmental Consultants to seek compensation. Any item(s) not clearly or completely addressed in the report (disposal manifest for generated ground water, etc.) WILL NOT be compensated from the SUPERB Account.

The UST Program grants pre-approval for transportation of free-phase product and petroleum-contaminated groundwater from the referenced site to a permitted treatment facility. The free-phase product and petroleum-contaminated groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included in the report.

On all correspondence regarding this site, please reference UST Permit #06742 and Cost Agreement #25711. If you have questions concerning this correspondence, please contact me by phone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
06742.7

enc: Approved cost agreement
Site information

cc: ~~Richard B. Smith, P.E.~~, Smith Monitoring & Maintenance Engineering, Inc., 145 Merrill Avenue, Decatur, GA 30030 (w/ enc)
Dan Alexander, Countryside II, 8050 West Oak Highway, Westminster, SC 29693 (w/o enc)
Matt Winslow, Bureau of Business Management (w/o enc)
Technical file (w/enc)

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PROMOTE PROTECT PROSPER
South Carolina Department of Health
and Environmental Control

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-896-6240

MEMORANDUM

TO: Bryan Shane, P.G., Midlands Environmental Consultants

FROM: Joel Padgett, P.G.

RE: **NOTICE TO PROCEED**

Facility Name: Former Crossroads Grocery

Permit Number: 06742

County: Dorchester

Work to be completed: 2 AFVR events. One event on MW-8 and MWR-1 to remove free-phase product. One event on MWR-4 and MWR-4R to remove free-phase product and reduce dissolved CoC concentrations.

CA#: 25711

UST Permit: 06742
Facility: Former Crossroads Grocery
County: Oconee

Screened Interval

MWR-1	30-45'
MWR-4	25-40'
MWR-4R	27-37'
MW-8	25-45'

Approved Cost Agreement 2[redacted]11

Facility: 06742 COUNTRY SIDE 2
PADGETJP
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		A	EQUIPMENT	2.0000	350.00	700.00
17 DISPOSAL						
		A2	WASTEWATER - PUMPING TEST	1,000.0000	0.25	250.00
23 EFR						
		A	8 HOUR EVENT	2.0000	600.00	1,200.00
		D	SITE RECONNAISSANCE	1.0000	75.00	75.00
				Total Amount		2,225.00

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Promoting and protecting the health of the public and the environment.

March 28, 2007

WILLIAM R LAND II
ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINISTER SC 29693-5534

Re: Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit # 06742
Aggressive Fluid Vapor Recovery Report received March 26, 2007
Oconee County

Dear Mr. Land:

As you may be aware, an Aggressive Fluid and Vapor Recovery (AFVR) event was conduced by Midlands Environmental Consultants, Incorporated on January 30, 2007 and a second event on March 18, 2007. The first AFVR report documented free phase product in excess of one foot thick was present in monitoring well MW-8 before the first event, but was less than two inches before the march event. Free phase product was approximately one and a half foot thick in monitoring well MWR-1 before the second event. Free phase product was not detected in any monitoring wells immediately after the second AFVR event. A copy of the report for the second AFVR event is enclosed for your information.

Midlands Environmental Consultants, Incorporated is currently installing additional monitoring wells to better define the problem so additional cleanup activities may be conducted in the future. You will be provided a copy of the reports once these activities have been completed. Costs for this and future rehabilitation activities for the release reported on January 11, 1993 are being paid directly to the contractor from the State Underground Petroleum Environmental Response Bank (SUPERB) Account.

Your continued cooperation is appreciated. On all correspondence regarding this site, please reference UST permit number 06742. Please feel free to contact me at (803) 896-6669, fax me at (803) 896-6245, or e-mail me at shradeaa@dhec.sc.gov, if you have questions or need additional information.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: AFVR Report by Midlands Environmental Consultants, Inc. dated March 20, 2007

cc: Technical File (without enclosure)

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Promoting and protecting the health of the public and the environment.

March 28, 2007

NEIL ALEXANDER
C/O ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINISTER SC 29693-5534

Re: Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit # 06742
Aggressive Fluid Vapor Recovery Report received March 26, 2007
Oconee County

Dear Mr. Alexander:

As you may be aware, an Aggressive Fluid and Vapor Recovery (AFVR) event was conduced by Midlands Environmental Consultants, Incorporated on January 30, 2007 and a second event on March 18, 2007. The first AFVR report documented free phase product in excess of one foot thick was present in monitoring well MW-8 before the first event, but was less than two inches before the march event. Free phase product was approximately one and a half foot thick in monitoring well MWR-1 before the second event. Free phase product was not detected in any monitoring wells immediately after the second AFVR event. A copy of the report for the second AFVR event is enclosed for your information.

Midlands Environmental Consultants, Incorporated is currently installing additional monitoring wells to better define the problem so additional cleanup activities may be conducted in the future. You will be provided a copy of the reports once these activities have been completed. Costs for this and future rehabilitation activities for the release reported on January 11, 1993 are being paid directly to the contractor from the State Underground Petroleum Environmental Response Bank (SUPERB) Account.

Your continued cooperation is appreciated. On all correspondence regarding this site, please reference UST permit number 06742. Please feel free to contact me at (803) 896-6669, fax me at (803) 896-6245, or e-mail me at shradeaa@dhec.sc.gov, if you have questions or need additional information.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: AFVR Report by Midlands Environmental Consultants, Inc. dated March 20, 2007

cc: Technical File (without enclosure)

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March 15, 2007

MR CARL DOCKINS
138 MALIBU DR
WESTMINISTER SC 29693-5114

MR STANLEY DOCKINS
132 MALIBU DR
WESTMINISTER SC 29693-5114

Re: Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit # 06742
Adjacent property belonging to Carl Dockins and Stanley Dockins
Telephone Conversation with Carl Dockins on March 14, 2007
Oconee County

Dear Mr. Dockins:

In response to our conversation, the following information about environmental conditions and liability associated with the referenced facility and adjacent property is provided.

Our records indicate Neil Alexander registered ten Underground Storage Tanks (USTs) with the Department. Mr. Alexander removed five of the USTs from the ground in June 1990. The remaining five tanks are currently in operation and were transferred to Mr. William Land of Alley Antiques on January 2, 2004. The USTs were last inspected by the Department on November 26, 2006 and found to be in compliance with all state and federal requirements. An assessment report received in June 1998 documented a release of petroleum products in the vicinity of the UST. Our records indicate Mr. Neil Alexander complied with the regulatory requirements and stopped the leak from the tanks. Additionally, he is currently pursuing the extent and severity of petroleum chemicals of concern under our direction. As you are aware, additional assessment activities are ongoing by Midlands Environmental Consultants, Incorporated. An assessment report is expected to be received by the end of May. You will be provided a copy of the assessment report as soon as it is received.

This release of petroleum products from the USTs is qualified to receive funding under the conditions of the State Underground Petroleum Environmental Response Bank (SUPERB) Act. This means that reasonable costs up to $1,000,000 can be paid by the SUPERB account for site rehabilitation actions associated with this release. Should cleanup costs exceed $1,000,000, Mr. Neil Alexander under state and federal law, retains responsibility for any additional actions and associated costs.

Should the potential exist for petroleum chemicals of concern to migrate onto an adjacent property, the UST owner/operator and the Department may require access during reasonable hours to perform necessary rehabilitation activities. All rehabilitation activities associated with the petroleum impact are the responsibility of the Mr. Neil Alexander. You should be aware that there are currently no laws or regulations that prohibit the use or development of adjacent properties and properties where petroleum release has occurred.

Upon completion of the assessment activities, this release may proceed to corrective action. The UST owner/operator and the Department will require access to your property during reasonable hours to perform necessary rehabilitation activities. You will be contacted by letter before corrective action is initiated. Rehabilitation activities remain the responsibility of the Mr. Neil Alexander.

If you have any questions, please do not hesitate to call me at (803) 896-6669 or e-mail me at shradeaa@dhec.sc.gov.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program

cc: Mr. Land and Mr. Alexander, 8050 West Oak Highway, Westminster, SC
Midlands Environmental Consultants, PO Box 854, Lexington, SC 29071
Technical File

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BOARD:
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Paul C. Aughtry, III

Glenn A. McCall

Coleman F. Buckhouse, MD

February 26, 2007

WILLIAM R LAND II
ALLEY ANTIQUES
8050 WEST OAK HWY
WESTMINISTER SC 29693-5534

Re: Country Side 2, 8050 West Oak Highway, Westminster, SC
UST Permit # 06742
Aggressive Fluid Vapor Recovery Report received February 22, 2007
Oconee County

Dear Mr. Land:

As you may be aware, an Aggressive Fluid and Vapor Recovery (AFVR) event was conduced by Midlands Environmental Consultants, Incorporated on January 30, 2007. The report documents free phase product in excess of one foot thick was present in monitoring well MW-8 before the event, but was removed during this AFVR event. A copy of the report is enclosed for your information.

Midlands Environmental Consultants, Incorporated has been directed to conduct another AFVR event, plus to install additional screening points and monitoring wells to better define the problem so additional cleanup activities may be conducted in the future. You will be provided a copy of the reports once these activities have been completed. Costs for this and future rehabilitation activities are being paid directly to the contractor from the State Underground Petroleum Environmental Response Bank (SUPERB) Account.

Your continued cooperation is appreciated. On all correspondence regarding this site, please reference UST permit number 06742. Please feel free to contact me at (803) 896-6669, fax me at (803) 896-6245, or e-mail me at shradeaa@dhec.sc.gov, if you have questions or need additional information.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Midlands Environmental Consultants, Inc. AFVR Report dated February 21, 2007

cc: Technical File (without enclosure)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

DEC 28 2006

BRIAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071-0854

Re: Bid # IBF-30519-8/8/06-EMW; PO # 646282
Notice to Proceed

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct Aggressive Fluid Vapor Recovery (AFVR) event at several facilities. The packets contain the necessary approval for work to begin. You may commence with a site reconnaissance before the AFVR. If monitoring wells do not contain measurable free phase product, contact the UST project manager for further instructions. The facilities have been assigned Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order # 646282 on the appropriate invoices submitted for payment against the facilities. As specified in the referenced bid, **the completed invoice forms and associated reports (include contract certification number) are expected on or before the designated due date (see below).**

UST Permit #	Facility	County	Release #	Work Scope	Due Date*	CA #	Approved Amt
06742	Country Side 2	Oconee	1	2 AFVR	60 days	28424	2,035.00
03539	Sav A Ton 84	Florence	1	1 AFVR	60 days	26225	2,325.00
15808	Ken's El Cheapo	Jasper	1	1 AFVR	60 days	28454	1,350.00
14301	Whitaker Property	Newberry	1	2 AFVR	60 days	28374	2,175.00
00493	KMO 116 Citgo	Anderson	1	1 AFVR	60 days	28338	1,155.00

UST Permit #	Facility	County	Release #	Work Scope	Due Date*	CA #	Approved Amt
19070	Pickens Railway Building	Anderson	1	1 AFVR	60 days	28457	2,215.00
16844	Selma Convenience	Dillon	1	2 AFVR	60 days	28474	2,235.00

*From receipt of letter

Midland's Environmental Consultants, Inc. will perform services at the sites on behalf of the site's UST owners; however, payments will be made from the SUPERB Account. The site's UST owners have no obligation for payment for this scope of work. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the Department is obtained.

If for any reason there are changes in these cost agreements, any associated changes to this cost agreement must be pre-approved by this Department in order for Midlands Environmental Consultants to seek future cost compensation. Please contact the site's project manager for technical and/or financial approval.

Any item(s) not clearly or completely addressed in the report (disposal manifest for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account.

The Department grants pre-approval for transportation of free phase product and petroleum contaminated groundwater from the referenced site to a permitted treatment facility. The free product and contaminated groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included as an appendix to the report.

If you have any questions concerning this correspondence or need further assistance, please contact me by phone at (803) 896-6664, by fax at (803) 896-6245 or by email at milenkmp@dhec.sc.gov.

Sincerely,

Maia Milenkova

Maia Milenkova, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Approved Cost Agreements (ACA)
Information Packets

cc: Technical File (w/copy of ACA)

SCDHEC/UST/12/08/06/MPM

Approved Cost Agreement

Facility: 06742 COUNTRY SIDE 2
SHRADEAA
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		A	EQUIPMENT	2.0000	350.00	700.00
17 DISPOSAL						
		A2	WASTEWATER - PUMPING TEST	500.0000	0.10	50.00
23 EFR						
		A	8 HOUR EVENT	2.0000	600.00	1,200.00
		D	SITE RECONNAISSANCE	1.0000	75.00	75.00
		E	ADDITIONAL WELL HOOKUPS	2.0000	5.00	10.00
				Total Amount		2,035.00

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

DEC 28 2006

BRIAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071

Re: Bid # SB-28162-5/26/05-EMW; PO# 586441
Notice to Proceed

Dear Mr. Shane:

Based on the award of the referenced bid packages, enclosed are the information packets to conduct two Initial Groundwater Assessments at one facility and Monitoring Well Installation on another facility. The packets contain the necessary approval for work to begin. The facilities have been assigned Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order # 586441 on the appropriate invoices submitted for payment against the facilities. As specified in the referenced bid, **the completed invoice forms and associated reports (include contract certification number) are expected on or before the designated due date (see below).**

UST Permi	Facility	County	Release #	Work Scope	Due Date*	CA #	Approved Amt
00709	Eddies Minute Mart	Anderson	1	MWI	60 days	27493	$1,344.00
06742	Country Side 2	Oconee	1	MWI	60 days	28426	$60,034.00
07359	Columbia Maintenance	Richland	1	MWI	60 days	28375	$1,467.00
07526	Former Binswanger Glass	Richland	1	MWA	60 days	28468	$9960.00

*From receipt of letter

Midland's Environmental Associates, Inc. will perform services at the sites on behalf of the sites UST owners; however, payments will be made from the SUPERB Account. The sites UST owners have no obligation for payment for this scope of work. **Please note if there are any changes in the established cost agreement amounts (e.g., additional water supply wells sampled, additional well footage, etc.) contact the site's project manager for technical and/or financial approval. Failure to do so prior to submittal of invoice may result in delay of payment.**

The Bureau grants preapproval for transportation of drums of virgin petroleum contaminated soil and drums of groundwater from the referenced site to a permitted treatment facility. The contaminated soil and/or groundwater must be properly stored in labeled 55-gallon drums or equivalent containers. The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report. Please note, transportation of waste oil contaminated soil must receive preapproval from the Division of Waste Assessment & Emergency Response.

Please provide this office with a schedule of drilling dates and coordinate all work with me before commencing work at the facility. If you have any questions or need further assistance, please contact me at (803) 896-6647.

Sincerely,

K. Akhvlediani

Konstantine T. Akhvlediani, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Monitoring Well Approval (MWA)
Approved Cost Agreement (ACA)
Information Packet

cc: Technical Files (w/ copy of MWA)

SCDHEC/UST/KTA/12.8.06

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

Monitoring Well Installation Approval Form

Approval is hereby granted to: Midlands Environmental Consultants, Incorporated
Facility: Country Side 2, 8050 West Oak highway, Westminister, SC
UST Permit Number: 06742
County: Oconee

This approval is for the installation of up to forty (40) temporary, thirty (30) shallow, and seven (7) deep pit cased monitoring wells. The monitoring wells are to be installed in the approved locations. Monitoring wells are to be installed following the South Carolina Well Standards, R.61-71, and the applicable guidance documents.

Please note that R.61-71 requires the following:

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.

2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.

3. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted to the Department within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f

4. All analytical data and water levels obtained from each monitoring well shall be submitted to the Department within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.

5. If any of the information provided to the Department changes, notification to Arthur Shrader (tel: (803) 896-6669 or e-mail: shradeaa@dhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.

6. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.

7. Departmental approval is required prior to abandonment of all monitoring wells as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated April 26, 2002. A copy of this approval should be on the site during well installation.

Date of Issuance: **February 15, 2006** **Approval #:** **UMW-19810**

Arthur Shrader, Hydrogeologist
Assessment Section
Division of Assessment and Corrective Action
Bureau of Land and Waste Management

Approved Cost Agreement 28426

Facility: 06742 COUNTRY SIDE 2
SHRADEAA
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
01 PLAN						
		B	TAX MAPS	1.0000	45.00	45.00
03 COMPREHENSIVE SURVEY						
			COMPREHENSIVE SURVEY	3.0000	500.00	1,500.00
04 MOB/DEMOB						
		B	PERSONNEL	9.0000	110.00	990.00
06 SOIL BORINGS (DRILLED)						
		A	SOIL BORINGS & FLD SCREENING	1,000.0000	15.00	15,000.00
09 WELL INSTALLATION						
		B	WATER TABLE (DRILLED)	750.0000	15.00	11,250.00
		D	ROCK DRILLING	540.0000	33.00	17,820.00
10 SAMPLE COLLECTION						
		A	GROUND WATER	50.0000	30.00	1,500.00
		C	WATER SUPPLY	1.0000	25.00	25.00
		D	GROUNDWATER NO-PURGE	5.0000	30.00	150.00
11 ANALYSES						
	GW GROUNDWATER	A	BTEX+NAPTH+MTBE	66.0000	33.50	2,211.00
		BB	1,2-DCA	55.0000	43.50	2,392.50
		E	LEAD	56.0000	10.00	560.00
		F	EDB	66.0000	35.50	2,343.00
		K	NITRATE	55.0000	12.00	660.00
		L	SULFATE	55.0000	12.00	660.00
		M	FERROUS IRON	55.0000	2.00	110.00
		P	8 OXYGENATES	55.0000	38.50	2,117.50
17 DISPOSAL						
		A1	WASTEWATER - PURGING/SAMPLING	20.0000	10.00	200.00
		B	FREE PRODUCT	50.0000	10.00	500.00
				Total Amount		60,034.00

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Richard B. Smith, P.E.
Smith Monitoring & Maint. Eng, Inc
245 Merrill Ave
Decatur, GA 30030

06742

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7005 3110 0001 1668 7585

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

UNITED STATES POSTAL SERVICE METRO GA 300

06 JUL 2006 PM 3 L

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

UST PROGRAM
SC DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
2600 BULL STREET
COLUMBIA, SC 29201

UNDERGROUND STORAGE TANK PROGRAM

JUL 10 2006

JP

1708 C001

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

CERTIFIED MAIL
7005 3110 0001 1668 7585

MR RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING INC
145 MERRILL AVE
DECATUR GA 30030

Re: Former Cross Roads Grocery, 8050 West Oak Hwy, Westminster, SC
UST Permit #06742
Bid #SB-6672-07/29/99-REB; PO #191160
Release reported April 27, 1987
Performance bond for corrective action
Oconee County

Dear Mr. Smith:

On April 30, 2006, the referenced corrective action bid was cancelled per Special Condition #12 and Specification #6. Accordingly, the performance bond for the corrective action is enclosed.

On all correspondence regarding this facility, please reference UST Permit #06742. If you have any questions, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
06742.8

enc: Performance bond

cc: E. Madison Winslow, Bureau of Business Management (w/o enc)
Technical file (w/o enc)

DHEC/UST/JPP/063006

From: "Ned Tillman" <ntillman@columbiatechnologies.com>
To: "Joel P. Padgett" <Padgetjp@dhec.sc.gov>
Date: 6/8/2006 3:53:20 PM
Subject: Sole -source justification

Joel - good to talk with you. i appreciate your interest in our services. I have attached information that others have used to provide us with sole source contracts. Let me know what else I need to do. Thanks.

Ned Tillman

President

Voice: 410.536.9911

Fax: 410.536.0222

www.columbiatechnologies.com

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Combining direct sensing technology with rapid 3-D visualization delivery.

A Veteran-owned Business

SMITH

Monitoring & Maintenance Engineering, Inc.

April 30, 2006

Mr. Lee Monts
Underground Storage Tank Program
SC DHEC
2600 Bull Street
Columbia, South Carolina 29201

Re: Former Cross Road Grocery, UST Permit #06742
Westminster, South Carolina

Dear Mr. Motts,

This letter is in response to your proposal of April 26. This proposal is acceptable to Smith Monitoring & Maintenance Engineering, Inc.

We plan to be on-site not later than the third week of May to assess compliance with DHEC's condition for SMME to remove remediation items and investigative-derived wastes from the site.

Thank you for your efforts in this matter.

Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer

Cc: Mr. John Mangan, ACE USA

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296
e-mail: ricksmme@mindspring.com

proposed contract cancellation

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

APR 26 2006

MR RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING INC
145 MERRILL AVE
DECATUR GA 30030

Re: Former Cross Roads Grocery, 8050 West Oak Hwy, Westminster, SC, Oconee County
UST Permit #06742
Bid #SB-6672-07/29/99-REB; PO #191160
Release reported April 27, 1987
Proposed contract cancellation

Dear Mr. Smith:

Pursuant to your telephone conversation with Joel Padgett in early April 2006, the UST Program is proposing cancellation of the referenced corrective action contract so that additional free-phase product assessment and an alternate remediation technology can be pursued. The release of Smith Monitoring from the contract is in accordance with Special Condition #12 and Specification #6 of the contract that allow cancellation in the event that unforeseen geological conditions or additional CoC are identified. The following contingencies apply to the cancellation:

- No further payments from the SUPERB fund will be made for the scope of work defined in the referenced corrective action contract.
- Smith Monitoring will not be required to abandon the existing monitoring wells at the site. However, all remediation items and investigative-derived waste (drums, etc.) must be removed from the site.

Upon verification that all remediation items and investigative-derived waste have been removed from the site, the Program will return the associated performance bond to Smith Monitoring.

If this proposal is acceptable to you, please submit your written acceptance to the Program on or before May 1, 2006. On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6677, by fax at (803) 896-6245, or by e-mail at montsla@dhec.sc.gov.

Sincerely,

Lee A. Monts

Lee A. Monts, Manager
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

cc: E. Madison Winslow, Bureau of Business Management
Technical File

DHEC/UST/JPP/042106

06742 Cross Roads Grocery 10/21/04 sampling

Enter Initial, SSTL and subsequent CoC Reduction: -97.8446 %

Well		Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	Totals
MWR-1	Initial	28200	37200	2750	19500	24600	4750	0	117000
	SSTL	111	22164	2750	19500	887	554	0	45966
	Initial > SSTL	28089	15036	0	0	23713	4196	0	71034
	Subsequent	226000	301000	280000	278000	5110000	2000	0	6197000
	Subsequent > SSTL	225889	278836	277250	258500	5109113	1446	0	6151034
MWR-1A	Initial	33700	39300	1700	13500	193000	5000	0	286200
	SSTL	111	22164	1700	13500	187	554	0	38216
	Initial > SSTL	33589	17136	0	0	192813	4446	0	247984
	Subsequent	1	1	1	3	2	5	0	13
	Subsequent > SSTL	0	0	0	0	0	0	0	0
MWR-2	Initial	19	12	5	21	67	5	0	129
	SSTL	19	12	5	21	67	5	0	129
	Initial > SSTL	0	0	0	0	0	0	0	0
	Subsequent	63	143	26	238	67	38	0	575
	Subsequent > SSTL	44	131	21	217	0	33	0	446
MW-4R	Initial	226000	301000	280000	278000	5110000	2000	0	6197000
	SSTL	74	14775	10344	147734	592	369	0	173888
	Initial > SSTL	225926	286225	269656	130266	5109408	1631	0	6023112
	Subsequent	226000	301000	280000	278000	5110000	2000	0	6197000
	Subsequent > SSTL	225926	286225	269656	130266	5109408	1631	0	6023112
MWR-4R	Initial	6920	9600	1080	7460	1810	495	0	27365
	SSTL	97	9600	1080	7460	163	482	0	18882
	Initial > SSTL	6823	0	0	0	1647	13	0	8483
	Subsequent	226000	301000	280000	278000	5110000	2000	0	6197000
	Subsequent > SSTL	225903	291400	278920	270540	5109837	1518	0	6178118
MW-7R	Initial	2200	9360	1280	7440	110	430	0	20820
	SSTL	111	9360	1280	7440	110	430	0	18731
	Initial > SSTL	2089	0	0	0	0	0	0	2089
	Subsequent	8520	21200	2200	12400	1480	1320	0	47120
	Subsequent > SSTL	8409	11840	920	4960	1370	890	0	28389
MW-8	Initial	226000	301000	280000	278000	5110000	2000	0	6197000
	SSTL	111	22164	15515	221643	887	554	0	260874
	Initial > SSTL	225889	278836	264485	56357	5109113	1446	0	5936126
	Subsequent	226000	301000	280000	278000	5110000	2000	0	6197000
	Subsequent > SSTL	225889	278836	264485	56357	5109113	1446	0	5936126
MWR-11	Initial	24	106	189	825	10	731	0	1885
	SSTL	24	106	189	825	10	369	0	1523
	Initial > SSTL	0	0	0	0	0	362	0	362
	Subsequent	48	125	98	540	47	106	0	964
	Subsequent > SSTL	24	19	0	0	37	0	0	80
MW-13R	Initial	1810	26	38	382	2810	154	0	5220
	SSTL	10	26	38	382	134	83	0	673
	Initial > SSTL	1800	0	0	0	2676	71	0	4547
	Subsequent	3530	50	58	60	2360	222	0	6280
	Subsequent > SSTL	3520	24	20	0	2226	139	0	5929
MW-14R	Initial	17	21	50	334	7	452	0	881
	SSTL	10	21	50	334	7	83	0	505
	Initial > SSTL	7	0	0	0	0	369	0	376
	Subsequent	1	1	1	3	1	5	0	12
	Subsequent > SSTL	0	0	0	0	0	0	0	0
	Initial	0	0	0	0	0	0	0	0
	SSTL	0	0	0	0	0	0	0	0
	Initial > SSTL	0	0	0	0	0	0	0	0
	Subsequent	0	0	0	0	0	0	0	0
	Subsequent > SSTL	0	0	0	0	0	0	0	0

06742 Cross Roads Grocery

Total Concentration Reduction

Total Initial Conc. : 12853500 µg/L
Total Subseqent Conc. : 24842964 µg/L
Total SSTL Conc. : 559394 µg/L
Initial > SSTL : 12294113 µg/L
Subsequent > SSTL : 24323234 µg/L

Total Reduction: -97.845 %

Individual Constituent Reductions

CoC	Initial	Subseq.	Initial >SSTL	Subseq. > SSTL	CoC % Reduction
Benzene	524890	916163	524212	915604	-74.66292263
Toluene	697625	1225520	597233	1147311	-92.10442156
Ethylbenzene	567092	1122384	534141	1091272	-104.304107
Xylenes	605462	1125244	186623	720840	-286.2546417
MtBE	10442414	20443957	10439370	20441104	-95.80783132
Naphthalene	16017	9696	12534	7103	43.33014201
EDB	0	0	0	0	non-SSTL CoC

SMITH

Monitoring & Maintenance Engineering, Inc.

September 27, 2005

RECEIVED
SEP 29 2005
UNDERGROUND STORAGE TANK PROGRAM

Mr. Joel P. Padgett, P,G,
Underground Storage Tank Program
SC DHEC
2600 Bull Street
Columbia, South Carolina 29201

Re: Former Cross Road Grocery, UST Permit #06742
Westminster, South Carolina

Dear Mr. Padgett,

This letter is in response to the Corrective Action Section's correspondence of September 8, 2005. In the referenced letter, the State offered to conduct two AFVR events on the Former Cross Roads Grocery site. Should measurable product still be present an additional series of AFVR events will be scheduled.

SMME is in concurrence with this plan of action. It is understood that the cost of the proposed events will be paid from remaining balance of our Cost Agreement #09283. Please proceed with these efforts. If possible, we would like to be advised, by e-mail or phone, of MEC's schedule concerning this site.

Thank you for your efforts in this matter.

Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer

Cc: Mr. John Mangan, ACE USA

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296
e-mail: ricksmme@mindspring.com

FIELD ACTIVITY WORKSHEET ORDER

Date of Request: January 12, 2005

Type of Request:

(Please indicate your request with a check mark)

Emergency	(<2 Working Days)	☐
Specific	(1-5 Working Days)	☐
Routine	(10 Working Days)	X

Please specify the type of work to be completed:

Verify free-phase product levels in MWR-1, MW-4R, MWR-4R, and MW-8

8/3/05 & 1/26/06 gauging data

Facility Name: **Crossroads Grocery**

Permit Number: **06742**

Project Manager: J. Padgett

County: Oconee

(Field Staff Only)

Date Field Activity Completed: _____

Completed by Field Staff: _____

Date Field Notes Entered into EFIS: _____

Field Staff Comments:

_____

_____

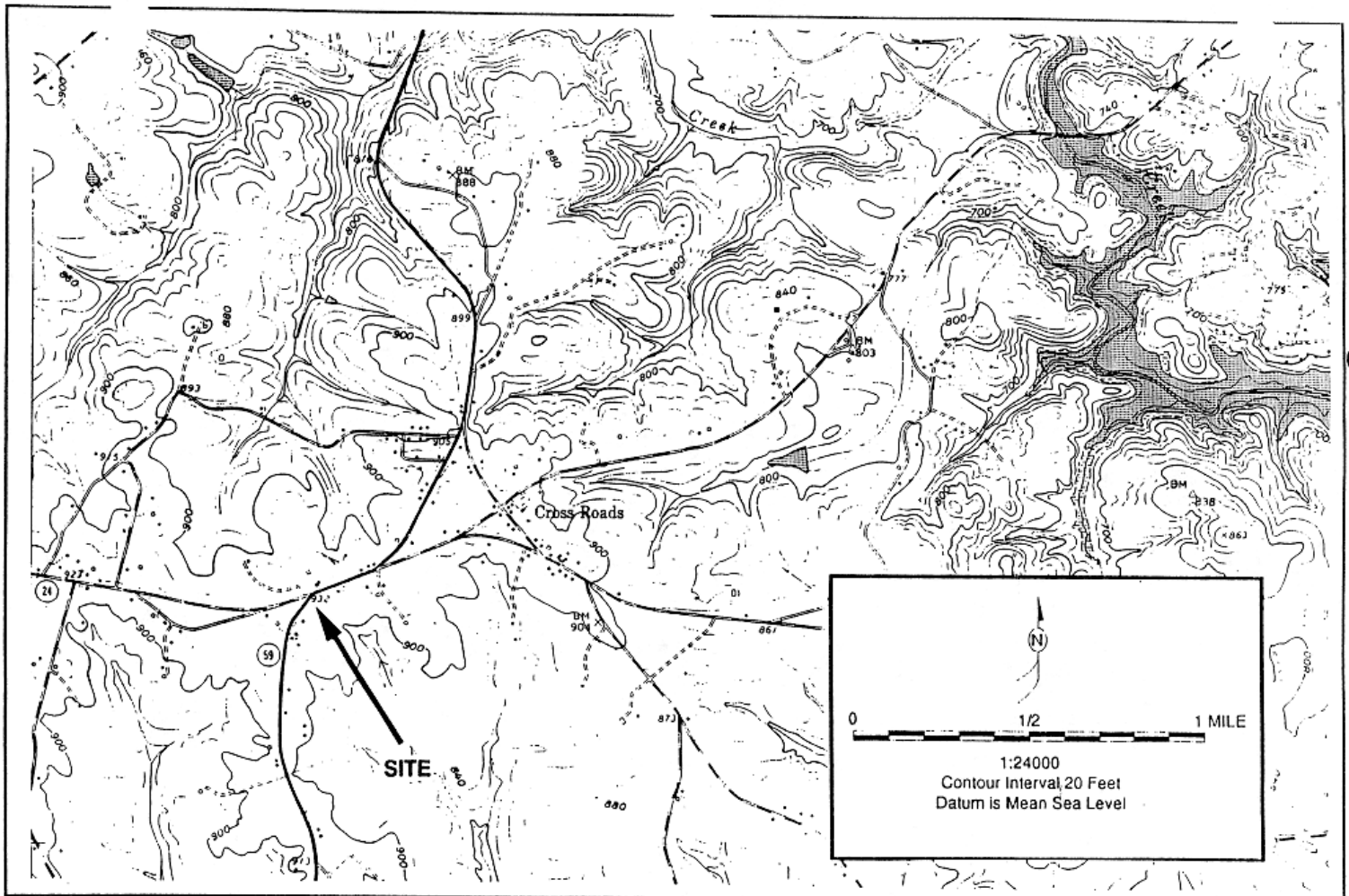
_____

REMEMBER TO ESTABLISH COST PROPOSALS

PACE CA#: **23052** DICK CA#: _____

PALMETTO ENV GROUP CA#: _____

Fill out back of this form. Photocopy, attach a completed CP cover for each CP. Thank you very much!



Crossroads Grocery

USGS MAP SHOWING SITE LOCATION

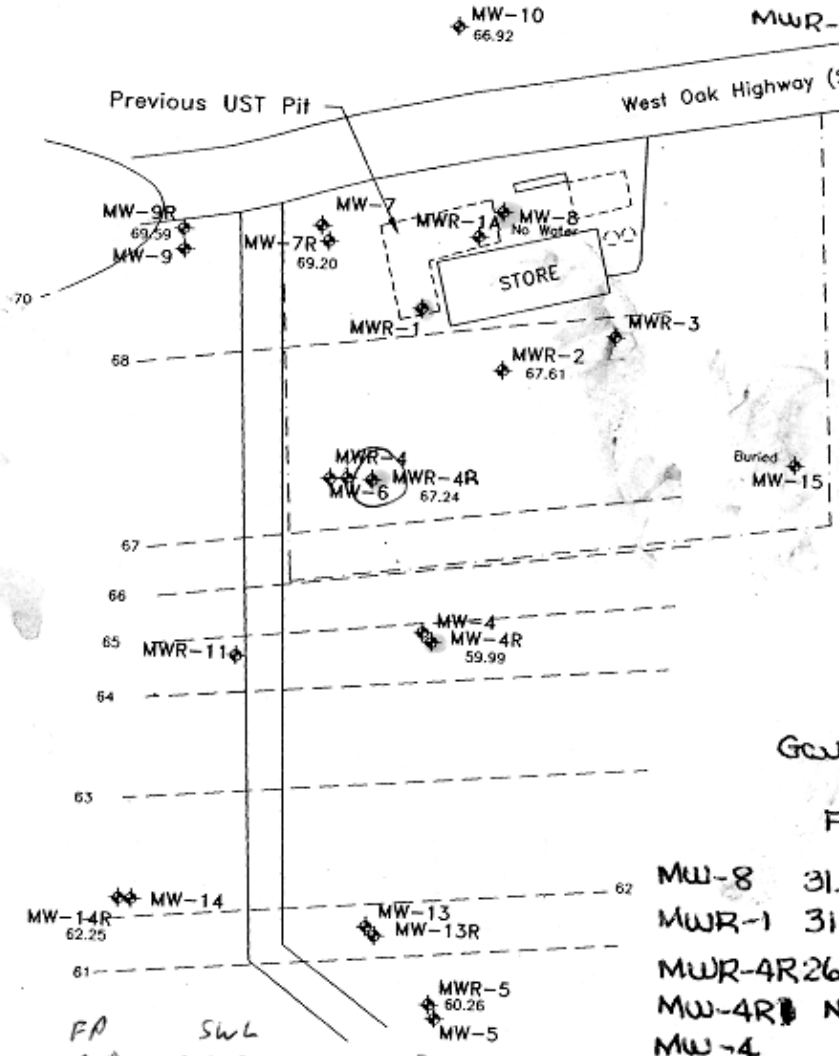
Highway 24/59, Tokeena, Oconee County, South Carolina

(Fair Play, SC, Quad, 1958-Photorevised 1979)

ESCM & Associates, Inc. 394 S. Milledge Avenue Athens, Georgia 30605

Scale: 1:24000

FIGURE 1



Gauging 8/3/05

	FP	SWL	
MW-8	28.10	28.36	
MWR-1	27.63	27.64	
MWR-4R	22.54	23.48	
MW-4	20.66		

Gauging 1/13/05

	FP	SWL	
MW-8	31.33	32.53	1.20'
MWR-1	31.13	31.15	0.02'
MWR-4R	26.01	27.05	1.04'
MW-4R	NF	[illegible]	
MW-4		24.08	0'
MWR-4	26.59	26.70	0.11'

Gauging 1-26-06

	FP	SWL	
MWR-1	29.8	30.85	-1.05
MWR-4	25.38	25.63	-.25
MW-6		26.7	
MWR-4R	24.85	25.9	-1.05
MW-4		22.84	
MW-8	30.25	30.56	-.3
MW-1A	30.6		

0 100 200

Graphic Scale

Rich Smith, SMME12/4/2004 109 Pioconee oct 2004.dwg

South Carolina DHEC
2600 Bull Street
Columbia, South Carolina

SMME Smith Monitoring & Maintenance Engineering, Inc.
Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance
145 Merrail Avenue Decatur, Georgia 30030
Telephone: (404) 371-9332

PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: December 4, 2004

Potentiometric Surface Map
October 21, 2004
Cross Roads Grocery
Oconee County, South Carolina

oconee dec 2004.dwg

FIGURE 1

SMITH

Monitoring & Maintenance Engineering, Inc.

September 27, 2005

RECEIVED
SEP 29 2005
UNDERGROUND STORAGE TANK PROGRAM

Mr. Joel P. Padgett, P,G,
Underground Storage Tank Program
SC DHEC
2600 Bull Street
Columbia, South Carolina 29201

Re: Former Cross Road Grocery, UST Permit #06742
Westminster, South Carolina

Dear Mr. Padgett,

This letter is in response to the Corrective Action Section's correspondence of September 8, 2005. In the referenced letter, the State offered to conduct two AFVR events on the Former Cross Roads Grocery site. Should measurable product still be present an additional series of AFVR events will be scheduled.

SMME is in concurrence with this plan of action. It is understood that the cost of the proposed events will be paid from remaining balance of our Cost Agreement #09283. Please proceed with these efforts. If possible, we would like to be advised, by e-mail or phone, of MEC's schedule concerning this site.

Thank you for your efforts in this matter.

Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer

Cc: Mr. John Mangan, ACE USA

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296
e-mail: ricksmme@mindspring.com

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the envi

SEP 0 8 2005

Joel,
According to the sign-out sheet, you have this file. Please clip this in the technical file.
Thank you,
Heather Price

MR RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING INC
145 MERRILL AVE
DECATUR GA 30030

Re: Former Cross Roads Grocery, 8050 West Oak Hwy, Westminster, SC, Oconee County
UST Permit #06742; CA #09283
Bid #SB-6672-07/29/99-REB; PO #191160
Release reported April 27, 1987
Proposed Contract Amendment

Dear Mr. Smith:

Pursuant to our discussion during the on-site meeting on August 3, 2005, the UST Program is considering an option to expedite progress in meeting the terms and conditions of the referenced solicitation. If agreeable, the UST Program will direct a series of two aggressive fluid and vapor recovery (AFVR) events to remove measurable free-phase product from the site using Midlands Environmental Consultants who is on contract for this type of service. One eight-hour AFVR event will be conducted on monitoring wells MWR-1 and MW-8, and another eight-hour event will be conducted on monitoring wells MWR-4 and MWR-4R. The Program will notify Smith Monitoring and Maintenance at the conclusion of the events and provide a copy of the AFVR report and a sampling/gauging date for the next CASE report. Should sampling/gauging indicate that measurable free-phase product persists at the site, the Program will schedule another series of AFVR events. This is a proposed amendment to the current contract and would represent a decrease in the dollar amount to be paid to Smith Monitoring and Maintenance Inc. The cost of each eight-hour AFVR event is approximately $1,200.00, and the actual costs would be subtracted from the balance remaining for the referenced bid against Cost Agreement #09283 ($34,876.50 as of the date of this correspondence). Payment from the SUPERB Account would be made directly to Midlands Environmental Consultants.

If this approach is acceptable to Smith Monitoring and Maintenance, please indicate such in writing on or before September 30, 2005.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions regarding this correspondence, feel free to call me at (803) 896-6398 or (800) 826-5435 (within South Carolina only), by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
06742.6

SMITH

Monitoring & Maintenance Engineering, Inc.

June 24, 2005

RECEIVED

JUL 0 1 2005

UNDERGROUND STORAGE
TANK PROGRAM

Mr. Lee Monts, Manager
Southwestern SC Corrective Action Section
Underground Storage Tank Program
2600 Bull Street
Columbia, South Carolina 29201-1708

Re: Disposal Manifest; Site #06742
Cross Roads Grocery; Oconee County, South Carolina

Dear Mr. Monts,

Attached is a disposal manifest for 500 gallons of water and product taken from the referenced site, as requested.

Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer
S.C. Reg.: 14734

Cc: Joel Padgett; UST Corrective Action Program

Certificate of Authorization: # C0143

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296
e-mail: ricksmme@mindspring.com

disposal manifest

RECEIVED

JUL 0 1 2005

UNDERGROUND STORAGE TANK PROGRAM

South Carolina Department of Health and Environmental Control

Bureau of Solid & Hazardous Waste Mgt.
2600 Bull Street, Columbia, SC 29201
Phone: (803) 734-5200
Emergency & Holidays: (803)253-6488

PLEASE PRINT or TYPE (Form designed for use on elite [12-pitch] typewriter)

Form Approved. OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID No. | Manifest Document No. | 2. Page 1 of

Information in the shaded areas is not required by Federal law, but is by State law.

GENERATOR

3. Generator's Name and Mailing Address PO Box 95277 S. Pasadena, CA 91031

4. Generator's Phone (626) 585-2791

5. Transporter 1 Company Name: Augusta Industrial Serv., Inc

6. U.S. EPA ID Number: GAD 988 101 8831

7. Transporter 2 Company Name

8. U.S. EPA ID Number

9. Designated Facility Name and Site Address: Whistle Resource Recovery 7970 Gordon Ind. Blvd Augusta, GA 30906

10. U.S. EPA ID Number: GAL 000 011 817

11. U.S. DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	K. Waste Number
a. NON-HAZ / NON Regulated Material (Water Trace Gasoline)	001	TIT	55	G	
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above

a. ___ b. ___ c. ___ d. ___

K. Handling Codes for Wastes Listed Above: Ref Code #136 in the event of a spill or emergency

15. Special Handling Instructions and Additional Information

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Richard Smith | Signature: R. P. Smith | Month 07 Day 01 Year 05

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Shirley Crowell | Signature: S. Crowell | Month 07 Day 13 Year 05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

a. ___ lbs. c. ___ lbs.

b. ___ lbs. d. ___ lbs.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature

Water Blaster
10,000 PSI

Augusta Industrial Services, Inc.

D/B/A Budget Sewer Service, Inc.

Water-Jet
1,500 PSI

Vacuum Service

Phone: (706) 798-8437 • (706) 798-8080 • Fax (706) 790-4066

Pumping Service

Industrial ★ Commercial ★ Residential

CLYDE PILCHER
President

COMPLETE / INCOMPLETE

POST OFFICE BOX 6785
AUGUSTA, GEORGIA 30916

DISPATCH # _____

Date / Day 2-3-00

Name Smith monitoring + maint.

Address 145 Merrell Ave
Decatur GA 30030

Phone # 404-371-9332

PO # _____

Release # N/A

Disposal / Gals. 500 A/B

Location WWRB

Job Address / Plant Area R.L. Jordan oil Co. (Takeena SC)

Job Description Pump product from monitoring wells

Contact Rick Smith

Phone _____ ~~Ext.~~ FAX 404-373-3296

Lunch: Time In _____ Time Out _____ No

Water / Gals. N/A Fire Plug # N/A

Location N/A

Type of Equipment/Material	Labor	Hr. Rate/ Unit Price	Time In AM/PM	Time Out AM/PM	Total Hours	Total Charge
PT 8		80.00	7:30	5:30	10	800.00
	J Roswell	21.50	1	1	10	215.00
	R Robinson	18.00	7:30	5:30	10	180.00
PPE/Safety		17.50			2	35.00
Disposal Chrg.		.40/G			500G	200.00
					TOTAL CHARGES	$ 1430.00

Comments * Had lunch on site while truck was still operating

[signature]
ACCEPTED BY

[signature]
AIS REPRESENTATIVE

16735

Water Blaster
10,000 PSI

Augusta Industrial Services, Inc.

D/B/A Budget Sewer Service, Inc.

Water-Jet
1,500 PSI

Vacuum Service

Phone: (706) 798-8437 • (706) 798-8080 • Fax (706) 790-4066

Pumping Service

Industrial ★ Commercial ★ Residential

CLYDE PILCHER
President

COMPLETE / INCOMPLETE

POST OFFICE BOX 6785
AUGUSTA, GEORGIA 30916

DISPATCH # _____

Date / Day 2-4-00

Name Smith monitoring + maint

Address 145 merrill Ave

Decatur GA 30030

Phone # 404-371-9332

PO # _____

Release # N/A

Disposal / Gals. N/A A/B

Location N/A

Job Address / Plant Area R.L Sorton o.l

Co. Tokeena SC.

Job Description Pump product from monitoring well, Dumped truck)

Contact Bob Smith

Phone _____ Ext. _____

Lunch: Time In _____ Time Out _____ (No)

Water / Gals. N/A Fire Plug # N/A

Location N/A

Type of Equipment/Material	Labor	Hr. Rate/ Unit Price	Time In (AM/PM)	Time Out (AM/PM)	Total Hours	Total Charge
PT 8		80.00	8:00	10:00	2	160.00
	J Boswell	21.00	8:00	10:00	2	43.00
PPE/Safety		17.50			1	17.50
					TOTAL CHARGES	$220.50

Comments _____

_____

_____

_____ _____

ACCEPTED BY AIS REPRESENTATIVE

16736

SMITH

Monitoring & Maintenance Engineering, Inc.

June 11, 2005

RECEIVED
JUN 15 2005
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Lee Monts, Manager
Southwestern SC Corrective Action Section
Underground Storage Tank Program
2600 Bull Street
Columbia, South Carolina 29201-1708

Re: State Claim of Contract Breach; Site #06742
Cross Roads Grocery; Oconee County, South Carolina

Dear Mr. Monts,

This letter is provided as a brief summary of this company's claim that the referenced site has suffered from either an additional release or a continued release since the original release report date of January 11, 1993 (the basis for our contract).

SMME conducted vacuum-enhanced product recovery in either late 1999 or early 2000. Our contractor, Augusta Industrial, is still trying to locate the disposal manifest related to this work. The biologically based treatment system was installed and started on January 11, 2000. Based on our report of the sampling event conducted September 25, 2000 (confirmed through split sampling with a representative of the State), product had been removed from the site.

In February of 2001, product reappeared at the site. FAP pumps were purchased and direct product recovery was initiated. During the sampling conducted July 19, 2001 product was found in the up-gradient well MWR-1. It was this occurrence that prompted SMME to request forensic analysis be conducted on this product. Again, in sampling conducted August 26, 2003, product was found in the monitoring well closest to the active fuel pumps. Forensic analysis was requested and performed. The results of these analyses and the conclusions of the forensic experts are included as an attachment to this letter. The results indicated that the concentrations of the highly volatile n-butane and n-propane were still present in the samples showing that either there exists a continuing source of product or an additional release occurred within the prior five years.

Up until the time that it became evident that the additional product was still coming from an up-gradient source, SMME conducted corrective action in the operation of the PHOSter system and active product recovery. Four drums of product still exist, on site. This product was recovered after the reoccurrence documented during the February 2001 sampling event. It was beyond our responsibility to recover this material and beyond our contract scope to dispose of it. If Augusta Industrial can produce documentation of the amount of product extracted during the vacuum-recovery events, this will be provided.

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296

SMME cannot continue this project based on SCDHEC unwillingness to consider the product reoccurrence as a new release. The new or continuing source must be determined should any contractor be required to remediate the site.

SMME is willing to terminate this contract, at no additional cost to the State but will not accept termination based on failure to perform. Our bonding company is advised of this situation by copy of this letter.

Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer
S.C. Reg.: 14734

Cc: Joel Padgett; UST Corrective Action Program
William Sommers; Indemnity Insurance Co.
Certificate of Authorization: # C0143

FORENSIC ANALYSIS

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JAN 2 8 2004

RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING, INC.
145 MERRILL AVE
DECATUR GA 30030

Re: Cross Roads Grocery, 8050 W. Oak Hwy, Westminster, SC
UST Permit #06742
Forensic Evaluation Results received December 23, 2003
Oconee County

Dear Mr. Smith:

Please find enclosed the free product PIANO analysis results referenced above. According to this report, the product found in monitoring wells MW-1R and MW-8 is consistent with a release that may have occurred within the past 5 years. The results have been forwarded to our Regulatory section to determine if a new release has occurred. You will be notified of the Regulatory decision.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions concerning this correspondence, please contact me by phone at (803) 896-6586, (800) 826-5435 (within South Carolina only), by fax at (803) 896-6245, or by email at dorankm@dhec.sc.gov.

Sincerely,

Karen M Doran

Karen M. Doran, Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Forensic Evaluation Results
cc: Technical File

SCDHEC/UST/KMD/01.27.04

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

December 17, 2003

Karen Doran, Project Manager
SCDHEC, UST Program
2600 Bull St.
Columbia, SC 29201

Dear Ms. Doran:

Included are the results from the additional testing of material submitted on October 2, 2003 from the 06742, F&BI 310020 project.

The additional testing completed at Friedman and Bruya, Inc. (F&BI) included testing of the sample MW-8 for paraffin, isoparaffin, aromatice, naphthene, and olefin (PIANO) constituents using a modification of ASTM Method D5134-92. This method has been modified to include the use of a mass spectrometer and has been extended to include the analysis of a wider boiling range of compounds. The results of this testing are also enclosed.

In addition, as requested, we have reviewed the reports issued by F&BI on June 14, 2002 and October 23, 2003. These reports consisted of analytical data generated for the product samples MW-8, MWR-1, and MWR-4R. The purpose of this review was to provide a comparison of the material found in the samples MW-8, MWR-1, and MWR-4R. Our findings are provided below.

Based on the data generated, the material present in the samples MW-8, MWR-1, and MWR-4R is indicative of gasoline. The general composition of this material indicates that the gasoline present in these samples has undergone little to no degradation. It should also be noted that the samples contained the oxygenate methyl *t*-butyl ether (MTBE). The sample MW-8 also appeared to contain the organometallic additive methylcyclopentadienyl manganese tricarbonyl (MMT), which became available in 1958 and was phased out of use by the mid-1990's.

The results for selected constituents from the PIANO analysis of the samples MW-8, MWR-1, and MWR-4R are provided in Table 1. For comparison, included in

Table 1 are levels of *n*-butane, *n*-pentane, isooctane, benzene, toluene, ethylbenzene, and the xylenes in a "Typical" undegraded gasoline. [1]

Table 1. Selected Constituents from the PIANO Analysis (w/w%)

Sample ID	Date Analyzed	*n*-Butane	*n*-Pentane	Isooctane	Benzene	Toluene	Ethyl-benzene	Xylenes
MW-8	11/22/03	0.21	0.79	4.5	1.4	5.7	2.0	8.7
MWR-1	06/05/02	0.78	1.4	2.3	93	4.9	1.7	7.4
MWR-4R	06/05/02	1.2	1.7	2.4	0.99	4.6	1.6	6.9
Typical		3.9-4.7	5.8-10.9	0.32-4.6	0.12-3.5	2.7-22	0.36-2.9	3.2-8.3

As shown in Table 1, the highly volatile constituents *n*-butane and *n*-pentane were identified in the sample MW-8. When fuel is released to the environment these highly volatile constituents readily migrate away from the source area and become dispersed. The presence of these constituents in the sample MW-8 indicates that some of the gasoline present could be due to an ongoing release.

Comparison of the results of samples previously taken at the site, however, shows that the *n*-butane level at the site has historically been three times that present in the sample MW-8. This suggests that the *n*-butane found at this location could also be due to a historic release.

Continued monitoring at the MW-8 location is recommended using the PIANO analysis. This data can be used to measure the rate loss of specific constituents, such as *n*-butane, at the site. This information may be useful in further characterizing the period of release of the fuel present.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson, Chemist

Enclosures
SCD1217R.DOC

[1] "Selection of Representative TPH Fractions Based on Fate and Transport Considerations - Total Petroleum Hydrocarbon Criteria Working Group Series Volume 3", J.B. Gustafson, J.G. Tell and D. Orem, Amherst Scientific Publishers, Amherst, MA, 1997, ISBN 1-884-940-12-9.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/17/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Analyzed: 11/22/03

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

Laboratory ID 310020-01
Client ID MW-8

Compound	Weight Percent
Propane	<0.01
Methanol	<0.01
Isobutane	0.02
2-Methyl-1-propene	<0.01
Ethanol	<0.01
n-Butane	0.21
t-2-Butene	0.01
c-2-Butene	0.01
Isopropanol	<0.01
3-Methyl-1-butene	0.02
Isopentane	1.56
tert-Butanol	<0.01
1-Pentene	0.08
2-Methyl-1-butene	0.11
n-Propanol	<0.01
n-Pentane	0.79
t-2-Pentene	0.24
c-2-Pentene	0.14
2-Methyl-2-butene	0.34
MTBE	0.13
sec-Butanol	<0.01
4-Methyl-1-pentene	0.03
Isobutanol	<0.01
2,3-Dimethylbutane	0.78
Cyclopentane	0.10
2-Methylpentane	1.76
DIPE	<0.01
3-Methylpentane	1.25
n-Butanol	<0.01
1-Hexene	<0.01
ETBE	<0.01

Date of Report: 12/17/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Analyzed: 11/22/03

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED

Results Reported as % by Weight

Laboratory ID 310020-01
Client ID MW-8

Compound	Weight Percent
n-Hexane	1.35
t-2-Hexene	0.21
2-Methyl-1-pentene	0.13
2-Methyl-2-pentene	0.16
c-2-Hexene	0.11
2,2-Dimethylpentane	0.11
2,4-Dimethylpentane	1.00
Methylcyclopentane	1.00
2,2,3-Trimethylbutane	0.04
Benzene	1.43
1-Methylcyclopentene	0.25
TAME	0.01
3,3-Dimethylpentane	0.18
Cyclohexane	0.11
2-Methylhexane	1.23
2,3-Dimethylpentane	2.26
1,1-Dimethylcyclopentane	0.02
3-Methylhexane	1.35
c-1,3-Dimethylcyclopentane	0.32
3-Ethylpentane	0.13
Isooctane	4.53
t-1,2-Dimethylcyclopentane	0.14
1-Heptene	0.04
n-Heptane	0.99
t-3-Heptene	0.04
c-3-Heptene	0.05
t-2-Heptene	0.10
c-2-Heptene	0.06
2,2-Dimethylhexane	0.06
2,5-Dimethylhexane	0.82
Methylcyclohexane	0.21
2,4-Dimethylhexane	0.83

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/17/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Analyzed: 11/22/03

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED

Results Reported as % by Weight

Laboratory ID 310020-01
Client ID MW-8

Compound	Weight Percent
Ethylcyclopentane	0.37
t-1,c-2,4-Trimethylcyclopentane	0.22
t-1,c-2,3-Trimethylcyclopentane	0.20
2,3,4-Trimethylpentane	2.11
Toluene	5.69
2,3-Dimethylhexane	2.06
2-Methylheptane	0.55
3-Methylheptane	0.76
4-Methylheptane	0.24
3-Ethylhexane	0.12
1-Octene	0.01
1,2,3-Trimethylcyclopentane	0.05
t-1,2-Dimethylcyclohexane	0.21
n-Octane	0.49
1-Ethyl-1-methylcyclopentane	0.05
c-2-Octene	0.09
c-1,2-Dimethylcyclohexane	0.05
Isopropylcyclopentane	0.02
2,5-Dimethylheptane	0.22
3,5-Dimethylheptane	0.05
n-Propylcyclopentane	0.06
Ethylbenzene	1.97
2,3-Dimethylheptane	0.10
3,4-Dimethylheptane	0.05
2-Methyloctane	0.22
m-Xylene	3.88
p-Xylene	2.11
3-Methyloctane	0.32
1-Nonene	0.08
3,3-Diethylpentane	0.04
4-Nonene	0.01
o-Xylene	2.72

Date of Report: 12/17/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Analyzed: 11/22/03

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

Laboratory ID 310020-01
Client ID MW-8

Compound	Weight Percent
n-Nonane	0.24
Isobutylcyclopentane	0.01
t-2-Nonene+c-2-Nonene	<0.01
Isopropylbenzene	0.36
3,3-Dimethyloctane	0.10
n-Butylcyclopentane	0.03
n-Propylbenzene	0.93
2,3-Dimethyloctane	0.04
1-Methyl-3-ethylbenzene	2.32
1-Methyl-4-ethylbenzene	1.27
2-Methylnonane	0.10
3-Ethyloctane	0.04
3-Methylnonane	0.15
1,3,5-Trimethylbenzene	1.39
1-Methyl-2-ethylbenzene	1.12
1,2,4-Trimethylbenzene	3.52
tert-Butylbenzene	<0.01
n-Decane	0.18
Isobutylbenzene	0.10
Isopropylcyclohexane	<0.01
sec-Butylbenzene	0.10
1-Methyl-3-isopropylbenzene	0.29
sec-Butylcyclohexane	<0.01
1-Methyl-4-isopropylbenzene	0.07
1,2,3-Trimethylbenzene	1.12
Indan	0.58
1-Methyl-3-n-propylbenzene	0.79
1-Methyl-4-n-propylbenzene	0.47
n-Butylbenzene	0.29
1,3-Dimethyl-5-ethylbenzene	0.90
1,2-Diethylbenzene	0.11
1-Methyl-2-n-propylbenzene	0.35

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/17/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Analyzed: 11/22/03

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED

Results Reported as % by Weight

Laboratory ID 310020-01
Client ID MW-8

Compound	Weight Percent
1,4-Dimethyl-2-ethylbenzene	0.61
1,2-Dimethyl-4-ethylbenzene	0.91
1,3-Dimethyl-2-ethylbenzene	0.10
1,2-Dimethyl-3-ethylbenzene	0.22
n-Undecane	0.10
1,2,4,5-Tetramethylbenzene	0.69
2-Methylbutylbenzene	0.08
1-tert-Butyl-2-methylbenzene	<0.01
n-Pentylbenzene	0.06
Methylindan	0.25
1-tert-Butyl-3,5-dimethylbenzene	<0.01
1-tert-Butyl-4-ethylbenzene	<0.01
n-Dodecane	0.17
1,3,5-Triethylbenzene	<0.01
1,2,4-Triethylbenzene	<0.01
Naphthalene	0.92
n-Hexylbenzene	0.04
2-Methylnaphthalene	0.57
n-Tridecane	0.15
1-Methylnaphthalene	0.30
n-Tetradecane	0.08
n-Pentadecane	<0.01

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/17/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Analyzed: 11/22/03

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED

Results Reported as % by Weight

PIANO SUMMARY

Laboratory ID 310020-01
Client ID MW-8

	Weight Percent
Total Identified Compounds	74.21
Oxygenated Compounds	0.14
Hydrocarbon Compounds	74.07
Unidentified Compounds	25.79
Total	100.00

	Paraffins	Isoparaffins	Aromatics	Naphthenes	Olefins	Total
C3	<0.01					<0.01
C4	0.21	0.02			0.02	0.26
C5	0.79	1.56		0.10	0.93	3.37
C6	1.35	3.78	1.43	1.11	0.88	8.57
C7	0.99	6.31	5.69	1.06	0.29	14.34
C8	0.49	12.08	10.67	0.87	0.10	24.22
C9	0.24	1.00	12.60	0.04	0.09	13.98
C10	0.18	0.43	7.16	<0.01		7.78
C11	0.10		1.01			1.11
C12	0.17		0.04			0.21
C13	0.15					0.15
C14	0.08					0.08
C15	<0.01					<0.01
Total	4.78	25.19	38.61	3.18	2.32	74.07

310020

SAMPLE CHAIN OF CUSTODY

KJ 10/02/03 C03

Send Report To Karen Doran
Company SC DHEC UST Program
Address 2600 Bull St
City, State, ZIP Columbia, SC 29201
Phone # 803 896 6586 Fax # 803 896 6245

SAMPLERS (signature) Karen McDoran
PROJECT NAME/NO. 06742 PO #
REMARKS

RECEIVED
DEC 2 3 2003

Page # ____ of ____

TURNAROUND TIME
☑ Standard (2 Weeks)
☐ RUSH ____
Rush charges authorized by:

SAMPLE DISPOSAL
☑ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

UNDERGROUND STORAGE TANK PROGRAM

ANALYSES REQUESTED

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8020	VOCs by 8260	SVOCs by 8270	HFS	PLAND analysis					Notes
MW-8	01	9/30/03	1140	petroleum	1						X	X					1 small bottle
MW-1R	02 AB	9/30/03	1200	ground water/ petroleum	2						X	X					1 small 1 large bottle
												KMD					

RECEIVED
OCT 3 1 2003
UNDERGROUND STORAGE TANK PROGRAM

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Karen McDoran	Karen Doran	SC DHEC - UST	10/1/03	0930
Received by: [signature]	Nhan Phan	F & BI	10/02/03	9:30
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

MAY 24 2005

CERTIFIED MAIL
7001 2510 0008 6147 6130

MR RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING INC
145 MERRILL AVE
DECATUR GA 30030

Re: Former Cross Roads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA #09283
Bid #SB-6672-07/29/99-REB; PO #191160
Release reported April 27, 1987
Correspondence from SCDHEC UST Program to Smith Monitoring & Maintenance, Inc. dated December 14, 2004
Breach of Contract
Oconee County

Dear Mr. Smith:

The referenced contract was awarded to Smith Monitoring & Maintenance Engineering, Inc. on August 12, 1999. In accordance with Special Condition #7 of the contract, Corrective Action System Evaluation (CASE) reports are to be submitted to the Underground Storage Tank (UST) Program on a quarterly schedule. Program records show that the last CASE report for the referenced site was received on December 13, 2004. In the referenced correspondence to Smith Monitoring & Maintenance Engineering, the Program requested that a CASE be submitted by April 1, 2005. Further, the Program requested in the same correspondence that a corrective action plan (CAP) addendum be submitted by January 14, 2005. These documents have not been received.

Currently, Smith Monitoring & Maintenance Engineering is in breach of the terms and conditions of the referenced contract and is subject to immediate contract termination. However, if the required CASE report and CAP addendum are submitted no later than thirty (30) working days from your receipt of this letter, the UST Program will forego contract termination. If the report and addendum are not submitted, contract termination may be initiated and your bonding agent notified. Smith Monitoring & Maintenance Engineering may also incur a six-month suspension from bidding on any UST-related solicitations in South Carolina and be subject to decertification in accordance with the SUPERB Site Rehabilitation and Fund Access Regulation R.61-98.

In addition, the Department has verbally requested on several occasions that documentation regarding the disposal of recovered free product be submitted. This information should be submitted with the above requested documents. Failure to do so may result in a financial audit.

Please feel free to contact me at (803) 896-6677 if you have any questions or need additional information.

Sincerely,

Lee A. Monts, Manager
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

LAM/jpp
06742.brch

enc: Correspondence from SCDHEC UST Program to Smith Monitoring & Maintenance, Inc. dated December 14, 2004

cc: William Sommers, Indemnity Insurance Co. of N. America, P.O. Box 698, Snellville, GA 30078 (w/o enc)
Dan Alexander, Countryside II, 8050 W. Oak Hwy., Westminster, SC 29693 (w/o enc)
Matt Winslow, Bureau of Business Management (w/o enc)
Contractor certification file (w/enc)
Technical file (w/o enc)

SMITH

Monitoring & Maintenance Engineering, Inc.

June 24, 2005

RECEIVED
JUL 0 1 2005
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Lee Monts, Manager
Southwestern SC Corrective Action Section
Underground Storage Tank Program
2600 Bull Street
Columbia, South Carolina 29201-1708

Re: Disposal Manifest; Site #06742
Cross Roads Grocery; Oconee County, South Carolina

Dear Mr. Monts,

Attached is a disposal manifest for 500 gallons of water and product taken from the referenced site, as requested.

Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer
S.C. Reg.: 14734

Cc: Joel Padgett; UST Corrective Action Program

Certificate of Authorization: # C0143

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296
e-mail: ricksmme@mindspring.com

disposal manifest

RECEIVED

JUL 0 1 2005

UNDERGROUND STORAGE TANK SECTION

South Carolina Department of Health and Environmental Control

Bureau of Solid & Hazardous Waste Mgt.
2600 Bull Street, Columbia, SC 29201
Phone: (803) 734-5200
Emergency & Holidays: (803)253-6488

PLEASE PRINT or TYPE (Form designed for use on elite [12-pitch] typewriter)

Form Approved. OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID No. | Manifest Document No. | 2. Page 1 of | Information in the shaded areas is not required by Federal law, but is by State law.

GENERATOR

3. Generator's Name and Mailing Address: PO Box 95277 Spartanburg SC 29304

4. Generator's Phone: (864) 585-2754

5. Transporter 1 Company Name: Augusta Industrial Serv. Inc

6. U.S. EPA ID Number: GAD988101883

7. Transporter 2 Company Name

8. U.S. EPA ID Number

9. Designated Facility Name and Site Address: Waste Research & Recovery, 7970 Gordon Ind. Blvd, Augusta, GA 30906

10. U.S. EPA ID Number: GAL000011817

11. U.S. DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | State Waste Codes

a. NON-HAZ / NON Regulated Material (Water Trace Gasoline) | 001 | TIT | | G

b.

c.

d.

J. Additional Descriptions for Materials Listed Above

a. ___ c. ___

b. ___ d. ___

K. Handling Codes for Wastes Listed Above: Ref Code #13B in the event of a spill or Emergency.

15. Special Handling Instructions and Additional Information

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Richard Smith | Signature: R. P. Smith | Month 02 Day 01 Year 10

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [illegible] | Month 02 Day 01 Year 10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

a. ___ lbs. c. ___ lbs.

b. ___ lbs. d. ___ lbs.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Water Blaster
10,000 PSI

Augusta Industrial Services, Inc.

D/B/A Budget Sewer Service, Inc.

Water-Jet
1,500 PSI

Vacuum Service

Phone: (706) 798-8437 • (706) 798-8080 • Fax (706) 790-4066

Pumping Service

Industrial ★ Commercial ★ Residential

CLYDE PILCHER
President

COMPLETE / INCOMPLETE

POST OFFICE BOX 6785
AUGUSTA, GEORGIA 30916

DISPATCH # _____

Date / Day 2-3-00

Name Smith monitoring + maint.

Address 145 merrell Ave

Decatur GA 30030

Phone # 404-371-9332

PO # _____

Release # N/A

Disposal / Gals. 500 A/B

Location WWRB

Job Address / Plant Area B.L. Gordon oil Co. (Takeena SC)

Job Description Pump product from monitoring wells

Contact Rick Smith

Phone _____ FAX 404-373-3296

Lunch: Time In _____ Time Out _____ No

Water / Gals. N/A Fire Plug # N/A

Location N/A

Type of Equipment/Material	Labor	Hr. Rate/ Unit Price	Time In AM/PM	Time Out AM/PM	Total Hours	Total Charge
PT 8		80.00	7:30	5:30	10	800.00
	T Boswell	21.50	1	1	10	215.00
	R Robinson	18.00	7:30	5:30	10	180.00
PPE/Safety		17.50			2	35.00
Disposal Chrg		.40/G			500G	200.00
				TOTAL CHARGES		$ 1430.00

Comments * Had lunch on site while truck was still operating

ACCEPTED BY

AIS REPRESENTATIVE

16735

Water Blaster
10,000 PSI

Water-Jet
1,500 PSI

Augusta Industrial Services, Inc.

D/B/A Budget Sewer Service, Inc.

Vacuum Service

Phone: (706) 798-8437 • (706) 798-8080 • Fax (706) 790-4066

Pumping Service

Industrial ★ Commercial ★ Residential

CLYDE PILCHER
President

COMPLETE / INCOMPLETE

POST OFFICE BOX 6785
AUGUSTA, GEORGIA 30916

DISPATCH # _____

Date / Day 2-4-00

Name Smith monitoring + maint

Address 145 merrill Ave

Dematur GA 30030

Phone # 404-371-9332

PO # _____

Release # N/A

Disposal / Gals. N/A A/B

Location N/A

Job Address / Plant Area R.L Sorton oil

Co. Tokeena SC.

Job Description Pump product from monitoring well, Dumped truck)

Contact Rick Smith

Phone _____ Ext. _____

Lunch: Time In _____ Time Out _____ (No)

Water / Gals. N/A Fire Plug # N/A

Location N/A

Type of Equipment/Material	Labor	Hr. Rate/ Unit Price	Time In (AM/PM)	Time Out (AM/PM)	Total Hours	Total Charge
PT 8		80.00	8:00	10:00	2	160.00
	Rosie	21.00	8:00	10:00	2	43.00
PPE/Safety		17.50			1	17.50
				TOTAL CHARGES		$220.50

Comments _____

_____

_____

_____ _____

ACCEPTED BY AIS REPRESENTATIVE

16736

SMITH

Monitoring & Maintenance Engineering, Inc.

December 21, 2004

Ms. Stacey Gardner, Section Manager
Regulatory Assistance
Underground Storage Tank Program
2600 Bull Street
Columbia, South Carolina 29201-1708

RECEIVED
DEC 28 2004
UNDERGROUND STORAGE TANK PROGRAM

Re: Apparent Evidence on Additional Release; Site #06742
Cross Roads Grocery; Oconee County, South Carolina

Dear Ms. Gardner,

This letter is provided to summarize the rationale for the determination of a new or continued release at the subject site.

During our previous meeting concerning this subject, the State focused on claims that the laboratory results for dating the product were irrelevant. I mentioned, towards the end of this meeting, that product thickness exceeded the initial thickness stated in the RFQ (see attached excerpt) from which SMME prepared its bid. As can be seen in the attached report, current product thickness now exceeds four times the original amounts stated in the RFQ.

SMME has acted with diligence on this site. We have conducted two vacuum recovery events and purchased and installed two product pumps. Together, these efforts netted about 700 gallons of fuel. Representatives of DHEC confirmed the absence of product on this site prior to SMME getting paid 75% of the contract amount, in 2001, by taking split samples.

SMME understands that the State has conducted site inspections and reviewed tank-testing data attempting to confirm that there is no apparent new source. The evidence to the contrary is clear. Whether or not the State has the ability to locate the source does not conclusively prove that it does not exist. Product continues to accumulate in the up-gradient, original source area in volumes exceeding the RFQ.

Should you have any questions, please contact the undersigned.

Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer
S.C. Reg.: 14734

Cc: Joel Padgett; UST Corrective Action Program

Certificate of Authorization: # C01435

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece or on the [illegible] space permits.

1. Article Addressed to:

Richard [illegible] Smith, P.E.
Smith [illegible] & Maint
145 [illegible] Ave
Decatur GA 30030

A. Signature

X Riley Smith

☐ Agent
☒ Addressee

B. Received by (Printed Name)

RECEIVED

C. Date of Delivery

[illegible]

D. Is [illegible] if YES, enter delivery address below:

☒ No

DEC 2 0 2004

UNDERGROUND STORAGE

3. Service Type

☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label)

7[illegible]1 2510 0008 6147 6222 [illegible] 06742

PS Form 3811, February 2004 Domestic Return Receipt JPP #[illegible] 102595-02-M-1540

UNITED STATES POSTAL SERVICE

METRO GA 300
PM
16 DEC 20

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

UST PROGRAM
SC DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL
2600 BULL STREET
COLUMBIA, SC 29201

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

DEC 14 2004

MR RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING INC
145 MERRILL AVE
DECATUR GA 30030

Re: Former Cross Roads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA #09283
Bid #SB-6672-07/29/99-REB; PO #191160
Release reported April 27, 1987
Corrective Action System Evaluation received December 13, 2004
Oconee County

Dear Mr. Smith:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the referenced report. The report documents an increase in free-phase product levels in monitoring wells MWR-4R and MW-8. Further, sampling conducted by UST personnel on October 5, 2004, confirms continued petroleum impact to a spring located six hundred and fifty (650) feet downgradient from the source area and MW-8. Please refer to the enclosed sample location map and analytical data. As you have indicated that the current corrective action technology is ineffective on the quantities of free-phase product observed at the site (CASE report dated July 5, 2004), the Program again requests submittal of a corrective action plan (CAP) addendum that proposes a suitable technology to address the problem. The CAP addendum is due within thirty days of the date of this letter.

The next CASE for the January 2005 quarterly sampling event is due on or before **April 1, 2005**. On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions regarding this correspondence, feel free to call me at (803) 896-6398 or (800) 826-5435 (within South Carolina only), by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
06742.5
enc: Sample location map
Analytical data
cc: William R. Land II, Alley Antiques, 8050 W. Oak Hwy, Westminster, SC 29693 (w/ enc)
Technical file (w/o enc)
DHEC/UST/JPP/12/13/04

Cr ssroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Site & Vicinity Map Based on Taxmap #301
Oconee Co., Tax Assessor's Office

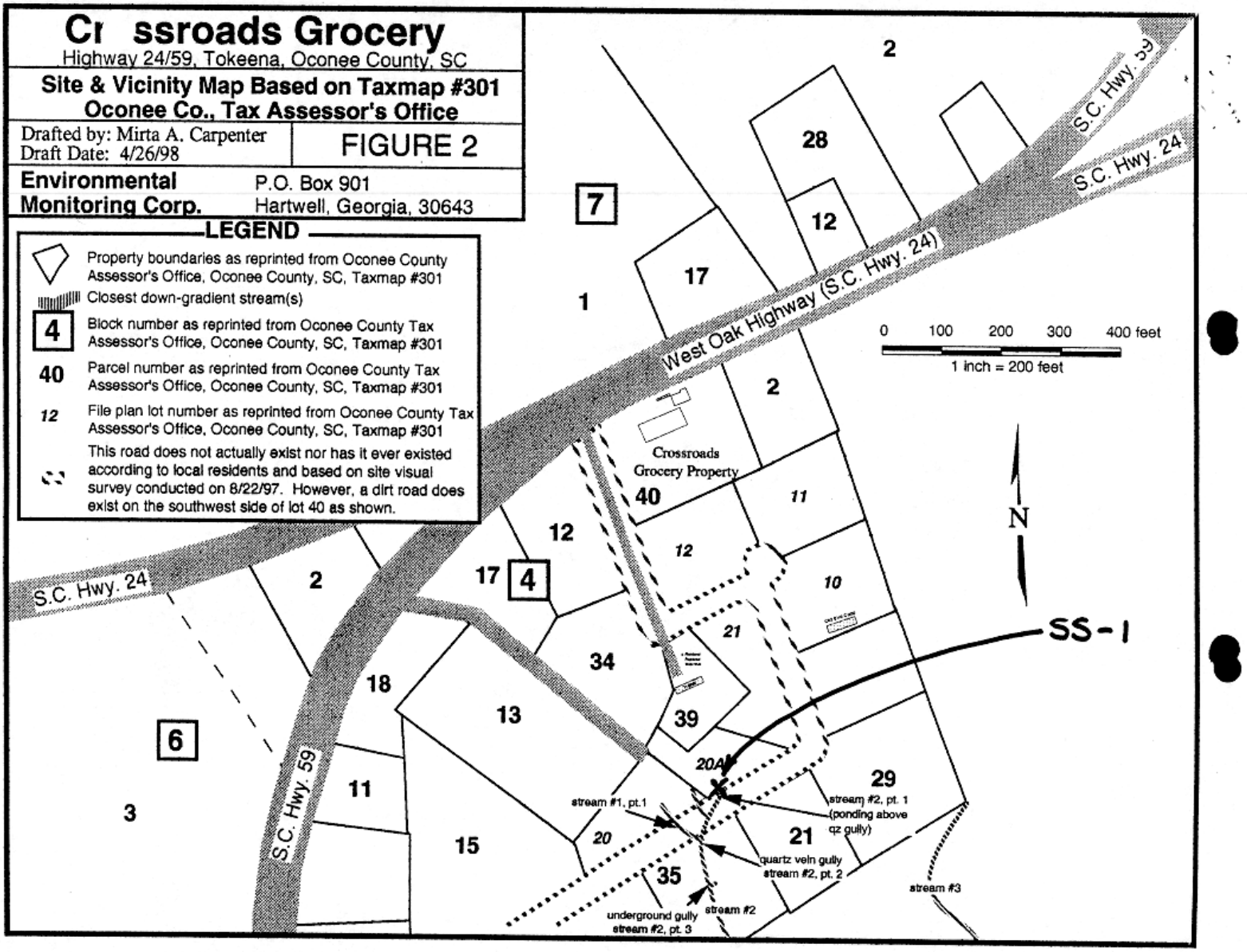
Drafted by: Mirta A. Carpenter
Draft Date: 4/26/98

FIGURE 2

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- 4 — Block number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- 40 — Parcel number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- 12 — File plan lot number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- This road does not actually exist nor has it ever existed according to local residents and based on site visual survey conducted on 8/22/97. However, a dirt road does exist on the southwest side of lot 40 as shown.



Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9278286
Client Project ID: CROSSROADS GROCERY/06742

Lab Sample No: 924802614 Project Sample Number: 9278286-001 Date Collected: 10/05/04 13:50
Client Sample ID: SS-1 Matrix: Water Date Received: 10/06/04 11:50

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	140	ug/l	5.0	1.0	10/10/04 16:57	MSF	71-43-2		
Ethylbenzene	ND	ug/l	5.0	1.0	10/10/04 16:57	MSF	100-41-4		
Methyl-tert-butyl ether	280	ug/l	25.	5.0	10/10/04 16:57	MSF	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	10/10/04 16:57	MSF	91-20-3		
Toluene	ND	ug/l	5.0	1.0	10/10/04 16:57	MSF	108-88-3		
m&p-Xylene	ND	ug/l	10.	1.0	10/10/04 16:57	MSF			
o-Xylene	ND	ug/l	5.0	1.0	10/10/04 16:57	MSF	95-47-6		
Toluene-d8 (S)	99	%		1.0	10/10/04 16:57	MSF	2037-26-5		
4-Bromofluorobenzene (S)	94	%		1.0	10/10/04 16:57	MSF	460-00-4		
Dibromofluoromethane (S)	95	%		1.0	10/10/04 16:57	MSF	1868-53-7		
1,2-Dichloroethane-d4 (S)	92	%		1.0	10/10/04 16:57	MSF	17060-07-0		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

FIELD ACTIVITY WORKSHEET ORDER

Date of Request: October 4, 2004

Type of Request:

(Please indicate your request with a check mark)

Emergency	(<2 Working Days)	☐	S/L
Specific	(1-5 Working Days)	☐	
Routine	(10 Working Days)	☒	

Please specify the type of work to be completed:

Sample headwaters of creek. Determine if WSW properly abandoned and sample if possible. Reconn site for additional receptors.

Facility Name: **Crossroads Grocery**

Permit Number: **06742**

Project Manager: J. Padgett

County: Oconee

(Field Staff Only)

Date Field Activity Completed: _____

Completed by Field Staff: _____

Date Field Notes Entered into EFIS: _____

Field Staff Comments:

_____

_____

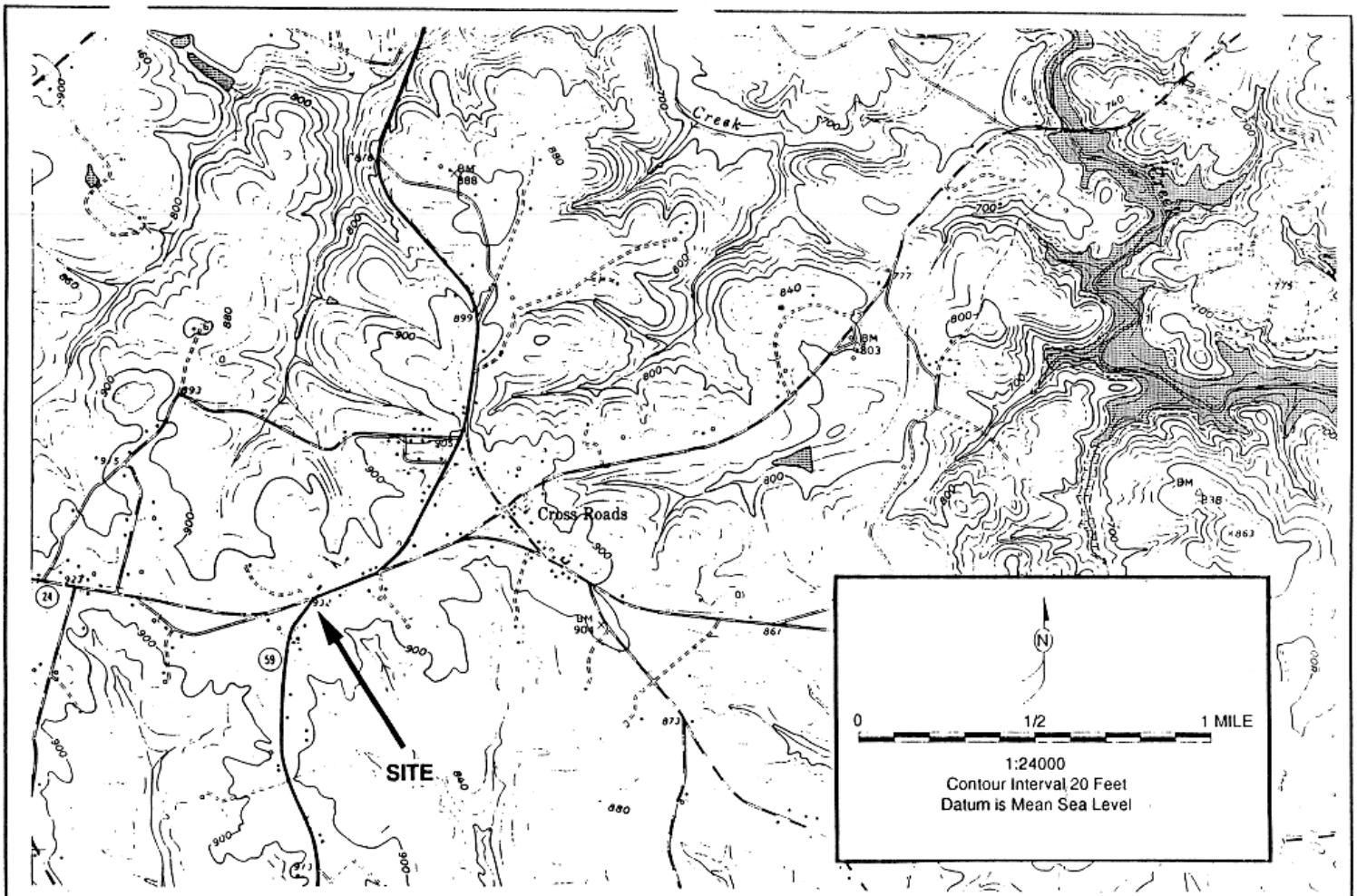
_____

REMEMBER TO ESTABLISH COST PROPOSALS

PACE CA#: **23052** DICK CA#: _____

PALMETTO ENV GROUP CA#: _____

Fill out back of this form. Photocopy, attach a completed CP cover for each CP. Thank you very much!



Crossroads Grocery	USGS MAP SHOWING SITE LOCATION
Highway 24/59, Tokeena, Oconee County, South Carolina	(Fair Play, SC, Quad, 1958-Photorevised 1979)
ESCM & Associates, Inc. 394 S. Milledge Avenue Athens, Georgia 30605	Scale: 1:24000 — **FIGURE 1**

Cr ssroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Site & Vicinity Map Based on Taxmap #301
Oconee Co., Tax Assessor's Office

Drafted by: Mirta A. Carpenter
Draft Date: 4/26/98

FIGURE 2

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- 4 — Block number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
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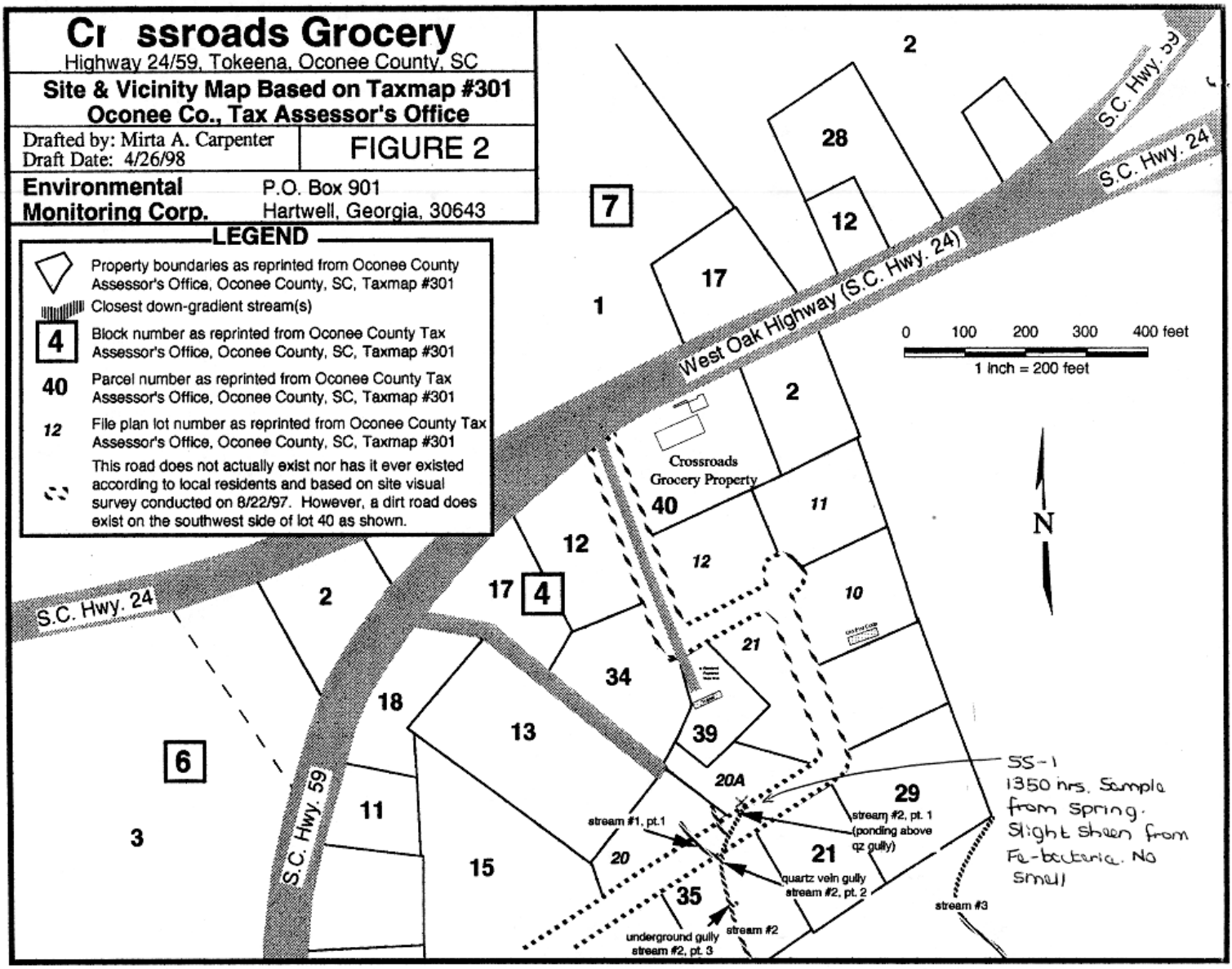

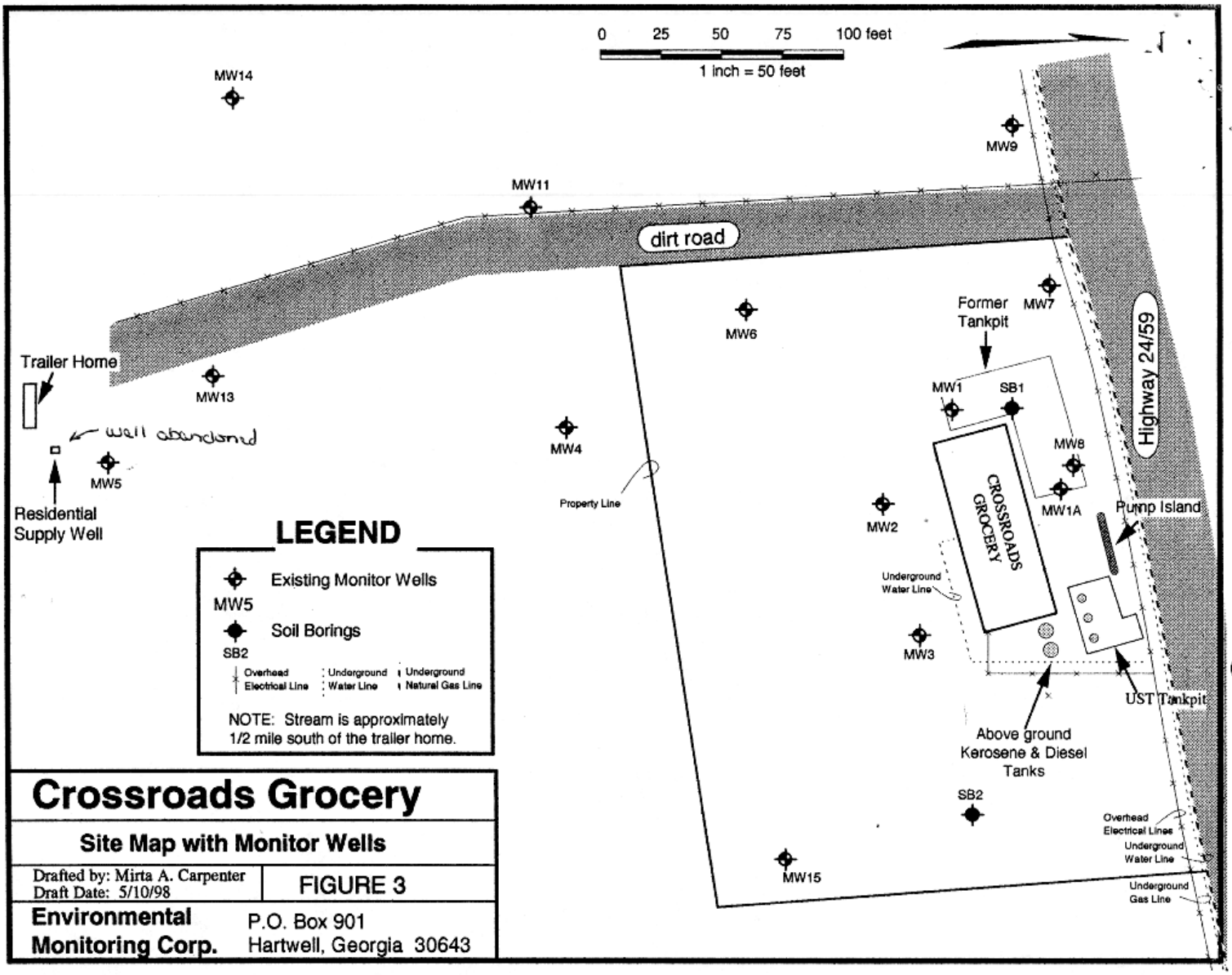

Crossroads Grocery

Site Map with Monitor Wells

Drafted by: Mirta A. Carpenter
Draft Date: 5/10/98

FIGURE 3

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia 30643

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

October 12, 2004

RECEIVED
OCT 18 2004
UNDERGROUND STORAGE TANK PROGRAM

Ms. Debra Thoma
SCDHEC
UST Program
2600 Bull Street
Columbia, SC 29201

RE: Lab Project Number: 9278286
Client Project ID: CROSSROADS GROCERY/06742

Dear Ms. Thoma:

Enclosed are the analytical results for sample(s) received by the laboratory on October 6, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Sherri Stabel
Sherri.Stabel@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9278286
Client Project ID: CROSSROADS GROCERY/06742

Lab Sample No: 924802614 Project Sample Number: 9278286-001 Date Collected: 10/05/04 13:50
Client Sample ID: SS-1 Matrix: Water Date Received: 10/06/04 11:50

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	140	ug/l	5.0	1.0	10/10/04 16:57	MSF	71-43-2		
Ethylbenzene	ND	ug/l	5.0	1.0	10/10/04 16:57	MSF	100-41-4		
Methyl-tert-butyl ether	280	ug/l	25.	5.0	10/10/04 16:57	MSF	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	10/10/04 16:57	MSF	91-20-3		
Toluene	ND	ug/l	5.0	1.0	10/10/04 16:57	MSF	108-88-3		
m&p-Xylene	ND	ug/l	10.	1.0	10/10/04 16:57	MSF			
o-Xylene	ND	ug/l	5.0	1.0	10/10/04 16:57	MSF	95-47-6		
Toluene-d8 (S)	99	%		1.0	10/10/04 16:57	MSF	2037-26-5		
4-Bromofluorobenzene (S)	94	%		1.0	10/10/04 16:57	MSF	460-00-4		
Dibromofluoromethane (S)	95	%		1.0	10/10/04 16:57	MSF	1868-53-7		
1,2-Dichloroethane-d4 (S)	92	%		1.0	10/10/04 16:57	MSF	17060-07-0		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9278286
Client Project ID: CROSSROADS GROCERY/06742

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Lab Project Number: 9278286
Client Project ID: CROSSROADS GROCERY/06742

QC Batch: 111667 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 924802614

METHOD BLANK: 924820061
Associated Lab Samples: 924802614

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	86		
4-Bromofluorobenzene (S)	%	97		
Dibromofluoromethane (S)	%	96		
1,2-Dichloroethane-d4 (S)	%	106		

LABORATORY CONTROL SAMPLE: 924820079

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	51.31	103	
Ethylbenzene	ug/l	50.00	51.33	103	
Methyl-tert-butyl ether	ug/l	50.00	46.92	94	
Naphthalene	ug/l	50.00	61.20	122	
Toluene	ug/l	50.00	49.66	99	
m&p-Xylene	ug/l	100.00	101.3	101	
o-Xylene	ug/l	50.00	50.04	100	
Toluene-d8 (S)				99	
4-Bromofluorobenzene (S)				98	
Dibromofluoromethane (S)				98	
1,2-Dichloroethane-d4 (S)				93	

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

QUALITY CONTROL DATA

Lab Project Number: 9278286
Client Project ID: CROSSROADS GROCERY/06742

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 924820095 924820103

Parameter	Units	924808637 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	49.62	50.40	99	101	2	
Toluene	ug/l	0	50.00	48.19	48.27	96	96	0	
Toluene-d8 (S)						97	98		
4-Bromofluorobenzene (S)						97	96		
Dibromofluoromethane (S)						98	97		
1,2-Dichloroethane-d4 (S)						100	86		

SAMPLE DUPLICATE: 924820087

Parameter	Units	924802770 Result	DUP Result	RPD	Footnotes
Benzene	ug/l	ND	ND	NC	
Ethylbenzene	ug/l	ND	ND	NC	
Methyl-tert-butyl ether	ug/l	32.00	33.00	2	
Naphthalene	ug/l	ND	ND	NC	
Toluene	ug/l	ND	ND	NC	
m&p-Xylene	ug/l	ND	ND	NC	
o-Xylene	ug/l	ND	ND	NC	
Toluene-d8 (S)	%	98	99		
4-Bromofluorobenzene (S)	%	94	95		
Dibromofluoromethane (S)	%	97	96		
1,2-Dichloroethane-d4 (S)	%	90	90		

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 9278286
Client Project ID: CROSSROADS GROCERY/06742

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

REPORT OF LABORATORY ANALYSIS

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NC Drinking Water	37712
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FL NELAP	E87648

Charlotte Certification IDs

NC Wastewater	12
NC Drinking Water	37706
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FL NELAP	E87627

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

846001

Page: 1 **of** 1

Required Client Information: **Section A**

Company: SCDHEC/UST Program
Address: 2600 Bull St
Colu., S.C. 2920
Phone: 803 896-6240
Fax: 803 896-6245

Required Client Information: **Section B**

Report To: D. Thant
Copy To:
Invoice To: Finance
P.O. 416276
Project Name: Crossroads Grocery
Project Number: 06742

Client Information (Check quote/contract):
Requested Due Date:
*TAT: 7 Days

*Turn around time less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calendar days.

To Be Completed by Pace Analytical and Client **Section C**

Quote Reference:
Project Manager:
Project #: 9278286
Profile #: 1700

Section D **Required** Client Information:

SAMPLE ID
One character per box.
(A–Z, 0-9 / .–)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; GROUNDWATER GW; SURFACE WATER SW; WASTE WATER WW; PRODUCT P; SOIL SL; OIL OL; WIPE WP; AIR AR; OTHER OT

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP.	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	08260 (BTEX + nap + MBE)	Remarks / Lab ID
1	SS-1	GW	G	10/5/04	1350							✓				✓		924802614
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

SITE LOCATION: ☐ NC ☑ SC ☐ GA ☐ Other

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☑ UST ☐ RCRA ☐ Other

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible]	10/6/04	0900	R G Snyder	10/6/4	9:00
R Snyder	10/6/4	11:50	[illegible]	10/6	1150

SAMPLE CONDITION

Temp in °C	1.1
Received on Ice	Y/N
Sealed Cooler	Y/N
Samples Intact	Y/N

SAMPLE NOTES

Additional Comments:
3

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joel Padgett
SIGNATURE of SAMPLER: [signature]
DATE Signed: (MM / DD / YY) 10/05/04

SEE REVERSE SIDE FOR INSTRUCTIONS

Form COC01 Rev. 0304

Instructions for completing Chain of Custody (COC)

1. Complete all Client Information at top of sheet: name, address, phone, contact (person to whom report will be sent and contact can be made if questions arise), billing information if different from client, PO#, Project Name and/or Project Number as it will appear on the report.

2. Quote Reference, Project Manager, Project No. and Profile No. will be completed by Pace.

3. A separate COC must be filled out for each day of sample collection.

4. Sampler should print their name in the space provided and sign their name followed by the date of the sampling event.

5. Complete Sample Description as it will appear on the laboratory report; include time of sampling, sample matrix, no. of containers and preservative used.

6. Analysis Requested: Complete analysis on the lines provided and place a check in the column for the samples requiring the analysis. It may be necessary to use the space provided for additional comments or include attachments for extended lists of parameters.

7. Submission of samples to laboratory: Indicate Item Number of those samples being transferred; sign relinquished by, and include your affiliation.

*** IMPORTANT NOTE:**

Standard Turnaround Time is 2 weeks. If this does not satisfy your requirements, arrangements must be made prior to samples being submitted to the laboratory. Contact your project manager.

Special Project Requirements such as Low Level Detection Limits or level of QC reported must be indicated on the chain of custody. (Use Additional Comments Section.)

D H E C
PROMOTE PROTECT PROSPER
C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

OCT 04 2004

SHERRI STABEL
PACE ANALYTICAL SERVICES
9800 KINCEY AVE STE 100
HUNTERSVILLE NC 28078

Re: Laboratory Analyses
Bid # SB-19780-6/11/02-EMW, PO # 416276

Dear Ms. Stabel:

Under the terms and conditions of the referenced bid package, analytical sampling has been approved for the referenced facility. The facility has been assigned an individual Cost Agreement (CA) number as listed below. Please reference the CA number and Purchase Order #416276 on the appropriate invoice submitted for payment. SCDHEC personnel will perform the sampling on or before October 5, 2004. Please use the lowest detection limit possible for the method.

UST Permit #	County	Analyses-Groundwater	CA #	Bottles (Y/N)	Date Needed
06742	Oconee	2-BTEX, naph, MtBE (8260)	23052	N	10/20/04

If you have any questions or need further assistance, please contact me at (803) 896-6398 or (800) 826-5435 (within SC only).

Sincerely,

Joel P. Padgett, P.G.,Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Approved cost agreement

cc: Debra Thoma, Northeastern SC Corrective Action Section
Technical file

DHEC/UST/JPP/100404

Approved Cost Agreement 23052

Facility: 06742 COUNTRY SIDE 2

PADGETJP

PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	2.0000	30.00	60.00
			Total Amount		60.00

File

TO: FILE

FROM: Bob Hutchinson

SUBJECT: Country Side 2
Permit ID# 06742
Subsequent Release Investigation

Date: September 27, 2004

In January 2004 the Regulatory Compliance Division received a referral from Chris Doll of the Assessment and Corrective Action Division indicating that the cleanup contractor, Smith Monitoring and Maintenance, suspected a new release had occurred at Country Side #2. The referral stated that free phase product was found in MW-8, that MW-8 had historically not shown any free product, and the results of a PIANO analysis supported the findings of a new release within five years.

An inspection of the facility was conducted on February 4, 2004. Leak detection records were observed and all dispensers checked for visible leaks. The gasoline piping at this site is European Safe Suction. The physical inspection did not reveal any evidence to support a new release. The PIANO analysis was also found to be inconclusive as to whether the product in MW-8 was from a new release (within the last 5 years) or a historic release. After further review of the file, it was also noted that MW-8 had historically contained free product. Bid number SB-6672-07/29/99-REB clearly identified that MW-8 contained 2.49 feet of free product on January 25, 1999. Smith Monitoring & Maintenance Engineering was made aware of this fact in correspondence dated December 21, 2001.

Based on the facility inspection, the leak detection records check, the PLANO report, and data in the file, the UST Program has not see any evidence to support a release that post dates the release reported on January 11, 1993.

D H E C
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C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JUL 09 2004

MR RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING INC
145 MERRILL AVE
DECATUR GA 30030

Re: Former Cross Roads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA #09283
Bid #SB-6672-07/29/99-REB; PO #191160
Release reported April 27, 1987
Corrective Action System Evaluation received June 8, 2004
Oconee County

Dear Mr. Smith:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the referenced report. The Program notes that the corrective action system has been removed from the site for repair and modifications. Further, Smith Monitoring indicates in the referenced CASE that the current corrective action technology is not effective on the quantities of free-phase product observed at the site. Therefore, the Program recommends that Smith Monitoring submit a corrective action plan addendum that proposes a suitable technology to address the problem.

The next CASE for the September 2004 quarterly sampling event is due on or before **November 1, 2004**. On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions regarding this correspondence, feel free to call me at (803) 896-6398 or (800) 826-5435 (within South Carolina only), or by fax at (803) 896-6245.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
06742.3

cc: William R. Land II, Alley Antiques, 8050 W. Oak Hwy, Westminster, SC 29693
Technical file

DHEC/UST/JPP/070904

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JUL 01 2004

MR RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING INC
145 MERRILL AVE
DECATUR GA 30030

Re: Former Cross Roads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA #09283
Bid #SB-6672-07/29/99-REB; PO #191160
Release reported April 27, 1987
Evaluation of possible second release
Oconee County

Dear Mr. Smith:

The Regulatory Division of the UST Program has completed evaluation of a possible second release at the referenced site. After a thorough review of all technical information on-file with the Program and a subsequent site inspection, the Division has determined that there is insufficient evidence to support that a second release has occurred. A copy of the memorandum regarding this decision is enclosed for your records.

As mentioned in previous correspondence to you dated May 27, 2004, a CASE for the corrective action at the site was due on or before June 28, 2004. Based on a telephone conversation with you during the week of June 7, 2004, Smith Monitoring and Maintenance was scheduled to sample the site on during the week of June 14, 2004 and submit the requested CASE shortly thereafter. To date, the Program has not received the CASE. Considering that Smith Monitoring and Maintenance is in the process of generating the CASE, the Program will forgo issuance of a breach of contract letter provided that the report is submitted by **July 15, 2004**.

On all correspondence regarding this facility, please reference UST Permit #06742. If you have any questions regarding this correspondence, feel free to call me at (803) 896-6398 or (800) 826-5435 (within South Carolina only), or by fax at (803) 896-6245.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
06742.2

enc: Memorandum of decision

cc: William R. Land II, Alley Antiques, 8050 W. Oak Hwy, Westminster, SC 29693 (w/enc)
Technical file (w/o enc)

Record Group # 169

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

Report On Records Destroyed
Records and Forms Management Unit
(UST Program ONLY)

1. Return this form to:
DHEC Forms Manager-Heritage Building
1777 St. Julian Place
Columbia, SC 29204

The records listed below have been disposed of in accordance with provisions of the Public Records Act, Code of Laws of South Carolina, 1976, Sections 30-1-10 through 30-1-140, as amended, and approved Records Retention Schedules.

2. Signature: [signature] 3. Date: 6/25/04

Records Officer signature:

4. Record Series Titles	5. Record Series #	6. Inclusive Dates	7. Volume (cubic footage)	8. Date of Destruction
Monitoring report	13300	2000-2003	.03	6/25/04
Assess plan/cost proposal	13300	1997	.007	6/25/04
*Documents put in recycle box on date of destruction.			9)	Total cubic Feet destroyed .04

SITE ID # 06742 FACILITY NAME: Crossroads Grocery

REVIEWED BY J. Padgett

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

TO: FILE

FROM: Chuck Hightower CH

SUBJECT: Country Side 2
UST Permit # 06742

Date: June 1, 2004

The Department received a request to evaluate a possible subsequent release at this site. After a thorough review of the file and a subsequent site visit and inspection of the facility, there is no regulatory evidence to indicate that a new release has occurred at this facility.

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

MAY 27 2004

MR RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING INC
145 MERRILL AVE
DECATUR GA 30030

Re: Former Cross Roads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA #09283
Bid #6672-07/29/99-REB; PO #191160
Release reported April 27, 1987
Correspondence from SCDHEC UST Program to Smith Monitoring & Maintenance Engineering dated March 18, 2004
Oconee County

Dear Mr. Smith:

A review of UST Program records indicates that the last quarterly corrective action system evaluation (CASE) for the Former Cross Roads Grocery site was submitted in September 2003. Although the Program is evaluating the possibility of a second release at the site as indicated in the referenced correspondence, Smith Monitoring is not relieved of the requirement to submit quarterly CASE reports as stipulated in Specification #7 of the corrective action bid. Therefore, please submit the requested CASE on or before **June 28, 2004**. If the CASE is not received by this date, Smith Monitoring will receive a breach of contract letter with copies furnished to the SCDHEC Procurement Services Division and to Smith Monitoring's bonding agency.

On all correspondence regarding this facility, please reference UST Permit #06742. If you have any questions regarding this correspondence, feel free to call me at (803) 896-6398 or (800) 826-5435 (within South Carolina only), or by fax at (803) 896-6245.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
06742.1

cc: William R. Land II, Alley Antiques, 8050 West Oak Highway, Westminster, SC 29693
Technical file (w/o enc)

DHEC/UST/JPP/052704

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JAN 2 8 2004

RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING, INC.
145 MERRILL AVE
DECATUR GA 30030

Re: Cross Roads Grocery, 8050 W. Oak Hwy, Westminster, SC
UST Permit #06742
Forensic Evaluation Results received December 23, 2003
Oconee County

Dear Mr. Smith:

Please find enclosed the free product PIANO analysis results referenced above. According to this report, the product found in monitoring wells MW-1R and MW-8 is consistent with a release that may have occurred within the past 5 years. The results have been forwarded to our Regulatory section to determine if a new release has occurred. You will be notified of the Regulatory decision.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions concerning this correspondence, please contact me by phone at (803) 896-6586, (800) 826-5435 (within South Carolina only), by fax at (803) 896-6245, or by email at dorankm@dhec.sc.gov.

Sincerely,

Karen M. Doran

Karen M. Doran, Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Forensic Evaluation Results
cc: Technical File

SCDHEC/UST/KMD/01.27.04

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JAN 2 8 2004

WILLIAM R LAND II
DBA ALLEY ANTIQUES
8050 W OAK HWY
OCONEE SC 29693

Re: Cross Roads Grocery, 8050 W. Oak Hwy, Westminster, SC
UST Permit #06742
Forensic Evaluation Results received December 23, 2003
Oconee County

Dear Mr. Land:

A release was reported from underground storage tanks (USTs) at the referenced facility on January 11, 1993. Corrective action was initiated by Smith Monitoring & Maintenance Engineering in September 1999 in order to clean up the contamination at this site. In September 2003, free-phase petroleum was found in monitoring well MW-8. The UST Program is currently investigating the possibility of a second release.

Please find enclosed the free product typing results referenced above. According to this report, the product found in monitoring wells MW-1R and MW-8 is consistent with a release that may have occurred within the past 5 years. The results have been forwarded to our Regulatory section to determine if a new release has occurred. You will be notified of the Regulatory decision.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions concerning this correspondence, please contact me by phone at (803) 896-6586, (800) 826-5435 (within South Carolina only), by fax at (803) 896-6245, or by email at dorankm@dhec.sc.gov.

Sincerely,

Karen M. Doran, Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Forensic Evaluation Results
cc: Technical file (w/out enclosure)
SCDHEC/UST/KMD/01.27.04

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health
and Environmental Control

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, SC 29201
Telephone (803) 896-6240, Fax (803) 896-6245

MEMORANDUM

Date: January 27, 2004

To: Connie Anderson, Manager
Regulatory Section

From: Chris Doll, Manager
State Lead and Field Services Section

Subject: Country Side 2, 8050 W. Oak Hwy., Westminster, SC
UST Permit #06742
Oconee County
New Release

A release was reported at the referenced facility on January 11, 1993. Cleanup was initiated in September 1999 under a contract with Smith Monitoring & Maintenance Engineering. The last sampling event report, received on September 19, 2003, indicated free product was found in monitoring well MW-8(0.58') – historically no product has been found in MW-8. Since free product has previously been found at this facility in monitoring wells MWR-1 and MWR-4R a fingerprint analysis was performed on product samples from MW-8 and MWR-1 to determine the age of the product. This analysis determined that the product found in MW-8 is from a release within the past 10 years.

A PIANO analysis was then performed on product samples from monitoring wells MW-8, MWR-1, and MWR-4R. Evidence in the PIANO analysis report supports the finding of a new release (within the past 5 years). Site #06742 is currently operating five (5) billable USTs, all were found in compliance on July 10, 2003. Five (5) USTs were removed from this facility in June 1990. Please indicate whether or not the free product found in monitoring well MW-8 is indicative of a new release.

enc: Site map
PIANO analysis results

cc: Karen Doran, State Lead & Field Services Section
Technical File

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

NOV 2 1 2003

RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING, INC.
145 MERRILL AVE
DECATUR GA 30030

Re: Cross Roads Grocery, 8050 W. Oak Hwy, Westminster, SC
UST Permit #06742
Forensic Evaluation Results received October 31, 2003
Oconee County

Dear Mr. Smith:

Please find enclosed the free product typing results referenced above. According to this report, the product found in monitoring wells MW-1R and MW-8 is consistent with a release that occurred within the past 10 years. An additional PIANO analysis is required on product found in monitoring well MW-8 to determine the age of the release. The analytical results will be forwarded as soon as the Program has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions concerning this correspondence, please contact me by phone at (803) 896-6586, (800) 826-5435 (within South Carolina only), by fax at (803) 896-6245, or by email at dorankm@dhec.sc.gov.

Sincerely,

Karen M Doran

Karen M. Doran, Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Forensic Evaluation Results
cc: Neil Alexander, 8050 W. Oak Hwy., Oconee, SC 29693
Technical File

SCDHEC/UST/KMD/11.20.03

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

NOV 2 1 2003

NEIL ALEXANDER
8050 W OAK HWY
OCONEE SC 29693

Re: Cross Roads Grocery, 8050 W. Oak Hwy, Westminster, SC
UST Permit #06742
Forensic Evaluation Results received October 31, 2003
Oconee County

Dear Mr. Alexander:

Please find enclosed the free product typing results referenced above. According to this report, the product found in monitoring wells MW-1R and MW-8 is consistent with a release that occurred within the past 10 years. An additional PIANO analysis is required on product found in monitoring well MW-8 to determine the age of the release. The analytical results will be forwarded as soon as the Program has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions concerning this correspondence, please contact me by phone at (803) 896-6586, (800) 826-5435 (within South Carolina only), by fax at (803) 896-6245, or by email at dorankm@dhec.sc.gov.

Sincerely,

Karen M Doran

Karen M. Doran, Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Forensic Evaluation Results

cc: Technical file (w/out enclosure)

SCDHEC/UST/KMD/11.20.03

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

NOV 21 2003

KURT JOHNSON
FRIEDMAN & BRUYA INC
3012 16TH AVE W
SEATTLE WA 98119-2029

Re: Hydrocarbon PIANO Analysis # SB-22542-5/22/03-EMW
Purchase Order #**473053**

Dear Mr. Johnson:

Under the terms and conditions of the referenced bid package, PIANO analysis has been approved for the referenced facility. The facility has been assigned an individual Cost Agreement (CA) number as listed below. Please reference the CA number and Purchase Order #473053 on the appropriate invoice submitted for payment against the facility. Please utilize the previously submitted sample from monitoring well MW-8 for required analyses. Please submit a comprehensive report within 14 days of receipt of the sample.

UST Permit #	County	Analyses	CA #
06742	Oconee	PIANO Analysis (1)	20703:P

If you have any questions or need further assistance, please contact me at (803) 896-6586 or (800) 826-5435 (within SC only).

Sincerely,

Karen M Doran

Karen M. Doran, Hydrogeologist
State Lead & Field Services Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

cc: Debra Thoma, SL&FS
Technical/Read File

Approved Cost Agreement [redacted]03

Facility: 06742 HOT SPOT 2040
DORANKM
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
11 ANALYSES						
	FREE PRO FREE PRO	Z	HYDROCARBON FUEL IDENTIFICATIO	1.0000	300.00	300.00
				Total Amount		300.00

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

JUDY LAUGHTER
R L JORDAN OIL CO INC
PO BOX 2527
SPARTANBURG SC 29304

NOV 04 2003

Re: Cross Roads Grocery, 8050 W. Oak Hwy, Westminster, SC
UST Permit #06742
Corrective Action System Evaluation received March 17, 2003
Corrective Action System Evaluation received June 30, 2003
Corrective Action System Evaluation received September 19, 2003
Oconee County

Dear Ms. Laughter:

A Corrective Action Plan was implemented in January 2000 in response to groundwater contamination at Cross Roads Grocery. Please find enclosed copies of the referenced reports. The reports are sent to you in an effort to keep you informed of the remediation activities being conducted at the referenced facility. The reports include an overview of the current site conditions and detail the most recent groundwater sampling activities. The results of these reports provide analytical data that are used to determine the effectiveness of the remediation system. The next monitoring report will be forwarded to you as soon as this office has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions concerning this correspondence, please contact me by phone at (803) 896-6586, (800) 826-5435 (within South Carolina only), by fax at (803) 896-6245, or by email at dorankm@dhec.sc.gov.

Sincerely,

Karen M Doran

Karen M. Doran, Hydrogeologist
State Lead and Field Services Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: March Corrective Action System Evaluation
June Corrective Action System Evaluation
September Corrective Action System Evaluation

cc: Technical file (w/out enclosures)
SCDHEC/UST/KMD/11.03.03

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

October 31, 2003

JUDY LAUGHTER
R L JORDAN OIL CO
PO BOX 2527
SPARTANBURG SC 29304

Re: Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit # 06742
Correspondence received October 28, 2003
Oconee County

Dear Ms. Laughter:

The following is provided in response to your requested update on the environmental conditions at the above referenced facility.

We received a report on January 11, 1993 documenting petroleum in the subsurface in the vicinity of the underground storage tanks. Our records revealed that five underground storage tanks (USTs) owned by Neil Alexander were removed in 1990 and replaced by five underground storage tanks owned by R. L Jordan Oil Company. In response to the initial report of contamination, we directed Neil Alexander, as the party responsible for performing this activity under state and federal law, to assess the extent and severity of the contamination. Assessment activities were completed and the release is currently undergoing corrective action.

You also wanted us to clarify for you the financial and liability issues surrounding the petroleum contamination at this facility. State funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account will be available for Neil Alexander to access for site rehabilitation under the conditions of the SUPERB Act. Neil Alexander is entitled to up to $1,000,000 in coverage from the SUPERB Account for this release.

In 1997, the General Assembly amended Section 80 (B) of the SUPERB Act to clarify that persons who hold "indicia of ownership" primarily to protect a security interest in property impacted by a release from a UST are exempt from the requirements to conduct site rehabilitation activities other than necessary abatement actions to eliminate any imminent threat to human health or the environment. The "indicia of ownership" exemption includes those persons who acquire title to property through foreclosure or other means necessary to protect their security interest, provided that person does not participate in the management of the UST and is not otherwise engaged in petroleum production, marketing, or refining. This applies equally to subsequent lenders who acquire the USTs and property through foreclosure in the future.

The Program is not aware of any laws or regulations that prohibit the use or development of properties where a petroleum release has occurred.

If you have any questions, please contact me at (803) 896-6584 or (800) 826-5435 (within South Carolina only).

Sincerely,

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

cc: Technical File

Hot Spot

R. L. JORDAN OIL COMPANY, INC.
P.O. BOX 2527
SPARTANBURG, SOUTH CAROLINA 29304
TELEPHONE (864) 585-6883 EXT. 116 OR 585-2784
FAX (864) 585-0859

October 28, 2003

TO: Read S. Miner

FROM: Judy Laughter

RE: Hot Spot #2040
UST Permit #06742

Per our conversation, the last status report I have in my Superb file for the above property cleanup is dated October, 2002. Please have the new Project Manager mail me the copies I am missing.

Also, could you please fax to me at 864-585-0859, a simple letter giving me a synopsis of the cleanup work and where Superb is in regard to completing this project.

Thanks for your help in this matter.

RECEIVED
OCT 2 8 2003
UNDERGROUND STORAGE
TANK PROGRAM

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (803) 896-6240 Fax (803) 896-6245

SEP 25 2003

KURT JOHNSON
FRIEDMAN & BRUYA INC
3012 16TH AVE W
SEATTLE WA 98119-2029

Re: Hydrocarbon Fingerprinting # SB-22542-5/22/03-EMW
Purchase Order **#473053**

Dear Mr. Johnson:

Under the terms and conditions of the referenced bid package, analytical sampling has been approved for the referenced facility. The facility has been assigned an individual Cost Agreement (CA) number as listed below. Please reference the CA number and Purchase Order #473053 on the appropriate invoice submitted for payment against the facility. SCDHEC personnel will perform the sampling and deliver the samples to Friedman & Bruya for the required analyses. Please submit a comprehensive report within 14 days of receipt of the sample.

UST Permit #	County	Analyses	CA #
06742	Oconee	Hydrocarbon Fingerprinting Analysis (2)	20193:P

If you have any questions or need further assistance, please contact me at (803) 896-6586 or (800) 826-5435 (within SC only).

Sincerely,

Karen M Doran

Karen M. Doran, Hydrogeologist
State Lead & Field Services Section
Assessment & Corrective Action Division

cc: Debra Thoma, SL&FS
Technical/Read File

Approved Cost Agreement [redacted]93

Facility: 06742 HOT SPOT 2040

DORANKM

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
18 MISCELLANEOUS						
			HYDROCARBON FINGERPRINTING	2.0000	300.00	600.00
				Total Amount		600.00

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (803) 896-6240 Fax (803) 896-6245

NEIL ALEXANDER
8050 W OAK HWY
OCONEE SC 29693

Re: Cross Roads Grocery, 8050 W. Oak Hwy, Westminster, SC
UST Permit #06742
Corrective Action System Evaluation received September 19, 2003
Oconee County

Dear Mr. Alexander:

A Corrective Action Plan was implemented in January 2000 in response to groundwater contamination at Cross Roads Grocery. Please find enclosed a copy of the referenced report. The report is sent to you in an effort to keep you informed of the remediation activities being conducted at the referenced facility. The report includes an overview of the current site conditions and details the most recent groundwater sampling activities. The results of this report provide analytical data that are used to determine the effectiveness of the remediation system. The next monitoring report will be forwarded to you as soon as this office has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions concerning this correspondence, please contact me at (803) 896-6586, (800) 826-5435 (within South Carolina only), or dorankm@dhec.sc.gov.

Sincerely,

Karen M. Doran

Karen M. Doran, Hydrogeologist
State Lead and Field Services Section
Assessment & Corrective Action Division

enc: Corrective Action System Evaluation

cc: Technical file (w/out enclosure)

SCDHEC/UST/KMD/09.22.03

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

SEP 24 2003

RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING, INC.
145 MERRILL AVE
DECATUR GA 30030

Re: Cross Roads Grocery, 8050 W. Oak Hwy, Westminster, SC
UST Permit #06742
Corrective Action System Evaluation received September 19, 2003
Oconee County

Dear Mr. Smith:

Thank you for submitting the quarterly monitoring report for the referenced facility. The report has been reviewed and its findings noted.

In response to the Smith Monitoring & Maintenance Engineering request, the Underground Storage Tank Program will conduct a product sampling and typing event to determine the source of the free product found in monitoring well MW-8. The analytical results will be forwarded as soon as the Program has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions concerning this correspondence, please contact me at (803) 896-6586, (800) 826-5435 (within South Carolina only), or dorankm@dhec.sc.gov.

Sincerely,

Karen M Doran

Karen M. Doran, Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

cc: Neil Alexander, 8050 W. Oak Hwy., Oconee, SC 29693
Technical File

SCDHEC/UST/KMD/09.22.03

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

JUL 0 9 2003

RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING, INC.
145 MERRILL AVE
DECATUR GA 30030

Re: Cross Roads Grocery, 8050 W. Oak Hwy, Westminster, SC
UST Permit #06742
Corrective Action System Evaluation received June 30, 2003
Oconee County

Dear Mr. Smith:

Thank you for submitting the quarterly monitoring report for the referenced facility. The report has been reviewed and its findings noted. The next quarterly monitoring report (3 copies) is due on or before September 30, 2003.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions concerning this correspondence, please contact me at (803) 896-6586, (800) 826-5435 (within South Carolina only), or dorankm@dhec.sc.gov.

Sincerely,

Karen M Doran

Karen M. Doran, Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

cc: Technical File

SCDHEC/UST/KMD/07.07.03

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (803) 896-6240 Fax (803) 896-6245

JUL 0 9 2003

NEIL ALEXANDER
8050 W OAK HWY
OCONEE SC 29693

Re: Cross Roads Grocery, 8050 W. Oak Hwy, Westminster, SC
UST Permit #06742
Corrective Action System Evaluation received June 30, 2003
Oconee County

Dear Mr. Smith:

A Corrective Action Plan was implemented in January 2000 in response to groundwater contamination at Cross Roads Grocery. Please find enclosed a copy of the referenced report. The report is sent to you in an effort to keep you informed of the remediation activities being conducted at the referenced facility. The report includes an overview of the current site conditions and details the most recent groundwater sampling activities. The results of this report provide analytical data that are used to determine the effectiveness of the remediation system. The next monitoring report will be forwarded to you as soon as this office has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions concerning this correspondence, please contact me at (803) 896-6586, (800) 826-5435 (within South Carolina only), or dorankm@dhec.sc.gov.

Sincerely,

Karen M Doran

Karen M. Doran, Hydrogeologist
State Lead and Field Services Section
Assessment & Corrective Action Division

enc: Corrective Action System Evaluation

cc: Technical file (w/out enclosure)

SCDHEC/UST/KMD/07.07.03

Record Group # 169

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

Report On Records Destroyed
Records and Forms Management Unit
(UST Program ONLY)

1. Return this form to:
DHEC Forms Manager-Heritage Building
1777 St. Julian Place
Columbia, SC 29204

The records listed below have been disposed of in accordance with provisions of the Public Records Act, Code of Laws of South Carolina, 1976, Sections 30-1-10 through 30-1-140, as amended, and approved Records Retention Schedules.

2. Signature: 3. Date:

Records Officer signature:

4. Record Series Titles	5. Record Series #	6. Inclusive Dates	7. Volume (cubic footage)	8. Date of Destruction
Monitoring Report	13300	10/02	.01	4-11-03
			9)	Total cubic Feet destroyed

*Documents put in recycle box on date of destruction.

SITE ID # 06742 FACILITY NAME: Cross Roads Grocery

REVIEWED BY Reed Mihen

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

MAR 3 1 2003

JUDY LAUGHTER
JORDAN OIL CO INC
PO BOX 2527
SPARTANBURG SC 29304

Re: Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA # 9283
SB-6672-07/29/99/REB; PO # 191160
Corrective Action System Evaluation received March 17, 2003
Oconee County

Dear Ms. Laughter:

A Corrective Action Plan was implemented in December 1999 in response to groundwater contamination at Crossroads Grocery. Please find enclosed a copy of the quarterly monitoring report. The report is sent to you in an effort to keep you informed of the remediation activities being conducted at the referenced facility. The report includes an overview of the current site conditions and details the most recent groundwater sampling activities. The results of this report provide analytical data that is used to determine the effectiveness of the remediation system. The next monitoring report will be forwarded to you as soon as this office has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 896-6584.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

enc: Corrective Action System Evaluation

cc: Technical File (without enclosure)

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

NEIL ALEZANDER
8050 WEST OAK HIGHWAY
WESTMINSTER SC 29693

Re: Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA # 9283
SB-6672-07/29/99/REB; PO # 191160
Corrective Action System Evaluation received October 25, 2002
Oconee County

Dear Mr. Alezander:

A Corrective Action Plan was implemented in December 1999 in response to groundwater contamination at Crossroads Grocery. Please find enclosed a copy of the quarterly monitoring report. The report is sent to you in an effort to keep you informed of the remediation activities being conducted at the referenced facility. The report includes an overview of the current site conditions and details the most recent groundwater sampling activities. The results of this report provide analytical data that is used to determine the effectiveness of the remediation system. The next monitoring report will be forwarded to you as soon as this office has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 896-6586.

Sincerely,

John Collins

John Collins, Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

enc: Corrective Action System Evaluation

cc: Technical File (without enclosure)

SCDHEC/UST/JHC/111102

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

JUDY LAUGHTER
JORDAN OIL CO INC
PO BOX 2527
SPARTANBURG SC 29304

Re: Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA # 9283
SB-6672-07/29/99/REB; PO # 191160
Corrective Action System Evaluation received October 25, 2002
Oconee County

Dear Ms. Laughter:

A Corrective Action Plan was implemented in December 1999 in response to groundwater contamination at Crossroads Grocery. Please find enclosed a copy of the quarterly monitoring report. The report is sent to you in an effort to keep you informed of the remediation activities being conducted at the referenced facility. The report includes an overview of the current site conditions and details the most recent groundwater sampling activities. The results of this report provide analytical data that is used to determine the effectiveness of the remediation system. The next monitoring report will be forwarded to you as soon as this office has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 896-6586.

Sincerely,

John Collins

John Collins, Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

enc: Corrective Action System Evaluation

cc: Technical File (without enclosure)

SCDHEC/UST/JHC/111102

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

JUN 25 2002

RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING INC
145 MERRILL AVE
DECATUR GA 30030

Re: Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA # 9283
SB-6672-07/29/99/REB; PO # 191160
Free Product Forensic Evaluation received June 20, 2002
Oconee County

Dear Mr. Smith:

Please find enclosed a copy of the Free Product Forensic Evaluation completed for the referenced facility. The data suggests that the product in MWR-1 and MWR-4R are both from the same release.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 896-6584.

Sincerely,

Read S. Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

cc: ✓Technical File
Judy Laughter, Jordan Oil Co., Inc., PO Box 2527, Spartanburg, SC 29304 (w/enc.)

SCDHEC/UST/062102

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

JUN 14 2002

JUDY LAUGHTER
JORDAN OIL CO INC
PO BOX 2527
SPARTANBURG SC 29304

Re: Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA # 9283
SB-6672-07/29/99/REB; PO # 191160
Corrective Action System Evaluation received June 12, 2002
Oconee County

Dear Ms. Laughter:

A Corrective Action Plan was implemented in December 1999 in response to groundwater contamination at Crossroads Grocery. Please find enclosed a copy of the quarterly monitoring report. The report is sent to you in an effort to keep you informed of the remediation activities being conducted at the referenced facility. The report includes an overview of the current site conditions and details the most recent groundwater sampling activities. The results of this report provide analytical data that is used to determine the effectiveness of the remediation system. The next monitoring report will be forwarded to you as soon as this office has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 896-6584.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

enc: Corrective Action System Evaluation

cc: Technical File (without enclosure)

SCDHEC/UST/RSM/061302

Record Group # 169

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

Report On Records Destroyed
Records and Forms Management Unit
(UST Program ONLY)

1. Return this form to:
DHEC Forms Manager-Heritage Building
1777 St. Julian Place
Columbia, SC 29204

The records listed below have been disposed of in accordance with provisions of the Public Records Act, Code of Laws of South Carolina, 1976, Sections 30-1-10 through 30-1-140, as amended, and approved Records Retention Schedules.

2. Signature: Marquisha Williams

3. Title: Administrative Specialist II Date:

Records Officer signature:

4. Record Series Titles	5. Record Series #	6. Inclusive Dates	7. Volume (cubic footage)	8. Date of Destruction
Monitoring Report	13300	5/02	101	6-19-02
*Documents put in recycle box on date of destruction.			9)	Total cubic Feet destroyed

SITE ID # 06742 FACILITY NAME: Crossroads Grocery

REVIEWED BY Read Miner

Rec Group # 169

59

Report On Records Destroyed
Records and Forms Management Unit
(UST Program ONLY)

ROTECT PROSPER
na Department of
Environmental Control

1. Return this form to:
DHEC Forms Manager-Heritage Building
1777 St. Julian Place
Columbia, SC 29204

ds listed below have been disposed of in accordance with provisions of the Public Records Act, Laws of South Carolina, 1976, Sections 30-1-10 through 30-1-140, as amended, and approved Retention Schedules.

ture: Marguerite Williams

Administrative Specialist II Date:

Officer signature:

d Series Titles	5. Record Series #	6. Inclusive Dates	7. Volume (cubic footage)	8. Date of Destruction
Monitoring Report	10302	10/01	.01	6-12-02
nents put in recycle box on f destruction.			9)	Total cubic Feet destroyed

#06742

FACILITY NAME: Cross Reads State Park

VED BY Reed Miner

521 (4/1998) Page 1 of 2 [Records Retention schedule #'s 12-300 and 12-331]

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

MAY 30 2002

JUDY LAUGHTER
JORDAN OIL CO INC
PO BOX 2527
SPARTANBURG SC 29304

Re: Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA # 9283
SB-6672-07/29/99/REB; PO # 191160
Corrective Action System Evaluation received May 13, 2002
Oconee County

Dear Ms. Laughter:

A Corrective Action Plan was implemented in December 1999 in response to groundwater contamination at Crossroads Grocery. Please find enclosed a copy of the quarterly monitoring report. The report is sent to you in an effort to keep you informed of the remediation activities being conducted at the referenced facility. The report includes an overview of the current site conditions and details the most recent groundwater sampling activities. The results of this report provide analytical data that is used to determine the effectiveness of the remediation system. The next monitoring report will be forwarded to you as soon as this office has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 896-6584.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

enc: Corrective Action System Evaluation

cc: Technical File (without enclosure)

SCDHEC/UST/RSM/052302

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

MAY 30 2002

RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING INC
145 MERRILL AVE
DECATUR GA 30030

Re: Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA # 9283
SB-6672-07/29/99/REB; PO # 191160
Corrective Action System Evaluation received May 13, 2002
Oconee County

Dear Mr. Smith:

The referenced report included a proposal to add a vacuum recovery pump to MWR-1 to increase the recovery rate. Permits are not required for the addition of vacuum recovery pumps. However, all recovered free product and wastewater must be properly disposed.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 896-6584.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

cc: ✓Technical File
Judy Laughter, Jordan Oil Co., Inc., PO Box 2527, Spartanburg, SC 29304

SCDHEC/UST/RSM/052302

D H E C
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2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

MAY 13 2002

RICHARD B SMITH PE
SMITH MONITORING & MAINTENANCE ENGINEERING INC
145 MERRILL AVE
DECATUR GA 30030

Re: Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CA # 9283
SB-6672-07/29/99/REB; PO # 191160
Report of Assessment Activities received April 23, 2002
Oconee County

Dear Mr. Smith:

On February 28, 2002, selected monitoring wells that had gone dry at the referenced facility were replaced with deeper wells. A copy of the report is enclosed. The Department will proceed with the collection of free product samples for fingerprinting as previously agreed. You will be provided with a copy of the results as soon as available.

As the dry wells have been replaced, quarterly sampling of the monitoring wells shall resume as required by the referenced bid specification. The next Corrective Action System Evaluation should be submitted on or before June 30, 2002.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 896-6584.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

cc: Technical File
Judy Laughter, Jordan Oil Co., Inc., PO Box 2527, Spartanburg, SC 29304 (w/enc.)

SCDHEC/UST/RSM/050902

Record Group # 169

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of
Health and Environmental Control

Report On Records Destroyed
Records and Forms Management Unit
(UST Program ONLY)

1. Return this form to:
DHEC Forms Manager-Heritage Building
1777 St. Julian Place
Columbia, SC 29204

The records listed below have been disposed of in accordance with provisions of the Public Records Act, Code of Laws of South Carolina, 1976, Sections 30-1-10 through 30-1-140, as amended, and approved Records Retention Schedules.

2. Signature: Marquisha Williams

3. Title: Administrative Specialist II Date:

Records Officer signature:

4. Record Series Titles	5. Record Series #	6. Inclusive Dates	7. Volume (cubic footage)	8. Date of Destruction
Monitoring Report	10302	8/01	.01	12-18-01

*Documents put in recycle box on date of destruction.

9) .01 Total cubic Feet destroyed

SITE ID # 06742 FACILITY NAME: Cross roads

REVIEWED BY Reed Fisher

)HEC
ROMOTE PROTECT PROSPER
)0 Bull Street
lumbia, SC 29201-1708

UNDERGROUND STOR TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

DEC142001

Bryan Shane
Midlands Environmental Consultants, Inc.
Post Office Box 854
Lexington, South Carolina 29071

Re: Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit # 06742, CP # 12832
SCDHEC Contract # SB-13454-10/12/00-HW
Oconee County

Dear Mr. Shane:

A cost proposal was previously established for replacement of one dry monitoring well at the referenced facility. Since that time, the water table has continued to drop and the required work scope has been increased to include replacement of 7 dry monitoring wells (MW-4, MWR-4, MW-7, MW-9, MW-14, MW-13, and MW-5). Each well shall be completed with a ten-foot well screen bracketing the water table. The ground water in the vicinity of MW-4, MWR-4, MW-7, and MW-9 should be encountered at a depth of approximately 40 feet and at a depth of approximately 25 feet in the vicinity of MW-14, MW-13, and MW-5. A site map is enclosed. The revised monitoring well approval and cost proposal are enclosed. Well replacement activities may begin immediately upon receipt of this correspondence.

On all correspondence regarding this site, please reference the UST Permit # 06742 and Cost Proposal # 12832:P. If you have questions concerning this correspondence, or would like to submit additional information, please contact me at (803) 898-4349 or (800) 826-5435 (within SC only).

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

enc: Approved Assessment Component Cost Proposal Addendum
Monitoring Well Approval
Site map

cc: Neil Alexander, 8050 West Oak Hwy, Westminster, SC 29693 (with enclosures)
Judy Laughter, Jordan Oil Co., PO Box 2527, Spartanburg, SC 29304 (w/enc.)
Richard Smith, Smith Monitoring & Maintenance Engineering, 145 Merrill Avenue, Decatur, GA 30030
Appalachia I District EQC (w/ copy of Monitoring Well Approval)
Financial Section (with copy of Approved Assessment Component Cost Proposal)
Technical File (w/Monitoring Well Approval)
Read File (without enclosures)

) H E C
:OMOTE PROTECT PROSPER
)0 Bull Street
lumbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

DEC 13 2001

Judy Laughter
Jordan Oil Co., Inc.
Post Office Box 2527
Spartanburg, South Carolina 29304

Re: Crossroads Grocery, 8050 West Oak Highway, Westminster, SC
UST Permit #06742; CP # 9283
SB-6672-07/29/99/REB; PO # 191160
Corrective Action System Evaluation received November 5, 2001
Oconee County

Dear Ms. Laughter:

A Corrective Action Plan was implemented in December 1999 in response to ground-water contamination at Crossroads Grocery. Please find enclosed a copy of the quarterly monitoring report. The report is sent to you in an effort to keep you informed of the remediation activities being conducted at the referenced facility. The report includes an overview of the current site conditions and details the ground-water sampling activities that were conducted in October 2001. The results of this report provide analytical data that is used to determine the effectiveness of the remediation system. The next monitoring report will be forwarded to you as soon as this office has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 898-4349.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

enc: Corrective Action System Evaluation

cc: Technical File (without enclosure)

SCDHEC/UST/RSM/120701

)HEC
:OMOTE PROTECT PROSPER
)0 Bull Street
lumbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

DEC132001

Karen Moore
Test America
9440 Two Notch Road, Ste. B
Columbia, SC 29223

Re: Hot Spot 2040, 8050 West Oak Highway, Westminster, SC
UST Permit # 06742; CP # 15327
Bid # SB-7690-06/17/99-REB; PO # 179220
Oconee County

Dear Ms. Moore:

Under the term and conditions of the referenced bid package, analytical sampling has been approved for the referenced facility. Laboratory analysis has been approved for 1 water sample for BTEX, Naphthalene, and MTBE. The facility has been assigned an individual Cost Proposal (CP) number as listed above. Please reference the CP number and Purchase Order #179220 on the invoice submitted for payment.

DHEC personnel will perform the required sampling at the facility within one week and deliver the sample to Test America for the required analysis(es). 24-hour rush analysis is not requested.

If you have any questions or need further assistance, please contact me at (803) 898-4349 or (800) 826-5435 (within SC only).

Sincerely,

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment & Corrective Action Division

Enc: SUPERB Report for Cost Proposal # 15327

cc: Debra Thoma, State Lead & Field Services
Technical File
Financial File
Read File

SCDHEC/UST/120701

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

Test America
Attn: Karen Moore
9440 Two Notch Road, Ste. B
Columbia, SC 29223

NOV 6 2001

Re: Hydrocarbon Fingerprinting # SB-11819-06/06/00-HW
Purchase Order **#260330**

Dear Ms. Moore:

Under the terms and conditions of the referenced bid package, analytical sampling has been approved for the referenced facility. The facility has been assigned an individual Cost Proposal (CP) number as listed below. Please reference the CP number and Purchase Order #260330 on the appropriate invoice submitted for payment against the facility. SCDHEC personnel will perform the sampling and deliver the samples to Test America for the required analyses.

UST Permit #	County	Analyses	CP #
06742	Oconee	3-Hydrocarbon Fingerprinting Analysis	15090:P

If you have any questions or need further assistance, please contact me at (803) 898-4362 or (800) 826-5435 (within SC only).

Sincerely,

Read S. Miner

Read S. Miner, P.G., Hydrogeologist
State Lead & Field Services Section
Assessment & Corrective Action Division

cc: Technical File
Financial File

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

SEP 14 2001

Smith Monitoring & Maintenance Engineering, Inc.
Attn: Richard B. Smith, P.E.
145 Merrill Avenue
Decatur, Georgia 30030

Re: Crossroads Grocery
UST Permit #06742
Sealed Bid SB-6672-07/29/99/REB
Purchase Order #191160
Cost Proposal # 09283:P
Monitoring Report received August 16, 2001
Tank system test results received September 5, 2001
Oconee County

Dear Mr. Smith:

Upon review of the referenced monitoring report, I noted that free product thicknesses have fluctuated significantly through time in several wells. In response, I contacted the Regulatory Compliance Section and found that they were expecting the submittal of Precision tank system test results for the referenced facility. The results (enclosed) confirm that all tanks and lines passed the precision tightness tests. The next quarterly corrective action system evaluation is expected on or before October 30, 2001.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 898-4349.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

enc: Tank system test results

cc: Technical File (without enclosure)
Judy Laughter, Jordan Oil Co., Inc., PO Box 2527, Spartanburg, SC 29304

SCDHEC/UST/RSM/091201

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Phone (800) 826-5435 Fax (803) 898-4330

AUG 23 2001

Jordan Oil Co., Inc.
Attn: Judy Laughter
Post Office Box 2527
Spartanburg, South Carolina 29304

Re: Crossroads Grocery
UST Permit #06742
Sealed Bid SB-6672-07/29/99/REB
Purchase Order #191160
Cost Proposal # 09283:P
Monitoring Report received August 16, 2001
Oconee County

Dear Ms. Laughter:

A Corrective Action Plan was implemented in December 1999 in response to ground-water contamination at Crossroads Grocery. Please find enclosed a copy of the quarterly monitoring report. The report is sent to you in an effort to keep you informed of the remediation activities being conducted at the referenced facility. The report includes an overview of the current site conditions and details the ground-water sampling activities that were conducted in July 2001. The results of this report provide analytical data that is used to determine the effectiveness of the remediation system. The next monitoring report will be forwarded to you as soon as this office has reviewed the findings.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 898-4349.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program

enc: August 2001 Ground-Water Monitoring Report

cc: Technical File (without enclosure)

SCDHEC/UST/RSM/082001

D H E C
PROMOTE PROTECT PROSPER
600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Phone (800) 826-5435 Fax (803) 898-4330

Jordan Oil Co., Inc.
Attn: Judy Laughter
Post Office Box 2527
Spartanburg, South Carolina 29304

JUL 0 2 2001

Re: Crossroads Grocery
UST Permit #06742
Sealed Bid SB-6672-07/29/99/REB
Purchase Order #191160
Cost Proposal # 09283:P
Monitoring Report received June 15, 2001
Oconee County

Dear Ms. Laughter:

The enclosed report from Smith Monitoring & Maintenance Engineering, Inc. documents corrective action progress through April 2001. A copy of the next quarterly corrective action monitoring report will be sent to you in approximately three months.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 898-4349.

Sincerely,

Read S. Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program

enc: June 2001 Ground-Water Monitoring Report

cc: Technical File (without enclosure)

SCDHEC/UST/RSM/062501

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

Report On Records Destroyed
Records and Forms Management Unit
[UST Program ONLY]

1. Return this form to:
Records and Forms Management Unit
2600 Bull Street
Columbia, SC 29201

The records listed below have been disposed of in accordance with provisions of the Public Records Act, Code of Laws of South Carolina, 1976, Sections 30-1-10 through 30-1-140, as amended, and approved Records Retention Schedules.

2. Signature: Barbara Byrd

3. Title: Program Coordinator Date: 4-13-2001

Agency Records Officer signature: Date:

4. Record Series Titles	5. Record Series #	6. Inclusive Dates	7. Volume (cubic footage)	8. Date of Destruction*
Monitoring Reports	10302	10-23-00	.01	4-13-01

* Documents put in recycle box on date of destruction.

9) Total Cubic Feet destroyed

SITE ID #: 06742 FACILITY NAME: Crossroads Grocery

REVIEWED BY NAME: Reed Miner

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Phone (800) 826-5435 Fax (803) 898-4330

APR 10 2001

Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693

Re: Crossroads Grocery
UST Permit #06742
Sealed Bid SB-6672-07/29/99/REB
Purchase Order #191160
Cost Proposal # 09283:P
Monitoring Report received March 23, 2001
Oconee County

Dear Mr. Alexander:

The enclosed report from Smith Monitoring & Maintenance Engineering, Inc. documents corrective action progress through February 2001. A copy of the next quarterly corrective action monitoring report will be sent to you in approximately three months.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 898-4349.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program

enc: March 23, 2001 Ground-Water Monitoring Report

cc: Technical File (without enclosure)
Judy Laughter, Jordan Oil Co., Inc., PO Box 2527, Spartanburg, SC 29304 (w/enclosure)

SCDHEC/UST/RSM/040401

D · H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Phone (800) 826-5435 Fax (803) 898-4330

NOV 30 2000

Midlands Environmental Consultants, Inc.
Attn: Bryan Shane
Post Office Box 854
Lexington, South Carolina 29071

Re: Crossroads Grocery
UST Permit # 06742, CP # 12832:P
SCDHEC Contract # SB-13454-10/12/00-HW
Oconee County

Dear Mr. Shane:

The referenced facility is currently in corrective action. One existing monitoring well (MW-4) is dry. The approved work scope is for replacement of this monitoring well to a depth of forty feet depth with a ten-foot screened interval. Submittal of a plan is not necessary. A site map is enclosed. Well replacement activities may begin immediately upon receipt of this correspondence.

Cost Proposal (CP) # 12832:P has been approved in the amount shown on the enclosed cost proposal spreadsheet and will be kept on file so that compensation can begin.

The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with bid number SB-13454-10/12/00-HW. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable. The SCDHEC reserves the right to audit project records at any time during the project or after completion of the work. **The Tier II Assessment Report (two copies) and invoice should be submitted within 60 days from the date of this correspondence.**

The Department grants pre-approval for transportation of drums of virgin petroleum contaminated soil and/or drums of groundwater from the referenced site to a permitted treatment facility. The contaminated soil and/or groundwater must be properly stored in labeled 55 gallon drums or equivalent containers. The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included in the report.

SCDHEC/UST/112700

A copy of the approved assessment cost proposal is enclosed for your information. Future invoices and/or other criteria included therein must comply with current SUPERB criteria per Section 44-2-20(2). Please reference **Cost Proposal Number 12832:P** on all pertinent invoices and correspondence. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the Department is obtained. If for any reason there is a change in this cost proposal, any associated changes to this cost proposal must be pre-approved by this Department in order for Midlands Environmental Consultants, Inc. to seek future cost compensation.

Any item(s) not clearly or completely addressed in the report (SC certified driller's number, disposal manifest for soil cuttings, disposal manifests for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account. As agreed to in the referenced contract, the owner/operator of the referenced facility will not be responsible for any costs associated with this assessment.

Monitoring well approval is enclosed for your records. Please note that all applicable South Carolina certification requirements regarding laboratory analyses, well installation, and report preparation must be met.

On all correspondence regarding this site, please reference the UST Permit # 06742 and Cost Proposal # 12832:P. If you have questions concerning this correspondence, or would like to submit additional information, please contact me at (803) 898-4349 or (800) 826-5435 (within SC only).

Sincerely,

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program

enc: Approved Assessment Component Cost Proposal
Monitoring Well Approval
Site map

cc: Neil Alexander, 8050 West Oak Hwy, Westminster, SC 29693 (with enclosures)
Judy Laughter, Jordan Oil Co., PO Box 2527, Spartanburg, SC 29304 (w/enc.)
Richard Smith, Smith Monitoring & Maintenance Engineering, 145 Merrill Avenue, Decatur, GA 30030
Appalachia I District EQC (w/ copy of Monitoring Well Approval)
Financial Section (with copy of Approved Assessment Component Cost Proposal)
Technical File (w/Monitoring Well Approval)
Read File (without enclosures)
SCDHEC/UST/112700

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

Monitoring Well Installation Approval Form

Date of Issue: 11/27/00

Approval No.:13459

Approval is hereby granted to: Midlands Environmental Consultants, Inc.
UST Permit # 06742
County: Oconee

This approval is for the construction of one permanent water table well in accordance with the construction plans and technical specifications outlined in the SC Well Standards and Regulations and Bid Specification SB-13454-10/12/00-HW. The wells are to be constructed within the surficial aquifer for the intended purpose of monitoring ground-water quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well be submitted to my attention as part of the Rapid Assessment Report.
2. Each well shall be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate shall provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.
3. Temporary wells must be properly abandon within 30 days from the date of installation.
4. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.
5. A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Read Miner at (803) 898-4349.
6. Please provide ground-water quality analytical data (chemical analysis and/or water level(s)) associated measurements (i.e., in-situ field measurements) to my attention with the Assessment Report.
7. Monitoring wells shall be installed by a permanently licensed well driller certified by the State of South Carolina.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71.

Approved by: Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program

cc: Appalachia I District EQC
Technical File
SCDHEC/UST/112700

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

BUREAU OF
LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

OCT 30 2000

Smith Monitoring & Maintenance Engineering, Inc.
Attn: Richard B. Smith, P.E.
145 Merrill Avenue
Decatur, Georgia 30030

Re: Crossroads Grocery
UST Permit # 06742
Bid Number SB-6672/07/29/99/REB
Purchase Order #191160
Cost Proposal #:09283
Monitoring results received October 23, 2000
Oconee County

Dear Mr. Smith:

Enclosed please find a copy of the analytical results from the samples that we split on September 25, 2000. Some of the samples showed significant differences. Closer review reveals that each set was analyzed using different methods (8021B vs. 8260B).

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, please call me at (803) 898-4349.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program

enc: Monitoring data

cc: Technical File

DHEC/UST/RSM/102300

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2600 Bull Street
Columbia, SC 29201-1708

BUREAU OF
LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

OCT 30 2000

Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693

Re: Crossroads Grocery
UST Permit #06742
Sealed Bid SB-6672-07/29/99/REB
Purchase Order #191160
Cost Proposal # 09283:P
Monitoring Report received October 2, 2000
Monitoring Report received October 23, 2000
Oconee County

Dear Mr. Alexander:

The enclosed report from Smith Monitoring & Maintenance Engineering, Inc. documents corrective action progress through September 2000. The Department split samples with Smith Monitoring on September 25, 2000, for quality assurance purposes. A copy of the analytical data from the Department's samples is also enclosed. A copy of the next quarterly corrective action monitoring report will be sent to you in approximately three months.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 898-4349.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program

enc: October 2, 2000 Ground-Water Monitoring Report
October 23, 2000 Ground-Water Monitoring Report

cc: Technical File (without enclosure)
Judy Laughter, Jordan Oil Co., Inc., PO Box 2527, Spartanburg, SC 29304 (w/enclosure)

SCDHEC/UST/RSM/102300

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2600 Bull Street
Columbia, SC 29201-1708

BUREAU OF
LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

OCT 30 2000

Midlands Environmental Consultants, Inc.
Attn: Bryan Shane
Post Office Box 854
Lexington, South Carolina 29071

Re: Tier II Assessments
Contract SB-13454-10/12/00-HW
Purchase Order # 294208
Notice to Proceed

Dear Mr. Shane:

The Underground Storage Tank Program of the South Carolina Department of Health and Environmental Control is requesting the submittal of Tier II Assessment Plans for various Tier II assessment component tasks for eight facilities.

Northwest Region

Moss Service Station	06769	Oconee	2AA	Read Miner
Former Hutchinson's 76	00039	Abbeville	2AB	Read Miner
Ed's Grocery	00712	Anderson	2AB	H. Reed Corley

Central Region

Handy Pantry 67	07434	Richland	2AA	H. Reed Corley
Burrow's Gulf	03534	Florence	2AA	H. Reed Corley
Cheapo's Truck Stop	07798	Lexington	2BA	H. Reed Corley
Former Heath Oil	08933	Sumter	2BA	H. Reed Corley

Southeast Region

P F Spell & Son	14834	Dorchester	2AA	H. Reed Corley

Please submit the Tier II Assessment Plans and Assessment Component Cost Proposals within 15 days of the date of this letter. Plan implementation shall not commence prior to receipt of written technical and financial approval from the Department. The report must be submitted within 60 days subsequent to the date on the approval letter.

Tier II Assessment Plan, Implementation, and Report submittal shall be performed in accordance with the referenced contract. Per Section 12, Special Conditions, a late fee of $100.00/day may be levied for each report submitted after the deadline established in the Notice to Proceed.

Cost proposal forms for each region are enclosed along with a Letter of Introduction that can be used to facilitate communications with property owners for access. Please submit your Health and Safety Plan, QA/QC Plan, and Standard Operating Procedures within 15 days of contract award.

SCDHEC/UST/102600

On all correspondence regarding this site, please reference the UST Permit number. The Tier II Assessment Reports shall be submitted to my attention.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program

Enc: Permission Forms
Letter of Introduction
Cost Proposal forms

cc: Technical/Read Files (without enclosures)

FIELD ACTIVITY WORKSHEET ORDER

Date of Request: _____

Type of Request:

(Please indicate your request with a check mark)

Emergency	(<2 Working Days)	☐
Specific	(1-5 Working Days)	☐
Routine	(10 Working Days)	X

Please specify the type of work to be completed:

Gauge free product thickness in MW-1A, MWR-1A, and MW-8

Facility Name: Crossroads Grocery

Permit Number: 06742

Project Manager: Read Miner

County: Oconee

(Field Staff Only)

Date Field Activity Completed: 10/11/00

Completed by Field Staff: BF

Date Field Notes Entered into GTS: _____

Field Staff Comments:

_____

_____

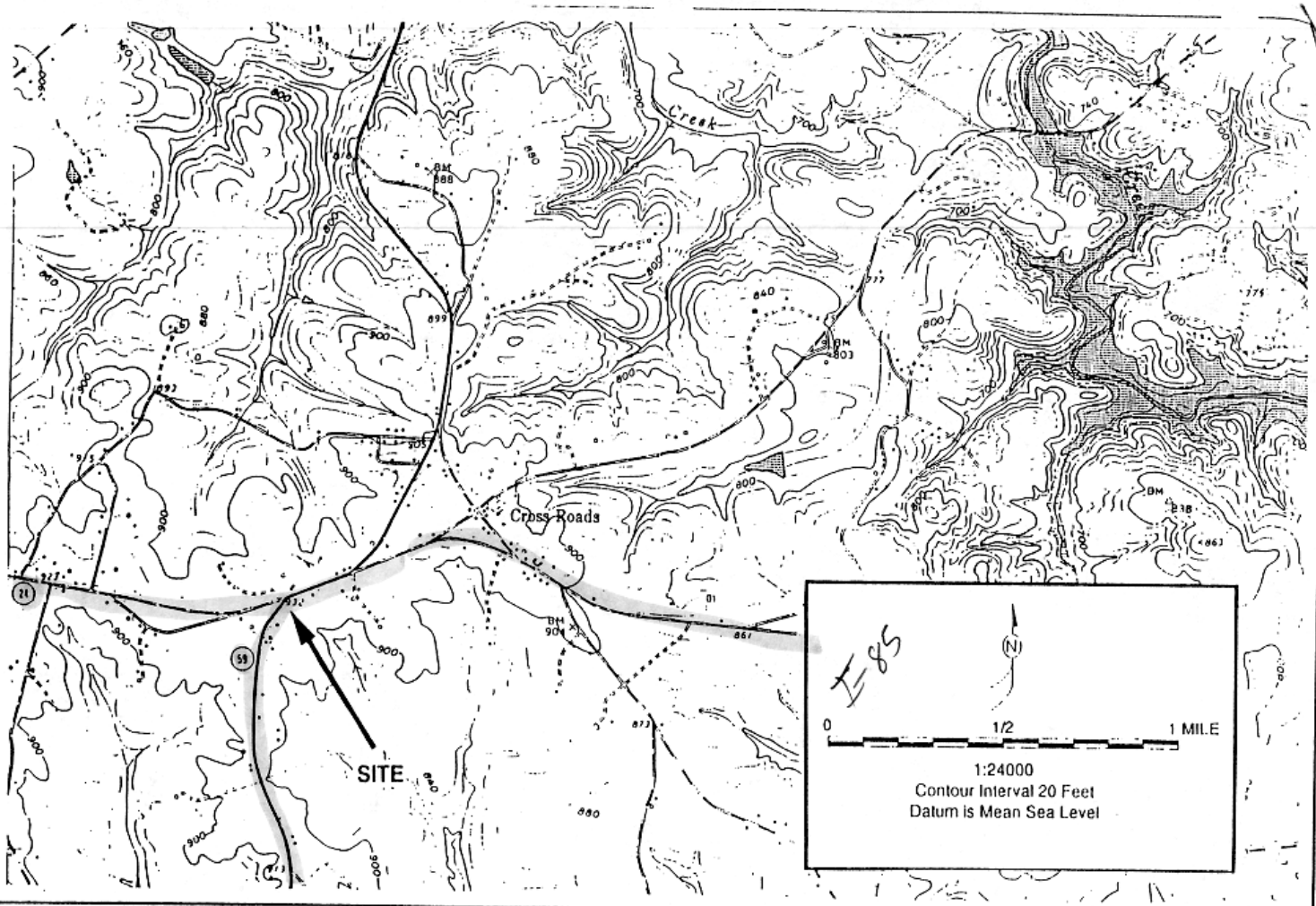
_____

REMEMBER TO ESTABLISH COST PROPOSALS

TEST AMERICA CP#: _____ GRI CP#: _____

V.E. AMICK & ASSOCIATES CP#: _____

Fill out back of this form. Photocopy, attach a completed CP cover for each CP. Thank you very much!



Crossroads Grocery

USGS MAP SHOWING SITE LOCATION

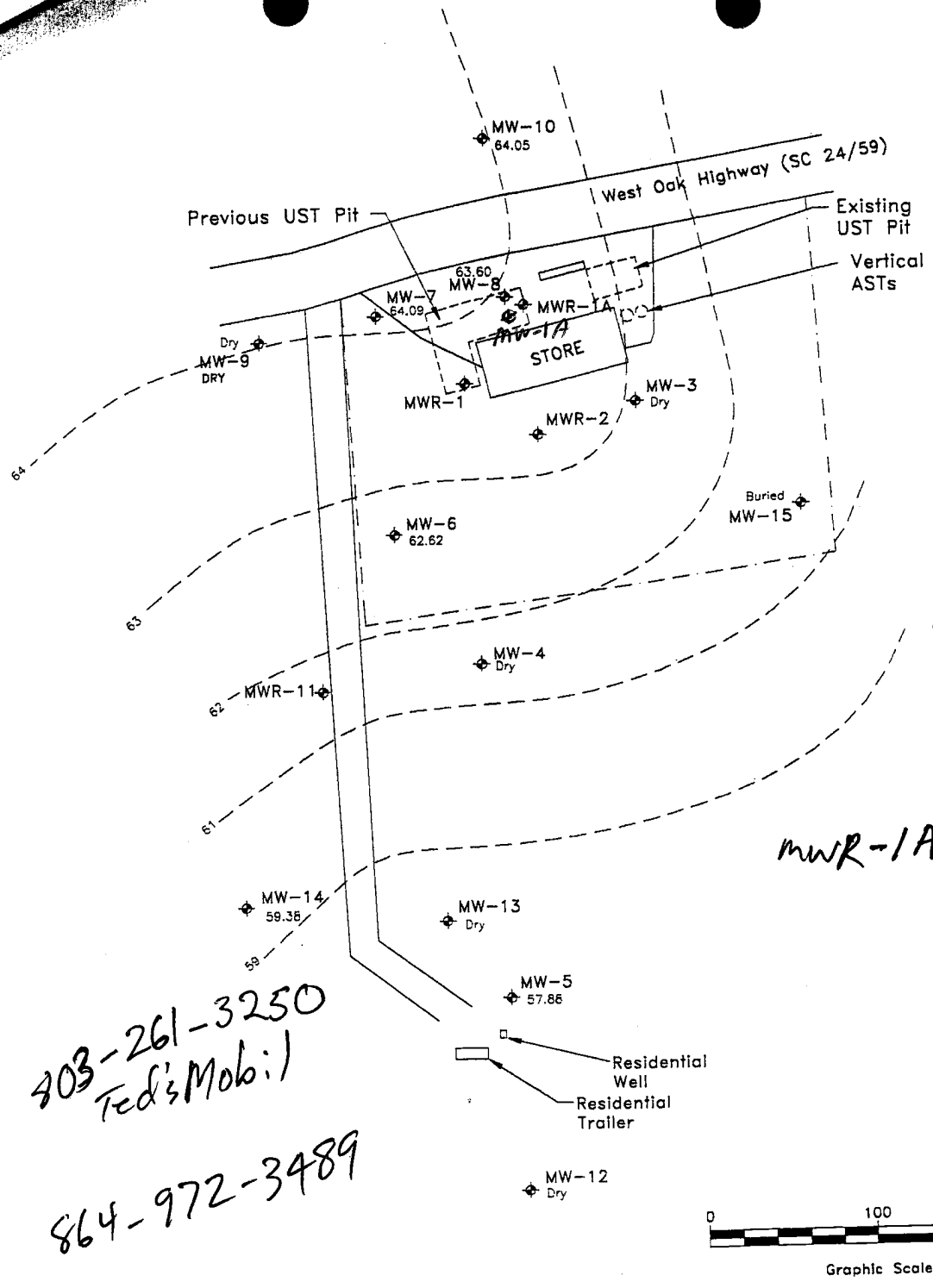
Highway 24/59, Tokeena, Oconee County, South Carolina

(Fair Play, SC, Quad, 1958-Photorevised 1979)

ESCM & Associates, Inc. 394 S. Milledge Avenue Athens, Georgia 30605

Scale: 1:24000

FIGURE 1



10/11/00

MWR-1A 37.85 (SW2)

803-261-3250
Ted's Mobil

864-972-3489

Richard Smith, Smith Monitoring & Maintenance Engineering, Inc 7/3/00 3:50 PM assess June 00.dwg

South Carolina DHEC 2600 Bull Street Columbia, South Carolina	SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332
PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: July 3, 2000
POTENTIOMETRIC SURFACE JUNE, 2000 CROSS ROADS GROCERY OCONEE COUNTY, SOUTH CAROLINA	FIGURE 1
assess june 00.dwg	

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

BUREAU OF
UNDERGROUND STORAGE TANK MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

AUG 16 2000

Test America
Attn: Mark Clark
9440 Two Notch Road, Ste. B
Columbia, SC 29223

Re: Hot Spot 2040
UST Permit # 06742
Bid # SB-7690-06/17/99-REB
Purchase Order #**179220**
CP # 11806:P
Oconee County

Dear Mr. Clark:

Under the term and conditions of the referenced bid package, analytical sampling has been approved for the referenced facility. The facility has been assigned an individual Cost Proposal (CP) number as listed above. Please reference the CP number and Purchase Order #179220 on the invoice submitted for payment.

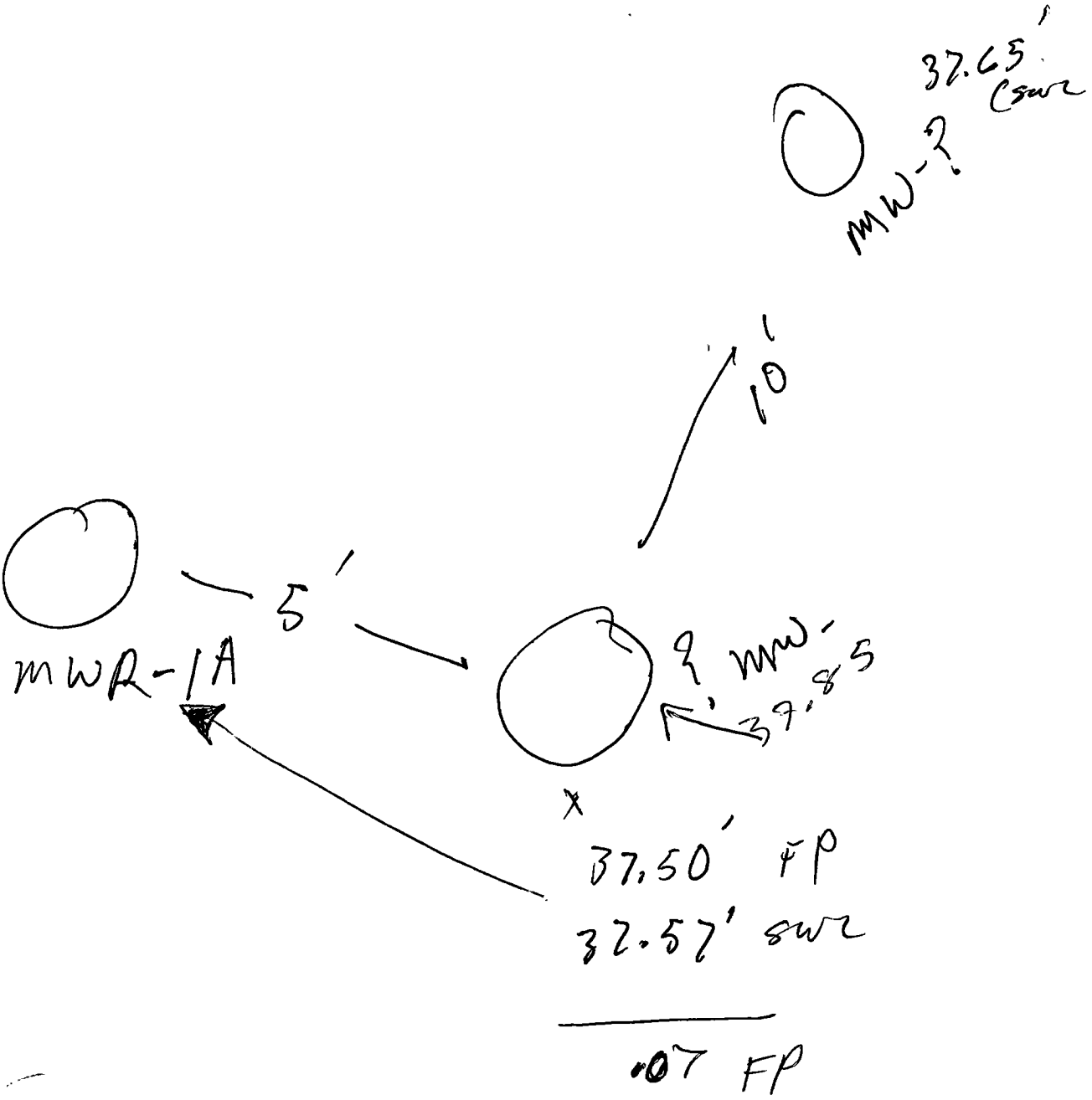
DHEC personnel will perform the required sampling at the facility in September 2000 and deliver the samples to Test America for the required analysis(es).

If you have any questions or need further assistance, please contact me at (803) 898-4349 or (800) 826-5435 (within SC only).

Sincerely,

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment & Corrective Action Division
Bureau of Underground Storage Tank Management

cc: Technical File
Financial File
Read File


37.65' (SWL
MW-?
10'
5'
MWR-1A
? MW-
37.85
37.50' FP
37.57' SWL
.07 FP

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

BUREAU OF
UNDERGROUND STORAGE TANK MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

AUG 16 2000

Test America
Attn: Mark Clark
9440 Two Notch Road, Ste. B
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Re: Hot Spot 2040
UST Permit # 06742
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Dear Mr. Clark:

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DHEC personnel will perform the required sampling at the facility in September 2000 and deliver the samples to Test America for the required analysis(es).

If you have any questions or need further assistance, please contact me at (803) 898-4349 or (800) 826-5435 (within SC only).

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment & Corrective Action Division
Bureau of Underground Storage Tank Management

cc: Technical File
Financial File
Read File

D H E C
PROMOTE PROTECT PROSPER

2600 Bull Street
Columbia, SC 29201-1708

BUREAU OF
UNDERGROUND STORAGE TANK MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

JUL 24 2000

Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693

Re: Crossroads Grocery
UST Permit #06742
Sealed Bid SB-6672-07/29/99/REB
Purchase Order #191160
Cost Proposal # 09283:P
Monitoring Report received July 14, 2000
Oconee County

Dear Mr. Alexander:

The enclosed report documents corrective action progress through June 2000. A copy of the next quarterly corrective action monitoring report will be sent to you in approximately three months.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 898-4349.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Bureau of Underground Storage Tank Management

enc: July 2000 Ground Water Monitoring Report

cc: Technical File (without enclosure)
Judy Laughter, Jordan Oil Co., Inc., PO Box 2527, Spartanburg, SC 29304 (w/enclosure)

SCDHEC/UST/RSM/072000

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

BUREAU OF
UNDERGROUND STORAGE TANK MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

JUL 07 2000

Smith Monitoring & Maintenance Engineering, Inc.
Attn: Richard B. Smith, P.E.
145 Merrill Avenue
Decatur, Georgia 30030

Re: Crossroads Grocery
UST Permit # 06742
Bid Number SB-6672/07/29/99/REB
Purchase Order #191160
Cost Proposal #:09283
Oconee County

Dear Mr. Smith:

As you are aware, selected monitoring wells at the referenced facility have gone dry because of the drought conditions. Deeper placement wells have been installed for your use. A copy of the well completion logs is enclosed. They are paired with the existing dry wells. This will not increase the number of ground-water quality samples to be collected during any quarterly sampling event, but will ensure the availability of a monitoring well that brackets the water table at each sampling location.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, please call me at (803) 898-4349.

Sincerely,

Read S. Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Bureau of Underground Storage Tank Management

enc: Well Completion logs

cc: Neil Alexander, 8050 West Oak Highway, Westminster, SC 29693 (w/enc.)
Judy Laughter, R. L. Jordan Oil Co., PO Box 2527, Spartanburg, SC 29304 (w/enc.)
Technical File
SCDHEC/UST/RSM/062600

DHEC

Water Well Record

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: MW-4R

County: OCONEE

Latitude: **Longitude:**

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

See Attached

4. OWNER OF WELL: R.L. Jordan Oil Company
Address: P.O. Box 2527
Spartanburg, South Carolina 29304
Telephone No.: (864) 585-2784 Ext. 116

Engineer: FORCE & ASSOCIATES, INC.
Address: 138 MIDDLEBROOK DRIVE
LEXINGTON, SC 29072
Telephone No.: (803) 359-7847

5. WELL DEPTH (completed) 40.0 ft. **Date Started:** 5/25/00 **Date Completed:** 5/25/00

6. ☐ Mud Rotary ☐ Air Rotary ☐ Jetted ☐ Driven ☑ Bored ☐ Cable tool ☐ Dug ☐ Other

7. USE: ☐ Domestic ☐ Irrigation ☐ Test Well ☐ Public Supply-Permit No. _____ ☐ Air Conditioning ☑ Monitoring Well ☐ Industry ☐ Commercial ☐ _____

8. CASING: ☑ Threaded ☐ Welded
Diam.: 2.0"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 ft.
_____ in. to _____ ft.

Height: Above/Below
Surface 0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

2. CUTTING SAMPLES: ☑ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Sandy Silt	2.0	2.0
Brown/Tan Sandy Silt	23.0	25.0
Red/Brown Sandy Silt	15.0	40.0

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

9. SCREEN **Type** PVC **Diam.:** 2.0"
Slot/Gauge: #10 **Length:** 15.0'
Set Between: 40.0 ft. and 25.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

10. STATIC WATER LEVEL
_____

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclosed) ☑ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No **Bacterial Analysis** ☐ Yes ☑ No
Pumping Tests: ☐ Yes (please enclosed) ☐ No
Yield: _____

13. ARTIFICIAL FILTER (gravel pack) ☑ Yes ☐ No
Installed from 40.0 ft. to 23.0 ft.
Effective size "FX-50" Uniformity Coefficient _____

14. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☑ Concrete ☑ Other - Bentonite
Depth: From 23.0 ft. to ground surface

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft. ___direction
_____ Type well disinfected upon completion ☐ Yes ☐ No Type: _____ Amount: _____

16. PUMP: Date installed: _____ **Not installed** ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

3. REMARKS:
MW-4R

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Force & Associates, Inc. Date: _____
Address: 138 Middlebrook Drive, Lexington, SC 29072
Signed: Kerry Drake Cert. No.: 969
Kerry Drake Authorized Representative

DHEC

Water Well Record

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: MW-1AR
County: OCONEE
Latitude: **Longitude:**
Distance and Direction from Road Intersections:
Street Address & City of Well Location:
Sketch Map: See Attached

4. OWNER OF WELL: R.L. Jordan Oil Company
Address: P.O. Box 2527
Spartanburg, South Carolina 29304
Telephone No.: (864) 585-2784 Ext. 116
06742

Engineer: FORCE & ASSOCIATES, INC.
Address: 138 MIDDLEBROOK DRIVE
LEXINGTON, SC 29072
Telephone No.: (803) 359-7847

5. WELL DEPTH (completed) 70.0 ft. **Date Started:** 5/25/00 **Date Completed:** 5/25/00

6. ☐ Mud Rotary ☐ Air Rotary ☐ Jetted ☐ Driven ☑ Bored ☐ Cable tool ☐ Dug ☐ Other

7. USE: ☐ Domestic ☐ Irrigation ☐ Test Well ☐ Public Supply-Permit No. ____ ☑ Monitoring Well ☐ Industry ☐ Commercial ☐ ____

8. CASING: ☑ Threaded ☐ Welded
Diam.: 6.0"/2.0"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 ft.
0 in. to 65 ft.
Height: Above/Below Surface 0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN **Type** PVC **Diam.:** 2.0"
Slot/Gauge: #10 **Length:** 5.0'
Set Between: 70.0 ft. and 65.0 ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

10. STATIC WATER LEVEL ____

11. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclosed) ☑ No
Yield: ____

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No **Bacterial Analysis** ☐ Yes ☑ No
Pumping Tests: ☐ Yes (please enclosed) ☐ No
Yield: ____

13. ARTIFICIAL FILTER (gravel pack) ☑ Yes ☐ No
Installed from 70.0 ft. to 63.0 ft.
Effective size "FX-50" Uniformity Coefficient ____

14. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☑ Concrete ☑ Other - Bentonite
Depth: From 63.0 ft. to ground surface

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ ft. ___ direction
____ Type well disinfected upon completion ☐ Yes ☐ No Type: ____ Amount: ____

16. PUMP: Date installed: ____ **Not installed** ☑
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Force & Associates, Inc. Date: ____
Address: 138 Middlebrook Drive, Lexington, SC 29072
Signed: Kerry Drake Cert. No.: 969
Kerry Drake Authorized Representative

2. CUTTING SAMPLES: ☑ Yes ☐ No
Geophysical Logs: ☐ Yes (please enclose) ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Clayey Silt	2.0	2.0
Brown and Tan Clayey Silt	4.0	8.0
Red/Brown Clayey Sandy Silt	52.0	60.0
Tan/Red Silty Fine to Medium Sand	10.0	70.0
Rock @ 70'		

*Indicate Water Bearing Zones (Use a 2nd sheet if needed)

RECEIVED
JUN 19 2000
Bureau of Underground Storage Tank Management

3. REMARKS: MW-1AR

DHEC

Water Well Record

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: MW-1R

County: OCONEE

Latitude: **Longitude:**

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

See Attached

4. OWNER OF WELL: R.L. Jordan Oil Company
Address: P.O. Box 2527
Spartanburg, South Carolina 29304
Telephone No.: (864) 585-2784 Ext. 116

Engineer: FORCE & ASSOCIATES, INC.
Address: 138 MIDDLEBROOK DRIVE
LEXINGTON, SC 29072
Telephone No.: (803) 359-7847

5. WELL DEPTH (completed) 45.0 ft. **Date Started:** 5/24/00 **Date Completed:** 5/24/00

6. ☐ Mud Rotary ☐ Air Rotary ☐ Jetted ☐ Driven ☑ Bored ☐ Cable tool ☐ Dug ☐ Other

7. USE: ☐ Domestic ☐ Irrigation ☐ Test Well ☐ Public Supply-Permit No. _____ ☐ Air Conditioning ☑ Monitoring Well ☐ Industry ☐ Commercial ☐ _____

8. CASING: ☑ Threaded ☐ Welded
Diam.: 2.0"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 30 ft.
_____ in. to _____ ft.
Height: Above/Below Surface 0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

2. CUTTING SAMPLES: ☑ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Sandy Silt	3.0	3.0
Brown/Tan Sandy Silt	22.0	25.0
Black Sandy Silt	20.0	45.0

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

9. SCREEN **Type** PVC **Diam.:** 2.0"
Slot/Gauge: #10 **Length:** 15.0'
Set Between: 45.0 ft. and 30.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

10. STATIC WATER LEVEL _____

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclosed) ☑ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No **Bacterial Analysis** ☐ Yes ☑ No
Pumping Tests: ☐ Yes (please enclosed) ☐ No
Yield: _____

13. ARTIFICIAL FILTER (gravel pack) ☑ Yes ☐ No
Installed from 45.0 ft. to 28.0 ft.
Effective size "FX-50" Uniformity Coefficient _____

14. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☑ Concrete ☑ Other - Bentonite
Depth: From 28.0 ft. to ground surface

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft. ___direction
_____ Type well disinfected upon completion ☐ Yes ☐ No Type: _____ Amount: _____

16. PUMP: Date installed: _____ **Not installed** ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

3. REMARKS:
MW-1R

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Force & Associates, Inc. Date: _____
Address: 138 Middlebrook Drive, Lexington, SC 29072
Signed: Kerry Drake Cert. No.: 969
Kerry Drake Authorized Representative

DHEC

Water Well Record

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: MW-2R

County: OCONEE

Latitude: **Longitude:**

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

See Attached

4. OWNER OF WELL: R.L. Jordan Oil Company
Address: P.O. Box 2527
Spartanburg, South Carolina 29304
Telephone No.: (864) 585-2784 Ext. 116

Engineer: FORCE & ASSOCIATES, INC.
Address: 138 MIDDLEBROOK DRIVE
LEXINGTON, SC 29072
Telephone No.: (803) 359-7847

5. WELL DEPTH (completed) 40.0 ft. **Date Started:** 5/24/00 **Date Completed:** 5/24/00

6. ☐ Mud Rotary ☐ Air Rotary ☐ Jetted ☐ Driven ☑ Bored ☐ Cable tool ☐ Dug ☐ Other

7. USE: ☐ Domestic ☐ Irrigation ☐ Test Well ☐ Public Supply-Permit No. _____ ☐ Air Conditioning ☑ Monitoring Well ☐ Industry ☐ Commercial ☐ _____

8. CASING: ☑ Threaded ☐ Welded
Diam.: 2.0"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 ft.
_____ in. to _____ ft.
Height: Above/Below Surface 0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

2. CUTTING SAMPLES: ☑ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Sandy Silt	4.0	4.0
Brown/Red Sandy Silt	18.0	22.0
Red/Tan Sandy Silt	18.0	40.0

*Indicate Water Bearing Zones (Use a 2nd sheet if needed)

9. SCREEN **Type** PVC **Diam.:** 2.0"
Slot/Gauge: #10 **Length:** 15.0'
Set Between: 40.0 ft. and 25.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

10. STATIC WATER LEVEL _____

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclosed) ☑ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No **Bacterial Analysis** ☐ Yes ☑ No
Pumping Tests: ☐ Yes (please enclosed) ☐ No
Yield: _____

13. ARTIFICIAL FILTER (gravel pack) ☑ Yes ☐ No
Installed from 40.0 ft. to 23.0 ft.
Effective size "FX-50" Uniformity Coefficient _____

14. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☑ Concrete ☑ Other - Bentonite
Depth: From 23.0 ft. to ground surface

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft. ___direction
_____ Type well disinfected upon completion ☐ Yes ☐ No Type: _____ Amount: _____

16. PUMP: Date installed: _____ **Not installed** ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (deep) ☐ Jet (shallow) ☐ Reciprocating ☐ Turbine ☐ Centrifugal

3. REMARKS:
MW-2R

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Force & Associates, Inc. Date: _____
Address: 138 Middlebrook Drive, Lexington, SC 29072
Signed: Kerry Drake Cert. No.: 969
Kerry Drake Authorized Representative

DHEC

Water Well Record

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: MW-3R

County: OCONEE

Latitude: **Longitude:**

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

See Attached

4. OWNER OF WELL: R.L. Jordan Oil Company
Address: P.O. Box 2527
Spartanburg, South Carolina 29304
Telephone No.: (864) 585-2784 Ext. 116

Engineer: FORCE & ASSOCIATES, INC.
Address: 138 MIDDLEBROOK DRIVE
LEXINGTON, SC 29072
Telephone No.: (803) 359-7847

5. WELL DEPTH (completed) 40.0 ft. **Date Started:** 5/25/00 **Date Completed:** 5/25/00

6. ☐ Mud Rotary ☐ Air Rotary ☐ Jetted ☐ Driven ☑ Bored ☐ Cable tool ☐ Dug ☐ Other

7. USE: ☐ Domestic ☐ Irrigation ☐ Test Well ☐ Public Supply-Permit No. ____ ☑ Air Conditioning ☑ Monitoring Well ☐ Industry ☐ Commercial ☐ ____

8. CASING: ☑ Threaded ☐ Welded
Diam.: 2.0"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 ft.
____ in. to ____ ft.
Height: Above/Below Surface 0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN Type PVC **Diam.:** 2.0"
Slot/Gauge: #10 **Length:** 15.0'
Set Between: 40.0 ft. and 25.0 ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

10. STATIC WATER LEVEL

11. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclosed) ☑ No
Yield:

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No **Bacterial Analysis** ☐ Yes ☑ No
Pumping Tests: ☐ Yes (please enclosed) ☐ No
Yield:

13. ARTIFICIAL FILTER (gravel pack) ☑ Yes ☐ No
Installed from 40.0 ft. to 23.0 ft.
Effective size "FX-50" Uniformity Coefficient ____

14. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☑ Concrete ☑ Other - Bentonite
Depth: From 23.0 ft. to ground surface

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ ft. ___ direction
____ Type well disinfected upon completion ☐ Yes ☐ No Type: ____ Amount: ____

16. PUMP: Date installed: ____ **Not installed** ☑
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Force & Associates, Inc. Date: ____
Address: 138 Middlebrook Drive, Lexington, SC 29072
Signed: Kerry Drake Cert. No.: 969
Kerry Drake Authorized Representative

2. CUTTING SAMPLES: ☑ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Sandy Silt	2.0	2.0
Red/Brown Sandy Silt	38.0	40.0

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

3. REMARKS:
MW-3R

DHEC

Water Well Record

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: MW-11R

County: OCONEE

Latitude: **Longitude:**

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

See Attached

4. OWNER OF WELL: R.L. Jordan Oil Company
Address: P.O. Box 2527
Spartanburg, South Carolina 29304
Telephone No.: (864) 585-2784 Ext. 116

Engineer: FORCE & ASSOCIATES, INC.
Address: 138 MIDDLEBROOK DRIVE
LEXINGTON, SC 29072
Telephone No.: (803) 359-7847

5. WELL DEPTH (completed) 40.0 ft. **Date Started:** 5/25/00 **Date Completed:** 5/25/00

6. ☐ Mud Rotary ☐ Air Rotary ☐ Jetted ☐ Driven ☑ Bored ☐ Cable tool ☐ Dug ☐ Other

7. USE: ☐ Domestic ☐ Irrigation ☐ Test Well ☐ Public Supply-Permit No. ____ ☑ Air Conditioning ☑ Monitoring Well ☐ Industry ☐ Commercial ☐ ____

8. CASING: ☑ Threaded ☐ Welded
Diam.: 2.0"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 ft.
____ in. to ____ ft.

Height: Above/Below
Surface 0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

2. CUTTING SAMPLES: ☑ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown/Tan Sandy Silt	2.0	2.0
Red/Tan Sandy Silt	28.0	30.0
Brown Sandy Silt	10.0	40.0

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

9. SCREEN **Type** PVC **Diam.:** 2.0"
Slot/Gauge: #10 **Length:** 15.0'
Set Between: 40.0 ft. and 25.0 ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

10. STATIC WATER LEVEL

11. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclosed) ☑ No
Yield:

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No **Bacterial Analysis** ☐ Yes ☑ No
Pumping Tests: ☐ Yes (please enclosed) ☐ No
Yield:

13. ARTIFICIAL FILTER (gravel pack) ☑ Yes ☐ No
Installed from 40.0 ft. to 23.0 ft.
Effective size "FX-50" Uniformity Coefficient ____

14. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☑ Concrete ☑ Other - Bentonite
Depth: From 23.0 ft. to ground surface

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft. ___direction
____ Type well disinfected upon completion ☐ Yes ☐ No Type: ____ Amount: ____

16. PUMP: Date installed: ____ **Not installed** ☑
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ___ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

3. REMARKS:
MW-11R

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Force & Associates, Inc. Date: ____
Address: 138 Middlebrook Drive, Lexington, SC 29072
Signed: Kerry Drake Cert. No.: 969
Kerry Drake Authorized Representative

RICHLAND LANDFILL
A WASTE MANAGEMENT COMPANY

1047 Highway Church Road
Elgin, SC 29045
(803) 788-3054
(803) 736-0995 Fax

SPECIAL WASTE MANIFEST

WASTE ID # RC 0002004

EXPIRATION DATE: FEBRUARY 14, 2001

GENERATOR OF WASTE: FORCE & ASSOCIATES

CUSTOMER ACCOUNT: LANDFILL CASH 820 - 156

LOCATION OF WASTE : Hot Spot - Oconee Co. - 9
Ridge Spring - Saluda Co. - 1 Drum, J+M Bait+Tackle-Abbeville Co. 1 Drum
Summerville Ford - Dorchester Co. - 4

PHONE # 803-359-7847 **CONTACT** GREG FORCE

GENERATOR'S SIGNATURE Greg Force **DATE:** 6/6/00

TRANSPORTER OF WASTE FORCE & ASSOCIATES

DATE: 6/6/00 **TRUCK NO.** 1

DRIVER'S SIGNATURE Kenny Drake

****** TO BE COMPLETED BY RICHLAND LANDFILL ******

DISPOSAL SITE: RICHLAND LANDFILL

DESCRIPTION OF WASTE SOIL FROM SOIL BORING PROGRAM

TICKET NO.# 24878 **TONNAGE** 1.97

RECEIVED BY Rosalyn

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

BUREAU OF
UNDERGROUND STORAGE TANK MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

MAY 09 2000

Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693

Re: Crossroads Grocery
UST Permit #06742
Sealed Bid SB-6672-07/29/99/REB
Purchase Order #191160
Cost Proposal # 09283:P
Monitoring Report received April 28, 2000
Oconee County

Dear Mr. Alexander:

The enclosed report documents corrective action progress through April 2000. A copy of the next quarterly corrective action monitoring report will be sent to you in approximately three months.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 898-4349.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Bureau of Underground Storage Tank Management

enc: April 2000 Ground Water Monitoring Report

cc: Technical File (without enclosure)
Judy Laughter, Jordan Oil Co., Inc., PO Box 2527, Spartanburg, SC 29304 (w/enclosure)

SCDHEC/UST/RSM/050300

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

BUREAU OF
UNDERGROUND STORAGE TANK
MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

MAY 15 2000

Force & Associates, Inc.
Attn: Greg Force
138 Middlebrook Drive
Lexington, South Carolina 29072

Re: Hot Spot 2040
UST Permit #06742, CP # 11089:P
SCDHEC Contract # SB-4815-09/29/98/REB
Oconee County

Dear Mr. Force:

Corrective action is in progress at the referenced facility. Several monitoring wells have gone dry as a result of drought conditions and require replacement. This work scope will include replacement of six monitoring wells. The well logs and a site map depicting the locations are enclosed. Monitoring well 1 should be replaced with a new well screened from 30 to 45 feet below ground surface (BGS). Monitoring wells 2, 3, 4, and 11 should each be screened from 25 to 40 feet BGS. Monitoring well 1A should be replaced with a type III well with an anticipated depth of 75 feet BGS. Assessment activities at the site should begin immediately upon receipt of this letter.

Cost Proposal (CP) #11089:P has been approved in the amount shown on the enclosed cost proposal spreadsheet and will be kept on file so that compensation can begin

The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with bid number SB-4815-09/29/98/REB. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable. The SCDHEC reserves the right to audit project records at any time during the project or after completion of the work. The Rapid Assessment Report (two copies) must be submitted within 60 days of the date of this letter.

The Bureau grants pre-approval for transportation of drums of virgin petroleum contaminated soil and/or drums of groundwater from the referenced site to a permitted treatment facility. The contaminated soil and/or groundwater must be properly stored in labeled 55 gallon drums or equivalent containers. The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included in the report.

SCDHEC/UST/050800

A copy of the approved assessment cost proposal is enclosed for your information. Future invoices and/or other criteria included therein must comply with current SUPERB criteria per Section 44-2-20(2). Please reference **Cost Proposal Number 11089:P** on all pertinent invoices and correspondence. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the Department is obtained. If for any reason there is a change in this cost proposal, any associated changes to this cost proposal must be pre-approved by this Department in order for Force & Associates, Inc. to seek future cost compensation.

Any item(s) not clearly or completely addressed in the report (SC certified driller's number, disposal manifest for soil cuttings, disposal manifests for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account. As agreed to in the referenced contract, the owner/operator of the referenced facility will not be responsible for any costs associated with this assessment.

Monitoring well approval for 5 type II permanent and one type III monitoring wells have been approved. A copy is enclosed for your records. Please note that all applicable South Carolina certification requirements regarding laboratory analyses, well installation, and report preparation must be met.

On all correspondence regarding this site, please reference the UST Permit # 06742 and Cost Proposal # 11089:P. If you have questions concerning this correspondence, or would like to submit additional information, please contact me at (803) 898-4349 or (800) 826-5435 (within SC only).

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Bureau of Underground Storage Tank Management

enc: Approved Assessment Component Cost Proposal
Monitoring Well Approval
Site map and well logs

cc: Neil Alexander, 8050 West Oak Highway, Westminster, SC 29693 (w/enc.)
Judy Laughter, Jordan Oil Co., Inc., PO Box 2527, Spartanburg, SC 29304 (w/enc.)
Appalachia I District EQC (w/ copy of Monitoring Well Approval)
Financial Section (with copy of Approved Assessment Component Cost Proposal)
Technical File (w/Monitoring Well Approval)
Read File (without enclosures)

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

Monitoring Well Installation Approval Form

Date of Issue: 05/08/00

Approval No.:12803

Approval is hereby granted to: Force & Associates, Inc.
UST Permit # 06742
County: Oconee

This approval is for the construction of 5 type II permanent and one type III monitoring wells in accordance with the construction plans and technical specifications outlined in the SC Well Standards and Regulations and Bid Specification SB-4815-09/29/98/REB. The wells are to be constructed within the surficial aquifer for the intended purpose of monitoring ground-water quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well be submitted to my attention as part of the Rapid Assessment Report.
2. Each well shall be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate shall provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.
3. Temporary wells must be properly abandon within 30 days from the date of installation.
4. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.
5. A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to H. Read Miner at (803) 898-4349.
6. Please provide ground-water quality analytical data (chemical analysis and/or water level(s)) associated measurements (i.e., in-situ field measurements) to my attention with the Assessment Report.
7. Monitoring wells shall be installed by a permanently licensed well driller certified by the State of South Carolina.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71.

Approved by: Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Bureau of Underground Storage Tank Management

cc: Appalachia I District EQC
Technical File
SCDHEC/UST/050800

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

BUREAU OF
UNDERGROUND STORAGE TANK MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

JAN 27 2000

Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693

Re: Crossroads Grocery
UST Permit #06742
Sealed Bid SB-6672-07/29/99/REB
Purchase Order #191160
Cost Proposal # 09283:P
Monitoring Report received January 14, 2000
Oconee County

Dear Mr. Alexander:

The enclosed report documents corrective action progress through December 1999. A copy of the next quarterly corrective action monitoring report will be sent to you in approximately three months.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, contact me at (803) 898-4349.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Bureau of Underground Storage Tank Management

enc: January 2000 Ground Water Monitoring Report

cc: Technical File (without enclosure)
Judy Laughter, Jordan Oil Co., Inc., PO Box 2527, Spartanburg, SC 29304 (w/enclosure)

SCDHEC/UST/RSM/011700

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health
and Environmental Control

Date: December 17, 1999

To: Kevin Clark
Bureau of Air Quality Control

From: Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

Re: Crossroads Grocery
UST Permit #02097
Oconee County

Smith Monitoring & Maintenance, Inc. has proposed to use vacuum enhanced recovery to remove free product gasoline from the soil and ground water at the referenced facility. Please find attached a copy of the BAQC UST modeling information form.

Please review to determine if an air quality permit will be required.

If you have any questions, please call me at 898-4349.

06742.MEM

SCDHEC/UST/121799

D H E C
FROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF UNDERGROUND STORAGE TANK MANAGEMENT

Phone (803) 898-4350 Fax (803) 898-4330

BAQC UST Modeling Information

PLEASE FILL OUT COMPLETELY

FACILITY/COMPANY NAME: Cross Roads Grocery UST Permit # 06742

CLEANUP LOCATION: 850 West Oak Highway Townena, S.C.

TYPE OF OPERATION (i.e. AIR STRIPPER): Vacuum Enhanced Product Recovery

CONTACT: Richard Smith / SMME (404) 371-9332

SITE MAPS

Please include a scaled plot plan of the facility location that clearly shows distances from the stack to the property boundaries. All buildings and/or structures within a radius of 5 stack heights (measured from the stack/vent) shall be incorporated on this plot plan and information on each building and/or structure's height, width, and length shall also be included.

STACK INFORMATION

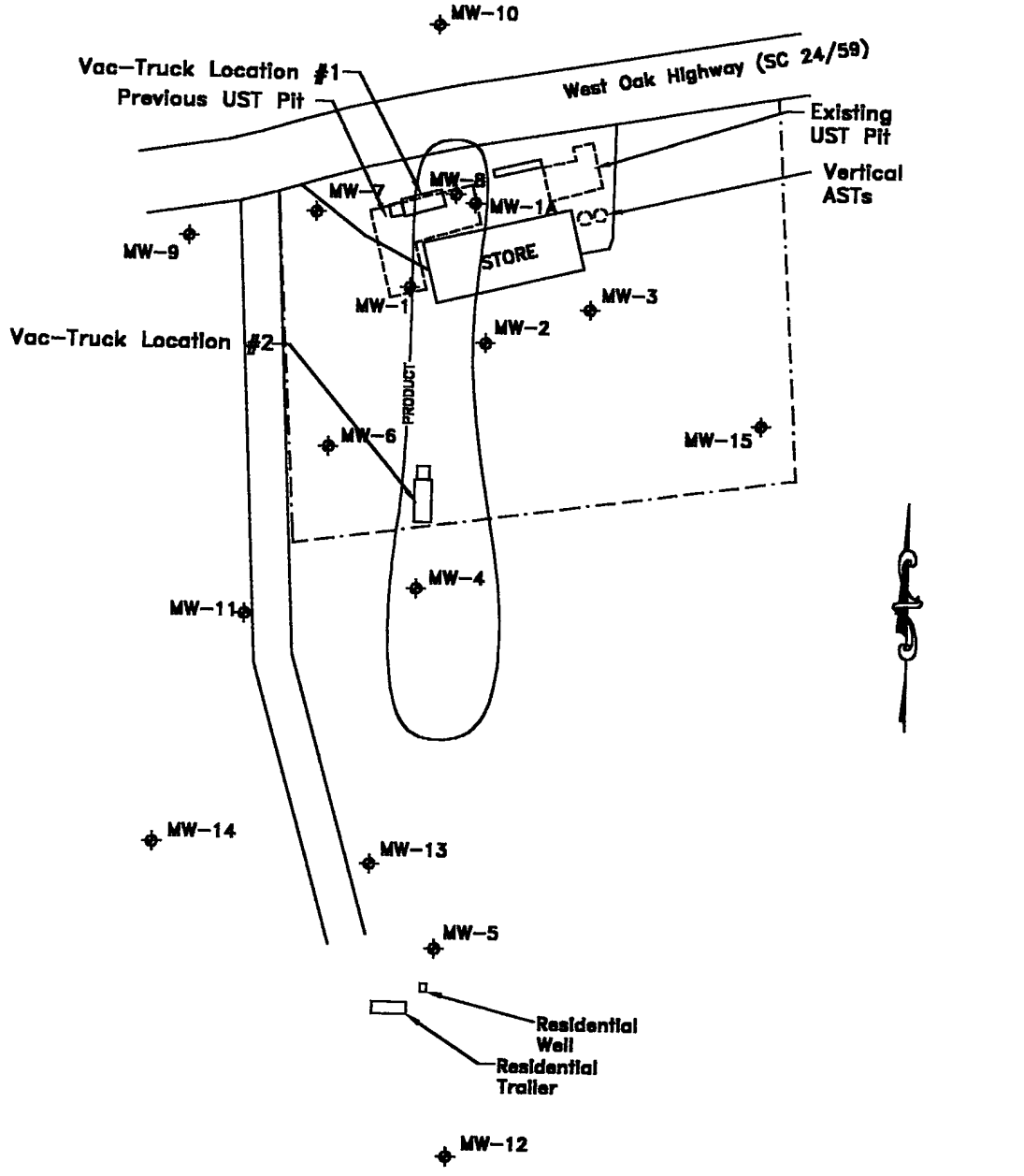
HEIGHT ABOVE GROUND: 2'-5' FEET; DIAMETER: 0.33 FEET

TEMPERATURE: Ambient F; VELOCITY: 100 FEET/SECOND

AIR TOXIC INFORMATION

AIR TOXIC EMITTED (i.e. BENZENE)	CHEMICAL ABSTRACT SERVICE (CAS) NUMBER	EMISSION RATE LB/HR
A) Benzene	71-43-2	1.5
B) Ethyl Benzene	100-41-4	1.5
C) MTBE	1634-04-4	0.08
D) Toluene	108-88-3	0.6
E) Naphthalene	91-20-3	0.01
Xylene	1330-20-7	0.15

Please submit this completed sheet with scaled site maps to _____, project manager at the Division of Underground Storage Tank Management, 2600 Bull Street, Columbia, SC 29201.



South Carolina DHEC 2600 Bull Street Columbia, South Carolina		SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332	
PROJECT #:	DRAWN BY: RBS	PROPOSED VACUUM TRUCK LOCATIONS VACUUM-ENHANCED PRODUCT RECOVERY CROSS ROADS GROCERY OCONEE COUNTY, SOUTH CAROLINA	FIGURE 2
SCALE: 1" = 100'	DATE: September, 1999	assess.dwg	

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

COMMISSIONER:
Douglas E. Bryant

BOARD:
John H. Burriss
Chairman

William M. Hull, Jr., MD
Vice Chairman

Roger Leaks, Jr.
Secretary

Mark B. Kent

Cyndi C. Mosteller

Brian K. Smith

Rodney L. Grandy

January 10, 2000

RECEIVED
JAN 1 3 2000
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

Mr. Neil Alexander
850 West Oak Highway
Westminister, SC 29693

Re: Underground Injection Control Permit #490
Crossroads Grocery
Oconee County

Dear Mr. Alexander:

Enclosed is a Permit to Operate for twelve (12) Class VA-I (Aquifer Remediation) injection wells at Crossroads Grocery, Oconee County, SC.

If you have any question, please call me at (803) 898-3549.

Sincerely,

Todd Adams

Todd Adams, Hydrologist
GroundWater Management Section
Bureau of Water

cc: Read Miner, DUSTM
Richard Smith, Smith Monitoring and Maintenance
145 Merrill Ave, Decatur, GA 30030

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

COMMISSIONER:
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Vice Chairman

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Brian K. Smith

Rodney L. Grandy

Water Monitoring Assessment & Protection Division

Injection Well Operating Approval
for

Class II, III, and V.A. Injection Well(s)

Permit #490 Date of Issue: January 10, 2000

In accordance with the provisions of Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, and pursuant to receiving a Permit to Construct twelve (12) Class V.A.-I (Aquifer Remediation) injection wells, authorization is granted to Neil Alexander to operate twelve (12) Class V.A.-I injection wells located at the Crossroads Grocery, Oconee County, SC, and are subject to the attached provisos noted for the operator.

The Class V.A.-I injection wells are a true diameter of one inch, and a total depth of approximately 40 - 50 feet.

Pursuant to Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, this authorization may be rescinded if these injection wells should, at any time, contaminate, pollute, or otherwise adversely affect other water in the vicinity or for any other conditions contained in R61-87, Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended.

Expires: January 10, 2002

Todd Adams, Hydrologist
GroundWater Management Section
Bureau of Water

January 10, 2000
Date

DHEC 2104 (6/88)

Provisos to the Injection Well Operating Approval
for
Underground Injection Well Permit #490
Crossroads Grocery
Oconee County, S.C.
January 10, 2000

1) Construction of new or abandonment of existing wells must be reported to the Department within thirty (30) days of completion.

2) Only ambient air and phosphorous gas as described in the Corrective Action Plan may be injected into the subsurface. Any changes in the system operation other than as presented in the UIC Permit Application must be reported to the Department prior to implementation.

GEOLOGIC EXPLORATION

Monitoring & Recovery Well Specialists

Site # 06742
Read Miner

RECEIVED
JAN 1 0 2000
DIVISION OF UNDERGROUND STORAGE TANK MGMT.

FAX TRANSMITTAL

TO: Todd Adams
SC DEHER

FROM: Stan Tyl
GEX

FAX#: 1-888-761-6681

DATE: 1-7-00

NUMBER OF PAGES: 13 INCLUDING COVER SHEET

ADDITIONAL COMMENTS:

Todd, for your use per -
Rick Smith @ SMWE -

Thanks
Stan Tyl

MAILING ADDRESS:

GEOLOGIC EXPLORATION, INC.
176 COMMERCE BLVD.
STATESVILLE, NC 28625
PHONE (704) 872-7686
(800) 752-8853
FAX (704) 872-0248

CHARLOTTE ADDRESS:

GEOLOGIC EXPLORATION, INC.
10921 OFFICE PARK DRIVE
CHARLOTTE, NC 28273
PHONE (704) 587-1066
(800) 943-9355
FAX (704) 587-1068

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL
County: OCONEE System Name:
Latitude: Longitude:
Distance and Direction from Road Intersections: INT. OF HWY 24 & HWY 59
Street Address & City of Well Location: TOKEENA

Sketch Map: SC 59, Site, SC 24

2. CUTTING SAMPLES: ☐ Yes ☒ No
Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
PUSH PROBE-NO CUTTINGS		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:
MW-11 BENTONITE SEAL FROM 16.0 TO 18.0 FEET.

4. OWNER OF WELL:
Address: MR. NEIL ALEXANDER, 8050 W. OAK HWY, WESTMINSTER, SC 29693
Telephone No.:

Engineer: SMITH MONITORING
Address: 145 MERRILL AVE., DECATUR, GA 30030
Telephone No.: (404) 371-9332

5. WELL DEPTH (completed): 24.0' ft Date Started: 12-21-99 Date Completed: 12-21-99

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☒ Other AUGER

7. USE:
☐ Domestic ☐ Public Supply–Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐ Monitor Well ☒ INJECTION

8. CASING: ☒ Threaded ☐ Welded
Diam.: 1 INCH
Type: ☐ PVC ☐ Galvanized ☐ Steel ☒ ☐ Other
1 in. to 19.0 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: HDPE Diam.: 1 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 19.0 ft. and 24.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

10. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 18.0 ft. to 24.0 ft.
Effective size .051 Uniformity Coefficient 1.47

14. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From 0.0 ft. to 16.0 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
_____ Type well disinfected ☐ Yes Type: _____
upon completion ☐ No Amount: _____

16. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: GEOLOGIC EXPLORATION, INC. Date: 1-07-00
Address: 176 COMMERCE BLVD., STATESVILLE, NC 28625
Signed: _____ (Authorized Representative) Cert. No.: 1276

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Water Well Record
Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

DHEC — PROMOTE PROTECT PROSPER

1. LOCATION OF WELL

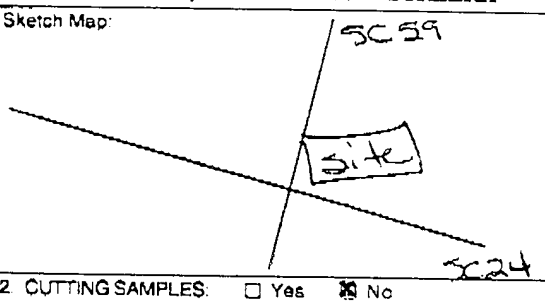
County: OCONEE System Name:

Latitude: Longitude:

Distance and Direction from Road Intersections: INT. OF HWY 24 & HWY 59

Street Address & City of Well Location: TOKEENA

Sketch Map:



2. CUTTING SAMPLES: ☐ Yes ☒ No

Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
PUSH PROBE-NO CUTTINGS		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:

MW-I2 BENTONITE SEAL FROM 16.0 TO 18.0 FEET.

4. OWNER OF WELL: MR. NEIL ALEXANDER
Address: 8050 W. OAK HWY
WESTMINSTER, SC 29693
Telephone No.:

Engineer: SMITH MONITORING
Address: 145 MERRILL AVE.
DECATUR, GA 30030
Telephone No.: (404) 371-9332

5. WELL DEPTH (completed) 24.0' ft. Date Started: 12-21-99 Date Completed: 12-21-99

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☒ Other AUGER

7. USE: ☐ Domestic ☐ Public Supply–Permit No. ____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐ Monitor Well ☒ INJECTION

8. CASING: ☒ Threaded ☐ Welded
Diam.: 1 INCH
Type: ☐ PVC ☐ Galvanized ☐ Steel ☒ Other
1 in. to 19.0 ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface 0.0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: HDPE Diam.: 1 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 19.0 ft. and 24.0 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

10. STATIC WATER LEVEL
____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 18.0 ft. to 24.0 ft.
Effective size .051 Uniformity Coefficient 1.47

14. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other ____
Depth: From 0.0 ft. to 16.0 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
____ Type well disinfected ☐ Yes Type: ____
upon completion ☐ No Amount: ____

16. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Registered Business Name: GEOLOGIC EXPLORATION, INC. Date: 1-07-00
Address: 176 COMMERCE BLVD., STATESVILLE, NC 28625
Signed: Julie McCarthy Cert. No.: 1276
Authorized Representative

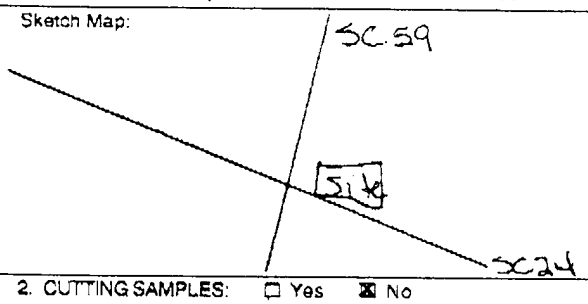
DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

D H E C

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1 LOCATION OF WELL:
County: OCONEE System Name:
Latitude: Longitude:
Distance and Direction from Road Intersections:
INT. OF HWY 24 & HWY 59
Street Address & City of Well Location: TOKEENA

Sketch Map:



2. CUTTING SAMPLES: ☐ Yes ☒ No
Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
PUSH PROBE-NO CUTTINGS		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:
MW-I3 BENTONITE SEAL FROM 12.0 TO 14.0 FEET.

4. OWNER OF WELL:
Address: MR. NEIL ALEXANDER
8050 W. OAK HWY
WESTMINSTER, SC 29693
Telephone No.:

Engineer: SMITH MONITORING
Address: 145 MERRILL AVE.
DECATUR, GA 30030
Telephone No.: (404) 371-9332

5. WELL DEPTH (completed) 20.0' ft. Date Started: 12-22-99
Date Completed: 12-22-99

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug
☐ Air Rotary ☐ Driven ☐ Cable tool ☒ Other AUGER

7. USE
☐ Domestic ☐ Public Supply–Permit No. ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐ Monitor Well ☒ INJECTION

8. CASING: ☒ Threaded ☐ Welded
Diam.: 1 INCH
Type: ☐ PVC ☐ Galvanized ☐ Steel ☒ ☐ Other
1 in. to 15.0 ft. depth
_____ in. to _____ ft. depth
Height; Above/Below Surface 0.0 ft.
Weight _____ lb /ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: HDPE Diam.: 1 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 15.0 ft. and 20.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

10. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 14.0 ft. to 20.0 ft.
Effective size .051 Uniformity Coefficient 1.47

14. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From 0.0 ft. to 12.0 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
_____ Type well disinfected ☐ Yes Type: _____
upon completion ☐ No Amount: _____

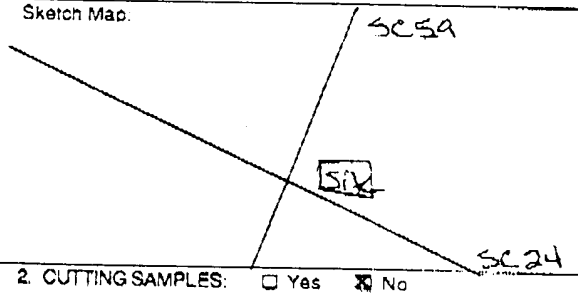
16. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: GEOLOGIC EXPLORATION, INC. Date: 1-07-00
Address: 176 COMMERCE BLVD., STATESVILLE, NC 28625
Signed: _____ Cert. No.: 1276
Authorized Representative

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL
County: OCONEE System Name:
Latitude: Longitude:
Distance and Direction from Road Intersections:
INT. OF HWY 24 & HWY 59
Street Address & City of Well Location: TOKEENA
Sketch Map.



2. CUTTING SAMPLES: ☐ Yes ☒ No
Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
PUSH PROBE-NO CUTTINGS		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:
MW-I4 BENTONITE SEAL FROM 12.0 TO 14.0 FEET.

4. OWNER OF WELL:
Address: MR. NEIL ALEXANDER
8050 W. OAK HWY
WESTMINSTER, SC 29693
Telephone No.:

Engineer: SMITH MONITORING
Address: 145 MERRILL AVE.
DECATUR, GA 30030
Telephone No.: (404) 371-9332

5. WELL DEPTH (completed) 20.0' ft. Date Started: 12-21-99 Date Completed: 12-21-99

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☒ Other AUGER

7. USE:
☐ Domestic ☐ Public Supply–Permit No. ____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐ Monitor Well ☒ INJECTION

8. CASING: ☒ Threaded ☐ Welded
Diam.: 1 INCH
Type: ☐ PVC ☐ Galvanized ☐ Steel ☒ Other
1 in. to 15.0 ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface 0.0 ft.
Weight ____ lb./ft
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: HDPE Diam.: 1 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 15.0 ft. and 20.0 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

10. STATIC WATER LEVEL
____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 14.0 ft. to 20.0 ft.
Effective size .051 Uniformity Coefficient 1.47

14. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other ____
Depth: From 0.0 ft. to 12.0 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
____ Type well disinfected ☐ Yes Type: ____
upon completion ☐ No Amount: ____

16. PUMP: Date installed: ____ ☐ Not installed
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

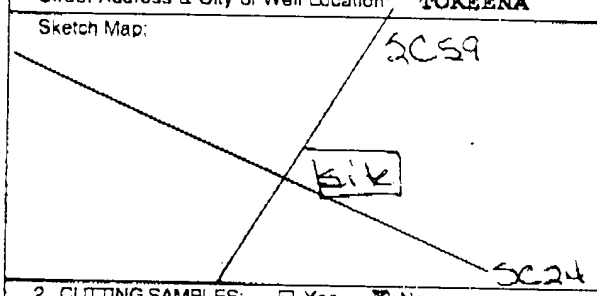
17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: GEOLOGIC EXPLORATION, INC. Date: 1-07-00
Address: 176 COMMERCE BLVD., STATESVILLE, NC 28625
Signed: ____ Authorized Representative Cert. No.: 1276

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:
County: OCONEE System Name:
Latitude: Longitude:
Distance and Direction from Road Intersections:
INT. OF HWY 24 & HWY 59
Street Address & City of Well Location: TOKEENA

Sketch Map:



2. CUTTING SAMPLES: ☐ Yes ☒ No
Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
PUSH PROBE-NO CUTTINGS		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:
MW-I5 BENTONITE SEAL FROM 17.0 TO 19.0 FEET.

4. OWNER OF WELL:
Address: MR. NEIL ALEXANDER
8050 W. OAK HWY
WESTMINSTER, SC 29693
Telephone No.:

Engineer: SMITH MONITORING
Address: 145 MERRILL AVE.
DECATUR, GA 30030
Telephone No.: (404) 371-9332

5. WELL DEPTH (completed) 25.0' ft. Date Started: 12-24-99
Date Completed: 12-24-99

6 ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug
☐ Air Rotary ☐ Driven ☐ Cable tool ☒ Other AUGER

7. USE:
☐ Domestic ☐ Public Supply–Permit No. ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐ Monitor Well ☒ INJECTION

8. CASING: ☒ Threaded ☐ Welded
Diam.: 1 INCH
Type: ☐ PVC ☐ Galvanized ☐ Steel ☒ Other
1 in. to 20.0 ft. depth
in. to ft. depth
Height: Above/Below Surface 0.0 ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: HDPE Diam.: 1 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 20.0 ft. and 25.0 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

10. STATIC WATER LEVEL
ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
installed from 19.0 ft. to 25.0 ft.
Effective size .051 Uniformity Coefficient 1.47

14. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0.0 ft. to 17.0 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☐ No Amount:

16. PUMP: Date installed: Not installed ☐
Mfr. Name Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: GEOLOGIC EXPLORATION, INC. Date: 1-07-00
Address: 176 COMMERCE BLVD., STATESVILLE, NC 28625
Signed: [signature] Cert. No.: 1276
Authorized Representative

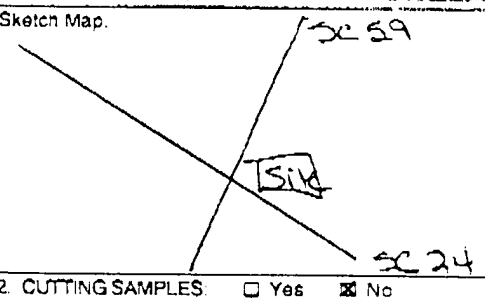
DHEC 1903 (10/98) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:
County: OCONEE System Name:
Latitude: Longitude:
Distance and Direction from Road Intersections:
INT. OF HWY 24 & HWY 59
Street Address & City of Well Location: TOKEENA

Sketch Map:



2. CUTTING SAMPLES: ☐ Yes ☒ No
Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
PUSH PROBE-NO CUTTINGS		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:
MW-I6 BENTONITE SEAL FROM 17.0 TO 19.0 FEET.

4. OWNER OF WELL: MR. NEIL ALEXANDER
Address: 8050 W. OAK HWY
WESTMINSTER, SC 29693
Telephone No.:

Engineer: SMITH MONITORING
Address: 145 MERRILL AVE.
DECATUR, GA 30030
Telephone No.: (404) 371-9332

5. WELL DEPTH (completed) 25.0' ft. Date Started: 12-22-99 Date Completed: 12-22-99

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☒ Other AUGER

7. USE: ☐ Domestic ☐ Public Supply–Permit No. ____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐ Monitor Well ☒ INJECTION

8. CASING: ☒ Threaded ☐ Welded
Diam.: 1 INCH
Type: ☐ PVC ☐ Galvanized ☐ Steel ☒ ☐ Other
1 in. to 20.0 ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface 0.0 ft.
Weight ____ lb./ft
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: HDPE Diam.: 1 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 20.0 ft. and 25.0 ft. NOTE: MULTIPLE SCREENS USE SECOND SHEET
____ ft. and ____ ft.
Sieve Analysis ☐ Yes (please enclose) ☒ No

10. STATIC WATER LEVEL
____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 19.0 ft. to 25.0 ft.
Effective size .051 Uniformity Coefficient 1.47

14. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other ____
Depth: From 0.0 ft. to 17.0 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
____ Type well disinfected ☐ Yes Type: ____
upon completion ☐ No Amount: ____

16. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: GEOLOGIC EXPLORATION, INC. Date: 1-07-00
Address: 176 COMMERCE BLVD., STATESVILLE, NC 28625
Signed: [signature] Cert. No.: 1276
Authorized Representative

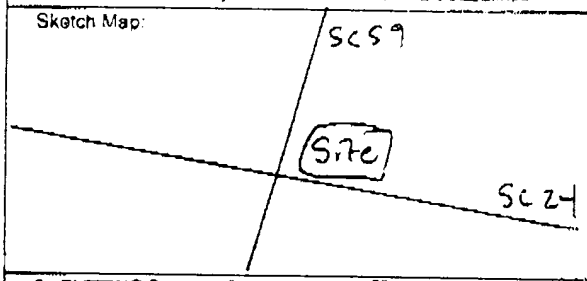
DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

D H E C

1. LOCATION OF WELL:
County: OCONEE System Name:
Latitude: Longitude:
Distance and Direction from Road Intersections:
INT. OF HWY 24 & HWY 59
Street Address & City of Well Location: TOKEENA

Sketch Map:



2. CUTTING SAMPLES: ☐ Yes ☒ No
Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
BROWN/RED CLAYEY SANDY SILT	10.0'	10.0'
RED/ORANGE SANDY SILT	15.0'	25.0'
BROWN/TAN SILT	20.0'	45.0'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:
MW-I7 BENTONITE SEAL FROM 33.0 TO 38.0 FEET.

4. OWNER OF WELL:
Address: MR. NEIL ALEXANDER
8050 W. OAK HWY
WESTMINSTER, SC 29693
Telephone No.:

Engineer: SMITH MONITORING
Address: 145 MERRILL AVE.
DECATUR, GA 30030
Telephone No.: (404) 371-9332

5. WELL DEPTH (completed) 45.0' ft. Date Started: 12-28-99
Date Completed: 12-28-99

6 ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug
☐ Air Rotary ☐ Driven ☐ Cable tool ☒ Other AUGER

7. USE:
☐ Domestic ☐ Public Supply–Permit No. ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐ Monitor Well ☒ INJECTION

8. CASING: ☒ Threaded ☐ Welded
Diam.: 1 INCH
Type: ☐ PVC ☐ Galvanized ☐ Steel ☒ Other
1 in. to 40.0 ft. depth
in. to ft. depth
Height: Above/Below Surface 0.0 ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: HDPE Diam.: 1 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 40.0 ft. and 45.0 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

10. STATIC WATER LEVEL
ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 38.0 ft. to 45.0 ft.
Effective size .051 Uniformity Coefficient 1.47

14. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0.0 ft. to 33.0 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☐ No Amount:

16. PUMP: Date installed: ☐ Not installed
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

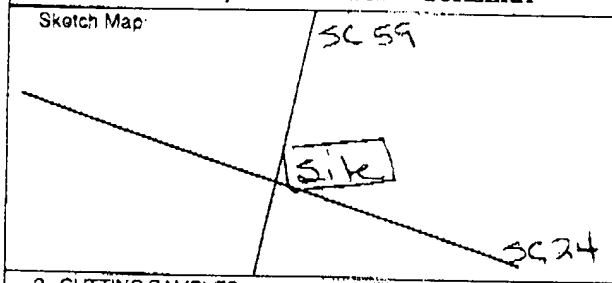
17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: GEOLOGIC EXPLORATION, INC. Date: 1-07-00
Address: 176 COMMERCE BLVD., STATESVILLE, NC 28625
Signed: [signature] (Authorized Representative) Cert. No.: 1276

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:
County: OCONEE System Name:
Latitude: Longitude:
Distance and Direction from Road Intersections: INT. OF HWY 24 & HWY 59
Street Address & City of Well Location: TOKEENA

Sketch Map:



2. CUTTING SAMPLES: ☐ Yes ☒ No
Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
BROWN/RED CLAYEY SANDY SILT	10.0'	10.0'
RED/ORANGE SANDY SILT	15.0'	25.0'
BROWN/TAN SILT	20.0'	45.0'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:
MW-18 BENTONITE SEAL FROM 33.0 TO 38.0 FEET.

4. OWNER OF WELL:
Address: MR. NEIL ALEXANDER
8050 W. OAK HWY
WESTMINSTER, SC 29693
Telephone No.:

Engineer: SMITH MONITORING
Address: 145 MERRILL AVE.
DECATUR, GA 30030
Telephone No.: (404) 371-9332

5. WELL DEPTH (completed) 45.0' ft. Date Started: 12-28-99
Date Completed: 12-28-99

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug
☐ Air Rotary ☐ Driven ☐ Cable tool ☒ Other AUGER

7. USE:
☐ Domestic ☐ Public Supply–Permit No. ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐ Monitor Well ☐ INJECTION

8. CASING: ☒ Threaded ☐ Welded
Diam.: 1 INCH
Type: ☐ PVC ☐ Galvanized ☐ Steel ☒ ☐ Other
1 in. to 40.0 ft. depth
in. to ft. depth
Height: Above/Below Surface 0.0 ft
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: HDPE Diam.: 1 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 40.0 ft. and 45.0 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

10. STATIC WATER LEVEL
ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 38.0 ft. to 45.0 ft.
Effective size .051 Uniformity Coefficient 1.47

14. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0.0 ft. to 33.0 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☐ No Amount:

16. PUMP: Date installed: ☐ Not installed
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: GEOLOGIC EXPLORATION, INC. Date: 1-07-00
Address: 176 COMMERCE BLVD., STATESVILLE, NC 28625
Signed: Authorized Representative Cert. No.: 1276

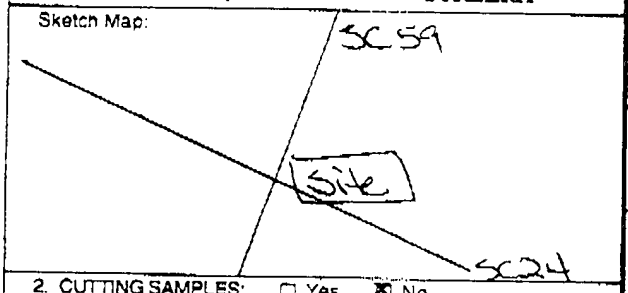
DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

DHEC

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:
County: OCONEE System Name:
Latitude: Longitude:
Distance and Direction from Road Intersections: INT. OF HWY 24 & HWY 59
Street Address & City of Well Location: TOKEENA

Sketch Map:



2. CUTTING SAMPLES: ☐ Yes ☒ No
Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
BROWN/RED CLAYEY SANDY SILT	10.0'	10.0'
RED/ORANGE SANDY SILT	15.0'	25.0'
BROWN/TAN SILT	15.0'	40.0'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:
MW-I9 BENTONITE SEAL FROM 28.0 TO 33.0 FEET.

4. OWNER OF WELL: MR. NEIL ALEXANDER
Address: 8050 W. OAK HWY
WESTMINSTER, SC 29693
Telephone No.:

Engineer: SMITH MONITORING
Address: 145 MERRILL AVE.
DECATUR, GA 30030
Telephone No.: (404) 371-9332

5. WELL DEPTH (completed): 40.0' ft. Date Started: 12-28-99 Date Completed: 12-28-99

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug
☐ Air Rotary ☐ Driven ☐ Cable tool ☒ Other AUGER

7. USE:
☐ Domestic ☐ Public Supply–Permit No ____ ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐ Monitor Well ☒ INJECTION

8. CASING: ☒ Threaded ☐ Welded
Diam.: 1 INCH
Type: ☐ PVC ☐ Galvanized ☐ Steel ☒ Other
1 in. to 35.0 ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface 0.0 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: HDPE Diam.: 1 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 35.0 ft. and 40.0 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

10. STATIC WATER LEVEL
____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 33.0 ft. to 40.0 ft.
Effective size .051 Uniformity Coefficient 1.47

14. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other ____
Depth: From 0.0 ft. to 28.0 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
____ Type well disinfected upon completion ☐ Yes ☐ No Type: ____ Amount: ____

16. PUMP: Date installed: ____ ☐ Not installed
Mfr. Name: ____ Model No.: ____
H.P ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: GEOLOGIC EXPLORATION, INC. Date: 1-07-00
Address: 176 COMMERCE BLVD., STATESVILLE, NC 28625
Signed: ____ Cert. No.: 1276
Authorized Representative

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

DHEC — PROTECTING PUBLIC HEALTH & THE ENVIRONMENT

1. LOCATION OF WELL

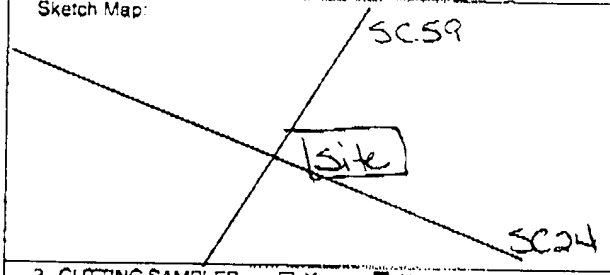
County: OCONEE System Name:

Latitude: Longitude

Distance and Direction from Road Intersections:
INT. OF HWY 24 & HWY 59

Street Address & City of Well Location: TOKEENA

Sketch Map:



2. CUTTING SAMPLES: ☐ Yes ☒ No

Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
BROWN/RED CLAYEY SANDY SILT	10.0'	10.0'
RED/ORANGE SANDY SILT	15.0'	25.0'
BROWN/TAN SILT	20.0'	45.0'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:
MW-I10 BENTONITE SEAL FROM 33.0 TO 38.0 FEET.

4. OWNER OF WELL:
Address: MR. NEIL ALEXANDER
8050 W. OAK HWY
WESTMINSTER, SC 29693
Telephone No.:

Engineer: SMITH MONITORING
Address: 145 MERRILL AVE.
DECATUR, GA 30030
Telephone No.: (404) 371-9332

5. WELL DEPTH (completed) 45.0' ft. Date Started: 12-28-99 Date Completed: 12-28-99

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☒ Other AUGER

7. USE:
☐ Domestic ☐ Public Supply–Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐ Monitor Well ☒ INJECTION

8. CASING: ☒ Threaded ☐ Welded
Diam.: 1 INCH
Type: ☐ PVC ☐ Galvanized ☐ Steel ☒ Other
1 in. to 40.0 ft. depth
in. to ft. depth
Height: Above/Below Surface 0.0 ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: HDPE Diam.: 1 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 40.0 ft. and 45.0 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

10. STATIC WATER LEVEL
ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 38.0 ft. to 45.0 ft.
Effective size .051 Uniformity Coefficient 1.47

14. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0.0 ft. to 33.0 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☐ No Amount:

16. PUMP: Date installed: ☐ Not installed
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: GEOLOGIC EXPLORATION, INC. Date: 1-07-00
Address: 176 COMMERCE BLVD., STATESVILLE, NC 28625
Signed: [signature] Cert. No.: 1276
Authorized Representative

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

DHEC — PROMOTE PROTECT PROSPER

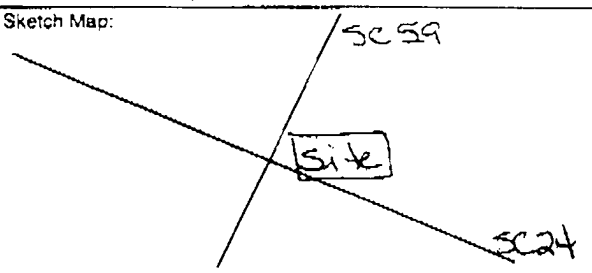
1. LOCATION OF WELL:
County: OCONEE System Name:

Latitude: Longitude:

Distance and Direction from Road Intersections:
INT. OF HWY 24 & HWY 59

Street Address & City of Well Location: TOKEENA

Sketch Map:



2. CUTTING SAMPLES: ☐ Yes ☒ No

Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
BROWN/RED CLAYEY SANDY SILT	10.0'	10.0'
RED/ORANGE SANDY SILT	15.0'	25.0'
BROWN/TAN SILT	10.0'	35.0'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:
MW-I11. BENTONITE SEAL FROM 23.0 TO 28.0 FEET.

4. OWNER OF WELL:
Address: MR. NEIL ALEXANDER
8050 W. OAK HWY
WESTMINSTER, SC 29693

Telephone No.:

Engineer: SMITH MONITORING
Address: 145 MERRILL AVE.
DECATUR, GA 30030
Telephone No: (404) 371-9332

5. WELL DEPTH (completed) 35.0' ft. Date Started: 12-28-99
Date Completed: 12-28-99

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug
☐ Air Rotary ☐ Driven ☐ Cable tool ☒ Other AUGER

7. USE:
☐ Domestic ☐ Public Supply–Permit No. ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐ Monitor Well ☒ INJECTION

8. CASING: ☒ Threaded ☐ Welded
Diam.: 1 INCH
Type: ☐ PVC ☐ Galvanized ☐ Steel ☒ ☐ Other
1 in. to 30.0 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: HDPE Diam.: 1 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 30.0 ft. and 35.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

10. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 28.0 ft. to 35.0 ft.
Effective size .051 Uniformity Coefficient 1.47

14. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From 0.0 ft. to 23.0 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
_____ Type well disinfected ☐ Yes Type: _____
upon completion ☐ No Amount: _____

16. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
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Address: 176 COMMERCE BLVD., STATESVILLE, NC 28625
Signed: _____ Cert. No.: 1276
Authorized Representative

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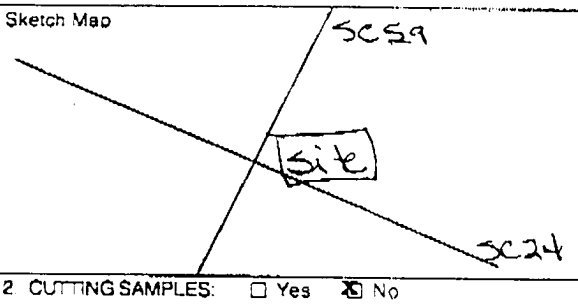
Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL
County: OCONEE System Name
Latitude: Longitude:
Distance and Direction from Road Intersections:
INT. OF HWY 24 & HWY 59
Street Address & City of Well Location: TOKEENA

Sketch Map



2. CUTTING SAMPLES: ☐ Yes ☒ No
Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
BROWN/RED CLAYEY SANDY SILT	10.0'	10.0'
RED/ORANGE SANDY SILT	15.0'	25.0'
BROWN/TAN SILT	15.0'	40.0'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:
MW-I12 BENTONITE SEAL FROM 28.0 TO 33.0 FEET.

4. OWNER OF WELL:
Address: MR. NEIL ALEXANDER
8050 W. OAK HWY
WESTMINSTER, SC 29693
Telephone No.:

Engineer: SMITH MONITORING
Address: 145 MERRILL AVE.
DECATUR, GA 30030
Telephone No.: (404) 371-9332

5. WELL DEPTH (completed) 40.0' ft. Date Started: 12-28-99
Date Completed: 12-28-99

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug
☐ Air Rotary ☐ Driven ☐ Cable tool ☒ Other AUGER

7. USE.
☐ Domestic ☐ Public Supply–Permit No. ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐ Monitor Well ☒ INJECTION

8. CASING: ☒ Threaded ☐ Welded
Diam.: 1 INCH
Type: ☐ PVC ☐ Galvanized
☐ Steel ☒ Other
1 in. to 35.0 ft. depth
in. to ft. depth
Height: Above/Below Surface 0.0 ft
Weight lb /ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: HDPE Diam.: 1 INCH
Slot/Gauge: .010 Length: 5.0 FEET
Set Between: 35.0 ft. and 40.0 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

10. STATIC WATER LEVEL
ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
ft. after hrs, Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 33.0 ft. to 40.0 ft.
Effective size .051 Uniformity Coefficient 1.47

14. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0.0 ft to 28.0 ft

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected upon completion ☐ Yes ☐ No Type: Amount:

16. PUMP: Date installed: ☐ Not installed
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

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Registered Business Name: GEOLOGIC EXPLORATION, INC. Date: 1-07-00
Address: 176 COMMERCE BLVD., STATESVILLE, NC 28625
Signed: Authorized Representative Cert. No.: 1276

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health
and Environmental Control

FAX MESSAGE

Date: 12-30-99

Number of Pages including Cover sheet: 3

Please Deliver This Fax Message

TO: **Rick Smith**
Name

Smith Monitoring
Organization/Department

404-373-3296
Fax Number

404-371-9332
Phone Number

FROM: Read S. Miner, P.G., Hydrogeologist
Division of Underground Storage Tank Management
(803) 898-4330
Fax Number

(803) 898-4349
Phone Number

Subject: Attached please find the requested Bureau of Air Quality Response for Crossroads Grocery, Permit #06742. Please accept my apology for its omission from the letter granting authorization to commence corrective action.

Confidentiality Notice

This transmission is intended only for the use of the individual or entity to which it is addressed and may contain information which is privileged and confidential. If the reader of this message is not the intended recipient, you are hereby notified that any disclosure, distribution, or copying of this information is strictly prohibited. If you receive this transmission in error, please notify the sender immediately by calling the above telephone number.

D · H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

COMMISSIONER:
Douglas E. Bryant

BOARD:
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Secretary

Mark B. Kent

Cyndi C. Mosteller

Brian K. Smith

Rodney L. Grandy

MEMORANDUM

DATE: 22 December 1999

TO: Read S. Miner, P.G.
Division of Underground Storage Tank Management

FROM: Kevin J. Clark, P.E. KC
Air Modeling Section
Bureau of Air Quality

SUBJECT: Crossroads Grocery, GWPD 06742
850 West Oak Highway
Tokeena, South Carolina

The Bureau of Air Quality has reviewed the air emission information for the eight-hour vacuum enhanced product recovery event to be located at Crossroads Grocery, 850 West Oak Highway, Tokeena, South Carolina. Air dispersion modeling results indicate that the air toxics emitted (Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene, and MTBE) will result in off-site concentrations of these toxics that will meet the air toxic standards (Standard No. 8). Since the total volatile organic compound (VOC) emissions are less than 1000 lbs./month, an air permit will not be required for the vacuum enhanced product recovery event. If the 1000 lb. VOC limit is reached during the vacuum enhanced product recovery event, the system will be shut down, and an air permit will be obtained from the Bureau of Air Quality before operation may continue. This is in accordance with Section II, Part F, Paragraph G of the SC Dept. of Health and Environmental Control Air Pollution Control Regulation No. 62.1.

cc: Rick Caldwell, Appalachia III EQC District
Angie Eastman, BAQ Permitting
Engineering File

AIR DISPERSION MODELING SUMMARY SHEET

SITE NAME: Cross Roads Grocery

DATE: 22 December 1999

LOCATION: Tokeena

REVIEWED BY: KJC

GWPD NO.: 06742

MODEL: de minimis calculations, ISCST3

SOURCE DESCRIPTION: Vacuum enhanced product recovery event

RESULTS:

POLLUTANT	CAS NO.	AVERAGING PERIOD	MAX. MODELED CONCENTRATION ($\mu g/m^3$)	STANDARD ($\mu g/m^3$)
Benzene	71432	24 Hour	51	150
Toluene	108883	24 Hour	De minimis	2000
Ethylbenzene	100414	24 Hour	De minimis	4350
Xylene	1330207	24 Hour	De minimis	4350
Naphthalene	91203	24 Hour	De minimis	1250
MTBE	1634044	24 Hour	N/A	N/A

SESSION	FUNCTION	NO.	DESTINATION STATION	DATE	TIME	PAGE	DURATION	MODE	RESULT
3652	TX	01	4043733296	DEC.30	13:27	003	00H00'59"	ECM	OK

NAME:DIV UST MGMT
TEL :18038984330
DATE:DEC.30'1999 13:28

TX RESULT REPORT

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

FAX MESSAGE

Date: 12-30-99

Number of Pages including Cover sheet: 3

Please Deliver This Fax Message

TO: Rick Smith
Name

Smith Monitoring
Organization/Department

404-373-3296
Fax Number

404-371-9332
Phone Number

FROM: Read S. Miner, P.G., Hydrogeologist
Division of Underground Storage Tank Management
(803) 898-4330
Fax Number

(803) 898-4349
Phone Number

Subject: Attached please find the requested Bureau of Air Quality Response for Crossroads Grocery, Permit #06742. Please accept my apology for its omission from the letter granting authorization to commence corrective action.

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D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

NOV 29 1999

Smith Monitoring & Maintenance Engineering, Inc.
Attn: Richard B. Smith, P.E.
145 Merrill Avenue
Decatur, Georgia 30030

Re: Crossroads Grocery
UST Permit # 06742
Bid Number SB-6672/07/29/99/REB
Purchase Order #191160
Cost Proposal #:09283
Corrective Action Plan received September 29, 1999
Public Notice completed November 15, 1999
Oconee County

Dear Mr. Smith:

The Division of Underground Storage Tank Management has reviewed the referenced documents. The proposed corrective action was placed on public notice. No comments were received and corrective action should commence immediately upon receipt of this letter. A copy of the Underground Injection Control Permit to Construct is enclosed. Please contact the property owners prior to your anticipated work start date to coordinate site access.

Installation of the Corrective Action System should begin immediately. Please follow the instructions on the Underground Injection Control Permit to Construct. The baseline monitoring report shall be submitted on or before December 30, 1999.

The referenced cost proposal has been approved in the amount of *$139,506.00* and will be kept on file so that compensation can begin in accordance with the pay for performance schedule outlined in the bid specification. A purchase order for this bid number has been prepared by the Bureau of Business Management. Future invoices and/or other criteria included therein must comply with current SUPERB criteria per Section 44-2-20(2) and the referenced bid special conditions. Please reference ***Cost Proposal Number 09283*** on all pay-for-performance invoices. If for any reason there is a change in this cost proposal, the bid specification, and/or special conditions, all changes must be preapproved by SCDHEC in writing in order for Consultech Environmental, Inc. to seek future compensation.

SCDHEC/UST/111599

The Division grants preapproval for transportation of drums of virgin petroleum contaminated soil and/or drums of groundwater generated during drilling or sampling from the referenced site to a permitted treatment facility. The contaminated soil and/or groundwater must be properly stored in labeled 55 gallon drums or equivalent containers. The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included in the report.

On all correspondence regarding this site, please reference UST Permit #06742. If you have any questions, please call me at (803) 898-4349.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Branch
Division of Underground Storage Tank Management

enc: UIC Permit to Construct

cc: Neil Alexander, 8050 West Oak Highway, Westminster, SC 29693
Judy Laughter, R. L. Jordan Oil Co., PO Box 2527, Spartanburg, SC 29304
Tripp Clark, Bureau of Business Management
Appalachia I District EQC
Technical File

Z 326 703 954

Ro Miner

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to A L Jordan Oil Co. Judy Laughter	
Street & Number PO Box 2527	
Post Office, State, & ZIP Code Sby, SC 29304	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	OCT 26 1999

PS Form **3800**, April 1995

06742

Stick postage stamps to article to cover First-Class postage, certified mail fee, and charges for any selected optional services *(See front).*

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached, and present the article at a post office service window or hand it to your rural carrier *(no extra charge).*

2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, detach, and retain the receipt, and mail the article.

3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.

4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.

5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811.

6. Save this receipt and present it if you make an inquiry.

102595-99-M-0079

PS Form **3800**, April 1995 *(Reverse)*

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Print your name, address, and ZIP Code in this box •

DIVISION OF UST MANAGEMENT
SC DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL
2600 BULL STREET
COLUMBIA, SC 29201

06742-RSM

RECEIVED
OCT 28 1999
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

R L Jordan Oil Co.
Attn: Judy Laughter
PO Box 2527
Spartanburg, SC 29304

4a. Article Number

Z 356 703 954

4b. Service Type

- ☐ Registered
- ☒ Certified
- ☐ Express Mail
- ☐ Insured
- ☐ Return Receipt for Merchandise
- ☐ COD

7. Date of Delivery

10-27-99

5. Received By: *(Print Name)*

Cynt Rowland

6. Signature: *(Addressee or Agent)*

X Cynt Rowland

8. Addressee's Address *(Only if requested and fee is paid)*

Thank you for using Return Receipt Service.

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT
2600 Bull Street
Columbia, SC 29201
Telephone (803) 898-4350

OCT 20 1999

CERTIFIED MAIL
Receipt # Z 326 703 954

R. L. Jordan Oil Company
Attn: Judy Laughter
Post Office Box 2527
Spartanburg, South Carolina 29304

Re: Crossroads Grocery
UST Permit #06742
Oconee County

Dear Ms. Laughter:

As you may be aware, gasoline constituents have been identified in the soil and ground water on your property which contains a gasoline service station (Tax map #301-4-40). The presence of the petroleum does not pose an immediate risk to your health, however, cleanup is warranted to prevent any future risk. Smith Monitoring & Maintenance, Inc. (SMM) has been retained to respond to the petroleum release. SMM has submitted a Corrective Action Plan to clean up the impacted soil and ground water using the injection of oxidizers and nutrients to enhance the breakdown of petroleum into harmless by-products (carbon-dioxide and water), followed by natural attenuation.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the Division of Underground Storage Tank Management to provide notice to those members of the public that may be affected by the planned corrective action. The installation of injection and extraction wells and trenches on your property is necessary as part of the corrective action measures, however, SMM has been directed to coordinate with you and to minimize any inconvenience to you. Your continued cooperation is appreciated.

A copy of the corrective action plan is enclosed. If you have any questions or comments regarding the proposed corrective actions, please call me at (803) 898-4349 or 1-800-826-5435. All comments should be submitted within twenty days of the date of this correspondence.

Sincerely,

Read S. Miner

Read S. Miner, P.G., Hydrologist
State Lead and Field Services Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

06742PUB.NOT
enc: Corrective Action Plan
cc: Technical file (without enclosures)
SCDHEC/UST/RSM/102299

Z 326 703 956

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to W R Long	
Street & Number 4845 Bill Long Rd	
Post Office, State, & ZIP Code Blairsville, GA 30512	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	OCT 26 1999

PS Form **3800**, April 1995

06742

Stick postage stamps to article to cover First-Class postage, certified mail fee, and charges for any selected optional services *(See front).*

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached, and present the article at a post office service window or hand it to your rural carrier *(no extra charge).*

2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, detach, and retain the receipt, and mail the article.

3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.

4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.

5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811.

6. Save this receipt and present it if you make an inquiry.

102595-99-M-0079

PS Form **3800**, April 1995 *(Reverse)*

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

06742

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

W R Long
4845 Bill Long Rd
Blairsville, GA 30512

4a. Article Number

Z 326 703 956

4b. Service Type

- ☐ Registered
- ☒ Certified
- ☐ Express Mail
- ☐ Insured
- ☐ Return Receipt for Merchandise
- ☐ COD

7. Date of Delivery

10-28-99

5. Received By: *(Print Name)*

Nina Long

6. Signature: *(Addressee or Agent)*

X Nina Long

8. Addressee's Address *(Only if requested and fee is paid)*

PS Form **3811,** December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Print your name, address, and ZIP Code in this box •

RECEIVED
NOV 01 1999
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

DIVISION OF UST MANAGEMENT
SC DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL
2600 BULL STREET
COLUMBIA, SC 29201

06742 - RSM

01

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT
2600 Bull Street
Columbia, SC 29201
Telephone (803) 898-4350

CERTIFIED MAIL
Receipt # Z 326 703 956

OCT 26 1999

W. R. Long
4845 Bill Long Road
Blairsville, Georgia 30512

Re: Crossroads Grocery
UST Permit #06742
Oconee County

Dear Mr. Long:

As you may be aware, gasoline constituents have been identified in the soil and ground water at Crossroads Grocery which is located near your property (Tax map #301-4-29). The presence of the petroleum does not pose an immediate risk to your health, however, cleanup is warranted to prevent any future risk. Smith Monitoring & Maintenance, Inc. (SMM) has been retained to respond to the petroleum release. SMM has submitted a Corrective Action Plan to clean up the impacted soil and ground water using the injection of oxidizers and nutrients to enhance the breakdown of petroleum into harmless by-products (carbon-dioxide and water), followed by natural attenuation.

This notice is provided to inform you of actions taking place near your property. The petroleum has not reached your property and you should not be affected by the proposed corrective actions.

If you would like to review the corrective action plan, please call the SCDHEC Freedom of Information Office at 803-898-3882. If you have any questions or comments regarding the proposed corrective actions, please call me at (803) 898-4349 or 1-800-826-5435 (within South Carolina only). All comments should be submitted within twenty days of the date of this correspondence.

Sincerely,

Read S. Miner, P.G., Hydrologist
State Lead and Field Services Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

06742PN3

cc: Technical file (without enclosures)
SCDHEC/UST/RSM/102299

Z 326 703 755

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to Neil Alexander	
Street & Number 8050 West Oak Hwy	
Post Office, State, & ZIP Code Westminster, SC 29693	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	OCT 26 1999

06742

PS Form **3800**, April 1995

Stick postage stamps to article to cover First-Class postage, certified mail fee, and charges for any selected optional services *(See front).*

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached, and present the article at a post office service window or hand it to your rural carrier *(no extra charge).*

2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, detach, and retain the receipt, and mail the article.

3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.

4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.

5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811.

6. Save this receipt and present it if you make an inquiry.

102595-99-M-0079

PS Form **3800,** April 1995 *(Reverse)*

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT
2600 Bull Street
Columbia, SC 29201
Telephone (803) 898-4350

CERTIFIED MAIL
Receipt # Z 326 703 955

OCT 26 1999

Neil Alexander
8050 West Oak Highway
Westminster, South Carolina 29693

Re: Crossroads Grocery
UST Permit #06742
Oconee County

Dear Mr. Alexander:

As you may be aware, gasoline constituents have been identified in the soil and ground water at Crossroads Grocery (Tax map #301-4-40). The presence of the petroleum does not pose an immediate risk to your health, however, cleanup is warranted to prevent any future risk. Smith Monitoring & Maintenance, Inc. (SMM) has been retained to respond to the petroleum release. SMM has submitted a Corrective Action Plan to clean up the impacted soil and ground water using the injection of oxidizers and nutrients to enhance the breakdown of petroleum into harmless by-products (carbon-dioxide and water), followed by natural attenuation.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the Division of Underground Storage Tank Management to provide notice to those members of the public that may be affected by the planned corrective action. The installation of injection and extraction wells and trenches is necessary as part of the corrective action measures, however, SMM has been directed to coordinate with you and to minimize any inconvenience to you. Your continued cooperation is appreciated.

A copy of the corrective action plan is enclosed. If you have any questions or comments regarding the proposed corrective actions, please call me at (803) 898-4349 or 1-800-826-5435. All comments should be submitted within twenty days of the date of this correspondence.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrologist
State Lead and Field Services Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

06742PN2
enc: Corrective Action Plan
cc: Technical file (without enclosures)
SCDHEC/UST/RSM/102299

Z 326 703 960

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to Harvey + Pamela Hughes	
Street & Number PO Box 8033	
Post Office, State, & ZIP Code Seneca, SC 29678	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date OCT 26 1999	

Form **3800**, April 1995

Stick postage stamps to article to cover First-Class postage, certified mail fee, and charges for any selected optional services *(See front).*

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached, and present the article at a post office service window or hand it to your rural carrier *(no extra charge).*

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If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.

Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811.

Save this receipt and present it if you make an inquiry.

102595-99-M-0079

PS Form **3800,** April 1995 *(Reverse)*

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Harvey + Pamela Hughes
PO Box 8033
Seneca, SC 29678

4a. Article Number

Z 356 703 960

4b. Service Type

☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)*

Harvey Hughes

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*

X

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

Thank you for using Return Receipt Service.

UNITED STATES POSTAL SERVICE

PM

'999

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Print your name, address, and ZIP Code in this box •

DIVISION OF UST MANAGEMENT
SC DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL
2600 BULL STREET
COLUMBIA, SC 29201

06742-RSM

RECEIVED

NOV 03 1999

DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT
2600 Bull Street
Columbia, SC 29201
Telephone (803) 898-4350

CERTIFIED MAIL
Receipt # Z 326 703 960

OCT 26 1999

Harvey & Pamela Hughes
Post Office Box 8033
Seneca, South Carolina 29678

Re: Crossroads Grocery
UST Permit #06742
Oconee County

Dear Mr. and Ms. Hughes:

As you may be aware, gasoline constituents have been identified in the soil and ground water at Crossroads Grocery which is located near your property (Tax map #301-4-21). The presence of the petroleum does not pose an immediate risk to your health, however, cleanup is warranted to prevent any future risk. Smith Monitoring & Maintenance, Inc. (SMM) has been retained to respond to the petroleum release. SMM has submitted a Corrective Action Plan to clean up the impacted soil and ground water using the injection of oxidizers and nutrients to enhance the breakdown of petroleum into harmless by-products (carbon-dioxide and water), followed by natural attenuation.

This notice is provided to inform you of actions taking place near your property. The petroleum has not reached your property and you should not be affected by the proposed corrective actions.

If you would like to review the corrective action plan, please call the SCDHEC Freedom of Information Office at 803-898-3882. If you have any questions or comments regarding the proposed corrective actions, please call me at (803) 898-4349 or 1-800-826-5435 (within South Carolina only). All comments should be submitted within twenty days of the date of this correspondence.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrologist
State Lead and Field Services Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

06742PN7

cc: Technical file (without enclosures)
SCDHEC/UST/RSM/102299

Z 326 703 957

Re Miner

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to Charles, John + Edna Dockins	
Street & Number 138 Malibu Dr.	
Post Office, State, & ZIP Code Westminster, SC 29693	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

06742 OCT 26 1999

PS Form **3800**, April 1995

Stick postage stamps to article to cover First-Class postage, certified mail fee, and charges for any selected optional services *(See front).*

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached, and present the article at a post office service window or hand it to your rural carrier *(no extra charge).*

2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, detach, and retain the receipt, and mail the article.

3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.

4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.

5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811.

6. Save this receipt and present it if you make an inquiry. **102595-99-M-0079**

PS Form **3800**, April 1995 *(Reverse)*

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered. 10 27 92

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Charles, John + Edna Dockins
138 malibu Dr.
Westminster, SC 29693

4a. Article Number
Z 326 703 957

4b. Service Type

- ☐ Registered
- ☒ Certified
- ☐ Express Mail
- ☐ Insured
- ☐ Return Receipt for Merchandise
- ☐ COD

7. Date of Delivery
10-27-92

5. Received By: *(Print Name)*
Charles B Dockins

6. Signature: *(Addressee or Agent)*
X Charles B Dockins

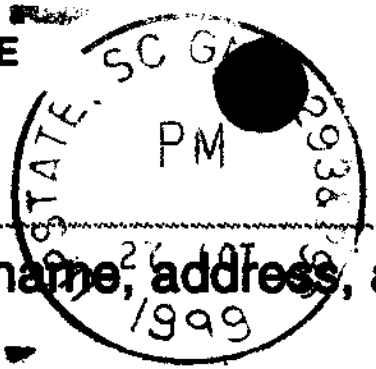
8. Addressee's Address *(Only if requested and fee is paid)*

PS Form **3811**, December 1994 102595-96-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Print your name, address, and ZIP Code in this box •

DIVISION OF UST MANAGEMENT
SC DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL
2600 BULL STREET
COLUMBIA, SC 29201

06742-RSM

RECEIVED
OCT 23 1999
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT
2600 Bull Street
Columbia, SC 29201
Telephone (803) 898-4350

CERTIFIED MAIL
Receipt # Z 326 703 957

OCT 26 1999

Charles, John, and Edna Dockins
138 Malibu Drive
Westminster, South Carolina 29693

Re: Crossroads Grocery
UST Permit #06742
Oconee County

Dear Mr. and Ms. Dockins:

As you may be aware, gasoline constituents have been identified in the soil and ground water at Crossroads Grocery which is located near your property (Tax map #301-4-34 and -39). The presence of the petroleum does not pose an immediate risk to your health, however, cleanup is warranted to prevent any future risk. Smith Monitoring & Maintenance, Inc. (SMM) has been retained to respond to the petroleum release. SMM has submitted a Corrective Action Plan to clean up the impacted soil and ground water using the injection of oxidizers and nutrients to enhance the breakdown of petroleum into harmless by-products (carbon-dioxide and water), followed by natural attenuation.

This notice is provided to inform you of actions taking place near your property. The petroleum has not reached your property and you should not be affected by the proposed corrective actions.

If you would like to review the corrective action plan, please call the SCDHEC Freedom of Information Office at 803-898-3882. If you have any questions or comments regarding the proposed corrective actions, please call me at (803) 898-4349 or 1-800-826-5435 (within South Carolina only). All comments should be submitted within twenty days of the date of this correspondence.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrologist
State Lead and Field Services Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

06742PN4

cc: Technical file (without enclosures)
SCDHEC/UST/RSM/102299

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Charles + Donna Shirley
548 Earles Grove Rd
Westminster, SC 29693

4a. Article Number

Z 326 703 958

4b. Service Type

- ☐ Registered
- ☒ Certified
- ☐ Express Mail
- ☐ Insured
- ☐ Return Receipt for Merchandise
- ☐ COD

7. Date of Delivery

DM - 10-27-99

5. Received By: *(Print Name)*

Karen Blackwell

8. Addressee's Address *(Only if requested and fee is paid)*

6. Sig

X

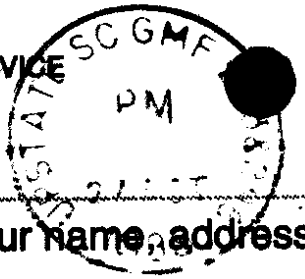
PS Fo

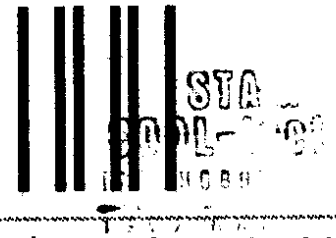
eceipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

UNITED STATES POSTAL SERVICE





First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Print your name, address, and ZIP Code in this box •

DIVISION OF UST MANAGEMENT
SC DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL
2600 BULL STREET
COLUMBIA, SC 29201

06142-RSM

RECEIVED
JUL 23 1999
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

Z 326 703 958

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

R. Miner

Sent to Charles + Donna Shirley	
Street & Number 598 Earle Grove Rd	
Post Office, State, & ZIP Code Westminster, SC 29693	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	OCT 26 1999

PS Form **3800**, April 1995

06742

Stick postage stamps to article to cover First-Class postage, certified mail fee, and charges for any selected optional services *(See front).*

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached, and present the article at a post office service window or hand it to your rural carrier *(no extra charge).*

2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, detach, and retain the receipt, and mail the article.

3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.

4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.

5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811.

6. Save this receipt and present it if you make an inquiry.

102595-99-M-0079

PS Form **3800,** April 1995 *(Reverse)*

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT
2600 Bull Street
Columbia, SC 29201
Telephone (803) 898-4350

CERTIFIED MAIL
Receipt # Z 326 703 958

OCT 26 1999

Charles and Donna Shirley
598 Earles Grove Road
Westminster, South Carolina 29693

Re: Crossroads Grocery
UST Permit #06742
Oconee County

Dear Mr. and Ms. Shirley:

As you may be aware, gasoline constituents have been identified in the soil and ground water at Crossroads Grocery which is located near your property (Tax map #301-4-12). The presence of the petroleum does not pose an immediate risk to your health, however, cleanup is warranted to prevent any future risk. Smith Monitoring & Maintenance, Inc. (SMM) has been retained to respond to the petroleum release. SMM has submitted a Corrective Action Plan to clean up the impacted soil and ground water using the injection of oxidizers and nutrients to enhance the breakdown of petroleum into harmless by-products (carbon-dioxide and water), followed by natural attenuation.

This notice is provided to inform you of actions taking place near your property. The petroleum has not reached your property and you should not be affected by the proposed corrective actions.

If you would like to review the corrective action plan, please call the SCDHEC Freedom of Information Office at 803-898-3882. If you have any questions or comments regarding the proposed corrective actions, please call me at (803) 898-4349 or 1-800-826-5435 (within South Carolina only). All comments should be submitted within twenty days of the date of this correspondence.

Sincerely,

Read S. Miner

Read S. Miner, P.G., Hydrologist
State Lead and Field Services Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

06742PN5

cc: Technical file (without enclosures)
SCDHEC/UST/RSM/102299

Z 326 703 959

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to
Pioneer Rural Water District

Street & Number
PO Box 203

Post Office, State, & ZIP Code
Westminster, SC 29693

Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$

Postmark or Date

OCT 26 1999

06742

PS Form **3800**, April 1995

Stick postage stamps to article to cover First-Class postage, certified mail fee, and charges for any selected optional services *(See front).*

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached, and present the article at a post office service window or hand it to your rural carrier *(no extra charge).*

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4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.

5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811.

6. Save this receipt and present it if you make an inquiry.

102595-99-M-0079

PS Form **3800**, April 1995 *(Reverse)*

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Pioneer Rural Water Dist
PO Box 203
Westminster, SC 29693

4a. Article Number

Z 326 703 959

4b. Service Type

- ☐ Registered
- ☒ Certified
- ☐ Express Mail
- ☐ Insured
- ☐ Return Receipt for Merchandise
- ☐ COD

7. Date of Delivery

10-27-99

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*

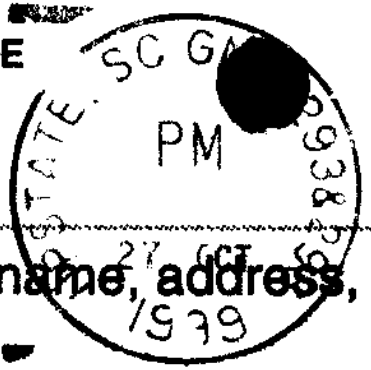
X Jimmy McCall

PS Form **3811,** December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Print your name, address, and ZIP Code in this box •

DIVISION OF UST MANAGEMENT
SC DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL
2600 BULL STREET
COLUMBIA, SC 29201

06742-RSM

RECEIVED
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT
2600 Bull Street
Columbia, SC 29201
Telephone (803) 898-4350

OCT 26 1999

CERTIFIED MAIL
Receipt # Z 326 703 959

Pioneer Rural Water District
Post Office Box 203
Westminster, South Carolina 29693

Re: Crossroads Grocery
UST Permit #06742
Oconee County

Dear Sir:

As you may be aware, gasoline constituents have been identified in the soil and ground water at Crossroads Grocery which is located near your property (Tax map #301-4-2). The presence of the petroleum does not pose an immediate risk to your health, however, cleanup is warranted to prevent any future risk. Smith Monitoring & Maintenance, Inc. (SMM) has been retained to respond to the petroleum release. SMM has submitted a Corrective Action Plan to clean up the impacted soil and ground water using the injection of oxidizers and nutrients to enhance the breakdown of petroleum into harmless by-products (carbon-dioxide and water), followed by natural attenuation.

This notice is provided to inform you of actions taking place near your property. The petroleum has not reached your property and you should not be affected by the proposed corrective actions.

If you would like to review the corrective action plan, please call the SCDHEC Freedom of Information Office at 803-898-3882. If you have any questions or comments regarding the proposed corrective actions, please call me at (803) 898-4349 or 1-800-826-5435 (within South Carolina only). All comments should be submitted within twenty days of the date of this correspondence.

Sincerely,

Read S. Miner

Read S. Miner, P.G., Hydrologist
State Lead and Field Services Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

06742PN6

cc: Technical file (without enclosures)
SCDHEC/UST/RSM/102299

Z 326 703 961

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to Dennis + Irene Potts	
Street & Number 8019 west Oak Hwy	
Post Office, State, & ZIP Code Westminster, SC 29693	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date OCT 26 1999	

PS Form **3800**, April 1995

06742

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6. Save this receipt and present it if you make an inquiry.

102595-99-M-0079

PS Form **3800**, April 1995 *(Reverse)*

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Dennis + Irene Pitts
8019 west 0a11 Hwy
Westminster, SC 29693

4a. Article Number
Z 326 703 961

4b. Service Type

- ☐ Registered
- ☒ Certified
- ☐ Express Mail
- ☐ Insured
- ☐ Return Receipt for Merchandise
- ☐ COD

7. Date of Delivery
Oct 10-27-99

5. Received By: *(Print Name)*
Irene M Pitts

6. Signature: *(Addressee or Agent)*
X Irene M Pitts

8. Addressee's Address *(Only if requested and fee is paid)*

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Print your name, address, and ZIP Code in this box •

DIVISION OF UST MANAGEMENT
SC DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL
2600 BULL STREET
COLUMBIA, SC 29201

RECEIVED
OCT 28 1999
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

06742 - RSM

01

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT
2600 Bull Street
Columbia, SC 29201
Telephone (803) 898-4350

OCT 26 1999

CERTIFIED MAIL
Receipt # Z 326 703 961

Dennis & Irene Pitts
8019 West Oak Highway
Westminster, South Carolina 29693

Re: Crossroads Grocery
UST Permit #06742
Oconee County

Dear Mr. and Mrs. Pitts:

As you may be aware, gasoline constituents have been identified in the soil and ground water at Crossroads Grocery which is located near your property (Tax map #301-7-1). The presence of the petroleum does not pose an immediate risk to your health, however, cleanup is warranted to prevent any future risk. Smith Monitoring & Maintenance, Inc. (SMM) has been retained to respond to the petroleum release. SMM has submitted a Corrective Action Plan to clean up the impacted soil and ground water using the injection of oxidizers and nutrients to enhance the breakdown of petroleum into harmless by-products (carbon-dioxide and water), followed by natural attenuation.

This notice is provided to inform you of actions taking place near your property. The petroleum has not reached your property and you should not be affected by the proposed corrective actions.

If you would like to review the corrective action plan, please call the SCDHEC Freedom of Information Office at 803-898-3882. If you have any questions or comments regarding the proposed corrective actions, please call me at (803) 898-4349 or 1-800-826-5435 (within South Carolina only). All comments should be submitted within twenty days of the date of this correspondence.

Sincerely,

Read S. Miner

Read S. Miner, P.G., Hydrologist
State Lead and Field Services Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

06742PN8

cc: Technical file (without enclosures)
SCDHEC/UST/RSM/102299

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

COMMISSIONER:
Douglas E. Bryant

BOARD:
John H. Burriss
Chairman

William M. Hull, Jr., MD
Vice Chairman

Roger Leaks, Jr.
Secretary

Mark B. Kent

Cyndi C. Mosteller

Brian K. Smith

Rodney L. Grandy

October 25, 1999

RECEIVED
OCT 2 6 1999
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

Mr. Neil Alexander
8050 West Oak Highway
Westminister, SC 29693

Re: Underground Injection Control Permit #490
Cross Roads Grocery
Oconee County

Dear Mr. Alexander:

Enclosed is a Permit to Construct for fourteen (14) Class VA-I injection wells at the Cross Roads Grocery, Oconee County as requested in the permit application received October 13, 1999. **To comply with the SC Well Standards and Regulations the wells must be grouted from a distance of 2.5 times the largest borehole diameter above the screen to the surface with a neat cement or neat cement/bentonite mixture.** An inspection of the UIC System must be conducted prior to issuance of Approval to Operate. The Department will schedule an inspection after receipt of Notice of Completion of Construction. The Notice of Completion of Construction should include a site map, boring logs and as built well construction details on SCDHEC well record forms or equivalent. After completion of the inspection, Approval to Operate #490 will be issued.

If you have any question, please call me at (803) 898-3549.

Sincerely,

Todd Adams, Hydrologist
GroundWater Management Section
Bureau of Water

cc: Read Miner, DUSTM
Richard Smith, Smith Monitoring and Maintenance
145 Merrill Ave, Decatur, GA 30030

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

COMMISSIONER:
Douglas E. Bryant

BOARD:
John H. Burriss
Chairman

William M. Hull, Jr., MD
Vice Chairman

Roger Leaks, Jr.
Secretary

Mark B. Kent

Cyndi C. Mosteller

Brian K. Smith

Rodney L. Grandy

WATER MONITORING ASSESSMENT & PROTECTION DIVISION

Injection Well Construction Permit
for
Class II, III, and V.A. Injection Well(s)

Permit #490

Date Issued: October 25, 1999
Date Expired: October 25, 2000

For (Operator): Neil Alexander

In accordance with provisions of Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, permission is granted for construction of fourteen (14) Class V.A.-I injection wells with a true diameter of 1 inches and a depth of approximately 45 feet located at the Cross Roads Grocery , Oconee County, SC with the following provisions:

1) The operator shall submit completed SCDHEC well record forms to the Department's Water Monitoring, Assessment & Protection Division after completion of the injection wells.

2) Upon completion of construction, injection activities shall not commence prior to receiving approval from the Department to operate the injection wells.

3) When the injection wells are no longer in use, or upon request by the Department, within sixty (60) days all injection wells must be permanently abandoned in accordance with the South Carolina Well Standards and Regulations (R.61-71.10).

4) Injection wells must be installed and grouted in accordance with the South Carolina Well Standards and Regulations (R.61-71.10).

Todd Adams, Hydrologist
GroundWater Management Section
Bureau of Water

October 25, 1999
Date

DHEC 2104 (6/88)

STATEMENT OF BASIS - UIC DRAFT PERMIT #490

In accordance with the South Carolina Underground Injection Control Regulations, Section R61-87.12,J., this "Statement of Basis" has been prepared for the Cross Roads Grocery Underground Injection Control permit application received October 13, 1999.

Ownership of the proposed injection wells is Mr. Neil Alexander, 8050 West Oak Highway, Westminister, SC 29693. The permit (UIC #490) is for the construction of fourteen (14) injection wells for a corrective action system at the Cross Roads Grocery. The intent of the injection wells are to facilitate enhance remediation by injection of clean air and nutrients (PHOSter II) as described in the Corrective Action Plan into the subsurface. The draft permit for the underground injection proposal has been prepared based on staff review and the application of the Pollution Control Act of South Carolina and the Underground Injection Control Regulations of South Carolina.

Conditions of the permit issuance include the submittal of well records for all injection wells installed and the inspection of well construction by the Department prior to injection.

SMITH

Monitoring & Maintenance Engineering, Inc.

September 28, 1999

RECEIVED
SEP 29 1999
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

Mr. Read Miner, P.G.
SCDHEC, Division of UST Management
2600 Bull Street
Columbia, South Carolina 29201

Re: Submission of Reports, UIC Permit Application and Air Permit Application
Site #06742; Cross Roads Grocery; Oconee County, South Carolina

Dear Mr. Miner;

The following attached documents are submitted for your review. They include three (3) copies of a Corrective Action Plan, four copies (4) of the design calculations, three (3) copies of the UIC Permit Application and three (3) copies of the Air Permit Application . The performance bond has already been submitted to Chris Doll.

Should you have any questions during your review please contact the undersigned. We look forward to working with you in this effort.

Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Project Engineer

cc: Jim Vaughn, Stevenson & Palmer Engineering, Inc.

09283

191160

145 Merrill Avenue Decatur, Georgia 30030
Phone: (404) 371-9332 FAX: (404) 373-3296

SMITH

Monitoring & Maintenance Engineering, Inc.

September 16, 1999

RECEIVED
SEP 20 1999
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

Mr. Chris Doll, Manager
Division of UST Management
South Carolina DHEC
2600 Bull St.
Columbia, S.C. 29201

Re: Performance Bond
Crossroads/Oconee County, Site ID# 06742

Dear Mr. Doll;

Enclosed is the Performance Bond for UST Site id# 06742 - Crossroads/Oconee County.

Should you require any further information, please call the undersigned.

Sincerely,
Smith Monitoring &
Maintenance Engineering, Inc.

Rebecca K. Smith
President

cc: Read Miner, P.G.; Project Manager, SCDHEC

145 Merrill Avenue Decatur, Georgia 30030
Phone: (404) 371-9332 FAX: (404) 373-3296
e-mail: smme@mindspring.com

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health
and Environmental Control

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT
2600 Bull Street
Columbia, SC 29201
Telephone (803) 898-4350

MEMORANDUM

Date: AUG 03 1999

To: John Merritt, Manager
Finance Section

From: Christopher S. Doll, P.G., Manager
State Lead & Field Services Section

Subject: Bid Award, SB-6672
Crossroads Grocery (UST Permit #06742)

This Division has reviewed the submittals received July 29, 1999, for the referenced Bid. The low bid was submitted by Smith Monitoring, Inc. Therefore, this Division recommends immediate award of the contract to Smith Monitoring, Inc.

The purchase order should be generated for one half of the accepted bid award amount, $69,753.00. Please note, the full amount of the bid award ($139,506.00) should be noted in the body of the generated purchase order. Please provide Read S. Miner a copy of the purchase order.

cc: Read S. Miner, Division of UST Management

RECEIVED
JUL 30 1999
DIVISION OF UNDERGROUND STORAGE TANK MGMT.

TALLY SHEET

SOUTH CAROLINA
DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL

SOLICITATION # SB 6672 OPENING/CLOSING DATE 07/29/99 TIME 2:30

BID CLERK Joyce S. Sill (Signature) PROCUREMENT OFFICER Melvin E. Baker (Signature)

WITNESS Melvin E. Baker (Signature) DATE AWARD WILL BE POSTED 8/12/99

COMPANY NAME	SC	US	VP					
Smith Monitoring				139,506.00				
Enviro-Test Services				249,900.00				
Aquaterra				208,904.96				
Consultech Environmental				149,500.00				
Alpha Environmental				298,572.00				
BE + K Environmental				202,000.00				
Applied Earth Sciences				173,727.00				
Mid-Atlantic Associates, PA				400,000.00				
H_2O Environmental				167,000.00				

VENDOR/COMPANY REPRESENTATIVE SIGNATURE

Enviro Test Services Inc. Terry L. Teatle Rob B Smith

QURE Property Sciences [illegible]

Schnabel Engineering Raymond L Knox

TALLY SHEET

SOUTH CAROLINA
DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL

SOLICITATION # SB 6672 1 OPENING/CLOSING DATE 07/29/99 TIME 2:30

BID CLERK Faye S. Hill (Signature) PROCUREMENT OFFICER [signature] (Signature)

WITNESS [signature] (Signature) DATE AWARD WILL BE POSTED 8/12/99

COMPANY NAME	SC	US	VP					
Schnabel Engineering				293,375.00				
Ocore Property				193,000.00				

VENDOR/COMPANY REPRESENTATIVE SIGNATURE

H2O Environmental — Natalie Jones.

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

BUREAU
BUSINESS MANAGEMENT
DIVISION OF PROCUREMENT SERVICES
2600 Bull Street
Columbia, SC 29201-1708
Telephone (803) 898-3501 Fax (803) 898-3505

RECEIVED
JUL 30 1999
DIVISION OF UNDER... STORAGE TANK...

BID MUST BE SUBMITTED ON THIS FORM TO BE ACCEPTED

SEALED BID INVITATION	BID NUMBER: SB-6672-07/29/99-REB (Number Must Be Shown On Front Of Envelope)	DATE ISSUED: 06/22/99 PAGE 1 OF 93

SEALED BIDS WILL BE RECEIVED UNTIL:

TIME: 2:30 pm (Local Time) DATE: 07/29/99

AND THEN PUBLICLY OPENED

Mail To:
S.C. Department of Health & Environmental Control
Division of Procurement Services
2600 Bull Street
Columbia, South Carolina 29201-1708
ATTENTION: BID CLERK
BID NUMBER: SB-6672-07/29/99-REB

DIRECT INQUIRIES TO: Releata E. Baker, (803) 898-3501

REASON FOR NO BID:

VENDOR:

This Section Must Be Completed By Vendor:

Smith Monitoring & Maintenance Engineering, Inc.
Vendor Name

145 Merrill Avenue
Mailing Address

Decatur GA 30030
City State Zip Code

Area Code: Telephone Number 404 371 9332

Toll Free Number _____

Facsimile Number 404 373-3296

Federal I.D. Or Social Security Number: 58-2253687

Bid Security Is Attached When Required In The Amount of: $_____

By signing this bid, I certify to comply with the Drug-Free Workplace Act, Section 44-107-10 et seq. Of the South Carolina Code of Laws to provide a drug-free workplace. This clause applies to any resultant contract of $50,000.00 or more. The State of South Carolina has amended Title 44, Code of Laws of South Carolina, 1976, relating to health, by adding Chapter 107, so as to enact the Drug-Free Workplace Act.

I certify that this bid is made without prior understanding, agreement or connection with any corporation, firm or person submitting a bid for the same materials, supplies or equipment and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder.

Rich Richard B. Smith — Authorized Signature (Manual)

Richard B Smith V.P. — Authorized Signature (Typed) Title

7/29/99 — Date Signed

COMMODITY: To perform corrective action of a petroleum release from regulated underground storage tank site at site number 06742, Crossroads Grocery, 850 West Oak Highway, Oconee County, South Carolina.

METHOD OF BID AWARD: Award will be made by total to the lowest responsive and responsible bidder.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

BID NUMBER: SB-6672-07/29/99-REB

BIDDING SCHEDULE

The total cost in dollars to treat the area of concern (see figure #2) such that the thickness of free product does not exceed .01 foot and the levels of CoC do not exceed the site-specific target levels (SSTLs) defined in item 11.C. at any point, complete all associated monitoring and post-remediation verification, prepare all plans, reports, and correspondence; obtain and meet all terms and conditions of all required permits and licenses; design, install, monitor, operate, maintain, and when completed, properly abandon or remove all assessment and remediation items installed as part of corrective action; provide evidence of performance bond; and other items outlined in this bid invitation for the Crossroads Grocery, (UST Permit # 06742), 850 West Oak Highway, Oconee County, South Carolina is: $ 139,506

OTHER CRITERIA

Please respond to the following questions which have been designed to verify your corrective action qualifications:

1. The corrective action method(s) or technology (ies) that will be proposed in the CAP will be (list all active and/or intrinsic methods or technologies for remediation of the aquifer; attach additional pages(s) as required):
   VACUUM ENHANCED PRODUCT RECOVERY + PHOSTER NUTRIENT INJECTION

2. The estimated time in months to complete the corrective action from the date of bid award, correctiv action goals are met, and all corrective action items are removed from the site or properly abandoned i approximately 16 months. This time assumes all submitted plans and reports will be reviewe by DHEC within 30 days of receipt.

3. When can you begin work (earliest date that a CAP, ER and all permit applications would be submitted aft notification of Statement of Award from the Bureau of Business Management)? 60 DAYS

BID ACCEPTANCE and DELIVERY STATEMENT

In compliance with the bid solicitation and subject to all conditions thereof, the contractor offers and agrees, if tl bid is accepted within 120 days from date of bid opening, to furnish any or all items/services quoted the prices set forth.

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

BUREAU
BUSINESS MANAGEMENT
DIVISION OF PROCUREMENT SERVICES
2600 Bull Street
Columbia, SC 29201-1708
Telephone (803) 898-3501 Fax (803) 898-3505

BID MUST BE SUBMITTED ON THIS FORM TO BE ACCEPTED

SEALED BID INVITATION	BID NUMBER: SB-6672-07/29/99-REB (Number Must Be Shown On Front Of Envelope)	DATE ISSUED: 06/22/99 PAGE 1 OF 93

SEALED BIDS WILL BE RECEIVED UNTIL:

TIME: 2:30 pm (Local Time) DATE: 07/29/99

AND THEN PUBLICLY OPENED

Mail To:
S.C. Department of Health & Environmental Control
Division of Procurement Services
2600 Bull Street
Columbia, South Carolina 29201-1708
ATTENTION: BID CLERK
BID NUMBER: SB-6672-07/29/99-REB

DIRECT INQUIRIES TO: Releata E. Baker, (803) 898-3501

REASON FOR NO BID:

VENDOR:

This Section Must Be Completed By Vendor:

Consultech Environmental, Inc.
Vendor Name

1800 MacLeod Drive, Suite F
Mailing Address

Lawrenceville, Georgia 30043
City State Zip Code

Area Code: Telephone Number 678-377-0400

Toll Free Number 888-368-9222

Facsimile Number 678-377-0051

Federal I.D. Or Social Security Number: 58-1975219

Bid Security Is Attached When Required In The Amount of: $_____

By signing this bid, I certify to comply with the Drug-Free Workplace Act, Section 44-107-10 et seq. Of the South Carolina Code of Laws to provide a drug-free workplace. This clause applies to any resultant contract of $50,000.00 or more. The State of South Carolina has amended Title 44, Code of Laws of South Carolina, 1976, relating to health, by adding Chapter 107, so as to enact the Drug-Free Workplace Act.

I certify that this bid is made without prior understanding, agreement or connection with any corporation, firm or person submitting a bid for the same materials, supplies or equipment and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder.

Authorized Signature (Manual)	James R. Wilson, Vice President Authorized Signature (Typed) Title	7/26/99 Date Signed

COMMODITY: To perform corrective action of a petroleum release from regulated underground storage tank site at site number 06742, Crossroads Grocery, 850 West Oak Highway, Oconee County, South Carolina.

METHOD OF BID AWARD: Award will be made by total to the lowest responsive and responsible bidder.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

BID NUMBER: SB-6672-07/29/99-REB

BIDDING SCHEDULE

The total cost in dollars to treat the area of concern (see figure #2) such that the thickness of free product does not exceed .01 foot and the levels of CoC do not exceed the site-specific target levels (SSTLs) defined in item 11.C. at any point, complete all associated monitoring and post-remediation verification, prepare all plans, reports, and correspondence; obtain and meet all terms and conditions of all required permits and licenses; design, install, monitor, operate, maintain, and when completed, properly abandon or remove all assessment and remediation items installed as part of corrective action; provide evidence of performance bond; and other items outlined in this bid invitation for the Crossroads Grocery, (UST Permit # 06742), 850 West Oak Highway, Oconee County, South Carolina is: $ 149,500.00

OTHER CRITERIA

Please respond to the following questions which have been designed to verify your corrective action qualifications:

1. The corrective action method(s) or technology (ies) that will be proposed in the CAP will be (list all active and/or intrinsic methods or technologies for remediation of the aquifer; attach additional pages(s) as required):

   The selected remediation technology would be in-situ air sparging with product skimmers combined with enhance fluid recovery (EFR). A total of 12 45' air sparge wells would be installed.

2. The estimated time in months to complete the corrective action from the date of bid award, corrective action goals are met, and all corrective action items are removed from the site or properly abandoned is approximately 24 months. This time assumes all submitted plans and reports will be reviewed by DHEC within 30 days of receipt.

3. When can you begin work (earliest date that a CAP, ER and all permit applications would be submitted after notification of Statement of Award from the Bureau of Business Management)? 30 days

BID ACCEPTANCE and DELIVERY STATEMENT

In compliance with the bid solicitation and subject to all conditions thereof, the contractor offers and agrees, if this bid is accepted within 30 days from date of bid opening, to furnish any or all items/services quoted at the prices set forth.

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

BUREAU OF
BUSINESS MANAGEMENT
DIVISION OF PROCUREMENT SERVICES
2600 Bull Street
Columbia, SC 29201-1708
Telephone (803) 898-3501 Fax (803) 898-3505

BID MUST BE SUBMITTED ON THIS FORM TO BE ACCEPTED

SEALED BID INVITATION	BID NUMBER: SB-6672-07/29/99-REB (Number Must Be Shown On Front Of Envelope)	DATE ISSUED: 06/22/99 PAGE 1 OF 93

SEALED BIDS WILL BE RECEIVED UNTIL:

TIME: 2:30 pm (Local Time) DATE: 07/29/99

AND THEN PUBLICLY OPENED

Mail To:
S.C. Department of Health & Environmental Control
Division of Procurement Services
2600 Bull Street
Columbia, South Carolina 29201-1708
ATTENTION: BID CLERK
BID NUMBER: SB-6672-07/29/99-REB

DIRECT INQUIRIES TO: Releata E. Baker
Releata E. Baker, (803) 898-3501

REASON FOR NO BID:

VENDOR:

This Section Must Be Completed By Vendor:

H2O ENVIRONMENTAL INC.
Vendor Name

130 CENTRUM DR. # 3B
Mailing Address

IRMO SC 29063
City State Zip Code

Area Code: Telephone Number (803) 749-408

Toll Free Number 1-800-251-4374

Facsimile Number (803) 749-9911

Federal I.D. Or Social Security Number: 65-0111735

Bid Security Is Attached When Required In The Amount of: $_____

By signing this bid, I certify to comply with the Drug-Free Workplace Act, Section 44-107-10 et seq. Of the South Carolina Code of Laws to provide a drug-free workplace. This clause applies to any resultant contract of $50,000.00 or more. The State of South Carolina has amended Title 44, Code of Laws of South Carolina, 1976, relating to health, by adding Chapter 107, so as to enact the Drug-Free Workplace Act.

I certify that this bid is made without prior understanding, agreement or connection with any corporation, firm or person submitting a bid for the same materials, supplies or equipment and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder.

Scott Johnston
Authorized Signature (Manual)

SCOTT JOHNSTON
Authorized Signature (Typed) Title

7/28/99
Date Signed

COMMODITY: To perform corrective action of a petroleum release from regulated underground storage tank site at site number 06742, Crossroads Grocery, 850 West Oak Highway, Oconee County, South Carolina.

METHOD OF BID AWARD: Award will be made by total to the lowest responsive and responsible bidder.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

BID NUMBER: SB-6672-07/29/99-REB

BIDDING SCHEDULE

The total cost in dollars to treat the area of concern (see figure #2) such that the thickness of free product does not exceed .01 foot and the levels of CoC do not exceed the site-specific target levels (SSTLs) defined in item 11.C. at any point, complete all associated monitoring and post-remediation verification, prepare all plans, reports, and correspondence; obtain and meet all terms and conditions of all required permits and licenses; design, install, monitor, operate, maintain, and when completed, properly abandon or remove all assessment and remediation items installed as part of corrective action; provide evidence of performance bond; and other items outlined in this bid invitation for the Crossroads Grocery, (UST Permit # 06742), 850 West Oak Highway, Oconee County, South Carolina is: $ 167,000.

OTHER CRITERIA

Please respond to the following questions which have been designed to verify your corrective action qualifications:

1. The corrective action method(s) or technology (ies) that will be proposed in the CAP will be (list all active and/or intrinsic methods or technologies for remediation of the aquifer; attach additional pages(s) as required):

AIR SPARGING ENHANCED BY VAPOR EXTRACTION.

FREE PRODUCT REMOVAL - HAND BAIL WITH ABSORBANT PADS.

2. The estimated time in months to complete the corrective action from the date of bid award, corrective action goals are met, and all corrective action items are removed from the site or properly abandoned is approximately 30 months. This time assumes all submitted plans and reports will be reviewed by DHEC within 30 days of receipt.

3. When can you begin work (earliest date that a CAP, ER and all permit applications would be submitted after notification of Statement of Award from the Bureau of Business Management)? 60 DAYS

BID ACCEPTANCE and DELIVERY STATEMENT

In compliance with the bid solicitation and subject to all conditions thereof, the contractor offers and agrees, if this bid is accepted within 30 days from date of bid opening, to furnish any or all items/services quoted at the prices set forth.

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health
and Environmental Control

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT
2600 Bull Street
Columbia, SC 29201
Telephone (803) 898-4350

MEMORANDUM

DATE: May 13, 1999

TO: John Merritt, C.P.A., Manager
Financial Section

FROM: Chris Doll, Manager
State Lead and Field Services Section
Assessment and Corrective Action Branch

SUBJECT: Bid Request

Atttached is a hard copy of the bid specifications for corrective action at UST Permit #06742. This bid package should be sent out in SCBO. The information is also on the enclosed disk under file name 06742.

Purchase Requisition Number 6672 for UST Permit #06742 has been created on the AIMS system. Please forward the bid package to the attention of Releata Baker in the Bureau of Business Management as soon as funds are available. If you have any questions, contact me at 898-4366.

cc: Read S. Miner, State Lead and Field Services Section
Technical File

DHEC/UST/021199

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

MEMORANDUM

RECEIVED
MAR 3 1 1999
DIVISION OF UNDERGROUND STORAGE TANK MGMT.

06742

To: Read Miner, P.G., Hydrogeologist
Assessment and Corrective Action Division
Underground Storage Tank Program

From: Tom Knight, PG, Manager
Groundwater Quality Section
Water Monitoring, Assessment and Protection Division

Date: March 31, 1999

Re: Crossroads Grocery
Oconee County

Based on the recommendation for an advisory to be issued at the referenced facility, it is recommended that a meeting be scheduled to discuss the type of advisory that would be applicable and to work out the general details. It is recommended that the group include representatives from the District EQC office, you and your management, Tracey Shelley (Health Hazard Evaluation), Gina Kirkland (BoW) and the writer. A final process for the development and maintenance of an advisory has not yet been finalized but currently being drafted.

Pleas contact me as to your concurrence on this issue that such a meeting can be scheduled. If you have any question, pleas contact me at (803)898-4251.

enc: Shelley/Knight Memorandum ((3/29/99), health Consultation - Crossroads Grocery

cc: Tracey Shelley
Tommy Rogers
Eddie Clements
Gina Kirkland

TK
crossmem.wpd

South Carolina
DHEC
Department of Health and Environmental Control

RECEIVED
MAR 31 1999
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

MEMORANDUM

TO: Read Minor, P.G.
Hydrogeologist
Assessment and Corrective Action Division

FROM: Tracy Shelley, M.S.
Program Manager
Division of Health Hazard Evaluation

B. Tom Knight, P.G
Section Manager
Hydrogeologic Section

RECEIVED
MAR 31 1999
Water Monitoring, Assessment & Protection Division

DATE: March 29, 1999

RE: Health Consultation- Crossroads Grocery

The Division of Health Hazard Evaluation has completed its evaluation of the surface water monitoring data for an unnamed tributary of Mud Creek. The creek is in a heavily wooded area about 1,200 feet from the Crossroads Grocery site in Oconee County, South Carolina. There is one home fairly close (about a ½ mile) to the creek. The area between the home and the creek is heavily wooded. The creek is a groundwater outcrop.

Two surface water samples were collected, one about 10 feet from the headwaters and the other one about 50 feet further downstream. Benzene (75 μg/l), toluene (0.73 μg/L), and xylene (1.9 μg/L) were detected in the headwater sample. Only toluene (1.1 μg/L) was detected in the downstream sample. Benzene was the only volatile organic compound (VOC) detected above its United States Environmental Protection Agency (U.S. EPA) maximum contaminant level (MCL) of 5.0 μg/L. MCLs are based on a lifetime of exposure and HHE uses them as a screening level to determine if the data need further evaluation.

If a child or an adult were to ingest a small amount of this water while playing or wading in the water, the estimated exposure dose would be lower than the level at which we would expect adverse health effects to occur. However, if a person were to use this water as a drinking water source, the estimated dose for exposure to benzene could exceed the U.S.EPA oral reference dose. This is the dose below which, adverse noncancer health effects would not be expected to occur. The estimated dose for a child exposed through swimming or wading in the creek would also exceed the reference dose for benzene. Dermal exposure may not always be the most important route of exposure, but it may contribute significantly to total exposure (Mattie et al., 1994). Any exposure that could occur, should not increase the risk of developing cancer.

printed on recycled paper

Based on the most current data available for review, an advisory for the unnamed tributary may be warranted. Prolonged exposure either through swimming, wading, or drinking could result in adverse health effects. There may also be surface water quality concerns that need to be addressed. It is recommended that an ongoing, periodic monitoring program of the surface water body be established. Additional information will be forthcoming regarding the evaluation of the surface water quality issue. HHE will review any additional environmental monitoring data collected during any future investigations.

References

Mattie, David R, Grabau, John H, McDougal, James N. Significance of the Dermal Route of Exposure to Risk Assessment. Risk Analysis, Vol. 14, No. 3, 1994.

FIELD ACTIVITY WORKSHEET ORDER

DATE OF REQUEST: January 4, 1999

TYPE OF REQUEST:
(Please indicate your request with a check mark.)

Sample collected 1-25-99
Class 1

ACA
MA due 2-12-99

EMERGENCY (<2 WORKING DAYS) ☐

SPECIFIC (1-5 WORKING DAYS) ☐

ROUTINE (10 WORKING DAYS) ☒

Please specify the type of work to be completed:

Sample 16 monitoring wells for BTEX, Naphthalene, MTBE,

FACILITY NAME: Crossroads Grocery
FACILITY ID NUMBER: 06742
PROJECT MANAGER: READ MINER
COUNTY: OCONEE

(FIELD STAFF ONLY)

DATE FIELD ACTIVITY REQUEST COMPLETED: _____

COMPLETED BY FIELD STAFF: _____

DATE FIELD NOTES TRANSFERRED TO GTS: _____

Field Staff Comments:

REMEMBER TO ESTABLISH COST PROPOSALS

HYDROLOGIC CP # 06871:P SCHNABEL CP # 06872:P

BEST OF EVERYTHING CP # _____

Fill out Spreadsheets on the back of this form. Photocopy, attach a completed CP cover page for each CP, and put in CP box outside of Robertha's door. Thanks you very much!

Rat962

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

Report On Records Destroyed
Records and Forms Management Unit
[UST Program ONLY]

1. Return this form to:
Records and Forms Management Unit
2600 Bull Street
Columbia, SC 29201

The records listed below have been disposed of in accordance with provisions of the Public Records Act, Code of Laws of South Carolina, 1976, Sections 30-1-10 through 30-1-140, as amended, and approved Records Retention Schedules.

2. Signature: Catherine Kuchinsky

3. Title: Program Coordinator Date: 12/2/98

Agency Records Officer signature:

4. Record Series Titles	5. Record Series #	6. Inclusive Dates	7. Volume (cubic footage)	8. Date of Destruction*
Ass. Plans	093414	7/96	.007	11/24/98
"	"	6/96	.007	
"	"	6/96	.007	
"	"	2/97	.007	
"	"	2/97	.007	
"	"	3/94	.01	✓
*Documents put in recycle box on date of destruction			9) .045	Total Cubic Feet destroyed

SITE ID #: 06742 FACILITY NAME: Crossroads Grocery

REVIEWED BY NAME: Kristen Hein

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT

Phone (803) 734-5331 Fax (803) 734-3604

DEC 08 1998

NEIL ALEXANDER
8050 W. OAK HIGHWAY
WESTMINSTER, SC 29693

Re: Crossroads Grocery
Facility ID #06742
Phone conversation dated November 13, 1998
Oconee County

Dear Mr. Alexander:

Per the referenced phone conversation, you requested the Division of Underground Storage Tank Management of the South Carolina Department of Health and Environmental Control (SCDHEC) procure the services of a certified contractor for corrective action on your behalf. Please complete the enclosed form and return to my attention within 10 days

On all correspondence regarding this site, please reference Facility **ID #06742.** If you have any questions concerning this correspondence, please contact Scott McInnis at 803-898-4365 or 800-826-5435 (within SC only).

Sincerely,
Owner/Operator Assistance Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

W.A. (Scotty) McInnis, III, P.G., Hydrogeologist

Lee A. Monts, Manager

enc: Permission Form

cc: Technical File
Read File

wam/06742dir.ca

DHEC/UST/111398

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION
UNDERGROUND STORAGE TANK MANAGEMENT

Phone (803) 734-5331 Fax (803) 734-3604

NEIL ALEXANDER
8050 W. OAK HIGHWAY
WESTMINSTER, SC 29693

NOV 13 1998

Re: Crossroads Grocery
Facility ID #06742
Phone conversation dated November 13, 1998
Oconee County

Dear Mr. Alexander:

Per the referenced phone conversation, you requested the Division of Underground Storage Tank Management of the South Carolina Department of Health and Environmental Control (SCDHEC) procure the services of a certified contractor for corrective action on your behalf. Please complete the enclosed form and return to my attention within 10 days.

On all correspondence regarding this site, please reference Facility **ID #06742.** If you have any questions concerning this correspondence, please contact Scott McInnis at 803-734-5615 or 800-826-5435 (within SC only).

Sincerely,
Owner/Operator Assistance Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

W.A. (Scotty) McInnis, III, P.G., Hydrogeologist

Lee A. Monts, Manager

enc: Permission Form

cc: Technical File
Read File

wam/06742dir.ca

DHEC/UST/111398

SCDHEC :: Domenico Model v2.1

Site ID: 06742 10/12/98 CoC : Benzene

Source: MW - 6 Receptor: creek 650 ft away

Input Parameters:

Source Concentration:	39.600	mg/L
Width across flow dir.:	25.000	m
Estimated source depth:	7.000	m
Distance along x-axis:	216.000	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage velocity:	0.0000008310	m/s
Time of transport:	32.00	years
Decay constant:	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERF(-2.3130)	=	-0.9994
ERFC(-2.3130)	=	1.9994
ERF(0.1585)	=	0.1774
ERF(0.2292)	=	0.2543

No Decay

Ax= 21.6000
Ay= 7.2000
Az= 1.0800

Results:

C(x,y,z,t): 1.7861591 mg/L

C(x,y,z,t): 1786.1591 ug/L

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(c) Copyright SCDHEC by Sriram Madabhushi.

Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Calculations using Domenico Model v2.1

Site ID: 06742 10/12/98 CoC : Benzene

Source: MW - 6 Receptor: creek 650 ft away

Input Parameters:

RBSL for the CoC chosen:	0.0050	mg/L
Width across flow dir.:	25.000	m
Estimated source thick:	7.000	m
Distance along x-axis:	216.000	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage velocity:	0.0000083100	m/s
Time of transport:	10.00	years
Decay constant:	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000

ERF(-5.0535) = -1.0000
ERFC(-5.0535) = 2.0000

ERF(0.1585) = 0.1774
ERF(0.2292) = 0.2543

No Decay

Ax= 21.6000
Ay= 7.2000
Az= 1.0800

Results:

Csstl:	0.1108219	mg/L
Csstl:	110.8219	ug/L

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SCDHEC :: SSTL Calculations using Domenico Model v2.1

Site ID: 06742 10/12/98 CoC : t

Source: MW - 6 Receptor: creek 650 ft away

Input Parameters:

RBSL for the CoC chosen:	1.0000	mg/L
Width across flow dir.:	25.000	m
Estimated source thick:	7.000	m
Distance along x-axis:	216.000	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage velocity:	0.0000083100	m/s
Time of transport:	10.00	years
Decay constant:	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000

ERF(-5.0535) = -1.0000
ERFC(-5.0535) = 2.0000

ERF(0.1585) = 0.1774
ERF(0.2292) = 0.2543

No Decay

Ax= 21.6000
Ay= 7.2000
Az= 1.0800

Results:

Csstl: 22.1643754 mg/L

Csstl: 22164.3754 ug/L

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SCDHEC :: SSTL Calculations using Domenico Model v2.1

Site ID: 06742 10/12/98 CoC : e

Source: MW - 6 Receptor: creek 650 ft away

Input Parameters:

RBSL for the CoC chosen:	0.7000	mg/L
Width across flow dir.:	25.000	m
Estimated source thick:	7.000	m
Distance along x-axis:	216.000	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage velocity:	0.0000083100	m/s
Time of transport:	10.00	years
Decay constant:	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000

ERF(-5.0535) = -1.0000
ERFC(-5.0535) = 2.0000

ERF(0.1585) = 0.1774
ERF(0.2292) = 0.2543

No Decay

Ax= 21.6000
Ay= 7.2000
Az= 1.0800

Results:

Csstl: 15.5150628 mg/L

Csstl: 15515.0628 ug/L

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SCDHEC :: SSTL Calculations using Domenico Model v2.1

Site ID: 06742 10/12/98 CoC : x

Source: MW - 6 Receptor: creek 650 ft away

Input Parameters:

RBSL for the CoC chosen:	10.0000	mg/L
Width across flow dir.:	25.000	m
Estimated source thick:	7.000	m
Distance along x-axis:	216.000	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage velocity:	0.0000083100	m/s
Time of transport:	10.00	years
Decay constant:	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000

ERF(-5.0535) = -1.0000
ERFC(-5.0535) = 2.0000

ERF(0.1585) = 0.1774
ERF(0.2292) = 0.2543

No Decay

Ax= 21.6000
Ay= 7.2000
Az= 1.0800

Results:

Csstl: 221.6437541 mg/L

Csstl: 221643.7541 ug/L

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SCDHEC :: SSTL Calculations using Domenico Model v2.1

Site ID: 06742 10/12/98 CoC : m

Source: MW - 6 Receptor: creek 650 ft away

Input Parameters:

RBSL for the CoC chosen:	0.0400	mg/L
Width across flow dir.:	25.000	m
Estimated source thick:	7.000	m
Distance along x-axis:	216.000	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage velocity:	0.0000083100	m/s
Time of transport:	10.00	years
Decay constant:	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000

ERF(-5.0535) = -1.0000
ERFC(-5.0535) = 2.0000

ERF(0.1585) = 0.1774
ERF(0.2292) = 0.2543

No Decay

Ax= 21.6000
Ay= 7.2000
Az= 1.0800

Results:

Csstl:	0.8865750	mg/L
Csstl:	886.5750	ug/L

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SCDHEC :: SSTL Calculations using Domenico Model v2.1

Site ID: 06742 10/12/98 CoC : n

Source: MW - 6 Receptor: creek 650 ft away

Input Parameters:

RBSL for the CoC chosen:	0.0250	mg/L
Width across flow dir.:	25.000	m
Estimated source thick:	7.000	m
Distance along x-axis:	216.000	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage velocity:	0.0000083100	m/s
Time of transport:	10.00	years
Decay constant:	0.0000000000	/s

Calculations:

EXP(0.0000) = 1.0000

ERF(-5.0535) = -1.0000
ERFC(-5.0535) = 2.0000

ERF(0.1585) = 0.1774
ERF(0.2292) = 0.2543

No Decay

Ax= 21.6000
Ay= 7.2000
Az= 1.0800

Results:

Csstl:	0.5541094	mg/L
Csstl:	554.1094	ug/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

(c) Copyright SCDHEC by Sriram Madabhushi.

Unauthorized use is strictly prohibited.

RECEIVED
MAR 0 3 1998
Bureau of Underground
Storage Tank Management

February 23, 1998

Mr. Read Miner
Hydrologist
South Carolina Department of Health and Environmental Control
Ground-Water Protection Division
Bureau of Drinking Water Protection
2600 Bull Street
Columbia, SC 29201

RE: **Crossroads Grocery: Change in Consulting Company**
(To retain Mirta Carpenter)
850 West Oak Highway
Westminster, Oconee County, SC 29693
GWPD Site ID #06742; Cost Proposal #03787

Dear Mr. Miner:

In accordance with a discussion with Ms. Mirta Carpenter on February 20, 1998, Ms. Carpenter will be working with Environmental Monitoring Corporation to provide Crossroads Grocery and myself as owner/operator with all my environmental consulting needs. Environmental Monitoring Corporation is based in Hartwell, Georgia, and is South Carolina certified (Certification Level - Class I). ESCM & Associates, Inc., will be closing its doors and Ms. Carpenter and I have decided to use Environmental Monitoring Corporation in lieu of ESCM & Associates, Inc. This information is provided to you so that South Carolina Department of Health and Environmental Control can make the following changes to my file:

Former consulting firm: ESCM & Associates, Inc., Watkinsville, GA (President: Mr. Edward Shaw)

New consulting firm: Environmental Monitoring Corporation (President: Mr. Britt Myers)
P.O. Box 901
Hartwell, GA 30643
706-376-5000

Please copy Ms. Mirta Carpenter
Environmental Monitoring Corporation
479 Sterling Drive
Powder Springs, GA 30127
(770) 577-8909
(770) 577-9401 FAX

certification
#146

If you have any questions regarding these changes, you may contact me at (864) 972-3489 at Crossroads Grocery, (864) 882-0373 (my home), or you may contact Ms. Mirta Carpenter at (770) 577-8909. Thank you for your assistance regarding this matter. Please make the appropriate changes to the most recent cost proposal (CP#03787) so that EMC (not ESCM) will be reimbursed for the work to be completed under this cost proposal. EMC's federal tax ID number is FEIN#58-1856513.

Sincerely,
R Neil Alexander
Neil Alexander
Crossroads Grocery - Owner/Operator

cc: Ms. Mirta Carpenter, EMC, Powder Springs, Georgia

FAX TRANSMISSION

CARPENTER ENVIRONMENTAL CONSULTING, INC.
479 STERLING DRIVE
POWDER SPRINGS, GA 30127
(770) 577-8909
FAX: (770) 577-9401

To:	Mr. Read S. Miner (SCDHEC)	**Date:**	March 19, 1998
Fax #:	1-803-734-3604	**Pages:**	2, including this cover sheet.
From:	Mirta A. Carpenter		
Subject:	Crossroads Grocery Review		

COMMENTS:

Dear Read,

Please review the attached proposed monitor well locations in relation to the results of the geoprobe work conducted on 1/7-9/98 and 2/18-20/98. We may alter the actual locations of MW-8 and MW-9 based on the soil findings during our field work scheduled for March 30 through April 3, 1998. Monitor wells MW-10, MW-11, MW-12, MW-13, and MW-14 will be drilled at the shown locations. If you have any suggestions or comments, please contact me as soon as possible by telephone or e-mail. The e-mail seems to working out great. I found the three references you suggested at the UGA science library. Again thank you. :-)

well locations look good RSM

RECEIVED
MAR 2 0 1998
Bureau of Underground
Storage Tank Management

Crossroads Grocery

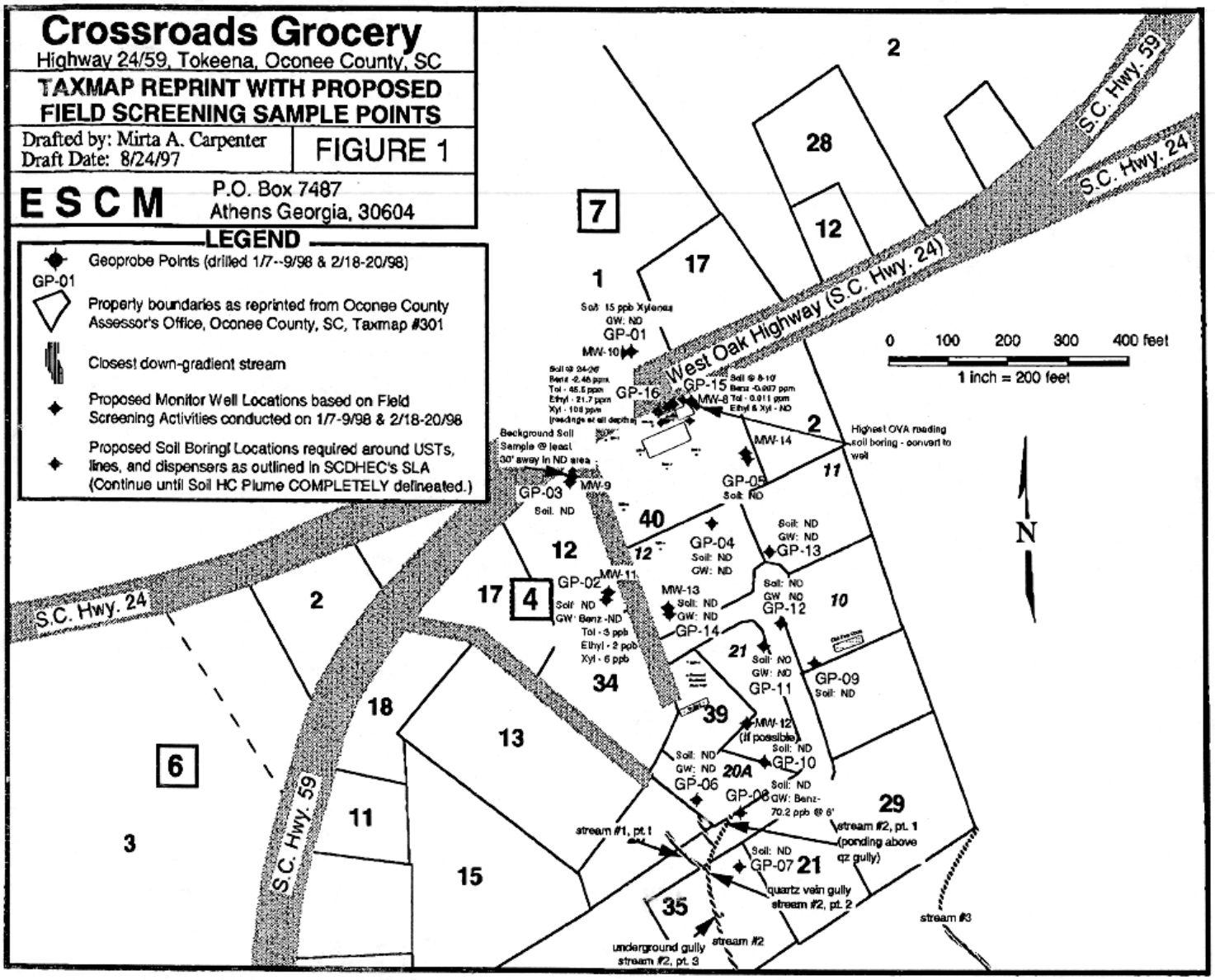
Highway 24/59, Tokeena, Oconee County, SC

TAXMAP REPRINT WITH PROPOSED FIELD SCREENING SAMPLE POINTS

Drafted by: Mirta A. Carpenter
Draft Date: 8/24/97

FIGURE 1

ESCM P.O. Box 7487 Athens Georgia, 30604



MAR-19-98 THU 05:10 PM CARPENTER ENV CONSULTING 7705779401 P.02

January 9, 1998

06742

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

SEP 15 1997

Mr. Neil Alexander
Crossroads Grocery
Route 2, Box 149
Westminster, South Carolina 29693

Re: Crossroads Grocery
Site ID #06742, CP #03787
Rapid Assessment Plan received August 28, 1997
Cost Proposal received August 28, 1997
Oconee County

Dear Mr. Alexander:

The Bureau of Underground Storage Tank Management has reviewed and approved the referenced submittals.

Site activities can be initiated immediately upon receipt of this letter. Compliance with all well driller, laboratory, and professional certifications must be maintained. Please note that after September 20, 1997, all rehabilitation activities associated with a UST release must be performed by a SCDHEC certified site rehabilitation contractor as required by R.61-98.

The Bureau grants preapproval for transportation of up to ten drums ground water, one drum free product, and twenty-six drums virgin petroleum contaminated soil from the referenced site to a permitted treatment facility. The contaminated soil or ground water must be properly stored in labeled containers or covered with plastic as appropriate. The contaminated soil and/or ground water must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report. If the levels of petroleum contamination based on laboratory analysis are below risk-based screening levels, please contact the project manager for approval to dispose of soil and/or ground water on site. The SUPERB Account will not compensate for transportation or treatment of clean soil and/or ground water.

Cost proposal #03787 has been approved for this scope of work in the amount of $64,035.45. Please see the enclosed Assessment Component Cost Proposal for a detailed breakdown of the revised work scope, which was discussed with Mirta Carpenter of ESCM on September 8, 1997.

- Component 6 includes 100 feet of soil borings to be completed around the underground storage tanks, lines, and dispensers to define the extent of impacted soil. The soil samples in component 11 are included for this area. Please see Appendix C (data acquisition section) of the Risk-Based Corrective Action document for more information pertaining to the soil investigation.

- The remaining 600 feet in component 6 is for field screening points. Please note that the SUPERB Account will not compensate any additional amount for laboratory analyses completed from field screening points. All quantification costs are included in the established rate of $17.00 per foot.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Department is obtained. If for any reason components need to be added to the work scope, these components and the associated rates must be approved by the Department prior to initiation.

The report and associated invoice (form enclosed) should be submitted within 90 days from the date of this correspondence. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

On all future correspondence, please reference the **Site ID #06742 and CP #03787.** Questions concerning the above should be addressed to the attention of Read Miner at (803) 734-5327.

Sincerely,
Owner/Operator Assistance Section
Assessment & Corrective Action Division
Bureau of Underground Storage Tank Management

Read S. Miner, P.G., Hydrologist

Lee A. Monts, Manager

RSM/rsm
06742PLN.APP

enc: Approved Assessment Component Cost Proposal
Assessment Component Invoice Form

cc: Technical/Read Files

Financial File (w/Approved Assessment Component Cost Proposal)

Mirta A. Carpenter, ESCM & Associates, Inc. (w/enclosures)
PO Box 7487, Athens, Georgia 30604

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

SEP 15 1997

Monitoring Well Installation Approval Form

Date of Issue: September 9, 1997 Approval No.:8741

Approval is hereby granted to: ESCM & Associates, Inc.
on behalf of: Neil Alexander
Site ID #06742
Oconee County

This approval is for the construction of up to thirty temporary wells and sixteen type II monitoring wells at the above referenced site in accordance with the S. C. Well Standards and Regulations R.61-71. The well(s) are to be constructed within the surficial aquifer for the intended purpose of monitoring ground-water quality at the referenced facilities. Approval is provided with the following conditions:

1. The boring logs and actual (as built) construction details for each well be submitted with the assessment report.
2. Each well shall be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate shall provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.
3. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regards to contents, source, and date of activity.
4. A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Read Miner at 734-5327.
5. Please provide ground-water quality analytical data (chemical analysis and/or water level(s)) associated measurements (i.e., in-situ field measurements) with the assessment report.
6. Monitoring wells shall be installed by a well driller certified by the State of South Carolina.

This approval is pursuant to the provisions of Section 4-5540 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71.

Approved by: Read S Miner

Read S. Miner, P.G., Hydrologist
Owner/Operator Assistance Section
Assessment & Corrective Action Division
Bureau of Underground Storage Tank Management

RSM/rsm
MW8741TXT
cc: Appalachia I District EQC
Technical/Read File

South Carolina DHEC
Department of Health and Environmental Control

Report On Records Destroyed
Division Of Support Services

1. Date: 5/20/97

Return this form to:
Bureau of Business Management
Division of Support Services-Records and Forms Management Unit
2600 Bull Street
Columbia, SC 29201

The records listed below have been disposed of in accordance with provisions of the Public Records Act, Code of Laws of South Carolina, 1976, Sections 30-1-10 through 30-1-140, as amended, and approved Records Retention Schedules.

2. Signature: Catherine Kuchinsky

3. Title: Proj. Coord.

Agency Records Officer signature:

4. Record Series Titles	5. Record Series #	6. Inclusive Dates	7. Volume (cubic footage)	8. Date of Destruction
Assessment Plan	09344	3-11-93	.007	5-19-97
Assessment Plan	09344	11-4-93	.01	office Recycle Box
			.017	Total Cubic Feet destroyed

DHEC 521 (3/1991)

Site ID # 06742 Site Name Cross roads Grocery

Reed Miner

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health
and Environmental Control

BUREAU OF
UNDERGROUND STORAGE TANK MANAGEMENT
2600 Bull Street
Columbia, SC 29201
Telephone (803) 734-5331

MEMORANDUM

DATE: May 20, 1997

TO: Tom Knight, P.G., Manager
Hydrogeologic Section

FROM: Read S. Miner, P.G., Hydrologist
Owner/Operator Assistance Section
Assessment and Corrective Action Division

SUBJECT: Crossroads Grocery
Site ID #06742
Oconee County

Petroleum contamination has been detected in a stream located approximately 1200 feet from the referenced facility. The stream is a tributary of Mud Creek which discharges into Beaverdam Creek which ultimately discharges into Hartwell Reservoir (A topographic may is attached). Stream water quality analytical results from the creek are listed on figure 3.

According to the site map, the stream is located ½ mile south of the trailer home near monitoring well 5. According to Joanne Cooper from the Bureau of UST Management, the land is all woods from the trailer home to the stream.

Please advise whether this stream should be posted.

If you have any questions, my phone number is 734-5327.

RSM/rsm
06742SEC.MEM

ESCM Hazardous Materials/Civil Environmental/Petrochemical CONSULTING ENGINEERS

1781 Mars Hill Road
Watkinsville, Georgia 30677
(706) 769-4434

January 22, 1997

Ms. Joanne Cooper
Hydrologist
Technical Section
Bureau of Underground Storage Tank Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201-1708

RECEIVED
FEB 13 1997
Bureau of Underground
Storage Tank Management

RE: **Risk-Based Corrective Action - Tier 1 and 2**
(Standard Limited Assessment: Report of Findings)
Crossroads Grocery
State Highways 24 and 59
Route 2, Box 149
Westminster, Oconee County, SC 29693
GWPD Site ID #06742: CP #02047

Dear Ms. Cooper:

ESCM & Associates, Inc., (ESCM) has been commissioned by Mr. Neil Alexander, the owner and operator of referenced facility, to conduct assessment and remediation activities at Crossroads Grocery. In accordance with SCDHEC's letter dated July 31, 1996, two copies of the Risk-Based Corrective Action Tier 1 and 2 (Standard Limited Assessment: Report of Findings) are being submitted for your review. This report was prepared in the format outlined in SCDHEC's "Risk-Based Corrective Action for Petroleum Releases" dated June 1995. Also enclosed please find the Assessment Component Invoice (Invoice # EAS01049-01; CP#02047) and the Cost Proposal for the interim remedial action (i.e., free-product recovery). Please note two cost proposals have been submitted; one for ECOVAC services (four events) plus monitoring for a one year period and the other proposal is for the SWAP system plus monitoring for a one year period. Please review both cost proposals including the literature enclosed for each fluid recovery technology and let me know what you think. If you have any questions concerning the enclosures, please contact Ed Shaw at (706) 769-4434 or myself at (706) 886-7634. Your on-going assistance is greatly appreciated.

Sincerely,

Mirta A. Carpenter
Environmental Manager/ Hydrogeologist

Enclosures

cc: Mr. Neil Alexander, Crossroads Grocery, Westminster, SC
Mr. Edward Shaw, ESCM & Associates, Inc., Watkinsville, GA
Files, ESCM & Associates, Inc., Watkinsville, GA
Files, Carpenter Environmental Consulting, Inc., Toccoa, GA

FAX TRANSMISSION

CEC, Inc. Environmental/Geological/ Hydrological/ Regulatory Liaison
CARPENTER ENVIRONMENTAL CONSULTING, INC.
715 Rosedale Street
Toccoa, Georgia 30577
TEL/FAX: (706) 886-7634

To: Joanne Cooper

From: Mirta A. Carpenter

Company: SCDHEC, UST Division

Date: August 20, 1996

Tel #: 803-734-5334

Pages: 1, including this cover sheet

Fax #: 803-734-3604

Subject: Soil Boring required - additional cost proposal

#06742

COMMENTS:

Per our telephone discussion earlier today, one soil boring in the worst case area is required for the soil leachability model analyses. Therefore, ESCM requests that the cost associated with this additional task be added to the approved cost proposal CP#02047. The additional cost is 20 feet X $17.00/foot = $340.00 + 15% ($51.00) = **$391.00**. If you have any questions or need more information, please call me at the number above anytime. Thank you for your continued assistance. The tentative drill dates for Crossroads Grocery are September 9 and 10, 1996. I will call you later to verify these dates.

+ 20' abandonment @ $4.00/ft = 80
$420.00 total x 15% (63.00) = $483.00

RECEIVED
AUG 20 1996
Bureau of Underground
Storage Tank Management

RECEIVED
AUG 20 1996
Bureau of Underground
Storage Tank Management

Bureau of Underground
Storage Tank Management

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

May 21, 1997

Mr. Neil Alexander
Crossroads Grocery
Route 2, Box 149
Westminster, South Carolina 29693

Re: Crossroads Grocery
Site ID #06742
Rapid Assessment Report received February 18, 1997
Oconee County

Dear Mr. Alexander:

The Bureau of Underground Storage Tank Management has reviewed the referenced submittal. The following issues were discussed with Mirta Carpenter of CEC, Inc. on May 19, 1997.

- The soil and water samples were not analyzed by a South Carolina certified laboratory and new samples are necessary.

- The extent of impacted soil around the underground storage tank lines and dispensers needs to be defined.

- The migration pathways that petroleum constituents are taking from the source to the creek need to be delineated.

- The extent of the free product plume needs to be delineated.

- The extent of the ground-water plume needs to be delineated using field screening methods.

- Additional permanent monitoring wells for future monitoring of the horizontal and vertical migration of the plume are needed. The locations of the wells should be determined upon completion of plume delineation.

Please have your contractor submit a Rapid Assessment work plan and cost proposal within thirty days of the date of this correspondence.

On all future correspondence, please reference the **Site ID #06742.** Questions concerning the above should be addressed to the attention of Read Miner at (803) 734-5327.

Sincerely,
Owner/Operator Assistance Section
Assessment & Corrective Action Division
Bureau of Underground Storage Tank Management

Read S. Miner, P.G., Hydrologist

Lee A. Monts, Manager

RSM/rsm
06742RPT.REV

enc: Rapid Assessment Plan Form
Assessment Component Cost Proposal Form

cc: Ms. Mirta Carpenter (w/enclosures)
CEC, Inc.
715 Rosedale Street
Toccoa, Georgia 30577

Edward Shaw
ESCM & Associates, Inc.
1781 Mars Hill Road
Watkinsville, Georgia 29693

Financial File

Technical File

Read Miner

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201-1708

Commissioner: Douglas E. Bryant

Board: John H. Burriss, Chairman
William M. Hull, Jr., MD, Vice Chairman
Roger Leaks, Jr., Secretary
Richard E. Jabbour, DDS
Cyndi C. Mosteller
Brian K. Smith
Rodney L. Grandy

Promoting Health, Protecting the Environment

JUL 31 1996

Mr. Steve Hughes
416 Andrew Pickens Dr.
Seneca, SC 29678

Re: Crossroads Grocery
Site ID: #06742
Oconee County

Dear Mr. Hughes:

As requested, the status of the release at the referenced site and an explanation of the applicable regulations is provided in response to your telephone call of July 25, 1996.

Statutory Information

According to the State Underground Petroleum Environmental Response Bank (SUPERB) Act, the "owner" means: (a) in the case of an underground storage tank (UST) system in use on November 8, 1984, or brought into use after that date, any person who owns an UST system used for storage, use, or dispensing of regulated substances: (b) in the case of any UST system in use before November 8, 1984, but no longer in use on that date, any person who owned such a UST immediately before the discontinuation of its use; or (c) any person who has assumed legal ownership of the UST through the provisions of a contract of sale or other legally binding transfer of ownership.

Section 44-2-80 (B) of the SUPERB Act states "The requirement to conduct site rehabilitation actions other than necessary abatement actions to eliminate any imminent threat to human health, safety, or the environment a release may pose, does not apply to a person who, without participating in the management of an underground storage tank and is otherwise not engaged in petroleum production, refining, and marketing, hold indicia of ownership primarily to protect that person's security interest in the tank. The indicia of ownership do not include persons who acquire title to the property through foreclosure or other means necessary to enforce the security interests and who, without participating in the management, are otherwise not engaged in petroleum production, refining, and marketing."

Section 44-2-80 (C) of the SUPERB Act states "A person who acquires title to any property on which an underground storage tank has been removed shall not be responsible for site rehabilitation actions other than necessary abatement actions to eliminate any imminent threat to human health, safety or the environment. This exemption applies to the extent the release is eligible for compensation from the SUPERB Account if both of the following conditions are met:

recycled paper

(1) Such person does not have or has not had any familial, financial, or related interests with the person who owned or operated the USTs that were previously in use at that property. The person must not be an affiliate of the owner or operator.

(2) The person shall allow for the reasonable access by the UST owner or operator or the Department to perform site rehabilitation activities."

You should be aware that there are currently no laws or regulations that prohibit the use or development of properties where a petroleum release has occurred.

Qualification for SUPERB monies

The referenced release was qualified to participate in the State Underground Petroleum Environmental Response Bank (SUPERB) Account in January 1993. This means that this release is qualified to receive up to $1,000,000 for costs associated with the investigation and cleanup of reported releases of petroleum from the underground storage tanks.

Availability of SUPERB monies

Because the amount of SUPERB monies available is limited, cleanup funding is not possible from the SUPERB Account at all the releases reported in South Carolina concurrently. Therefore, SCDHEC uses a classification system to prioritize the reported releases. Releases are placed into one of five classes based on the threat the release poses to human health and the environment (classification one represents an immediate risk and classification five represents the least serious risk). To ensure the protection of human health, the limited funds are being allocated first to those releases that pose an immediate risk (e.g. contaminated drinking water wells) to human health. Currently this site has documented petroleum constituents in both ground water and soil. The latest report indicates that the release has a priority classification of **1D**. Therefore, approved site activities are being funded by SUPERB monies.

Please reference site identification number 06742 on all correspondence. If you have any further questions, feel free to call Joanne Cooper or myself at (803) 734-5331.

Sincerely,

Technical Section
Bureau of Underground Storage Tank Management

Joanne B. Cooper

Joanne B. Cooper, Hydrologist

David G. Baize, Director

cc: Neil Alexander, Rt. 2, Box 149, Westminster, SC 29693

S-1 8762
S-2 Graham Site

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201-1708

Commissioner: Douglas E. Bryant

Board: John H. Burriss, Chairman
William M. Hull, Jr., MD, Vice Chairman
Roger Leaks, Jr., Secretary

Richard E. Jabbour, DDS
Cyndi C. Mosteller
Brian K. Smith
Rodney L. Grandy

Promoting Health, Protecting the Environment

July 15, 1996

Mr. David Martin
Land & Lab Technology, Inc.
Post Office Drawer 4989
West Columbia, South Carolina 29171-4989

Re: Planned Sample Collection

Dear Mr. Martin:

With the delivery of this letter, the Bureau of Underground Storage Tank Management of the South Carolina Department of Health and Environmental Control (SCDHEC) is providing notice of plans to sample. We will require <u>water</u> sample bottles for one (1) VOC analysis and one (1) PAH analysis. Joanne Cooper will come by your offices tomorrow afternoon, Tuesday, July 16, 1996 to pick up the prepared bottles and a cooler.

Please send the invoice for these samples to my attention. If you have any questions concerning this, please contact me at (803) 734-0726.

Sincerely,

Kimberly

Kimberly A. Wilson, P.G., Hydrologist
Technical Section
Bureau of Underground Storage Tank Management

Post-it® Fax Note 7671	Date	# of pages ▶ 1
To David Martin	From Kimberly Wilson	
Co./Dept. Land + Lab	Co. SCDHEC	
Phone # 739-2805	Phone # 734-0726	
Fax # 791-8643	Fax # 734-3604	

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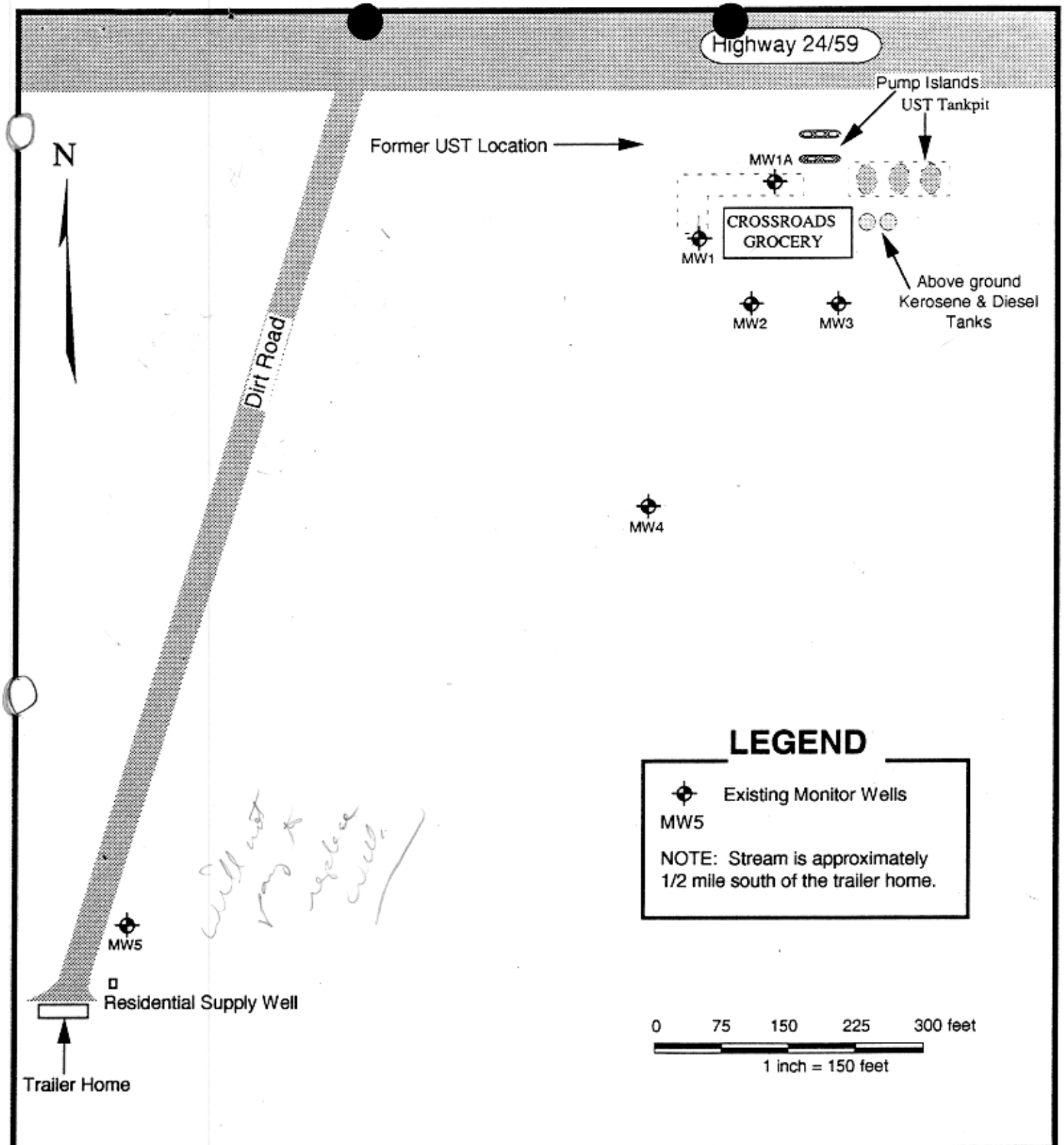

Crossroads Grocery

SITE MAP AND MONITOR WELL LOCATIONS

Highway 24/59, Tokeena, Oconee County, South Carolina

E S C M
P.O. Box 7487
Athens Georgia, 30604

Drafted by: Mirta A. Carpenter
Draft Date: 2/21/94

FIGURE 2

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201-1708

Commissioner: Douglas E. Bryant

Board: John H. Burriss, Chairman
William M. Hull, Jr., MD, Vice Chairman
Roger Leaks, Jr., Secretary
Richard E. Jabbour, DDS
Cyndi C. Mosteller
Brian K. Smith
Rodney L. Grandy

Promoting Health, Protecting the Environment

APR 11 1996

Mr. Neil Alexander
Crossroads Grocery
Rt. 2, Box 149
Westminster, SC 29693

Re: Crossroads Grocery
Site ID #06742
Availability of SUPERB Funding
Oconee County

Dear Mr. Alexander:

Currently, the release reported January 1993, for the referenced site has a priority classification of 1D. Therefore, this release is eligible to receive SUPERB funds to proceed with the next scope of work. As the Responsible Party (RP) for this site, you may elect to proceed with the next scope of work immediately and be compensated, have your contractor receive direct billing from the fund at the proposed allowable costs, or have this Bureau retain a contractor for you and proceed.

The Bureau of Underground Storage Tank Management is in the process of updating costs for site rehabilitation activities. These costs are to be public noticed in the April 26, 1996, State Register. Until these costs are finalized, we are instituting interim allowable costs to allow RPs immediate access to the fund. If the allowable costs should be decreased as a result of the public notice, we will honor the costs quoted in this correspondence. However, should the costs be increased as a result of this notice, we will only honor the costs quoted in this correspondence.

The next scope of work deemed necessary for the referenced site is the completion of the Rapid Assessment. If you desire to proceed based on the attached unit costs, complete and submit the enclosed Assessment Component Cost Proposal form and Rapid Assessment Plan forms within thirty days of the date of this letter. Every component may not be necessary to complete the above scope of work. The proposed cost for each component is included on the Cost Agreement form.

Please indicate below if you desire to proceed based on these unit costs or if you decline to proceed at this time. Also, indicate if you need assistance in hiring a contractor. Your priority classification will not be affected by a decision to not proceed at this time; however, should all available SUPERB funds be committed during this interim process, funding for work on your site, after the proposed rates become finalized, may be delayed until such time as funds become available. **This letter should be completed and returned to this Bureau within 5 days of receipt.**

RECEIVED
APR 17 1996
Bureau of Underground
Storage Tank Management

recycled paper

I wish to proceed with site rehabilitation activities at this time at the proposed allowable costs. YES ✓ NO ___

I need assistance in obtaining a contractor to perform the attached scope of work YES ___ NO ✓

On all correspondence regarding this site, please reference site ID #06742. Please feel free to call David Baize or Joanne Cooper, project manager for this site, at (803) 734-5331 if you have questions or need additional information.

Sincerely,

Technical Section
Bureau of Underground Storage Tank Management

Joanne B Cooper

Joanne B. Cooper, Hydrogeologist

David G. Baize, Manager

JBC/06742rk1.rap

enc: Rapid Assessment
Assessment Component Cost Proposal form
Rapid Assessment Plan forms
Interim SUPERB Allowable Costs

cc: Administrative Section
Mirta Carpenter, ESCM & Associates

8050 West Oak Hwy
Westminster, SC
29693

ESCM Hazardous Materials/Civil Environmental/Petrochemical CONSULTING ENGINEERS

P.O. Box 7487
Athens, Georgia 30604
(706) 546-1149
FAX (706) 369-9234

January 10, 1996

Ms. Joanne B. Cooper
Hydrologist
Ground-Water Protection Division
Bureau of Drinking Water Protection
2600 Bull Street
Columbia, SC 29201

RE: Limited Assessment Report Submittal
Crossroads Grocery
850 West Oak Highway
Westminster, Oconee County, SC
GWPD Site ID #06742

JAN 2 3 1996
Groundwater Protection
Division

Dear Ms. Cooper:

In accordance with your letter dated September 13, 1995, and our telephone discussion on November 17, 1995, the Limited Assessment Report for the referenced site is submitted for your review. If you have any questions or required additional information, please contact Edward Shaw at (706) 546-1149 or Mirta Carpenter at (706) 886-7634. Your assistance regarding this matter is greatly appreciated.

Sincerely,

Mirta A. Carpenter
Environmental Manager/
Hydrogeologist

Enclosures (2)

cc: Mr. Neil Alexander, Crossroads Grocery, Westminster, SC
Files, ESCM & Associates, Inc., Athens, GA

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Commissioner: Douglas E. Bryant

Board: John H. Burriss, Chairman
William M. Hull, Jr., MD, Vice Chairman
Roger Leaks, Jr., Secretary
Richard E. Jabbour, DDS
Cyndi C. Mosteller
Brian K. Smith
Rodney L. Grandy

Promoting Health, Protecting the Environment

11/8 gh

NOV 08 199

Mr. Neil Alexander
Crossroads Grocery
Rt. 2, Box 149
Westminster, SC 29693

RE: Crossroads Grocery
Site ID: #06742, CA: #01277A
Cost Proposal received September 26, 1995
Oconee County

Dear Mr. Alexander:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the referenced cost proposal for free product recovery, receptor survey, sampling of existing monitoring wells and the stream, preparation of associated reports, and small volume disposal. The cost agreement has been approved in the amount of **$9133.75** and will be kept on file so that compensation can begin. Future invoices and/or other criteria included therein must comply with current SUPERB criteria per Section 44-2-20(2). Please reference **cost agreement number 01277** on all pertinent invoices and correspondence. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that after September 30, 1994, no costs will be allowed (considered for payment) unless prior approval from the Department is obtained. If for any reason there is a change in this cost agreement, any associated changes to this cost proposal must be preapproved by this Department in order for Mr. Alexander or ESCM & Associates, Inc. to seek future cost compensation. Per Section 44-2-40 of the SUPERB Statute, **the report should be submitted within 90 days and an invoice for site rehabilitation activities must be submitted within 120 days from the date of this letter** for approval or the cost agreement will be cancelled. As requested, ESCM & Associates, Inc. has been designated as the Payee.

The following rates and/or site rehabilitation activities proposed have been adjusted to insure compliance with current SUPERB program criteria per Section 44-2-20 (2):

- $150.00 less for Handling Fee on analysis (p.11). $125.00 is the maximum rate.
- $150.00 less for Engineer for Modeling (p.13). The rate has been adjusted to the maximum rate of $72.00 per hour.
- $160.00 less for Field Technician for Small Volume Disposal (p.16). Additional sampling will not be necessary as the results from the resampling of the monitoring wells will be sufficient to determine the small volume disposal.
- $86.25 less for Shipping (p.17). See above explanation.
- $966.00 less for Analysis (p.18). See above explanation.

recycled paper

Rehabilitation activities at the site should be resumed immediately upon receipt of this letter. **The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria.** Further, the SCDHEC reserves the right to question and/or reject costs if deemed unreasonable. The SCDHEC reserves the right to audit project records at any time during the project or after completion of the work. A detailed audit of work performed will be conducted at a later date and will be subject to review under the 1995 criteria.

All laboratories utilized must be certified in the state of South Carolina for volatile organic analyses in accordance with R.61-81.

On all correspondence regarding this site, please reference the site identification number 06742. If you have any questions or would like to submit additional information, please contact Joanne Cooper at (803) 734-5334.

Sincerely,

Technical Section
Underground Storage Tank Program

Joanne B. Cooper, Hydrogeologist

David C. Baize, Manager

JBC/06742rk1.cp

cc: Chris Gotwald, ESCM & Associates, Inc.
Eddie Clements, Appalachia I District EQC
Administration Section

9-13-95

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Commissioner: Douglas E. Bryant

Board: John H. Burriss, Chairman
William M. Hull, Jr., MD, Vice Chairman
Roger Leaks, Jr., Secretary
Richard E. Jabbour, DDS
Cyndi C. Mosteller
Brian K. Smith
Rodney L. Grandy

Promoting Health, Protecting the Environment

SEP 13 1995

Mr. Neil Alexander
Crossroads Grocery
Rt. 2, Box 149
Westminster, SC 29693

RE: Crossroads Grocery
Site ID: #06742
Stream Analysis in Assessment Plan Addendum received March 8, 1994
Risk-Based Corrective Action for Petroleum Releases dated June 1995
Oconee County

Dear Mr. Alexander:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) is currently reviewing all sites with reported releases and classifying sites based on the Risk-Based Corrective Action (RBCA) Guidance. In the past, free product has been documented at the above referenced site and Chemicals of Concern (COC) in the stream approximately 1/2 mile behind the trailor home located on a dirt road off Hwy 24/59. To ensure correct site classification under RBCA, the Department requests a cost proposal be submitted for the following scope of work:

- Conduct an exposure assessment as outlined in the Standard Limited Assessment (enclosed).
- Sample for vapors in any exposure points, if identified, that would produce either an exposure or explosive hazard.
- Purge and sample all existing monitoring wells for BTEX and MTBE.
- Sample the stream for BTEX and MTBE and include information on the stream usage, population near stream and land usage.
- Measure ground-water elevations in all existing wells and document ground-water potentiometric surface.
- Report thickness of free product in any well(s).
- Free product recovery

Since all site specific information has been reported in the above referenced reports and methods for the scope of work are detailed in the Standard Limited Assessment, a separate plan is not required. **A signed cost proposal on SCDHEC forms should be submitted by September 29, 1995.**

Based on review of the submitted cost proposal, direct billing will be provided you or your consultant for implementation of the scope of work. It is anticipated that a report will be due 60 days after the letter providing technical and financial approval.

recycled paper

On all correspondence regarding this site, please reference the Site Identification Number 06742. If you have any questions or would like to submit additional information, please contact Joanne Cooper at (803) 734-5334.

Sincerely,

Technical Section
Underground Storage Tank Program

Joanne B. Cooper

Joanne B. Cooper, Hydrogeologist

David G. Bazze, Manager

JBC\06742cp.rk1

enc: Risk-Based Corrective Action For Petroleum Releases
Standard Limited Assessment

cc: Mirta Carpenter, ESCM & Associates, Inc.
Eddie Clements, Appalachia I District EQC
Administration Section

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Commissioner: Douglas E. Bryant

Board: Richard E. Jabbour, DDS, Chairman
Robert J. Stripling, Jr., Vice Chairman
Sandra J. Molander, Secretary

William E. Applegate, III,
John H. Burriss
Tony Graham, Jr., MD
John B. Pate, MD

Promoting Health, Protecting the Environment

4

Date: January 24, 1994

Mr. Neil Alexander
Crossroads Grocery
Rt. 2 Box 149
Westminister, SC 29693

Re: GWPD Site # 06742
Cost Proposal # 0806
Underground Storage Tank Release
Priority Ranking

Dear Mr. Alexander:

As most of you are aware, cleanup costs submitted to date have exceeded the SUPERB Account's ability to pay. In-house bills awaiting payment or under review exceed $8 million dollars.

The short term goals will be to eliminate old debt, to insure future revenues exceed expenditures, and to maintain the financial capability to address emergency situations. Actions taken to date towards this end include suspending access to direct billing on most sites. The SUPERB account has borrowed $5 million from other Departmental programs, and the program is currently processing some of the existing debt. Repayment to those programs must begin in January 1994 at $500,000 per month by the environmental impact fee. While this will quickly pay some of the existing debt, the available income to address the remaining debts or environmental problems will be significantly reduced for months to come. Therefore, the number of sites that may access direct billing must be further reduced.

The UST cleanup program will reserve most of the remaining monthly income to pay existing claims. We will attempt to maintain some cleanup activity utilizing direct billing at a few of the priority sites focusing on free product recovery and to address emergency situations.

Please note that site rehabilitation activities have been previously approved at this site via the direct billing method (per the referenced cost proposal number). Due to the relative ranking of this site, continued obligation of financial resources under direct billing is not possible at this time and approval for direct billing is hereby suspended. Please have your consultant finish the work as described in the January 4, 1994 correspondence and submitted the final invoice for this cost proposal in thirty days. SCDHEC will inform you when the status of your site warrants direct billing to be resumed.

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However, you may proceed at your own expense with implementing the approved technical plan of action and seek reimbursement from the SUPERB Account. Please note that reimbursement typically takes a much longer period of time to process and that SUPERB funds are dispersed for reimbursement only as long as funds are available. Reimbursement requests are processed by SCDHEC in chronological order of receipt.

If you have any further questions, please contact the SCDHEC project manager at 734-5331.

Sincerely,

David G. Baize, Manager
Ground Water Protection Division
Bureau of Drinking Water Protection

rta\opencp.stp

cc: Froehling & Robertson, Inc.
Attn: Jim Busher
1310 Lowndes Hill Rd.
Greenville, SC 29607
F&DM Section
App I District EQC

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Commissioner: Douglas E. Bryant

Board: Richard E. Jabbour, DDS, Chairman
Robert J. Stripling, Jr., Vice Chairman
Sandra J. Molander, Secretary
William E. Applegate, III,
John H. Burriss
Tony Graham, Jr., MD
John B. Pate, MD

Promoting Health, Protecting the Environment

1d -

January 4, 1994

Mr. Neil Alexander
Crossroads Grocery
Rt. 2 Box 149
Westminister, SC 29693

Re: Project Status
GWPD Site ID # 06742
Highways 24 & 59, Tokeena
Oconee County

Dear Mr. Alexander:

The Ground-Water Protection Division of the South Carolina Department of Health and Environmental Control has reviewed the available file data for the above referenced site. The letter to Froehling & Robertson(dated December 2, 1993) indicates that you no longer retain them as your consulting firm. At this time there is an ongoing cost proposal that was approved to perform the initial assessment. In order to close out this phase of work and the associated cost proposal, the following concerns need to be addressed:

1) the data collected during this assessment needs to be compiled into a report and submitted to this office on or before **January 31, 1994,**
2) monitoring wells MW-4 and MW-5 need to have the well casings extended to the top of the steel protective casings so that the locking well cap can be sealed and locked,
3) the stockpiled drill cuttings need to be properly covered with polyethylene or plastic until they can be disposed of,
4) there are several drums that are unlabeled that contain purge/waste water and/or free-product, these drums need to be label until disposal,
5) the passive free-product recovery canister(petrotrap) that was purchased for this site needs to be properly stored onsite until water/product levels in the wells allow recovery,
6) all invoices associated with this cost proposal need to be submitted so that we can finalize the cost proposal and pay the retainers.

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The EAP(submitted Froehling & Robertson) that was received September 24, 1993 and the amended November 4, 1993 cannot be approved for direct billing at this time as no additional cost proposals can be approved until funding becomes available. If you wish to have this plan implemented and seek reimbursement for costs incurred, please inform me in writing and the Department will process the appropriate approval forms as expeditiously as possible.

If you have any questions, please call me at (803) 734-5455.

Sincerely,

Todd Adams

Todd Adams, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

cc: Froehling & Robertson, Inc.
Attn: Jim Busher
1310 Lowndes Hill Rd.
Greenville, SC 29607

December 2, 1993

Jim:

I would like to thank you for the work your company has provided my store. However, I find it necessary at this time to change consulting firms on the problem that I face.

I feel this is in my best interest for all parties involved.

Thanks again for your help and advise.

Sincerely,

Neil Alexander

RECEIVED
DEC 06 1993
Groundwater Protection
Division

Mirta Armas Carpenter
Senior Geologist/Project Manager
(404) 546-1149
706

ESCM
CIVIL • ENVIRONMENTAL • PETROCHEMICAL
CONSULTING ENGINEERS

624 South Milledge • P.O. Box 7487 • Athens, GA 30604
394

Mark,

This is a copy of the letter I sent to F & R. It is short but to the point. I also sent one to Mirta at ESCM & Assoc.

Thanks,
Neil Alexander

SINCE
1881
FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

MAIN OFFICE AND LABORATORIES
P.O. BOX 27524, 3015 DUMBARTON RD.
RICHMOND, VIRGINIA 23261
PHONE (804) 264-2701 •

DB

TO:
Neil Alexander
P.O. Box 149 Rt 2
Westminster, S.C. 29693
ATTN:

DATE 9/21/93
F&R NO. T-65-197
REFERENCE Expanded Assessment

RECEIVED
SEP 24 1993
Groundwater Protection Division

GENTLEMEN:

WE ARE SENDING YOU ☐ ATTACHED ☐ UNDER SEPARATE COVER VIA _____ THE FOLLOWING ITEMS:

☐ ENGINEERING REPORTS ☐ PRINTS ☐ COPY OF LETTER
☐ TEST REPORTS ☐ PLANS ☐ SAMPLES
☐ OTHER _____

COPIES	DATE	NO	DESCRIPTION
		1	Invoice, Cost Proposal Preparation
		1	Report, Proposal
		1	Cost Proposal Work sheets

REMARKS Neil, Please sign at the paperclipped pages & Mail To The address on The Enclosed Envelope.
Call me if you have any questions

DISTRIBUTION

Jim Buschman
SIGNED

FORM NO. 1027

Carolyn:

Please mail to
Neil Alexander
Enclose a stamped
Envelope, Addressed
To DHEC,
Attn: Mark Berenbrock
Thanks JB

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Commissioner: Douglas E. Bryant

Board: Richard E. Jabbour, DDS, Chairman
Robert J. Stripling, Jr., Vice Chairman
Sandra J. Molander, Secretary

William E. Applegate, III,
John H. Burriss
Tony Graham, Jr., MD
John B. Pate, MD

Promoting Health, Protecting the Environment

October 13, 1993

Mr. Neil Alexander
Crossroads Grocery
Rt 2 Box 149
Westminister, SC 29693

Re: Crossroads Grocery
SC Highways 24 & 59, Tokeena, SC, Oconee County
GWPD Site ID #06742
Froehling & Robertson Expanded Assessment Plan dated September 13, 1993

Dear Mr. Alexander:

The Ground-Water Protection Division (GWPD) of the South carolina Department of Health and Environmental Control has reviewed the referenced submittal. The assessment plan cannot be approved for the following reasons:

1) Proposed construction and installation details for the deep well were not included;

2) The purpose of the deep well is to define the vertical extent of ground-water contamination. The predetermined 50 foot depth of the deep well, without technical justification, could conceivably allow placement of the well screen within the contaminated portion of the uppermost aquifer. The depth that the well screen is set should be determined by field conditions and/or measurements;

3) Worst case well analysis was not proposed;

4) The plan indicated that an NPDES application (for the discharge of treated ground water) would be completed as part of the Corrective Action Plan package since a POTW was not available to receive treated ground water. The use of Class VA Corrective Action Wells (for reinjection of treated ground water) should also be considered;

5) The use of a solid slug (for fluid displacement) for aquifer testing is preferred rather than the proposed injection of fluids. In addition, the proposed use of falling head slug tests only to determine aquifer characteristics is not technically justified. Data obtained from a falling head slug test (as opposed to a rising head test) is more likely to be influenced by

recycled paper

fluid drainage into the gravel pack of the well rather than the native formation;

6) Proposals to include information concerning the impacted water supply well were not included;

7) Proposals to include information concerning public water supply wells within a 1/2 mile radius and private water supply wells within a 1/4 mile radius were not included;

8) Proposals to include information concerning any surface discharge points (streams, seeps, etc) were not included;

9) The criteria for selecting soil samples for laboratory analysis is vague;

10) Proposals to include information concerning other potential sources of contamination were not included;

11) The S.C. Boards of Registration and Section 44-2-120 of the SUPERB Act require that all hydrogeological work and submittals that include geological interpretation be supervised/sealed by a S.C. certified Professional Geologist (PG) or Professional Engineer (PE) with training and/or experience in the geological discipline.

An assessment plan **prepared in accordance with Departmental criteria and guidance** is expected on or before December 3, 1993.

The invoices for EAP preparation have been returned to Froehling & Robertson.

During an October 6, 1993 site inspection, it was noted that monitoring wells located within the UST excavation were not locked nor grouted as required by SC Underground Storage Tank Control Regulations (SCUSTCR). Please note these deficiencies were discussed during a January 26, 1993 meeting with you at the site. Confirmation that the wells have been brought into compliance with SCUSTCR must be submitted to the GWPD on or before November 5, 1993.

If you have any questions or comments, feel free to call Mark Berenbrok at (803) 734-4664.

Sincerely,

David G. Baize, Manager
UST State Corrective Action Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

MKB.mkb
06742.11:TXT

Enclosures: UST Program Expanded Assessment Guidance Document

cc: Eddie Clements, Appalachia I District EQC

F&DM Section

Jim Buschur, Froehling & Robertson, 1310 Lowndes Hill Road, Greenville, SC 29607

MEMORANDUM

TO: File

FROM: Mark Berenbrok, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division

RE: Crossroads Grocery, Oconee County
Intersection of SC Highways 24 & 59
GWPD Site ID #06742

DATE: October 7, 1993

A site inspection was made at the referenced facility on 10-06-93. Present was Eddie Clements (Appalachia I District EQC) and the writer. Two above ground tanks (containing diesel and kerosene fuels) are located on the east side on the building. A pile of soil that had been covered was located behind the building. Lengths of nylon tubing and used disposable bailers were present on top of the pile. Five (MW-1, MW-2, MW-3, MW-4, MW-5) of six monitoring wells were inspected. The following observations were made:

1) MW-1, MW-1A, MW-2, and MW-3 are flush mount wells with bolt down covers. MW-4 and MW-5 are located within a metal housing;

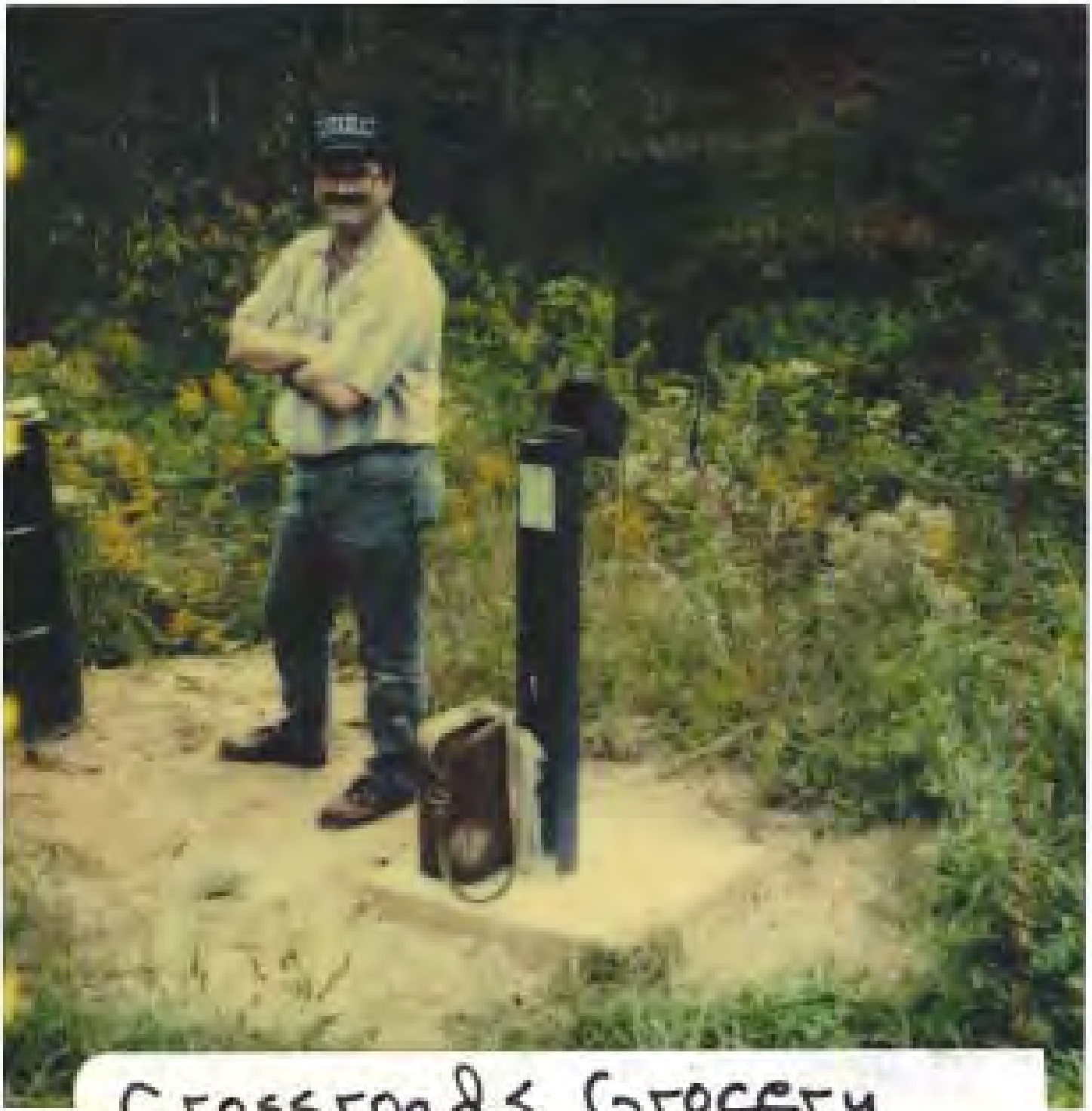
2) None of the inspected wells were equipped with a locking device;

3) Free product has been found in MW-1. During inspection, it was noted that the casing/screen was off-plumb to a such a degree that a passive filter canister in the well became wedged during withdrawal and could not be removed. A disposable bailer had been left in the well above the canister. This writer had to drop the bailer on top of the canister numerous times to make it become unstuck.

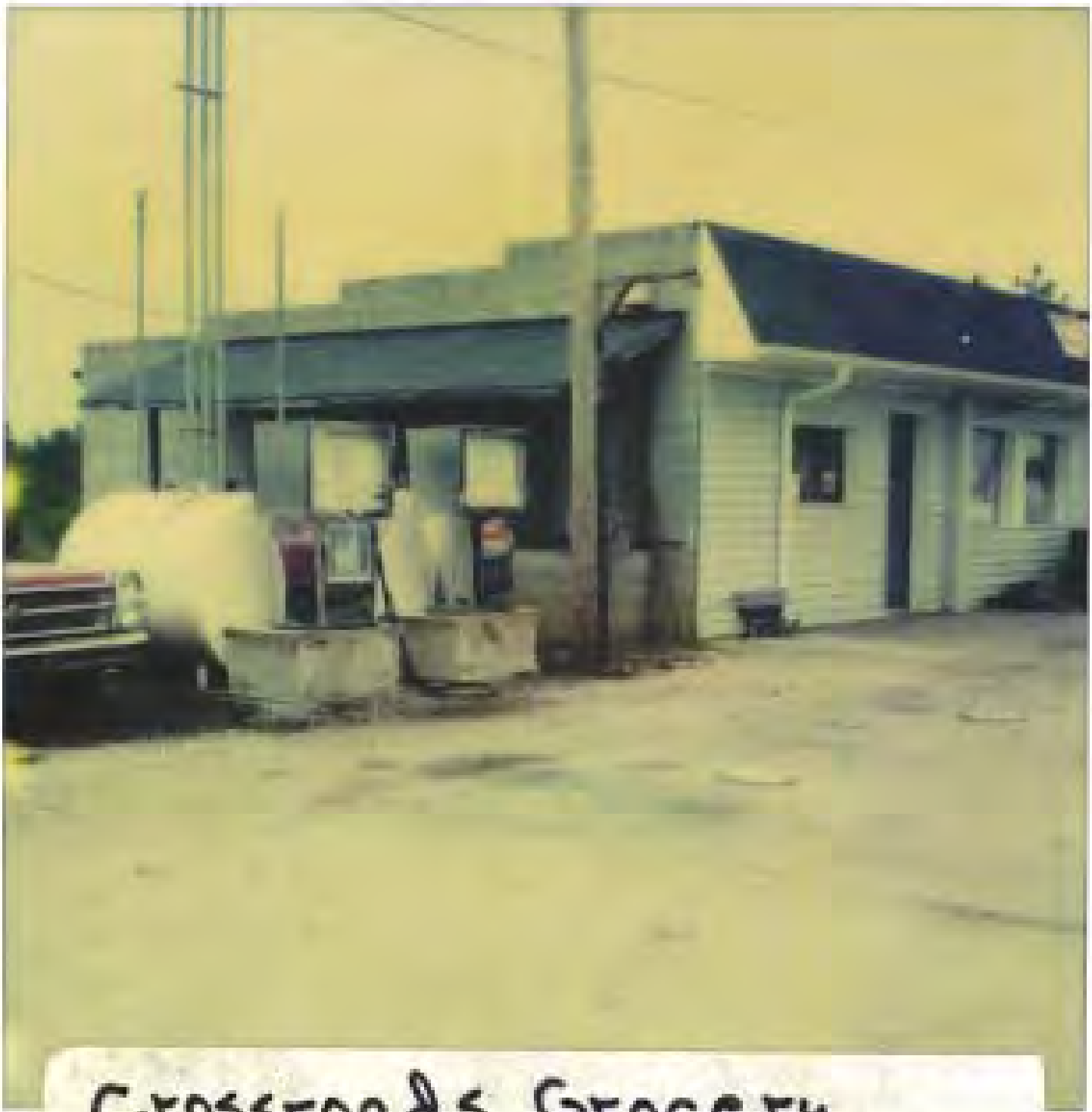
4) The top of the well casing in MW-4 is approximately 24 inches below the top of the metal housing. The top of casing in MW-5 is approximately level with the concrete pad surrounding the well.

The vapor monitoring wells within the UST excavation lack grouting.

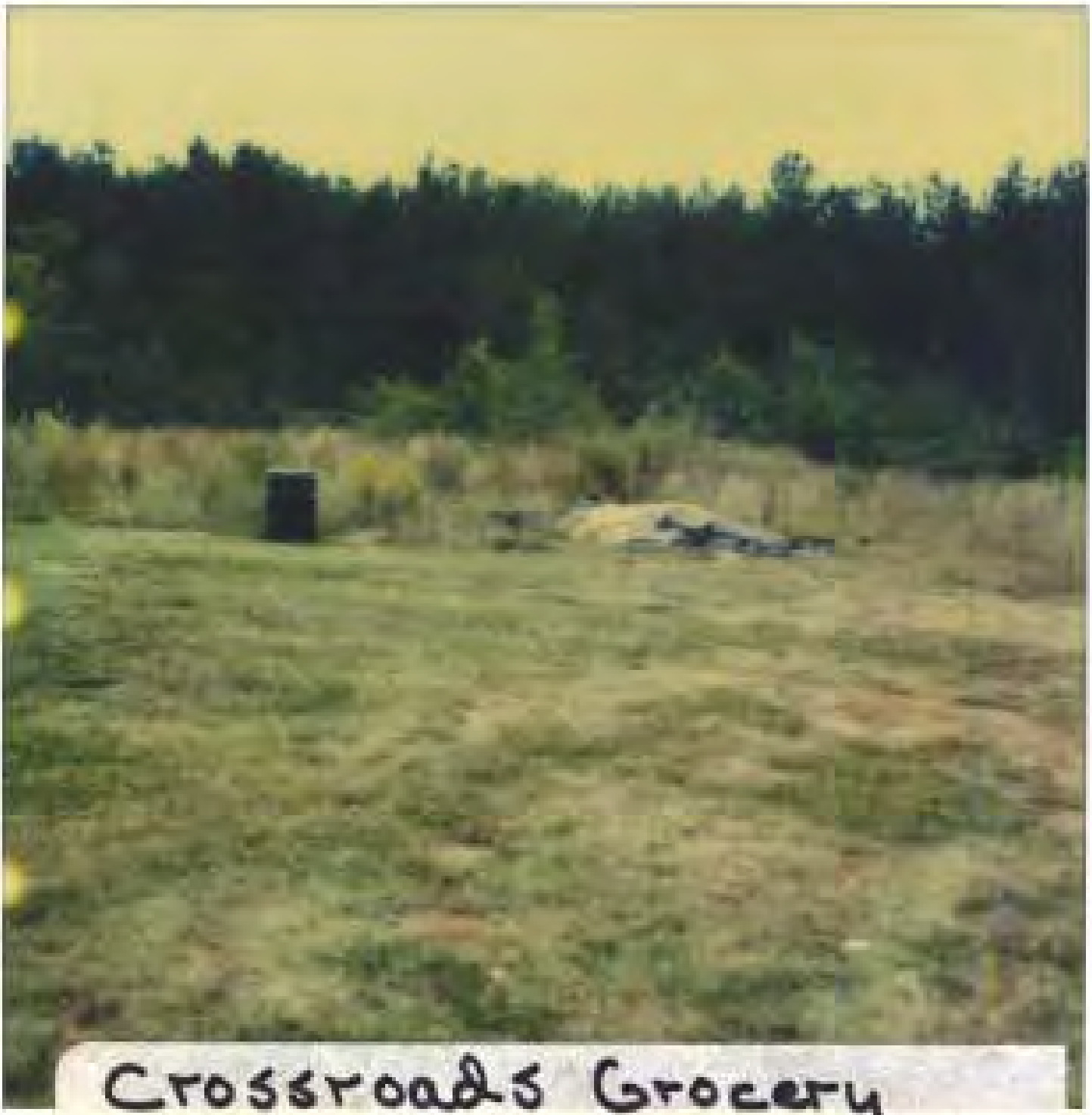
06742.09:TXT



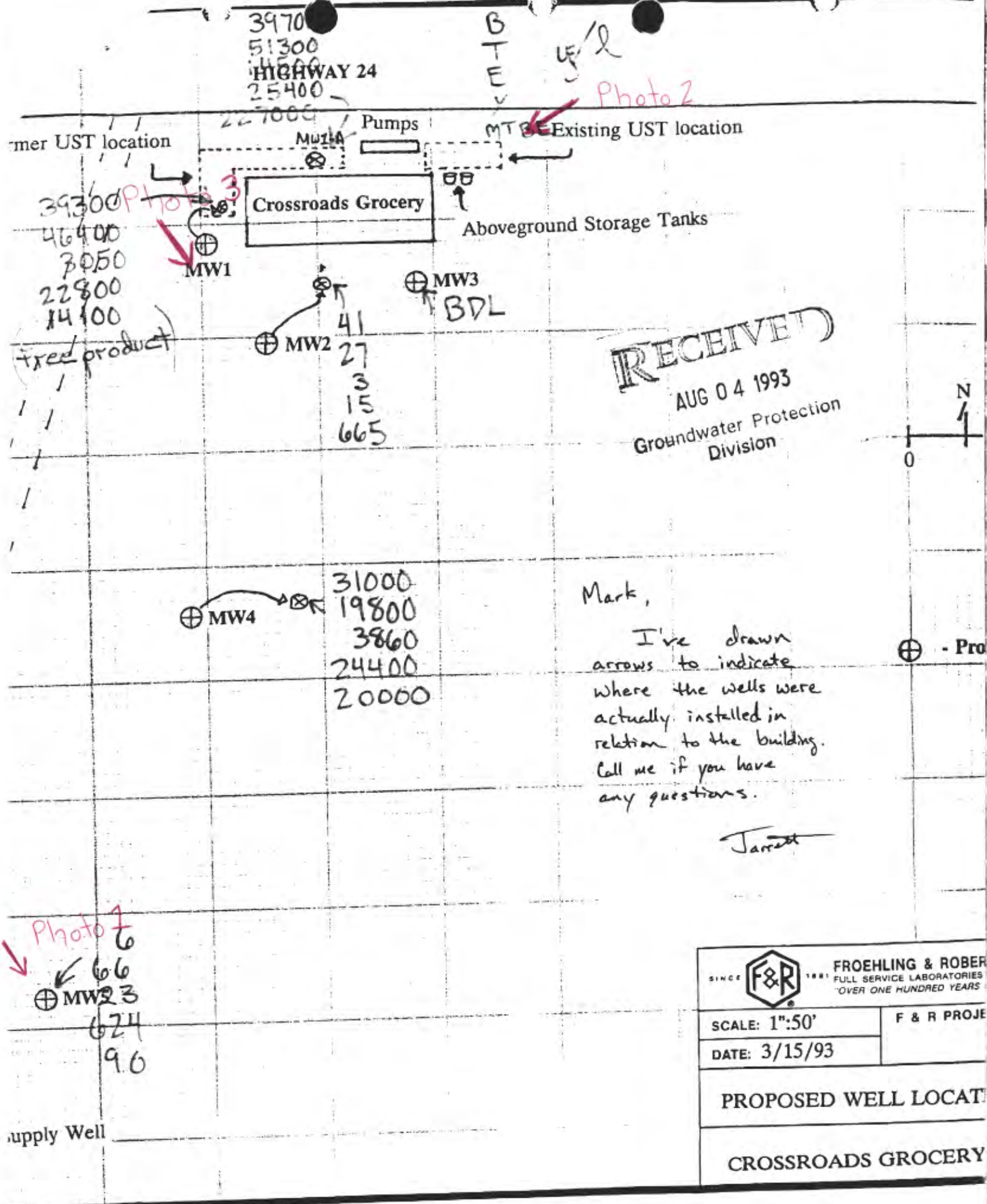
Crossroads Grocery
Oconee County, #060742
Photo 1, 10-06-93
MW-5



Crossroads Grocery
Oconee County, # 08742
Photo 2, 10-06-93
AGTs



Crossroads Grocery
Oconee County, #06742
Photo 3, 10-06-93
Soil Pile



Mark,

I've drawn arrows to indicate where the wells were actually installed in relation to the building. Call me if you have any questions.

Jarrett

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Commissioner: Douglas E. Bryant

Board: Richard E. Jabbour, DDS, Chairman
Robert J. Stripling, Jr., Vice Chairman
Sandra J. Molander, Secretary

William E. Applegate, III,
John H. Burriss
Tony Graham, Jr., MD
John B. Pate, MD

Promoting Health, Protecting the Environment

Date: OCT 01 1993

Mr. Neil Alexander
Route 2 Box 149
Westminister, SC 29693

Re: GWPD Site # N-37-NO-06742, Crossroads Grocery
Underground Storage Tank Release
Priority Ranking

Dear Mr. Alexander:

All releases from regulated underground storage tanks that have been reported to this Department have been prioritized using a ranking system that evaluates environmental and health related factors. The ranking system identifies those sites that represent the most serious threats where the Department should be allocating available SUPERB monies.

Currently, the referenced site ranks higher than many other sites (i.e., represents a significant environmental or health threat). Please note that site rehabilitation activities already initiated under the direct billing method should be completed in an expeditious manner.

If you have any further questions, please contact Mr. David Baize or Mr. Chris Doll at 734-5331.

Sincerely,

Stanley L. Clark

Stanley L. Clark, P.G., Director
Ground-Water Protection Division
Bureau of Drinking Water Protection

MKB/mkb
06742:TXT

cc: Froehling & Robertson

Eddie Clements, Appalachia I District EQC

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South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Commissioner: Douglas E. Bryant

Board: Richard E. Jabbour, DDS, Chairman
Robert J. Stripling, Jr., Vice Chairman
Sandra J. Molander, Secretary

William E. Applegate, III,
John H. Burriss
Tony Graham, Jr., MD
John B. Pate, MD

Promoting Health, Protecting the Environment

September 22, 1993

Mr. Neil Alexander
Crossroads Grocery
Rt 2 Box 149
Westminister, SC 29693

Re: Crossroads Grocery
SC Highways 24 & 59, Tokeena, SC, Oconee County
GWPD Site ID #06742

Dear Mr. Alexander:

The Ground-Water Protection Division (GWPD) of the South Carolina Department of Health and Environmental Control (SCDHEC) has spoken with your consultant, Froehling & Robertson, concerning the referenced facility. Free product (in MW-1) has been confirmed at levels that require rehabilitation. This letter addresses the following topics: Free Product Recovery, Expanded Assessment Plan, SUPERB Payment of the Expanded Assessment Plan, and Enforcement.

Free Product Recovery

In accordance with Section 280.64 of the SCUSTCR, free product removal to the maximum extent as practicable and in a manner that minimizes the spread of contamination must continue.

Expanded Assessment Plan

The extent and severity of soil and ground water-contamination at this site must be investigated pursuant to Section 280.65 of the SCUSTCR. Your consultant was informed that the assessment report requested in the Department's April 21, 1993 letter should be incorporated into the assessment report requested below. An Expanded Assessment Plan (EAP) that includes specifications for the complete site assessment (e.g. a sufficient number of well locations, water quality evaluation, aquifer property evaluations), such that a complete Corrective Action Plan can be prepared, must be submitted. Please read the enclosed Assessment Guidance for a complete explanation.

SUPERB Payment of the EAP

The requested EAP (2 copies) must be submitted on or before **October 29, 1993.** If the Assessment Plan is to be implemented under a Cost Proposal from the Contractor, the Cost Proposal must be submitted with the EAP. If a Cost Proposal is not submitted with the plan, cost for EAP implementation can be recovered through

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reimbursement or Direct Contractor Payment. The cost associated with preparation and submittal of the EAP may be recovered through Direct Contractor Payment or reimbursement.

On all future correspondence related to this site, please reference GWPD Site ID 06742. If you have any questions or comments, feel free to call at (803) 734-4664.

Sincerely,

Mark Berenbrok, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

MKB/mkb
06742.08:TXT

Enclosures: EAP Guidance

cc: Eddie Clements, Appalachia I District EQC

F&DM Section

Jim Buschur
Froehling & Robertson
1310 Lowndes Hill Road
Greenville, SC 29607

MEMORANDUM

TO: File

FROM: Mark Berenbrok, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division

RE: Crossroads Grocery, Oconee County
GWPD Site #06742

DATE: September 1, 1993

Per Jim Buscher of F&R, free product in MW-1 has increased in thickness to about two feet. Recovery is continuing. Jarrett Rice subsequently informed me that the liquid depth in the well is insufficient for the filter canister (for passive free product recovery) to work. They'll keep it available in the expectation that water levels should rise in the near future.

Froehling & Robertson ~~was~~ instructed to develop an EAP for the site & delay submittal of AR due 8-18-93. The AR should be incorporated into the EAR.

SINCE -
1881

FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

RECEIVED
AUG 04 1993
Groundwater Protection Division

FACSIMILE TRANSMISSION

DATE: 4 August 1993

Please deliver the following page(s) to:

NAME: Mark Berenbrock - Groundwater Protection

These pages transmitted from:

NAME: Jarrett Rice

TOTAL PAGES TRANSMITTED 4 (Including cover sheet)

MODE OF TRANSMISSION _____

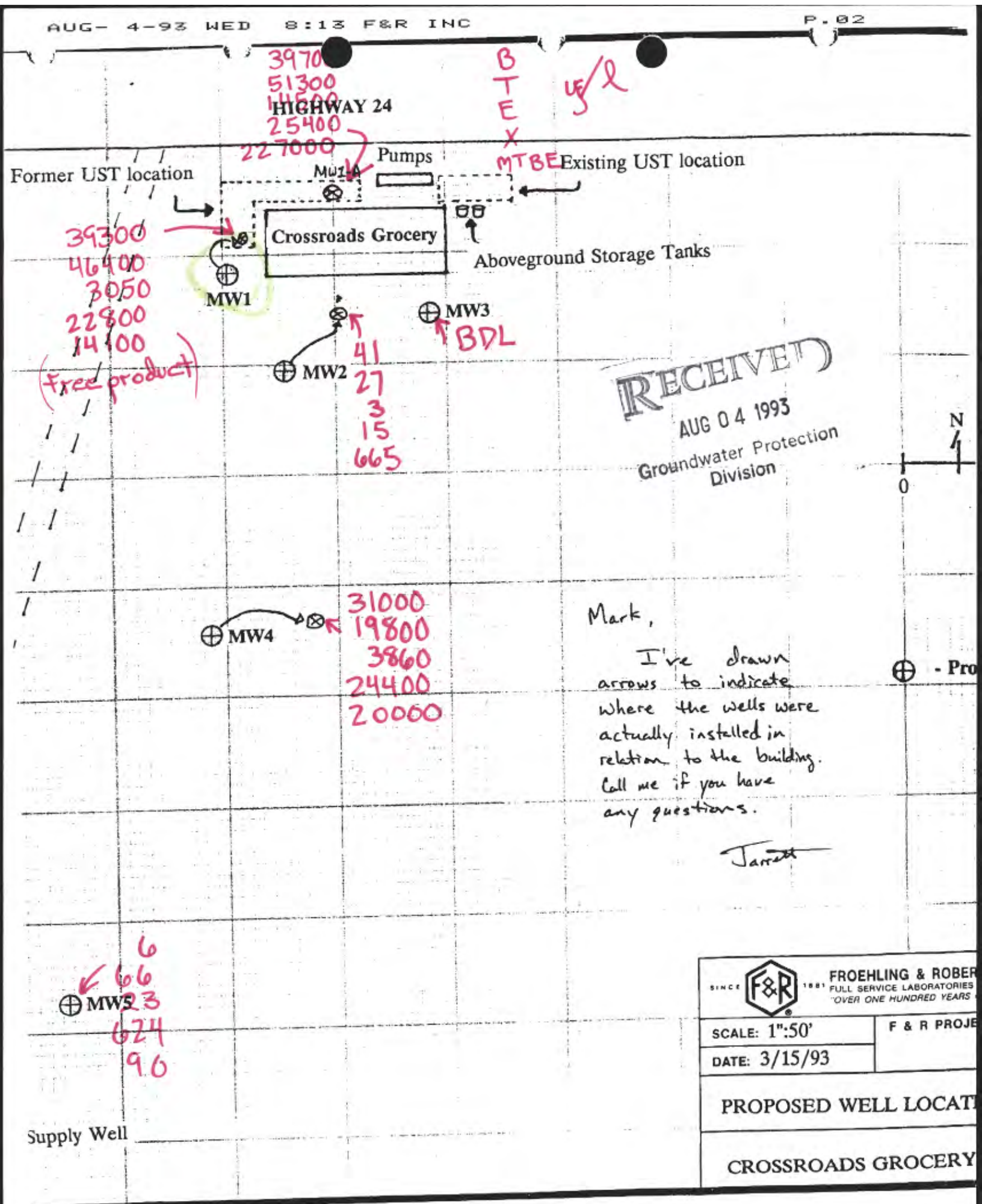
SPECIAL INSTRUCTIONS : Call if you need anything else.

JR

If you do not receive all the pages specified, please call:

Office Phone Number: 803-271-2840

F&R, Inc. Facsimile Number: 803-271-8124


3970
51300
14500
HIGHWAY 24
25400
227000
BTEX
MTBE
ug/l
Former UST location
MW1-A
Pumps
Existing UST location
Crossroads Grocery
Aboveground Storage Tanks
39300
46400
3050
22800
14400
(free product)
MW1
MW2
41
27
3
15
665
MW3
BDL
RECEIVED
AUG 04 1993
Groundwater Protection Division
N
0
31000
19800
3860
24400
20000
MW4
Mark,
I've drawn arrows to indicate where the wells were actually installed in relation to the building. Call me if you have any questions.
Jarrett
- Pro
6
66
23
624
96
MW5
Supply Well
SINCE 1881 F&R FROEHLING & ROBER
FULL SERVICE LABORATORIES
OVER ONE HUNDRED YEARS
SCALE: 1":50'
DATE: 3/15/93
F & R PROJE
PROPOSED WELL LOCATI
CROSSROADS GROCERY

HYDROLOGIC, INC.

HYDROLOGIC COLUMBIA
Sample Data Report
SC Certification No. 40101

Date : 8/2/93
Project : Crossroads Grocery T-65-197
Client : Froehling & Robertson
Date Collected : 7/20-21/93
Date Received : 7/23/93
Date Analyzed : 7/27-29/93
Date Reported : 8/2/93

Sample ID	Client ID	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE	Naphth
93-5230	MW1-A	39700	51300	14500	25400	227000	1450
93-5231	MW-1	39300	46400	3050	22800	14100	1360
93-5232	MW-2	41.4	27.8	3.71	15.8	665	<10
93-5233	MW-3	<2.5	<2.5	<2.5	<7.5	<50	<10
93-5234	MW-4	31000	19800	3860	24400	20000	1190
93-5235	MW-5	6.49	66.0	23.7	624	90.6	99.0

BTEX Units = ug/L (parts per billion) water by M602
MTBE Units = ug/L (parts per billion) water by Mod.602
Naphthalene Units = ug/L (parts per billion) water by Mod.602

Data Approved for Release:

Joy G. Clark

Joy G. Clark
Lab Manager

HydroLogic Inc.
1100 Ashland Park Lane, Suite E • Columbia, SC 29210
800-476-0913
803-750-0913
FAX 803-750-9505

HydroLogic - Columbia, South Carolina

CHAIN OF CUSTODY RECORD

PAGE ___ OF ___

SAMPLE ANALYSIS REQUIRED

CLIENT: Freehling & Robertson

SAMPLER(S) SIGNATURE:

PRESERVATION (CODE)

CODE: A = NONE
B = H_2SO_4
C = NaOH
D = HNO_3
E = _____

LAB USE ONLY

SAMPLE ID (LOCATION)	DATE	TIME	WELL	SOLID	COMP	GRAB	# OF CONTAINERS	INORGANIC-SPECIFY	NUTRIENT-SPECIFY	METALS-SPECIFY	VOC-602	VOC-BTEX	VOC-601	TPH-SPECIFY	B/N-EXTRACTABLES	ACIDS-EXTRACTABLES	PESTICIDES	HERBICIDES	PCB-S	TOTAL PHENOL	COLIFORM-SPECIFY	TOXICITY-SPECIFY	CYANIDE	PROGRAM SC	REMARKS	LAB I.D
MW1-A	7/20	PM	X																						Crossroads Grocery T-65-197 BTEX, MTBE, Naphthalene	93-523
MW1	7/20	PM	X																							93-523
MW2	7/20	PM	X																							93-523
MW3	7/20	PM	X																							93-523
MW4	7/21	PM	X																							93-523
MW5	7/21	PM	X																							93-523

RELINQUISHED BY: (Sig.)	DATE/TIME	RECEIVED BY: (Sig)	RELINQUISHED BY: (Sig)	DATE/TIME	RECEIVED BY: (Sig.)
[signature]	7/22/93 4:00P	LPS			
RELINQUISHED BY: (Sig.)	DATE/TIME	RECEIVED BY: (Sig)	RELINQUISHED BY: (Sig)	DATE/TIME	RECEIVED BY: (Sig)
LAB RECEIPT BY: (Sig.) Alyson P. Cockrell	DATE/TIME 7/23 10:15	REMARKS:			

003/003
HYDROLOGIC, COLA
803 750 9505
08/02/93 16:48
AUG- 4-93 WED 8:14 F&R INC
P.04

MEMORANDUM

TO: File

FROM: Mark Berenbrok, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division

RE: Crossroads Grocery, Oconee County
GWPD Site #06742

DATE: July 26, 1993

Per Jarrett Rice of F&R, free product was found at the referenced facility during the initial round of sampling last week. Approximately 5 inches of product was found in MW-1 on 7-19 and another 5 inches on 7-21-93. All free product is removed after three bails. I asked that he schedule another visit this week so we can get some sort of information on FP recharge.

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Interim Commissioner: Thomas E. Brown, Jr.

Board: John H. Burriss, Chairman
Richard E. Jabbour, DDS, Vice Chairman
Robert J. Stripling, Jr. Secretary
William E. Applegate, III,
Toney Graham, Jr., MD
Sandra J. Molander
John B. Pate, MD

Promoting Health, Protecting the Environment

MW24 by pump island

May 26, 1993

Mr. Neil Alexander
Crossroads Grocery
Rt 2 Box 149
Westminister, SC 29693

Re: Crossroads Grocery
SC Highways 24 & 59, Tokeena, SC, Oconee County
GWPD Site ID #06742

Dear Mr. Alexander:

Please find enclosed the inventory records you submitted earlier this year. Please note that since it appears you are using inventory control with tightness testing as your primary means for release detection for your tanks, that records must be reconciled monthly in accordance with Section 280.43(a) of the South Carolina Underground Storage Tank Control Regulations. In addition, the UST system must be tightness tested every five years. This method of release detection can only be used until December 1998 or until ten years after the tanks have been installed. Also enclosed is information concerning release detection for UST systems.

If you have any questions or comments, feel free to call at (803) 734-4664.

Sincerely,

Mark Berenbrok, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

MKB/mkb
06742.07:TXT

Enclosures: SCUSTCR
Leak Lookout

cc: Eddie Clements, Appalachia I District EQC

recycled paper

South Carolina DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Interim Commissioner: Thomas E. Bro[redacted]

Board: John H. Burriss, Chairman
Richard E. Jabbour, DDS, Vice Chairman
Robert J. Stripling, Jr. Secretary

Promoting Health, Protecting the Environment

William E. Applegate, III,
Toney Graham, Jr., MD
Sandra J. Molander
John B. Pate, MD

7d

April 21, 1993

Mr. Neil Alexander
Crossroads Grocery
Rt 2 Box 149
Westminister, SC 29693

Re: Crossroads Grocery
SC Highways 24 & 59, Tokeena, SC, Oconee County
GWPD Site ID #06742
Froehling & Robertson Assessment Plan and Associated Cost Proposal dated March 11, 1993

Dear Mr. Alexander:

The Ground-Water Protection Division of the South Carolina Department of Health and Environmental Control has reviewed the referenced submittal. The assessment plan has been approved with the following comments:

1) Unless a monitoring well is installed in the **immediate vicinity** of the former UST excavation or dispenser island, this office does not recommend that soil samples be retained for laboratory analysis unless field conditions warrant otherwise. The collection of ground-water samples will serve the purpose to assess the extent of contamination;

2) MTBE analysis for soil samples is not required. TPH analysis for water samples is not required;

3) Purge/developmental waters and soil cuttings should be secured and disposed of in accordance with SCDHEC guidance;

4) As discussed in the Department's January 20, 1993 letter and our March 19 conversation, a site assessment was not performed during the closure of the UST system that was removed from the ground in June 1990. The submitted assessment plan should be adequate to determine **if groundwater** has been impacted by a release from the former UST system. However, the assessment of the former UST excavation and dispenser island must be performed. As discussed with James Buschur, three to four soil borings drilled to a depth of 12 feet should be adequate to assess the former UST area. Worst case soil samples should be analyzed for BTEX and TPH (high and low fractions). If significant contamination is found, at least one of the borings should be completed as a

recycled paper

monitoring well. If this occurs, the Department will pay for the installation and sampling of the well minus the cost of the soil boring and associated samples. Please note that any costs associated with installation, sampling, or interpretation of data obtained from the soil borings should not be billed to the SUPERB account.

The associated cost proposal will be kept on file so that direct billing can begin. Any rates and/or other criteria included therein may have been adjusted on the cost proposal to insure compliance with current SUPERB program criteria per Section 44-2-20(2). Please reference CP #0806 on all pertinent invoices and correspondence. A copy of the SCDHEC's cost proposal spreadsheet that reflects adjustments to items not meeting established criteria is enclosed. **Items in the Cost Proposal not appearing on the enclosed spreadsheet have been deemed inappropriate by the SCDHEC and should not be billed to the SCDHEC.** If additional justification is provided, the SCDHEC may allow those previously deleted items to be paid by direct contractor payment. All invoices will be processed as expeditiously as possible as long as SUPERB funds are available. In accordance with the implementation schedule provided in the plan, the assessment report shall be submitted on or July 2, 1993.

As a payee, you must retain all pertinent technical and financial documents related to this site in accordance with Section 44-2-130 of the SUPERB statute. A detailed audit of work performed will be conducted at a later date and will be subject to review under the current criteria. If it is determined that inappropriate payments were made, SCDHEC will seek cost recovery.

All laboratories utilized must be certified in the state of South Carolina for volatile organic analyses in accordance with R.61-81. All monitoring wells and piezometers, whether temporary or permanent, must be installed by or under the **direct** supervision of a S.C. certified well driller as required by Section 40-23-10 of the 1976 SC Code of Laws. All hydrogeological work and submittals that include geological interpretation are required by the S.C. Boards of Registration and by Section 44-2-120 of the SUPERB Act to be supervised/sealed by a S.C. certified Professional Geologist (PG) or Professional Engineer (PE) with training and/or experience in the geological discipline.

The assessment must be: 1) conducted by or under the supervision of appropriately certified SC registered professional(s), 2) conducted by a contractor with the necessary bonding or insurance (unless #1 above is satisfied), 3) conducted in accordance with accepted industry standards, 4) technically justified, 5) completed in a cost effective manner that adequately

protects human health and the environment, and 6) conducted in compliance with all SUPERB criteria for direct billing or reimbursement.

The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified. The SCDHEC will only pay rates in accordance with established criteria. Further, the SCDHEC reserves the right to question and/or reject costs if deemed unreasonable. The SCDHEC reserves the right to audit project records at any time during the project or after completion of the work. Also, the SCDHEC will seek cost recovery where appropriate. This notice to proceed with the work plan does not, in any way, acknowledge SCDHEC concurrence that all the elements contained therein will be necessary at this site.

If the above criteria are not followed, the SCDHEC reserves the right to initiate one or more of the following actions as appropriate; 1) Refer the contractor to the Boards of Registration for Professional Geologists and Engineers, 2) seek cost recovery in accordance with Section 44-2-50 of the SUPERB Act, and/or 3) prohibit future participation in the SUPERB program by the contractor in accordance with Section 44-2-120 of the SUPERB Act.

If you have any questions or comments, feel free to call at (803) 734-4664.

Sincerely,

Mark Berenbrok, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

MKB/mkb
06742.05:TXT

Enclosures: Monitoring Well Approval Form
Cost Proposal Spreadsheet

cc: Eddie Clements, Appalachia I District EQC

F&DM Section

James Buschur, Froehling & Robertson

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Interim Commissioner: Thomas E. Brown, Jr.

Board: John H. Burriss, Chairman
Richard E. Jabbour, DDS, Vice Chairman
Robert J. Stripling, Jr. Secretary

William E. Applegate, III,
Toney Graham, Jr., MD
Sandra J. Molander
John B. Pate, MD

Promoting Health, Protecting the Environment

1d

Monitoring Well Approval

Approval is hereby granted to: Froehling & Robertson
1310 Lowndes Hill Road
Greenville, SC 29607
Attn: Jim Buschur

RE: Crossroads Grocery
SC Highways 24 & 59, Tokeena, SC, Oconee County
GWPD Site ID #06742

for the construction of monitoring wells designated MW-1 through MW-5 in accordance with the construction plans and specifications dated March 11, 1993. These wells will be constructed to the approximate depth of 30 feet below the surface and screened in the uppermost aquifer for the purpose of monitoring for the presence of hydrocarbon contamination.

Conditions: That the latitude and longitude, actual construction details, and all analytical data be submitted with the required report. That the detection of any free product or dissolved hydrocarbon constituents be reported to the Department in accordance with R.61-92, Part 280.50(a) of the South Carolina Underground Storage Tank Control Regulations. That the district hydrogeologist (Eddie Clements, 260-5677) must be notified at least 48 hours prior to well installation.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71.

Date of Issue: April 29, 1993

For

David G. Baize, Manager
UST State Corrective Action Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

MKB/mkb
04299351.12

cc: Eddie Clements, Appalachia I District EQC

Neil Alexander, Crossroads Grocery

recycled paper

Dear Mark,

after talking with Lindsay Oil Co. on Monday, April 19, there is no environmental insurance carried at Crossroads Grocery, 8050 W. Oak Hwy, Westminster, S.C.

Sincerely,

R Neil Alexander

RECEIVED
APR 21 1993
Groundwater Protection
Division

SINCE
1881
FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

MAIN OFFICE AND LABORATORIES
P.O. BOX 27524, 3015 DUMBARTON RD.
RICHMOND, VIRGINIA 23261
PHONE (804) 264-2701 •

TO:
Mr. Neil Alexander
8050 West Oak Highway
Westminster, S.C. 29693
ATTN:

DATE
3/15/93
F&R NO.
T-65-197
REFERENCE
Assessment Proposal
Crossroads Grocery

GENTLEMEN:

WE ARE SENDING YOU ☒ ATTACHED ☐ UNDER SEPARATE COVER VIA _____ THE FOLLOWING ITEMS:

☐ ENGINEERING REPORTS ☐ PRINTS ☐ COPY OF LETTER
☐ TEST REPORTS ☐ PLANS ☐ SAMPLES
☐ OTHER SUPERB

COPIES	DATE	NO.	DESCRIPTION
		1	Original, Application & Cost Proposal

RECEIVED
MAR 18 1993
Groundwater Division

REMARKS Neil: Please sign, date, etc on the paperclipped page. Send all of the package to:

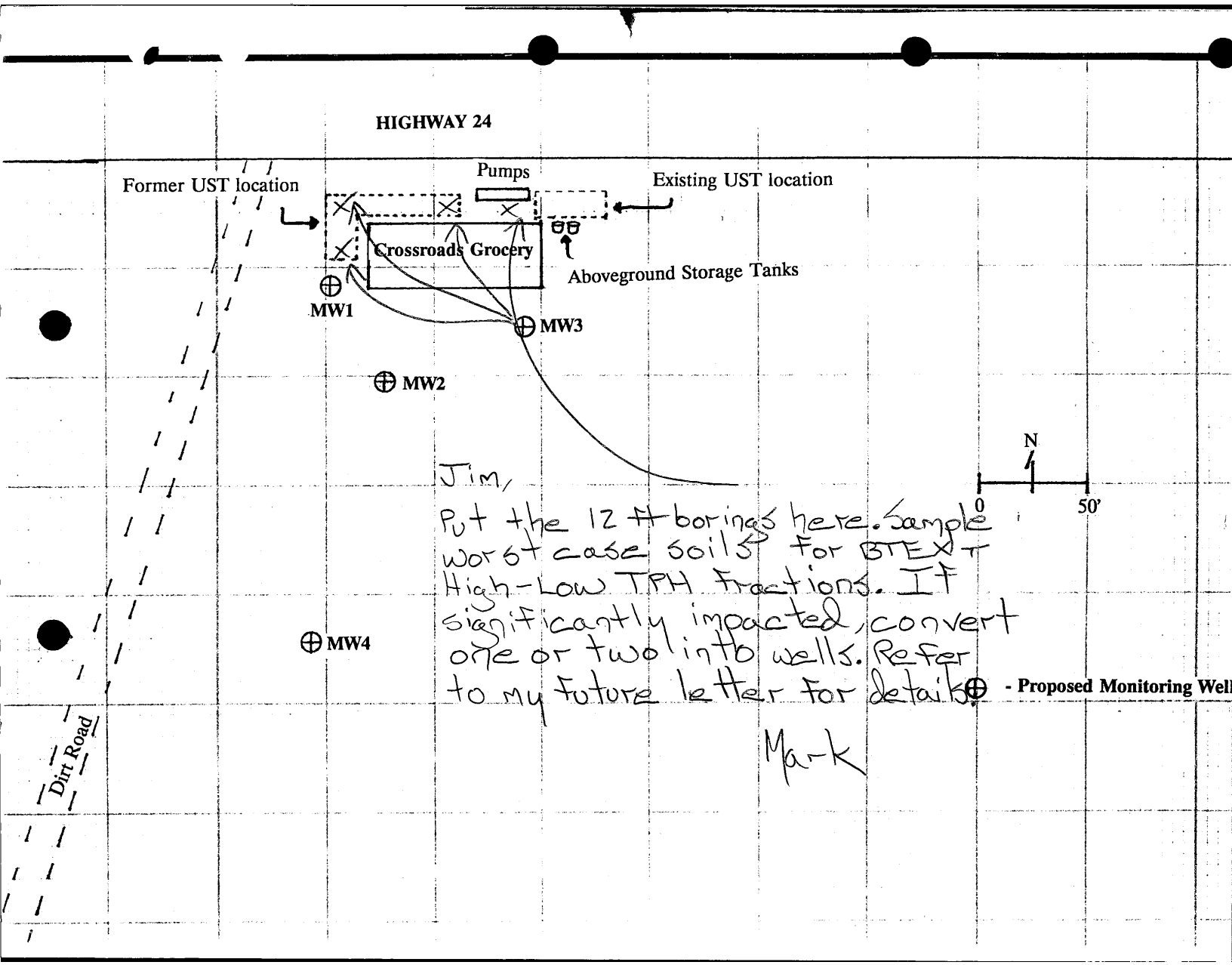
SCDHEC
Groundwater Protection Division
2600 Bull St.
Columbia, S.C. 29201

Call me if you have questions
803-271-2840

DISTRIBUTION

Jim Bruchin
SIGNED

FORM NO. 1027


HIGHWAY 24
Former UST location
Pumps
Existing UST location
Crossroads Grocery
Aboveground Storage Tanks
MW1
MW2
MW3
MW4
Dirt Road
N
0
50'
Jim,
Put the 12 ft borings here. Sample worst case soils for BTEX + High-Low TPH fractions. If significantly impacted, convert one or two into wells. Refer to my future letter for details.
Mark
- Proposed Monitoring Well

RECEIVED
FEB 16 1993
Groundwater Protection
Division

INVOICE #be000048 TEST DATE: 02/12/93

ENVIRONMENTAL LABORATORIES, INC.
2121 ROE FORD RD.
GREENVILLE, S.C. 29609
(803) 246 6616

TANK STATUS EVALUATION REPORT

***** CUSTOMER DATA *****

CROSSROADS GROCERY
8050 WEST OAK HWY

WESTMINSTER, S.C.

CONTACT: NEAL ALEXANDER
PHONE #:

***** SITE DATA *****

CROSSROADS GROCERY
8050 WEST OAK HWY

WESTMINSTER, S.C.

CONTACT: NEAL ALEXANDER
PHONE #:

***** COMMENT LINES *****

CURRENT EPA STANDARDS DICTATE
THAT FOR UNDERGROUND FUEL TANKS, THE MAXIMUM ALLOWABLE LEAK/GAIN RATE
OVER THE PERIOD OF ONE HOUR IS .05 GALLONS.

TANK #1: SUPER UNLEADED TYPE: STEEL RATE: .014820 G.P.H. GAIN
TANK IS TIGHT.

TANK #2: PLUS UNLEADED TYPE: STEEL RATE: .015720 G.P.H. GAIN
TANK IS TIGHT.

TANK #3: REG UNLEADED TYPE: STEEL RATE: .032600 G.P.H. GAIN
TANK IS TIGHT.

OPERATOR: Tom Hunt SIGNATURE: Tom Hunt DATE: 2-12-93

******* T A N K D A T A ********

	TANK NO. 1	TANK NO. 2	TANK NO. 3	TANK NO. 4
TANK DIAMETER (IN)	96	96	96	
LENGTH (FT)	15.96	15.96	21.28	
VOLUME (GAL)	6000	6000	8000	
TYPE	ST	ST	ST	
FUEL LEVEL (IN)	80	79	80	
FUEL TYPE	SUP UNLD	PLS UNLD	REG UNLD	
dVOL/dy (GAL/IN)	59.31	60.75	79.08	

CALIBRATION ROD	DISTANCE
1	10.65625
2	26.95313
3	41.93750
4	56.93750
5	74.93750

******* C U S T O M E R D A T A ********

JOB NUMBER	: 000048
CUSTOMER (COMPANY NAME)	: CROSSROADS GROCERY
CUSTOMER CONTACT(LAST, FIRST)	: NEAL ALEXANDER
ADDRESS - LINE 1	: 8050 WEST OAK HWY
ADDRESS - LINE 2	:
CITY, STATE	: WESTMINSTER, S.C.
ZIP CODE (XXXXX-XXXX)	:
PHONE NUMBER (XXX)XXX-XXXX	:

******* C O M M E N T L I N E S *******

******* S I T E D A T A ********

SITE NAME (COMPANY NAME)	: CROSSROADS GROCERY
SITE CONTACT(LAST, FIRST)	: NEAL ALEXANDER
ADDRESS - LINE 1	: 8050 WEST OAK HWY
ADDRESS - LINE 2	:
CITY, STATE	: WESTMINSTER, S.C.
ZIP CODE (XXXXX-XXXX)	:
PHONE NUMBER (XXX)XXX-XXXX	:
GROUND WATER LEVEL (FT)	: 0
NUMBER OF TANKS	: 3
LENGTH OF PRE-TEST (MIN)	: 30
LENGTH OF TEST (MIN)	: 240

MEMORANDUM

TO: File

FROM: Mark Berenbrok, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division

RE: Crossroads Grocery
Highways 24 & 59, Tokeena, SC, Oconee County
GWPD Site ID #06742 & 12765

DATE: January 27, 1993

A site inspection was made at the referenced facility on 1-26-93. Present was Neil Alexander and the writer. Mr Alexander had received the Dept's letter concerning the site assessment and tightness testing. Arrangements had been made to have the system tested. Although he stated that soil samples had been taken when the old system was closed, the tank installer had recently informed him that an assessment was not conducted when the old tanks were closed in 1990 since it wasn't required. I informed him this was incorrect and that any assessment information must be submitted immediately. The requirements for the assessment plan were discussed.

Three observation wells were located in the tank excavation. None of the wells were locked or grouted. Release detection requirements were discussed and Mr Alexander was informed that the wells must be grouted and secured.

06742.4

1-28-93
Ms Stephens said water hook up done yesterday

MEMORANDUM

TO: File

FROM: Mark Berenbrok, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division

RE: Stephens Well Contamination/Crossroads Grocery
Highways 24 & 59, Tokeena, SC, Oconee County
GWPD Site ID #06742 & 12765

Estimates for Water Tie-in

DATE: January 21, 1993

Pioneer Water Company services the area. The fee for the tie-in is $475.00 ($425 for installation and hook-up, $50 for membership fee)

Two of the nine plumbers contacted gave estimates for running the water line as follows:

- Gary Deaton, 882-7470, estimate = $730.00 for installation (24 inches deep), approximately 550 feet of 1 inch schedule 40 PVC pipe, PR valve, cut-off valve, and box;

- David Cook, 647-9538, estimate = $802.50 for installation (24 inches deep), approximately 521 feet of 1 inch schedule 40 PVC pipe, PR valve, cut-off valve, and box;

Both said it would take about one day for installation. It was decided to award the installation of the line to Mr. Deaton.

Purchase order #W1250 was established for $730.00 for Gary Deaton. Purchase order #W1251 was established for $500.00 for Pioneer Water Company.

06742.3:TXT

1-28-93
Ms Stephens said work was completed yesterday

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
ANALYTICAL SERVICES DIVISION LABORATORY REPORT

SAMPLE NUMBER : 0112930194
CHARGE NUMBER : LUS
COLLECTED BY : M DRAKE
COUNTY :
SAMPLE DESCRIPTION : PRIVATE WELL,TOKEENA CRS STATION CODE :
SAMPLE TYPE :

THURSDAY JANUARY 21ST, 1993
RELEASE DATE : 01/19/93 14:14:14
DT COLLECTED : 01/11/93 11:00:00
SAMPLE MEDIUM : WATER

corrected copy

ANALYSIS	STORET	RESULT
ACENAPHTHENE UG/L	34205	<4.0
ACENAPHTHYLENE UG/L	34200	<4.0
ANTHRACENE UG/L	34220	<4.0
BENZO(A)ANTHRACENE UG/L	34526	<4.0
BENZO(B)FLUORANTHENE UG/L	34230	<4.0
BENZO(K)FLUORANTHENE UG/L	34242	<4.0
BENZO(A)PYRENE UG/L	34247	<4.0
BENZO(GHI)PERYLENE UG/L	34521	<4.0
BUTYLBENZYL PHTHALATE UG/L	34292	<4.0
BIS(2-CHLOROETHYL)ETHER UG/L	34273	<4.0
BIS(2-CHLOROETHOXY)METHANE UG/L	34278	<4.0
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	39100	<4.0
BIS(2-CHLOROISOPROPYL)ETHER UG/L	34283	<4.0
4-BROMOPHENYL PHENYL ETHER UG/L	34636	<4.0
2-CHLORONAPHTHALENE UG/L	34581	<4.0
4-CHLOROPHENYL PHENYL ETHER UG/L	34641	<4.0
CHRYSENE UG/L	34320	<4.0
DIBENZO(A,H)ANTHRACENE UG/L	34556	<4.0
DI-N-BUTYLPHTHALATE UG/L	39110	<4.0
1,3-DICHLOROBENZENE UG/L	34566	<4.0
1,2-DICHLOROBENZENE UG/L	34536	<4.0
1,4-DICHLOROBENZENE UG/L	34571	<4.0
3,3'-DICHLOROBENZIDINE UG/L	34631	<4.0
DIETHYL PHTHALATE UG/L	34336	<4.0
DIMETHYL PHTHALATE UG/L	34341	<4.0
2,4-DINITROTOLUENE UG/L	34611	<4.0
2,6-DINITROTOLUENE UG/L	34626	<4.0
DI-N-OCTYLPHTHALATE UG/L	34596	<4.0
FLUORANTHENE UG/L	34376	<4.0
FLUORENE UG/L	34381	<4.0
HEXACHLOROBENZENE UG/L	39700	<4.0
HEXACHLOROBUTADIENE UG/L	34391	<4.0
HEXACHLOROETHANE UG/L	34396	<4.0
INDENO(1,2,3-CD)PYRENE UG/L	34403	<4.0
ISOPHORONE UG/L	34408	<4.0
NAPHTHALENE UG/L	34696	<4.0
NITROBENZENE UG/L	34447	<4.0
N-NITROSODI-N-PROPYLAMINE UG/L	34428	<4.0
PHENANTHRENE UG/L	34461	<4.0
PYRENE UG/L	34469	<4.0
1,2,4-TRICHLOROBENZENE UG/L	34551	<4.0
BENZIDINE UG/L	39120	<4.0

RECEIVED
JAN 22 1993
Groundwater Protection Division

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
ANALYTICAL SERVICES DIVISION LABORATORY REPORT

SAMPLE NUMBER : 0112930194
CHARGE NUMBER : LUS
COLLECTED BY : M DRAKE
COUNTY :
SAMPLE DESCRIPTION : PRIVATE WELL,TOKEENA CRS
SAMPLE TYPE :

THURSDAY JANUARY 21ST, 1993
RELEASE DATE : 01/19/93 14:14:14
DT COLLECTED : 01/11/93 11:00:00
SAMPLE MEDIUM : WATER
STATION CODE :

Corrected copy

ANALYSIS	STORET	RESULT
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ACENAPHTHYLENE UG/L	34200	<4.0
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BENZO(A)ANTHRACENE UG/L	34526	<4.0
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BENZO(K)FLUORANTHENE UG/L	34242	<4.0
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BENZO(GHI)PERYLENE UG/L	34521	<4.0
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1,4-DICHLOROBENZENE UG/L	34571	<4.0
3,3'-DICHLOROBENZIDINE UG/L	34631	<4.0
DIETHYL PHTHALATE UG/L	34336	<4.0
DIMETHYL PHTHALATE UG/L	34341	<4.0
2,4-DINITROTOLUENE UG/L	34611	<4.0
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DI-N-OCTYLPHTHALATE UG/L	34596	<4.0
FLUORANTHENE UG/L	34376	<4.0
FLUORENE UG/L	34381	<4.0
HEXACHLOROBENZENE UG/L	39700	<4.0
HEXACHLOROBUTADIENE UG/L	34391	<4.0
HEXACHLOROETHANE UG/L	34396	<4.0
INDENO(1,2,3-CD)PYRENE UG/L	34403	<4.0
ISOPHORONE UG/L	34408	<4.0
NAPHTHALENE UG/L	34696	38.5
NITROBENZENE UG/L	34447	<4.0
N-NITROSODI-N-PROPYLAMINE UG/L	34428	<4.0
PHENANTHRENE UG/L	34461	<4.0
PYRENE UG/L	34469	<4.0
1,2,4-TRICHLOROBENZENE UG/L	34551	<4.0
BENZIDINE UG/L	39120	<4.0

1/28/93

Mr. Stephens said water hook up done yesterday

****

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
ANALYTICAL SERVICES DIVISION LABORATORY REPORT

****

SAMPLE NUMBER : 0112930194
CHARGE NUMBER : LUS
COLLECTED BY : M DRAKE
COUNTY :
SAMPLE DESCRIPTION : PRIVATE WELL,TOKEENA CRS
SAMPLE TYPE :

THURSDAY JANUARY 21ST, 1993
RELEASE DATE : 01/19/93 14:14:14
DT COLLECTED : 01/11/93 11:00:00
SAMPLE MEDIUM : WATER
STATION CODE :

ANALYSIS	STORET	RESULT
HEXACHLOROCYCLOPENTADIENE UG/L	34386	<4.0
N-NITROSODIMETHYLAMINE UG/L	34438	<4.0
N-NITROSODIPHENYLAMINE UG/L	34433	<4.0
ANILINE UG/L	77089	<4.0
4-CHLOROANILINE UG/L		<4.0
2-METHYL NAPHTHALENE UG/L	77416	12.7
2-NITROANILINE UG/L		<4.0
3-NITROANILINE UG/L	78300	<4.0
DIBENZOFURAN UG/L	81302	<4.0
4-NITROANILINE UG/L		<4.0
AZOBENZENE UG/L	77625	<4.0
BENZENE UG/L		347
TOLUENE UG/L		35.4
ETHYLBENZENE UG/L		4.24
XYLENE UG/L		26.
GASOLINE MG/L		126.000
KEROSENE MG/L	2374	<0.050
#2 FUEL OIL MG/L		<0.050
JET FUEL MG/L		<0.050
#4 FUEL OIL MG/L		<0.050
#5 FUEL OIL MG/L		<0.050
MOTOR OIL MG/L		<0.050
SUBMERSIBLE PUMP OIL MG/L		<0.050
VARSOL MG/L		<0.050

COMMENTS:
AMENDED REPORT.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
ANALYTICAL SERVICES DIVISION LABORATORY REPORT

SAMPLE NUMBER : 0112930194 — THURSDAY JANUARY 21ST, 1993
CHARGE NUMBER : LUS — RELEASE DATE : 01/19/93 14:14:14
COLLECTED BY : M DRAKE — DT COLLECTED : 01/11/93 11:00:00
COUNTY : — SAMPLE MEDIUM : WATER
SAMPLE DESCRIPTION : PRIVATE WELL,TOKEENA CRS — STATION CODE :
SAMPLE TYPE :

ANALYSIS	STORET	RESULT
HEXACHLOROCYCLOPENTADIENE UG/L	34386	<4.0
N-NITROSODIMETHYLAMINE UG/L	34438	<4.0
N-NITROSODIPHENYLAMINE UG/L	34433	<4.0
ANILINE UG/L	77089	<4.0
4-CHLOROANILINE UG/L		<4.0
2-METHYL NAPHTHALENE UG/L	77416	12.7
2-NITROANILINE UG/L		<4.0
3-NITROANILINE UG/L	78300	<4.0
DIBENZOFURAN UG/L	81302	<4.0
4-NITROANILINE UG/L		<4.0
AZOBENZENE UG/L	77605	<4.0
BENZENE UG/L		347
TOLUENE UG/L		35.4
ETHYLBENZENE UG/L		4.34
XYLENE UG/L		26
GASOLINE MG/L		120.000
KEROSENE MG/L	23744	<0.050
#2 FUEL OIL MG/L		<0.050
JET FUEL MG/L		<0.050
#4 FUEL OIL MG/L		<0.050
#5 FUEL OIL MG/L		<0.050
MOTOR OIL MG/L		<0.050
SUBMERSIBLE PUMP OIL MG/L		<0.050
VARSOL MG/L		<0.050

1-26-93

COMMENTS:
AMENDED REPORT.

P 236 631 897

Receipt for Certified Mail

UNITED STATES POSTAL SERVICE

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to Neil Alexander	
Street and No. Rt. 2, Box 149	
P.O., State and ZIP Code Westminster, SC	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	1/20/93 Mail

PS Form 3800, June 1991

STICK POSTAGE STAMPS TO ARTICLE TO COVER FIRST CLASS POSTAGE, CERTIFIED MAIL FEE AND CHARGES FOR ANY SELECTED OPTIONAL SERVICES (see front)

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached and present the article at a post office service window or hand it to your rural carrier (no extra charge).

2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, detach and retain the receipt, and mail the article.

3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.

4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.

5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811.

6. Save this receipt and present it if you make inquiry.

☆ U.S. GPO: 1991—302-916

PS Form **3800**, June 1991 *(Reverse)*

SENDER:

- Complete item[redacted]nd/or 2 for additional services.
- Complete items [redacted] and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece next to the article number.

I a[redacted]vish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Neil Alexander
Crossroads Grocery
Rt. 2, Box 149
Westminster, SC 29693

4a. Article Number

P 230 631 897

4b. Service Type

☐ Registered ☐ Insured
☑ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

DO 1-22-93

5. Signature (Addressee)

Sommer McGuffin

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form **3811**, October 1990 ★U.S. GPO: 1990—273-861 **DOMESTIC RETURN RECEIPT**

United States Postal Service

Official Business

RECEIVED

JAN 25 1993

Groundwater Protection Division

PENALTY FOR PRIVATE USE, $300

Print your name, address and ZIP Code here

GROUND-WATER PROTECTION DIVISION
S.C. Dept of Health + Env. Control
2600 Bull St.
Columbia, SC 29201

Beerenbrok

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Interim Commissioner: Thomas E. Brown, Jr.

Board: John H. Burriss, Chairman
Richard E. Jabbour, DDS, Vice Chairman
Robert J. Stripling, Jr. Secretary
William E. Applegate, III,
Toney Graham, Jr., MD
Sandra J. Molander
John B. Pate, MD

Promoting Health, Protecting the Environment

January 20, 1993

CERTIFIED MAIL

Mr. Neil Alexander
Crossroads Grocery
Rt 2 Box 149
Westminister, SC 29693

Re: Crossroads Grocery
SC Highways 24 & 59, Tokeena, SC, Oconee County
GWPD Site ID #06742

Dear Mr. Alexander:

The presence of a regulated substance (petroleum) has been documented in a water sample obtained from a private water supply well located southeast of Crossroads Grocery, a convenience store that contains a regulated underground storage tank (UST) system. Departmental records indicate that you were the owner of an UST system (registration #N-37-NO-06742) at Crossroads Grocery that was removed from the ground in June 1990 and are the owner of a new UST system (registration #N-37-NO-12765) at the same site that was installed in July and August 1990.

Requirements for the registration, installation, upgrading, closure, and assessment of UST systems are established by South Carolina Underground Storage Tank Control Regulations (SCUSTCR) and implemented by the Ground-Water Protection Division (GWPD) of the South Carolina Department of Health and Environmental Control (SCDHEC).

Subpart G of SCUSTCR requires that before permanent closure or a change-in-service of a UST system is completed, owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST site. The results of this environment assessment were to be submitted to the Department as a condition of the Permit to Construct for the new UST system. Since this condition had not been met, the Department again requested the report in a July 6, 1992 letter to you. To date, the environmental assessment has not been received.

As mentioned above, a nearby water supply well has been impacted by petroleum hydrocarbons. Section 280.51 of SCUSTCR requires that owners and operators must determine if an UST system is the source of off-site impacts. These impacts include the discovery of regulated substances in surface and drinking waters.

recycled paper

As a result, the following procedures must be implemented immediately:

- If the underground storage tank (UST) system is still in operation or still contains product, the immediate removal of the product from the UST system and/or immediate performance of a complete system test must be performed. Confirmation of product removal or current results of tightness tests which verify that all existing systems (i.e. USTs and associated lines) are not leaking, must be submitted on or before **February 19, 1993** in accordance with Section 280.52 of the SCUSTCR;

- An assessment plan to determine the extent and severity of possible soil and groundwater contamination at the site must be submitted to my attention at the GWPD on or before March 12, 1993. The assessment plan shall include, but not be limited to, the following:

  1) Brief discussion of the background, purpose and scope of the proposed investigation;

  2) A summary of the initial abatement actions taken to eliminate the source of contamination (i.e., USTs have been removed from the ground, emptied of product, repaired, etc.);

  3) A qualitative description, in the form of a short summary, of all <u>known</u> contamination present at the facility;

  4) An overview of the local hydrogeology;

  5) Number, location (with justification) and approximate depth of all proposed soil borings;

  6) Number, location (with justification), approximate depth, and construction details for all proposed ground-water monitoring wells (a minimum of three triangulated wells to determine ground-water flow direction is required) and proposal to conduct aquifer tests to determine the hydraulic characteristics of the site;

  7) A <u>scaled</u> site map that includes the locations of previous and/or current source(s) of contamination (USTs, product piping, dispensers, etc.), buildings, above-and below-ground utilities, and other appurtenances that could potentially affect contaminant migration or could become impacted by

contaminants. Also include the locations of all proposed soil borings and monitoring wells;

8) Vicinity maps which show topography, surrounding land use, all private and public water supply wells within 500 feet of the UST system, etc.;

9) Information regarding any identified wells;

10) Proposed number of soil samples to be collected. If the USTs contained gasoline, samples should be analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) and total petroleum hydrocarbons (TPH). If the USTs were used for storing diesel fuel, kerosene, waste oil or other heavier distillates, samples should be analyzed for TPH;

11) Proposed number of ground-water samples to be collected. If the USTs contained gasoline, samples should be analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX). If the USTs were used for storing diesel fuel, kerosene, waste oil or other heavier distillates, samples should be analyzed for naphthalene;

12) Sampling protocol and EPA analytical methods;

13) Operating records, including inventory records and leak detection method and records;

14) List of items that will be included in the assessment report (e.g., well construction details, potentiometric surface map, etc.);

15) Implementation schedule.

File information reveals that none of the exclusions listed in Section 44-2-110 of the State Underground Petroleum Environmental Response Bank Act (SUPERB) apply to this site. Therefore, reasonable costs for site assessment and/or rehabilitation can be paid, either by direct billing or reimbursement from the SUPERB fund in accordance with the enclosed SUPERB guidance, should site rehabilitation be necessary. Prior to release of SUPERB funds, this office must have written confirmation from you of the existence (or nonexistence) of an environmental insurance policy or financial responsibility mechanism for this site.

The Department expects responsible parties to comply with the activities required in the SCUSTCR. Failure to comply with these

regulations and/or requests may result in initiation of enforcement action (and possible fines) against the Responsible Party.

If you have any questions or comments, feel free to call at (803) 734-4664.

Sincerely,

Mark Berenbrok, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

MKB/mkb
06742:TXT

Enclosures: SCUSTCR
Permit to Construct (copy)
July 6, 1992 letter (copy)

cc: Eddie Clements, Appalachia I District EQC

MEMORANDUM

TO: File

FROM: Mark Berenbrok, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division

RE: Stephens Well Contamination/Crossroads Grocery
Highways 24 & 59, Tokeena, SC, Oconee County
GWPD Site ID #06742 & 12765

Estimates for Water Tie-in

DATE: January 21, 1993

Pioneer Water Company services the area. The fee for the tie-in is $475.00 ($425 for installation and hook-up, $50 for membership fee)

Two of the nine plumbers contacted gave estimates for running the water line as follows:

- Gary Deaton, 882-7470, estimate = $730.00 for installation (24 inches deep), approximately 550 feet of 1 inch schedule 40 PVC pipe, PR valve, cut-off valve, and box;

- David Cook, 647-9538, estimate = $802.50 for installation (24 inches deep), approximately 521 feet of 1 inch schedule 40 PVC pipe, PR valve, cut-off valve, and box;

Both said it would take about one day for installation. It was decided to award the installation of the line to Mr. Deaton.

Purchase order #W1250 was established for $730.00 for Gary Deaton. Purchase order #W1251 was established for $500.00 for Pioneer Water Company.

06742.3:TXT

S.C. Department of Health and Environmental Control

REQUEST FOR CHEMICAL AND PHYSICAL ANALYSIS OF DRINKING WATER

Sample Number: 0112930195

Charge Code: L U S

Collected By: M. DRAKE / E. CLEMENTS

County: Oconee

System No.: ———

Date Collected: 01/11/92

Military Time Collected: ———

SAMPLE DESCRIPTION:

Source ID: ———

Location: BLANK

System Name: BLANK

Sample Type: [ ] C [ ] D [ ] F [ ] M [ ] P [ ] R [ ] S [ ] W [ ] V [X] VSC

Location Code: ———

CHECK ANALYSIS GROUP (A) OR INDIVIDUAL ANALYSES (B) REQUESTED

A. ANALYSIS GROUP:

[ ] Base-Neutral / Acid Extractables (Investigation)
[ ] Controlled Fluoridation (Routine)
[ ] Herbicides (Investigation)
[ ] Hydrocarbons (Investigation)
[ ] Nitrate (Routine)
[ ] Pesticides (Investigation)
[ ] Private Routine
[ ] Public Complete (Investigation)
[ ] Public Complete (New Source)
[ ] Public Complete (Routine)
[ ] Public Complete + Organics (Routine)
[ ] Trihalomethanes (Routine)
[ ] Volatile Organic Compounds (Investigation)
[ ] Volatile Organic Compounds (Routine - Regulated Compounds Only)
[X] Volatile Organic Compounds (Routine - Regulated and Unregulated Compounds) BTEX
[ ] Other: _____

RECEIVED
JAN 20 1993
Groundwater Protection

B. INDIVIDUAL ANALYSES:

[ ] Alkalinity
[ ] Aluminum
[ ] Ammonia
[ ] Arsenic
[ ] Barium
[ ] Cadmium
[ ] Calcium
[ ] Chloride
[ ] Chromium
[ ] Color
[ ] Copper
[ ] Cyanide
[ ] Fluoride
[ ] Hardness
[ ] Hydrogen Sulfide
[ ] Iron
[ ] Lead
[ ] MBAS
[ ] Magnesium
[ ] Manganese
[ ] Mercury
[ ] Nickel
[ ] Nitrate
[ ] Nitrite
[ ] Oil & Grease
[ ] pH
[ ] Phenol
[ ] Phosphorus
[ ] Potassium
[ ] Silver
[ ] Sodium
[ ] Sulfate
[ ] Total Dissolved Solids
[ ] Total Organic Carbon
[ ] Total Solids
[ ] Turbidity
[ ] Zinc
[ ] Other: _____
[ ] Other: _____

DISTRICT ANALYSES:

TDS _____ mg/l
Turbidity _____ N.T.U.
Color _____ C.U.
pH _____
Alkalinity _____ mg/l
Other: _____
_____ mg/l

DHEC 40-22 (Rev.10/88)

COMMENTS:

* Field blank for: Tommi Stephens Res.

-- Possible impacted drinking water source, need ASAP
Send Results to: Eddie Clements Appalachia I EQC
cc: Mark Berenbrok, GWPD

RECEIVED:

(Regional) ___/___/___
By _____
(Central) 01/12/93
By DDH

RELEASED:

(Regional) ___/___/___
By _____
(Central) 01/29/93
By TCC

KB

S.C. Department of Health and Environmental Control

REQUEST FOR CHEMICAL AND PHYSICAL ANALYSIS OF DRINKING WATER

Sample Number: [illegible]

Charge Code: L U S

Collected By: M Drake / E Clements

County: Oconee

System No.: ——

Date Collected: 01/11/92

Military Time Collected: ——

SAMPLE DESCRIPTION:

Source ID: ——

Location: Blank

System Name: Blank

Sample Type: [ ] C [ ] D [ ] F [ ] M [ ] P [ ] R [ ] S [ ] W [ ] V [✓] VSC

Location Code: ____

CHECK ANALYSIS GROUP (A) OR INDIVIDUAL ANALYSES (B) REQUESTED

A. ANALYSIS GROUP:

[ ] Base-Neutral / Acid Extractables (Investigation)
[ ] Controlled Fluoridation (Routine)
[ ] Herbicides (Investigation)
[ ] Hydrocarbons (Investigation)
[ ] Nitrate (Routine)
[ ] Pesticides (Investigation)
[ ] Private Routine
[ ] Public Complete (Investigation)
[ ] Public Complete (New Source)
[ ] Public Complete (Routine)
[ ] Public Complete + Organics (Routine)
[ ] Trihalomethanes (Routine)
[ ] Volatile Organic Compounds (Investigation)
[ ] Volatile Organic Compounds (Routine - Regulated Compounds Only)
[✓] Volatile Organic Compounds (Routine - Regulated and Unregulated Compounds) BTEX
[ ] Other: ____

B. INDIVIDUAL ANALYSES:

[ ] Alkalinity
[ ] Aluminum
[ ] Ammonia
[ ] Arsenic
[ ] Barium
[ ] Cadmium
[ ] Calcium
[ ] Chloride
[ ] Chromium
[ ] Color
[ ] Copper
[ ] Cyanide
[ ] Fluoride
[ ] Hardness
[ ] Hydrogen Sulfide
[ ] Iron
[ ] Lead
[ ] MBAS
[ ] Magnesium
[ ] Manganese
[ ] Mercury
[ ] Nickel
[ ] Nitrate
[ ] Nitrite
[ ] Oil & Grease
[ ] pH
[ ] Phenol
[ ] Phosphorus
[ ] Potassium
[ ] Silver
[ ] Sodium
[ ] Sulfate
[ ] Total Dissolved Solids
[ ] Total Organic Carbon
[ ] Total Solids
[ ] Turbidity
[ ] Zinc
[ ] Other: ____
[ ] Other: ____

DISTRICT ANALYSES:

TDS ____ mg/l

Turbidity ____ N.T.U.

Color ____ C.U.

pH ____

Alkalinity ____ mg/l

Other: ____

____ mg/l

COMMENTS:

* Field blank for: Tommy Stephens Res.

-- Possible impacted drinking water source, need ASAP

Send Results to: [illegible]

RECEIVED:

(Regional) ___/___/___

By ____

(Central) 01/12/92

By DDH

RELEASED:

(Regional) ___/___/___

By ____

(Central) 01/12/92

By ____

DHEC 40-22 (Rev.10/88)

****

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

ANALYTICAL SERVICES DIVISION LABORATORY REPORT

****

SAMPLE NUMBER : 0112930195
CHARGE NUMBER : LUS
COLLECTED BY : M DRAKE
COUNTY : OCONEE
SAMPLE DESCRIPTION : FIELD BLANK
SAMPLE TYPE :

TUESDAY JANUARY 19TH, 1993
RELEASE DATE : 01/19/93 14:14:14
DT COLLECTED : 01/11/93 00:00:00
SAMPLE MEDIUM : WATER
STATION CODE :

ANALYSIS	STORET	RESULT
BENZENE UG/L		<2.0
TOLUENE UG/L		<2.0
ETHYLBENZENE UG/L		<2.0
XYLENE UG/L		<2.0

COMMENTS:

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
ANALYTICAL SERVICES DIVISION LABORATORY REPORT

SAMPLE NUMBER : 0112930195
CHARGE NUMBER : LUS
COLLECTED BY : M DRAKE
COUNTY : OCONEE
SAMPLE DESCRIPTION : FIELD BLANK
SAMPLE TYPE :

TUESDAY JANUARY 19TH, 1993
RELEASE DATE : 01/19/93 14:14:14
DT COLLECTED : 01/11/93 00:00:00
SAMPLE MEDIUM : WATER
STATION CODE :

ANALYSIS	STORET	RESULT
BENZENE UG/L		<2.0
TOLUENE UG/L		<2.0
ETHYLBENZENE UG/L		<2.0
XYLENE UG/L		<2.0

COMMENTS:

S.C. Department of Health and Environmental Control

REQUEST FOR CHEMICAL AND PHYSICAL ANALYSIS OF DRINKING WATER

Sample Number: 011293019Y

Charge Code: L U S

Collected By: Eddie Clements/Mike Drake System No.: N/A

County: _____ Date Collected: 01/11/93

Military Time Collected: 1100

SAMPLE DESCRIPTION:

Source ID: Private Well

Sample Type: [ ] C [ ] P [ ] V; [X] VSC; [ ] D [ ] R; [ ] F [ ] S; [ ] M [ ] W

Location: Tokeena Crossrds Comm Box 674 Seneca

System Name: Private Well Location Code: _____

CHECK ANALYSIS GROUP (A) OR INDIVIDUAL ANALYSES (B) REQUESTED

A. ANALYSIS GROUP:

- [X] Base-Neutral / Acid Extractables (Investigation)
- [ ] Controlled Fluoridation (Routine)
- [ ] Herbicides (Investigation)
- [X] Hydrocarbons (Investigation) *
- [ ] Nitrate (Routine)
- [ ] Pesticides (Investigation)
- [ ] Private Routine
- [ ] Public Complete (Investigation)
- [ ] Public Complete (New Source)
- [ ] Public Complete (Routine)
- [ ] Public Complete + Organics (Routine)
- [ ] Trihalomethanes (Routine)
- [ ] Volatile Organic Compounds (Investigation)
- [X] Volatile Organic Compounds (Routine - Regulated Compounds Only) BTEX
- [ ] Volatile Organic Compounds (Routine - Regulated and Unregulated Compounds)
- [ ] Other: _____

B. INDIVIDUAL ANALYSES:

- [ ] Alkalinity
- [ ] Aluminum
- [ ] Ammonia
- [ ] Arsenic
- [ ] Barium
- [ ] Cadmium
- [ ] Calcium
- [ ] Chloride
- [ ] Chromium
- [ ] Color
- [ ] Copper
- [ ] Cyanide
- [ ] Fluoride
- [ ] Hardness
- [ ] Hydrogen Sulfide
- [ ] Iron
- [ ] Lead
- [ ] MBAS
- [ ] Magnesium
- [ ] Manganese
- [ ] Mercury
- [ ] Nickel
- [ ] Nitrate
- [ ] Nitrite
- [ ] Oil & Grease
- [ ] pH
- [ ] Phenol
- [ ] Phosphorus
- [ ] Potassium
- [ ] Silver
- [ ] Sodium
- [ ] Sulfate
- [ ] Total Dissolved Solids
- [ ] Total Organic Carbon
- [ ] Total Solids
- [ ] Turbidity
- [ ] Zinc
- [ ] Other: _____
- [ ] Other: _____

RECEIVED JAN 20 1993 Groundwater Protection Division

DISTRICT ANALYSES:

TDS _____ mg/l

Turbidity _____ N.T.U.

Color _____ C.U.

pH _____

Alkalinity _____ mg/l

Other: _____

_____ mg/l

DHEC 40-22 (Rev.10/88)

COMMENTS:

* BTEX
BNA ~~- no bottle for BNA's~~
Possible impacted drinking water source, need ASAP, Please.
Send Results to!
Eddie Clements
Appalachia I EQC
cc: Mark Berenbrok, GWPD

RECEIVED:

(Regional) ___/___/___

By _____

(Central) 01/12/93

By DDH

RELEASED:

(Regional) ___/___/___

By _____

(Central) 01/19/93

By TCK

KBB

S.C. Department of Healt_ _nd Environmental Control

REQUEST FOR CHEMICAL AND PHYSICAL ANALYSIS OF DRINKING WATER

Sample Number: [illegible]

Charge Code: L J S

Collected By: Leslie Stewart, Mike Drake System No.: [illegible]

County: _____ Date Collected: 11 / 11 / 92

Military Time Collected: 1120

SAMPLE DESCRIPTION:

Source ID: Front Well

Location: 2 from Crossing Comm Ctr 6/4 Sum Co

System Name: Front Well

Sample Type: [ ] C [ ] D [ ] F [ ] M [ ] P [ ] R [ ] S [ ] W [ ] V [X] WS

Location Code: _____

CHECK ANALYSIS GROUP (A) OR INDIVIDUAL ANALYSES (B) REQUESTED

A. ANALYSIS GROUP:

[ ] Base-Neutral / Acid Extractables (Investigation)
[ ] Controlled Fluoridation (Routine)
[ ] Herbicides (Investigation)
[ ] Hydrocarbons (Investigation) *
[ ] Nitrate (Routine)
[ ] Pesticides (Investigation)
[ ] Private Routine
[ ] Public Complete (Investigation)
[ ] Public Complete (New Source)
[ ] Public Complete (Routine)
[ ] Public Complete + Organics (Routine)
[ ] Trihalomethanes (Routine)
[ ] Volatile Organic Compounds (Investigation)
[X] Volatile Organic Compounds (Routine - Regulated Compounds Only) BTEX
[ ] Volatile Organic Compounds (Routine - Regulated and Unregulated Compounds)
[ ] Other: _____

B. INDIVIDUAL ANALYSES:

[ ] Alkalinity
[ ] Aluminum
[ ] Ammonia
[ ] Arsenic
[ ] Barium
[ ] Cadmium
[ ] Calcium
[ ] Chloride
[ ] Chromium
[ ] Color
[ ] Copper
[ ] Cyanide
[ ] Fluoride
[ ] Hardness
[ ] Hydrogen Sulfide
[ ] Iron
[ ] Lead
[ ] MBAS
[ ] Magnesium
[ ] Manganese
[ ] Mercury
[ ] Nickel
[ ] Nitrate
[ ] Nitrite
[ ] Oil & Grease
[ ] pH
[ ] Phenol
[ ] Phosphorus
[ ] Potassium
[ ] Silver
[ ] Sodium
[ ] Sulfate
[ ] Total Dissolved Solids
[ ] Total Organic Carbon
[ ] Total Solids
[ ] Turbidity
[ ] Zinc
[ ] Other: _____
[ ] Other: _____

DISTRICT ANALYSES:

TDS _____ mg/l

Turbidity _____ N.T.U.

Color _____ C.U.

pH _____

Alkalinity _____ mg/l

Other: _____

_____ mg/l

DHEC 40-22 (Rev.10/88)

COMMENTS:

* BTEX
BN A - [illegible]
Possible [illegible] in drinking water, [illegible]

RECEIVED:

(Regional) ___ / ___ / ___

By _____

(Central) 11/12/92

By [illegible]

RELEASED:

(Regional) ___ / ___ / ___

By _____

(Central) 11/19/92

By [illegible]

****

* SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL *
* ANALYTICAL SERVICES DIVISION LABORATORY REPORT *

****

SAMPLE NUMBER : 0112930194 TUESDAY JANUARY 19TH, 1993
CHARGE NUMBER : LUS RELEASE DATE : 01/19/93 14:14:14
COLLECTED BY : M DRAKE DT COLLECTED : 01/11/93 11:00:00
COUNTY : SAMPLE MEDIUM : WATER
SAMPLE DESCRIPTION : PRIVATE WELL,TOKEENA CRS STATION CODE :
SAMPLE TYPE :

ANALYSIS	STORET	RESULT
ACENAPHTHENE UG/L	34205	<4.0
ACENAPHTHYLENE UG/L	34200	<4.0
ANTHRACENE UG/L	34220	<4.0
BENZO(A)ANTHRACENE UG/L	34526	<4.0
BENZO(B)FLUORANTHENE UG/L	34230	<4.0
BENZO(K)FLUORANTHENE UG/L	34242	<4.0
BENZO(A)PYRENE UG/L	34247	<4.0
BENZO(GHI)PERYLENE UG/L	34521	<4.0
BUTYLBENZYL PHTHALATE UG/L	34292	<4.0
BIS(2-CHLOROETHYL)ETHER UG/L	34273	<4.0
BIS(2-CHLOROETHOXY)METHANE UG/L	34278	<4.0
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	39100	<4.0
BIS(2-CHLOROISOPROPYL)ETHER UG/L	34283	<4.0
4-BROMOPHENYL PHENYL ETHER UG/L	34636	<4.0
2-CHLORONAPHTHALENE UG/L	34581	<4.0
4-CHLOROPHENYL PHENYL ETHER UG/L	34641	<4.0
CHRYSENE UG/L	34320	<4.0
DIBENZO(A,H)ANTHRACENE UG/L	34556	<4.0
DI-N-BUTYLPHTHALATE UG/L	39110	<4.0
1,3-DICHLOROBENZENE UG/L	34566	<4.0
1,2-DICHLOROBENZENE UG/L	34536	<4.0
1,4-DICHLOROBENZENE UG/L	34571	<4.0
3,3'-DICHLOROBENZIDINE UG/L	34631	<4.0
DIETHYL PHTHALATE UG/L	34336	<4.0
DIMETHYL PHTHALATE UG/L	34341	<4.0
2,4-DINITROTOLUENE UG/L	34611	<4.0
2,6-DINITROTOLUENE UG/L	34626	<4.0
DI-N-OCTYLPHTHALATE UG/L	34596	<4.0
FLUORANTHENE UG/L	34376	<4.0
FLUORENE UG/L	34381	<4.0
HEXACHLOROBENZENE UG/L	39700	<4.0
HEXACHLOROBUTADIENE UG/L	34391	<4.0
HEXACHLOROETHANE UG/L	34396	<4.0
INDENO(1,2,3-CD)PYRENE UG/L	34403	<4.0
ISOPHORONE UG/L	34408	<4.0
NAPHTHALENE UG/L	34696	38.5
NITROBENZENE UG/L	34447	<4.0
N-NITROSODI-N-PROPYLAMINE UG/L	34428	<4.0
PHENANTHRENE UG/L	34461	<4.0
PYRENE UG/L	34469	<4.0
1,2,4-TRICHLOROBENZENE UG/L	34551	<4.0
BENZIDINE UG/L	39120	<4.0

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
ANALYTICAL SERVICES DIVISION LABORATORY REPORT

SAMPLE NUMBER : 0112930194 — TUESDAY JANUARY 19TH, 1993
CHARGE NUMBER : LUS — RELEASE DATE : 01/19/93 14:14:14
COLLECTED BY : M DRAKE — DT COLLECTED : 01/11/93 11:00:00
COUNTY : — SAMPLE MEDIUM : WATER
SAMPLE DESCRIPTION : PRIVATE WELL,TOKEENA CRS — STATION CODE :
SAMPLE TYPE :

ANALYSIS	STORET	RESULT
ACENAPHTHENE UG/L	34205	<4.0
ACENAPHTHYLENE UG/L	34200	<4.0
ANTHRACENE UG/L	34220	<4.0
BENZO(A)ANTHRACENE UG/L	34526	<4.0
BENZO(B)FLUORANTHENE UG/L	34230	<4.0
BENZO(K)FLUORANTHENE UG/L	34242	<4.0
BENZO(A)PYRENE UG/L	34247	<4.0
BENZO(GHI)PERYLENE UG/L	34521	<4.0
BUTYLBENZYL PHTHALATE UG/L	34292	<4.0
BIS(2-CHLOROETHYL)ETHER UG/L	34273	<4.0
BIS(2-CHLOROETHOXY)METHANE UG/L	34278	<4.0
BIS(2-ETHYLHEXYL)PHTHALATE UG/L	39100	<4.0
BIS(2-CHLOROISOPROPYL)ETHER UG/L	34283	<4.0
4-BROMOPHENYL PHENYL ETHER UG/L	34636	<4.0
2-CHLORONAPHTHALENE UG/L	34581	<4.0
4-CHLOROPHENYL PHENYL ETHER UG/L	34641	<4.0
CHRYSENE UG/L	34320	<4.0
DIBENZO(A,H)ANTHRACENE UG/L	34556	<4.0
DI-N-BUTYLPHTHALATE UG/L	39110	<4.0
1,3-DICHLOROBENZENE UG/L	34566	<4.0
1,2-DICHLOROBENZENE UG/L	34536	<4.0
1,4-DICHLOROBENZENE UG/L	34571	<4.0
3,3'-DICHLOROBENZIDINE UG/L	34631	<4.0
DIETHYL PHTHALATE UG/L	34336	<4.0
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INDENO(1,2,3-CD)PYRENE UG/L	34403	<4.0
ISOPHORONE UG/L	34408	<4.0
NAPHTHALENE UG/L	34696	38.5
NITROBENZENE UG/L	34447	<4.0
N-NITROSODI-N-PROPYLAMINE UG/L	34428	<4.0
PHENANTHRENE UG/L	34461	<4.0
PYRENE UG/L	34469	<4.0
1,2,4-TRICHLOROBENZENE UG/L	34551	<4.0
BENZIDINE UG/L	39120	<4.0

****

* SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL *
* ANALYTICAL SERVICES DIVISION LABORATORY REPORT *

****

SAMPLE NUMBER : 0112930194 TUESDAY JANUARY 19TH, 1993
CHARGE NUMBER : LUS RELEASE DATE : 01/19/93 14:14:14
COLLECTED BY : M DRAKE DT COLLECTED : 01/11/93 11:00:00
COUNTY : SAMPLE MEDIUM : WATER
SAMPLE DESCRIPTION : PRIVATE WELL,TOKEENA CRS STATION CODE :
SAMPLE TYPE :

ANALYSIS	STORET	RESULT
HEXACHLOROCYCLOPENTADIENE UG/L	34386	<4.0
N-NITROSODIMETHYLAMINE UG/L	34438	<4.0
N-NITROSODIPHENYLAMINE UG/L	34433	<4.0
ANILINE UG/L	77089	<4.0
4-CHLOROANILINE UG/L		<4.0
2-METHYL NAPHTHALENE UG/L	77416	12.7
2-NITROANILINE UG/L		<4.0
3-NITROANILINE UG/L	78300	<4.0
DIBENZOFURAN UG/L	81302	<4.0
4-NITROANILINE UG/L		<4.0
AZOBENZENE UG/L	77625	<4.0
BENZENE UG/L		3.47
TOLUENE UG/L		35.4
ETHYLBENZENE UG/L		4.24
XYLENE UG/L		26
GASOLINE MG/L		125,000
KEROSENE MG/L	2374	<0.050
#2 FUEL OIL MG/L		<0.050
JET FUEL MG/L		<0.050
#4 FUEL OIL MG/L		<0.050
#5 FUEL OIL MG/L		<0.050
MOTOR OIL MG/L		<0.050
SUBMERSIBLE PUMP OIL MG/L		<0.050
VARSOL MG/L		<0.050

COMMENTS:

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
ANALYTICAL SERVICES DIVISION LABORATORY REPORT

SAMPLE NUMBER : 0112930194 — TUESDAY JANUARY 19TH, 1993
CHARGE NUMBER : LUS — RELEASE DATE : 01/19/93 14:14:14
COLLECTED BY : M DRAKE — DT COLLECTED : 01/11/93 11:00:00
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SAMPLE DESCRIPTION : PRIVATE WELL, TOREENA CRS — STATION CODE :
SAMPLE TYPE :

ANALYSIS	STORET	RESULT
HEXACHLOROCYCLOPENTADIENE UG/L	34386	<4.0
N-NITROSODIMETHYLAMINE UG/L	34438	<4.0
N-NITROSODIPHENYLAMINE UG/L	34433	<4.0
ANILINE UG/L	77089	<4.0
4-CHLOROANILINE UG/L		<4.0
2-METHYL NAPHTHALENE UG/L	77416	12.7
2-NITROANILINE UG/L		<4.0
3-NITROANILINE UG/L	78300	<4.0
DIBENZOFURAN UG/L	81302	<4.0
4-NITROANILINE UG/L		<4.0
AZOBENZENE UG/L	77629	<4.0
BENZENE UG/L		3.47
TOLUENE UG/L		35.4
ETHYLBENZENE UG/L		4.24
XYLENE UG/L		366
GASOLINE MG/L		12[illegible],000
KEROSENE MG/L	2374	<0.050
#2 FUEL OIL MG/L		<0.050
JET FUEL MG/L		<0.050
#4 FUEL OIL MG/L		<0.050
#5 FUEL OIL MG/L		<0.050
MOTOR OIL MG/L		<0.050
SUBMERSIBLE PUMP OIL MG/L		<0.050
VARSOL MG/L		<0.050

COMMENTS:

MEMORANDUM

TO: File

FROM: Mark Berenbrok, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division

RE: Stephens Well Contamination/Crossroads Grocery
Highways 24 & 59, Tokeena, SC, Oconee County
GWPD Site #06742 & 12765

~~Stephens Well Contamination~~

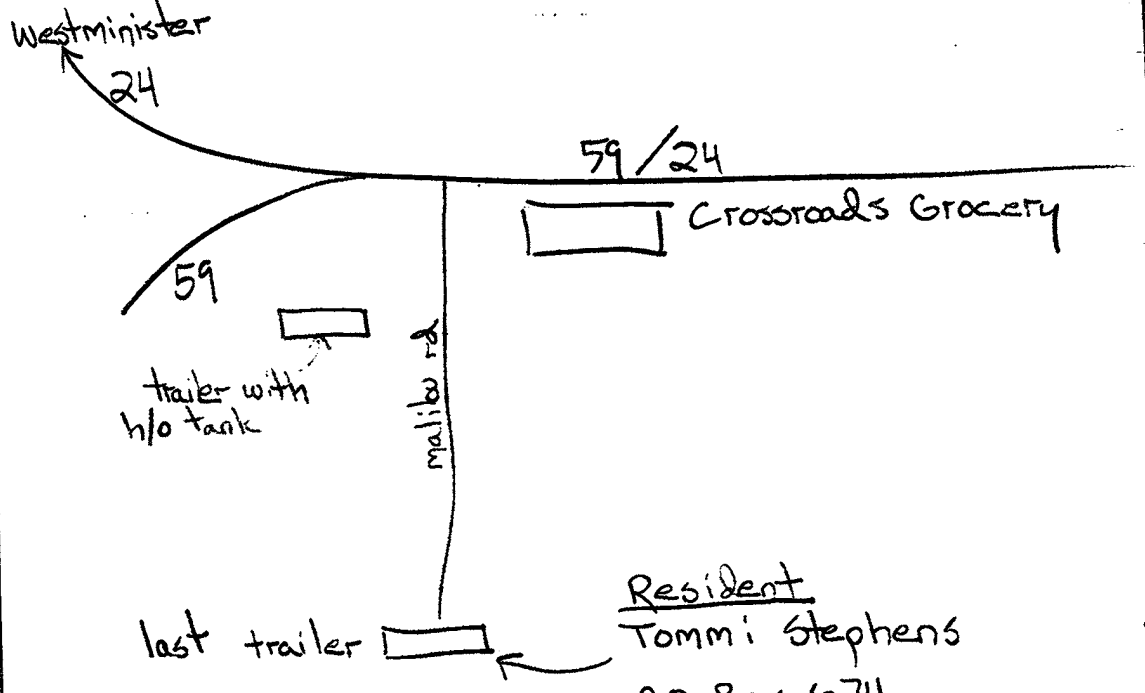
DATE: January 18, 1993

A site visit was made at the residence of Tommi Stephens by Eddie Clements (Appalachia I District EQC) and the writer on 1-15-93. Ms Stephens obtains her water via a private water supply well located in front of her trailer on Malibu Road. She stated that about one year ago she noticed her water had acquired a "taste" and recently informed the Appalachia I EQC office concerning the problem. A water sample obtained by Eddie Clements on 1-11-93 and analyzed by the state lab contained gasoline constituents (verbal communication with Sandra Fleming on 1-15-93). A convenience store with a regulated UST system is approximately 250-300 feet uphill from Ms Stephens' trailer. No other sources of contamination other than a small (<150 gallons) AGT for heating oil at a nearby trailer were observed. Ms Stephens was instructed again to obtain an alternate water supply until a hook-up to a water system can be arranged. During a phone conversation with David Crooks (plumber) on 1-18-93, Mr Crooks stated he had noticed an oily residue on the intake plumping of Ms Stephens' pump when he had replaced it about one year ago.

06742.2:TXT

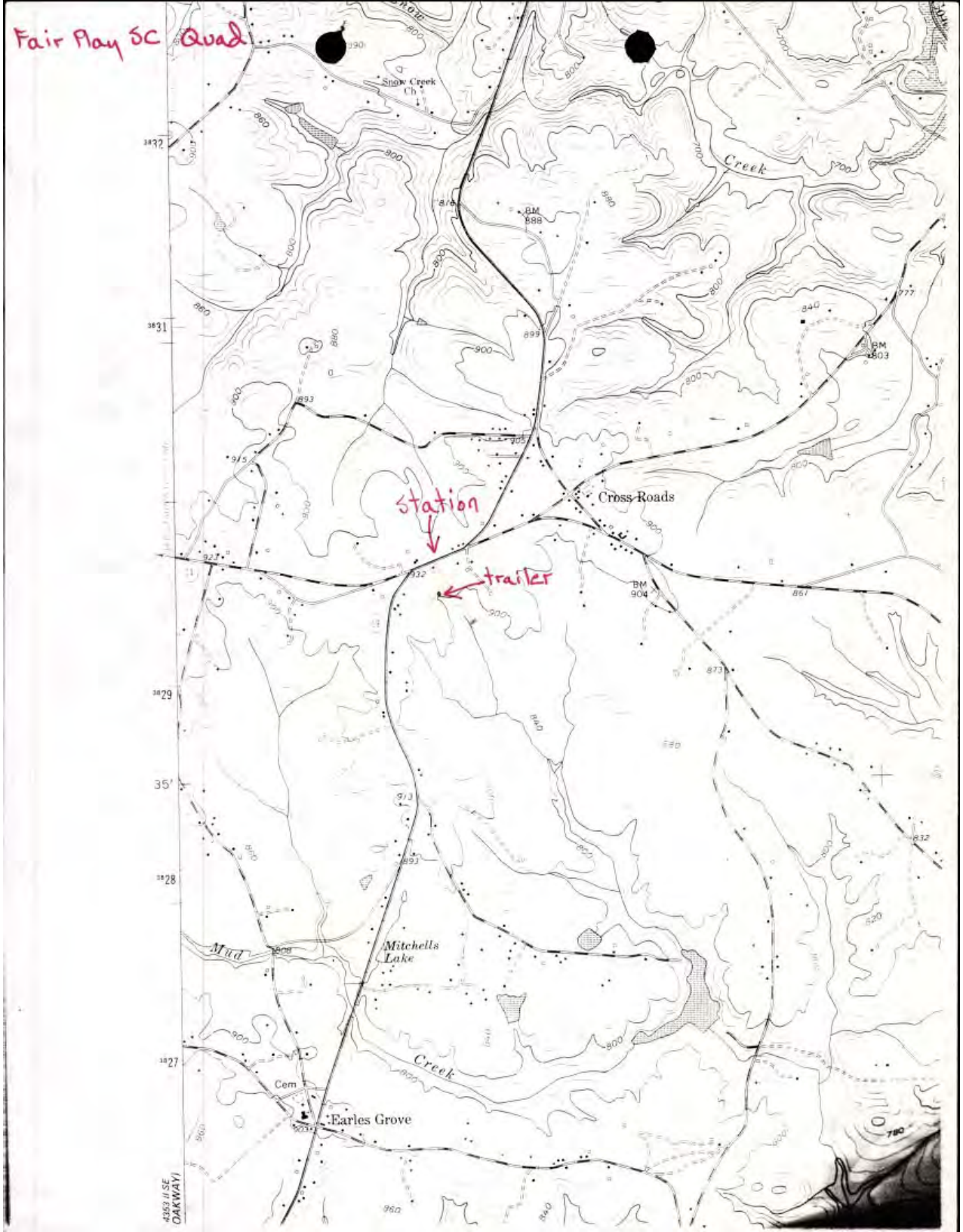
1-15-93

Crossroads Grocery
Hwys 24 & 59 Tokeena
Oconee Cty
Site ID 06742 & 12765



Resident
Tommi Stephens
PO Box 674
Seneca SC 29679
972-3102

Ms stephens first noticed taste in spring 92. Using a small water filter to run tap water thru. No other potential sources (heating oil tanks, repair shop, etc) observed.


Fair Play SC Quad
Snow Creek Ch
Creek
BM 888
BM 803
Cross Roads
station
trailer
BM 904
Mud
Mitchells Lake
Creek
Cem
Earles Grove
3832
3831
3829
35'
3828
3827
(OAKWAY)

SINCE
1881

FROEHLING & ROBERTSON, INC.
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS
ENGINEERS • LABORATORIES
"OVER ONE HUNDRED YEARS OF SERVICE"

1310 Lowndes Hill Road
Greenville, SC 29607
(803) 271-2840 Fax (803) 271-8124

January 26, 1994

RECEIVED
JAN 2 8 1994
Groundwater Protection
Division

SCDHEC
Groundwater Protection
2600 Bull Street
Columbia, S.C. 29201
UST State Corrective Action Section

Attention: Mr. Todd Adams, Hydrogeologist

RE: Crossroads Grocery, Report of Data Collection Activities
GWPD Site ID #06742

Dear Mr. Adams:

The information contained in this report is provided to you in order to close out Froehling & Robertson's work under the existing cost proposal number 806. Additionally, we are resubmitting Invoice No. 24670 for the EAP. It was originally returned along with Mark Berenbrock's correction letter of October 13, 1993. Our response was submitted on November 4, 1993, but the invoice was not sent at that time. Since this represents a work effort on our part, we would expect full consideration and payment of the invoiced amount. All items referred in your letter of January 4, 1994 are covered:

1) A report, updating our activities and conclusions is provided herein, following item number 6.
2) Casings on motoring wells MW-4 and MW-5 have been extended to near the top of the steel protective casing, allowing easier locking and sampling.
3) The drill cuttings have been covered with polyethylene, for storage until final disposal is arranged.
4) Labels have been affixed to the drums containing waste water/product.
5) The free product recovery canister has been returned to Neil Alexander, owner.
6) The final invoice was mailed to Neil Alexander on December 10, 1993. He should have forwarded it to you by this time

The report of our activities and conclusions follow. Please contact me if you have any questions concerning this matter.

Sincerely,
FROEHLING & ROBERTSON, INC.

Jim Buschur, P.G.
Project Manager

CC: Mr. Neil Alexander

HEADQUARTERS: 3015 DUMBARTON ROAD • BOX 27524 • RICHMOND, VA 23261-7524
TELEPHONE (804) 264-2701 • FAX (804) 264-1202

BRANCHES: ASHEVILLE, NC • BALTIMORE, MD • CHARLOTTE, NC • CHESAPEAKE, VA
CROZET, VA • FAYETTEVILLE, NC • FREDERICKSBURG, VA
GREENVILLE, SC • RALEIGH, NC • ROANOKE, VA • STERLING, VA

92 tech

CROSSROADS GROCERY

REPORT OF ACTIVITIES

GWPD SITE ID # 06742

RECEIVED
JAN 2 5 1994
Groundwater Protection
Division

BY

FROEHLING & ROBERTSON, INC.

GREENVILLE, SOUTH CAROLINA

JANUARY 26, 1994

Summary of Work

Crossroads Grocery is located at the intersection of SC Highways 24 and 59 in Tokeena, South Carolina. (Figures 1 and 2) Several underground storage tanks (UST) were removed in June, 1990 from the property. They were replaced with a new UST system in July and August of 1990. The presence of potential petroleum contamination was not determined when the original tanks were pulled and to our knowledge no such information is available.

In January, 1993, a resident living approximately 600 feet downgradient from the grocery reported gasoline or petroleum taste in water from their water supply well. Since the nearest source of such contamination was the grocery, further assessments were ordered by the South Carolina Department of Health and Environmental Control to confirm the nature of the problem and identify it's source.

The purpose of the investigation by F&R was to determine the hydrologic relationship between the Crossroads Grocery Store and the impacted water well. Three standard penetration test (SPT) borings and five monitoring wells were completed in the areas of the former UST's and areas downgradient. One SPT boring was converted to a monitoring well at the direction of the SCDHEC project manager since evidence of soil impacts was noted during the drilling.

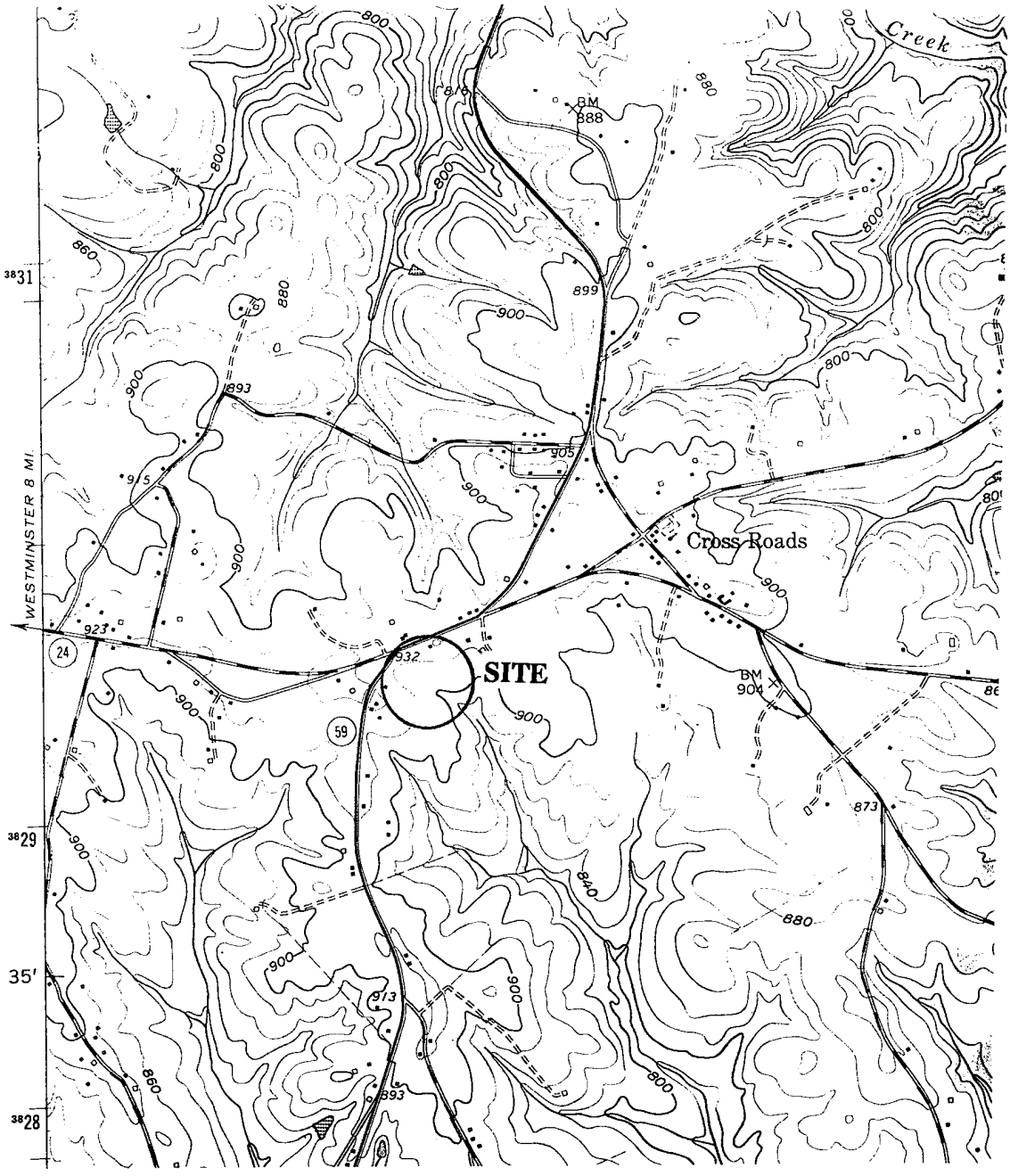
Upon completion of the drilling program, soil and water samples were analyzed at a S.C. Certified Laboratory. The results indicated that the former UST installation had impacted soils in the vicinity of the UST's plus, groundwater had been affected at least as far as monitoring well MW-5, located near the existing water supply well.

During the summer of 1993, free product was observed in monitoring well MW-1,a. Periodic bailing of the well was conducted in order to purge the product from the well. The product was placed in drums located on-site. Water levels declined in the early fall so that the "Keck" brand automatic bailer became inoperable.

Technical data supporting the results and conclusions of this report are contained in the attached appendixes.

Appendix A

Location and Site Maps



Taken from USGS Fair Play, S.C. Quadrangle
7.5 Minute Topographic Series

N

0 2000'

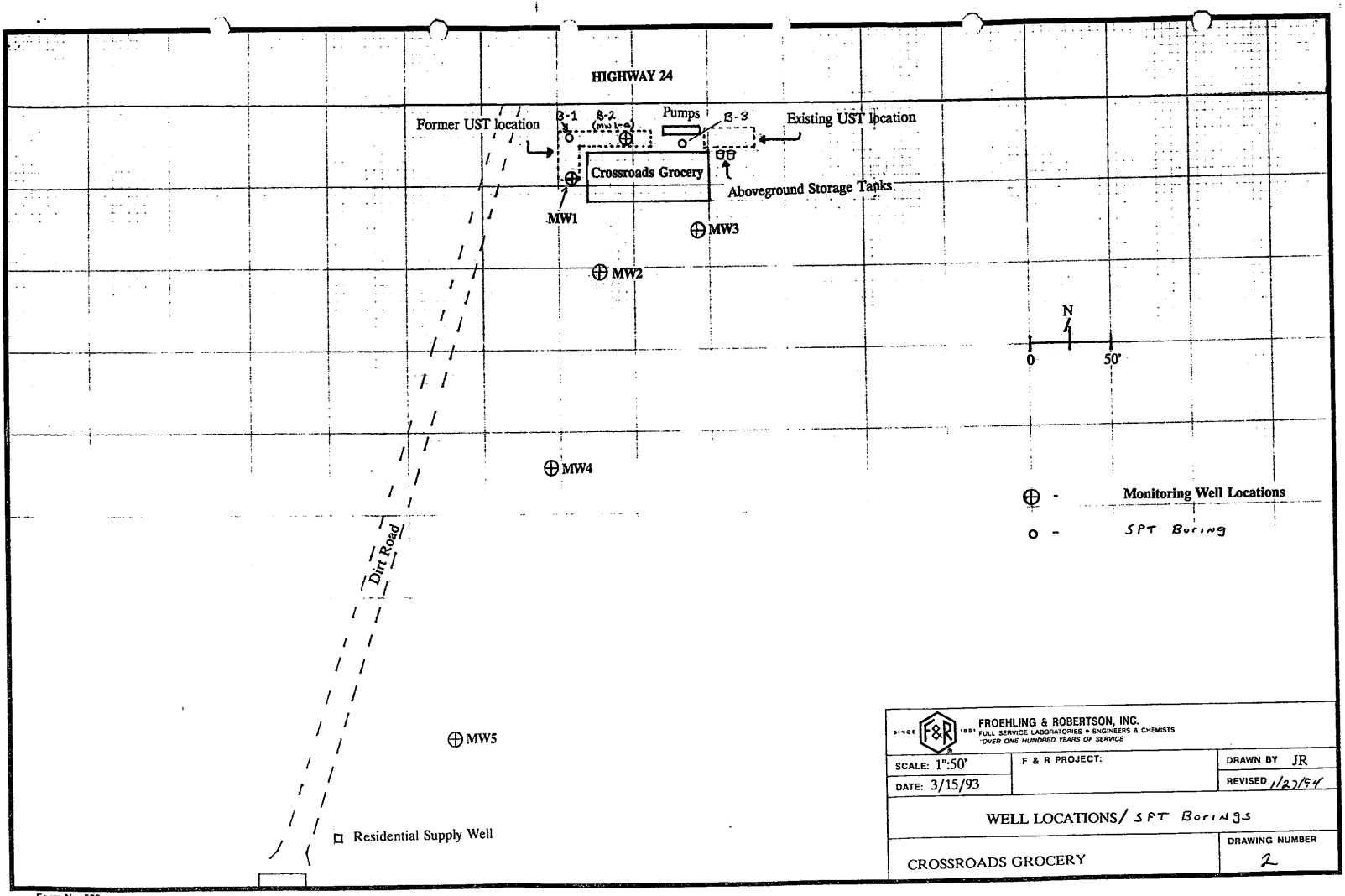
FROEHLING AND ROBERTSON, INC.

FULL SERVICE LABORATORIES - ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICES"

Crossroads Grocery
Westminster, South Carolina
SITE LOCATION MAP

DATE: 3-12-93
DRAWN BY: JR

SCALE: 1:24,000
FIGURE: 1



FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

SCALE: 1":50'	F & R PROJECT:	DRAWN BY JR
DATE: 3/15/93		REVISED 1/27/94

WELL LOCATIONS/ SPT Borings

CROSSROADS GROCERY

DRAWING NUMBER 2

Form No. 509

Appendix B

Boring Logs, Well Completion Records

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | **Water Well Record**

1. LOCATION OF WELL — MW1-A

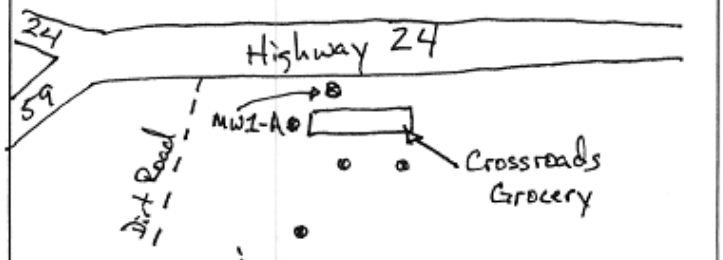
County: Oconee | System Name:

Latitude: | Longitude:

Distance And Direction from Road Intersections: 1/4 mi. West of U.S. 24 & U.S. 59 intersection

Street address & City of Well Location:

Sketch Map: (See example on back)



2. CUTTING SAMPLES: [X] Yes [ ] No

Geophysical Logs: [X] Yes (Please enclose) [ ] No

FORMATION DESCRIPTION	*THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Water @ 32.6'		
* Indicate water bearing zones (use a 2nd sheet if needed)		

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address: c/o Crossroads Grocery, Rt. 2 Box 149, Westminster, SC 29693
Telephone No. (803) 972-3489

Engineer: Froehling & Robertson, Inc
Address: P.O. Box 17186, Greenville, SC 29606
Telephone No. (803) 271-2840

5. WELL DEPTH (Completed): 40 ft. Date Started: 6/15/93 Date Completed: 6/15/93

6. [ ] Mud Rotary [ ] Jetted [X] Bored [ ] Dug [ ] Air Rotary [ ] Driven [ ] Cable tool [ ] Other

7. USE: [ ] Domestic [ ] Public Supply Permit No. [ ] Industry [ ] Irrigation [ ] Air Conditioning [ ] Commercial [X] Test Well [ ]

8. CASING: [X] Threaded [ ] Welded
Diam. 2"
Type [X] PVC [ ] Galvanized [ ] Steel [ ] Other
[redacted] in. to [redacted] ft. depth
0 in. to 30 ft. depth
Height: Above/Below Flush
Surface ft.
Weight lbs./ft.
Drive Shoe? [ ] Yes [ ] No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze .010" Length 15'
Set Between [redacted] 30 ft. and 40 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis [ ] Yes (Please enclose) [X] No

10. STATIC WATER LEVEL
[redacted] 25' ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: [ ] Yes (Please enclose) [X] No
Yield

12. WATER QUALITY
Chemical Analysis [X] Yes [ ] No Bacterial Analysis [ ] Yes [X] No
Please Enclose Lab Results.

13. ARTIFICIAL FILTER (Gravel Pack) [X] Yes [ ] No
Installed from 29 ft. to 40 ft.
Effective size Filter sand uniformity coefficient

14. WELL GROUTED? [X] Yes [ ] No Bentonite [redacted] 28-29'
Neat Cement [X] Sand Cement [ ] Concrete [ ] Other [ ]
Depth From 0 ft. to 28 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: Feet Direction
Former UST location Type
Well disinfected [ ] Yes Type
upon completion [X] No Amount

16. PUMP: Date Installed not installed [X]
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine [ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

REGISTERED BUSINESS NAME: F&R ADDRESS: G'Ville, S.C.
Signed: Carl Langford (AUTHORIZED REPRESENTATIVE) CERT. NO. 897 Date 8/5/93

DHEC # 1903 (10/86) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

FULL SERVICE LABORATORIES ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"
1881®

Report No.: **T-65-197** DATE: **August 5, 1993**

Client: **SCDHEC**

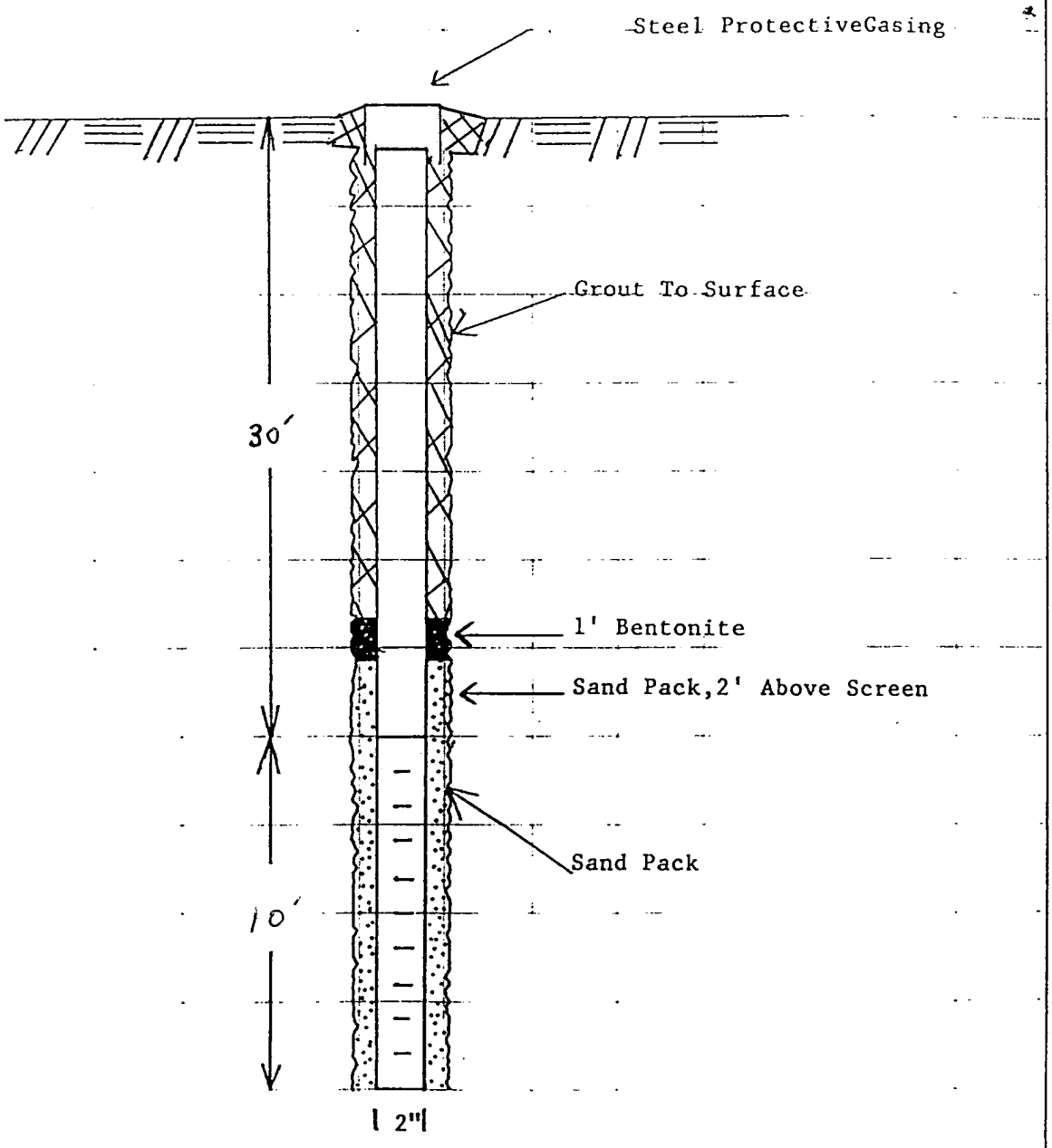
Project: **Crossroads Grocery**

Boring No.: **MW1-A (1 of 1)** | Total Depth **35.0'** | Elev: | Location: **See boring location map**

Type of Boring: **Hollow Stem Auger** | Started: **6/15/93** | Completed: **6/15/93** | Driller: **C. Lanford**

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (Feet)	REMARKS
				1.5	
			4/5/8	3.0	
		Brown medium stiff to stiff clayey silt.		4.5	
			2/4/6	6.0	
	7.0				
				8.5	
			4/7/7	10.0	
				13.5	
			8/11/12	15.0	
				18.5	
			5/18/18	20.0	
				23.5	
		Red-brown stiff to hard sandy to slightly sandy silt.	6/12/14	25.0	
					Water level @ 25' on 6/16/93
				28.5	
			5/11/20	30.0	
				33.5	Water level @ 32.6' on 6/15/93
			16/20/36		
	35.0			35.0	
		Well set at 40' Casing 0-25' Screen 25' - 40' Sand 20' - 40' Bentonite 19' - 20' Grout 0-19'			

*Number of blows required for a 140 lb hammerdropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the last two increments of penetration is termed the standard penetration resistance, N.



Monitor Well Schematic MW 1-a

FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

DATE:	
SCALE: NTS	
DRWN: JB	
DWG. NO.	

Crossroads Grocery

Form No 103

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | **2600 Bull Street** | **Columbia, S.C. 29201** | **(803) 734-5331** | **Water Well Record**

1. LOCATION OF WELL — MW1

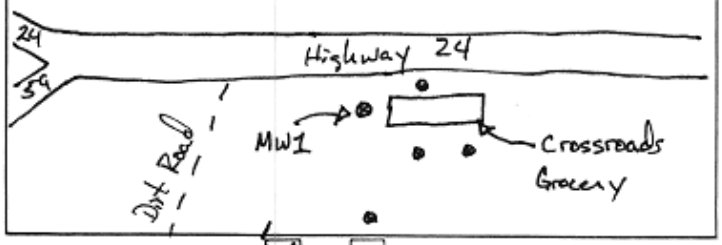
County: Oconee | System Name:

Latitude: | Longitude:

Distance And Direction from Road Intersections: 1/4 mi. West of intersection of US. 24 & US. 59

Street address & City of Well Location:

Sketch Map: (See example on back)



2. CUTTING SAMPLES: [X] Yes [ ] No

Geophysical Logs: [X] Yes (Please enclose) [ ] No

FORMATION DESCRIPTION	*THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
* Indicate water bearing zones (use a 2nd sheet if needed)		

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address: c/o Crossroads Grocery, Rt. 2 Box 149, Westminster, SC 29693
Telephone No. (803) 972-3489

Engineer: Freehling & Robertson, Inc.
Address: P.O. Box 17186, Greenville, SC 29606
Telephone No. (803) 271-2840

5. WELL DEPTH (Completed): 30 ft. Date Started: 6/16/93 Date Completed: 6/16/93

6. [ ] Mud Rotary [ ] Jetted [X] Bored [ ] Dug [ ] Air Rotary [ ] Driven [ ] Cable tool [ ] Other

7. USE: [ ] Domestic [ ] Public Supply Permit No. [ ] Industry [ ] Irrigation [ ] Air Conditioning [ ] Commercial [X] Test Well [ ]

8. CASING: [X] Threaded [ ] Welded
Diam. 2"
Type [X] PVC [ ] Galvanized [ ] Steel [ ] Other
0 in. to 20 ft. depth
in. to ft. depth
Height: Above/Below Flush
Surface ft.
Weight lbs./ft.
Drive Shoe? [ ] Yes [ ] No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze .010" Length
Set Between 20 ft. and 30 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis [ ] Yes (Please enclose) [X] No

10. STATIC WATER LEVEL: 27.0 ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: [ ] Yes (Please enclose) [X] No
Yield

12. WATER QUALITY
Chemical Analysis [X] Yes [ ] No Bacterial Analysis [ ] Yes [X] No
Please Enclose Lab Results.

13. ARTIFICIAL FILTER (Gravel Pack) [X] Yes [ ] No
Installed from [redacted] 19 ft. to 30 ft.
Effective size Filter Sand uniformity coefficient

14. WELL GROUTED? [X] Yes [ ] No Bentonite [redacted] 18-19'
Neat Cement [X] Sand Cement [ ] Concrete [ ] Other [ ]
Depth From 0 ft. to 18 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: Feet Direction
Former UST location Type
Well disinfected [ ] Yes Type
upon completion [X] No Amount

16. PUMP: Date Installed not installed [X]
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine [ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

REGISTERED BUSINESS NAME: F&R ADDRESS: G'Ville S.C.
Signed: Carl Haviland AUTHORIZED REPRESENTATIVE
CERT. NO. 897
Date 8/5/93

DHEC # 1903 (10/86) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

FULL SERVICE LABORATORIES ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"
1881®

Report No.: **T-65-197** DATE: **August 5, 1993**

Client: **SCDHEC**

Project: **Crossroads Grocery**

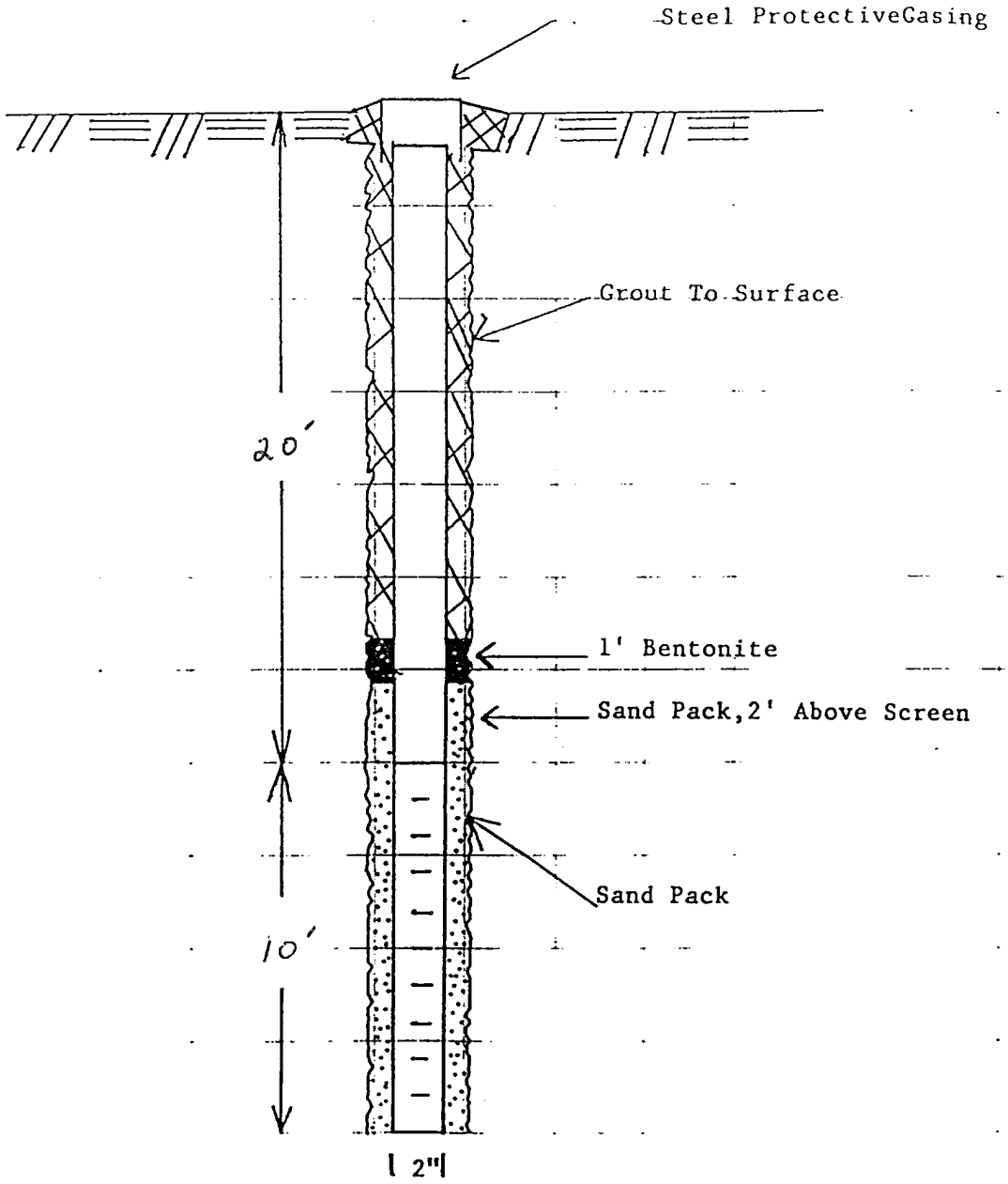
Boring No.: **MW-1 (1 of 1)** | Total Depth **25.0'** | Elev: | Location: **See boring location map**

Type of Boring: **Hollow Stem Auger** | Started: **6/16/93** Completed: **6/16/93** | Driller: **C.Lanford**

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (Feet)		REMARKS
				1.5		
		Brown medium dense silty sand.	4/8/10	3.0		
	4.0			4.5		
			3/8/9	6.0		
		Brown stiff sandy silt.		8.5		
	9.0		4/5/24	10.0		
				13.5		
			5/7/7	15.0		
				18.5		
		Brown hard fine sandy silt.	7/33/30	20.0		
	23.0			23.5		
	25.0	Black very stiff fine sandy silt.	4/7/9	25.0		

Well set at 30'
Casing 0-20'
Screen 20'-30'
Sand 20'- 30'
Bentonite 19' - 20'
Grout 0-19"

*Number of blows required for a 140 lb hammerdropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the last two increments of penetration is termed the standard penetration resistance, N.



Monitor Well Schematic mw-1

FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

DATE:

SCALE: NTS

DRWN: JB

Crossroads Grocery

DWG. NO.

Form No 103

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | Water Well Record

1. LOCATION OF WELL — MW2

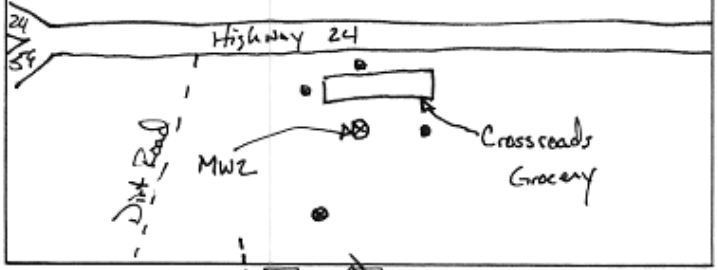
County: Oconee | System Name:

Latitude: | Longitude:

Distance And Direction from Road Intersections: 1/4 Mi. West of intersection of US.24 & US.59

Street address & City of Well Location

Sketch Map: (See example on back)



2. CUTTING SAMPLES: [X] Yes [X] No

Geophysical Logs: [ ] Yes (Please enclose) [X] No

FORMATION DESCRIPTION	*THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
* Indicate water bearing zones (use a 2nd sheet if needed)		

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address: c/o Crossroads Grocery, Rt.2 Box 149, Westminster, SC 29693
Telephone No. (803) 972-3489

Engineer: Froehling & Robertson, Inc
Address: P.O. Box 17186, Greenville, SC 29606
Telephone No. (803) 271-2840

5. WELL DEPTH (Completed): 30 ft. Date Started: 6/16/93 Date Completed: 6/17/93

6. [ ] Mud Rotary [ ] Jetted [X] Bored [ ] Dug [ ] Air Rotary [ ] Driven [ ] Cable tool [ ] Other

7. USE: [ ] Domestic [ ] Public Supply Permit No. _____ [ ] Industry [ ] Irrigation [ ] Air Conditioning [ ] Commercial [X] Test Well [ ] _____

8. CASING: [X] Threaded [ ] Welded
Diam. 2"
Type [X] PVC [ ] Galvanized [ ] Steel [ ] Other
0 in. to 20 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Flush
Surface _____ ft.
Weight _____ lbs./ft.
Drive Shoe? [ ] Yes [X] No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze .010" Length 10'
Set Between 20 ft. and 30 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis [ ] Yes (Please enclose) [X] No

10. STATIC WATER LEVEL
25.06 ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
_____ ft. after _____ hrs. pumping _____ G.P.M.
Pumping Test: [ ] Yes (Please enclose) [X] No
Yield _____

12. WATER QUALITY
Chemical Analysis [X] Yes [ ] No Bacterial Analysis [ ] Yes [X] No
Please Enclose Lab Results.

13. ARTIFICIAL FILTER (Gravel Pack) [X] Yes [ ] No
Installed from 19 ft. to 30 ft.
Effective size _____ uniformity coefficient _____

14. WELL GROUTED? [X] Yes [ ] No Bentonite 18'-19'
Neat Cement [X] Sand Cement [ ] Concrete [ ] Other [ ] _____
Depth From 0 ft. to 18 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ Feet _____ Direction
Former UST location Type
Well disinfected [ ] Yes Type _____
upon completion [X] No Amount _____

16. PUMP: Date Installed _____ not installed [X]
Mfr. name _____ model no. _____
H.P. _____ volts _____ length of drop pipe _____ ft. capacity _____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine [ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME: F & R ADDRESS: G'Ville, S.C.
Signed: Carl Lanford AUTHORIZED REPRESENTATIVE
CERT. NO. 897
Date 5/8/93

DHEC # 1903 (10/86) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

FULL SERVICE LABORATORIES ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"
1881®

Report No.: **T-65-197** DATE: **January 25, 1994**

Client: **SCDHEC**

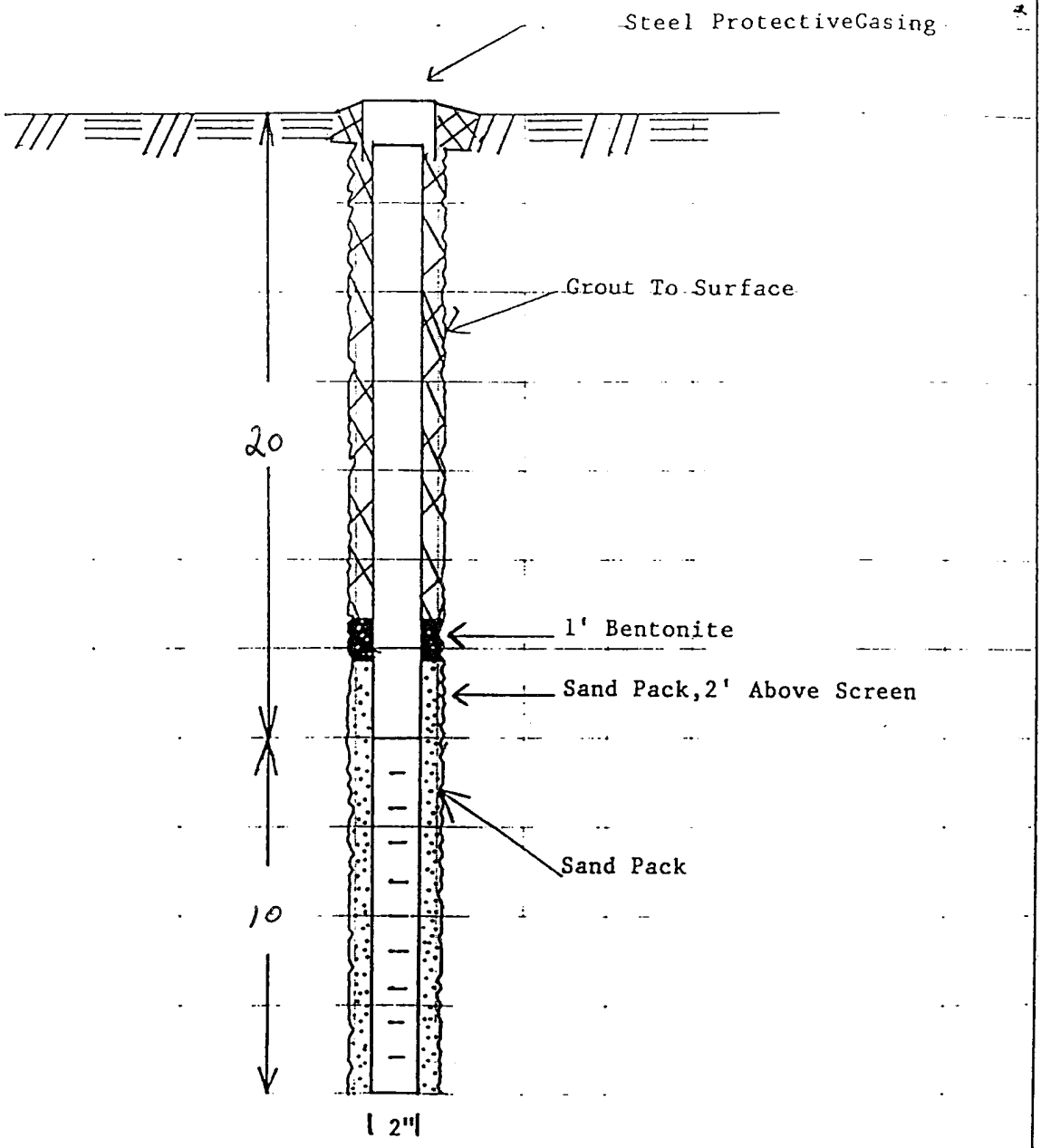
Project: **Crossroads Grocery**

Boring No.: **MW-2 (1 of 1)** | Total Depth **30.0'** | Elev: | Location: **See boring location map**

Type of Boring: **Hollow Stem Auger** | Started: **6/16/93** | Completed: **6/16/93** | Driller: **C. Lanford**

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (Feet)		REMARKS
				1.5		
		Stiff, brown to yellow slightly clayey, silty sand.	6/5/7	3.0		
	4.0			4.5		
		Medium stiff, brown/orange slightly clayey, sandy silt.	2/3/5	6.0		
	7.5			8.5		
			3/4/7	10.0		
				13.5		
		Stiff, brown to yellow, sandy silt.	3/6/5	15.0		
	30.0					
		Boring terminated at 30' Well set @ 30' Casing 0-20' Screen 20-30' Sand 19-30' Bentonite 18-19' Grout 0-18'				

*Number of blows required for a 140 lb hammerdropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the last two increments of penetration is termed the standard penetration resistance, N.



Monitor Well Schematic MW-2

FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

DATE:
SCALE: NTS
DRWN: JB

Crossroads Grocery

DWG. NO.

Form No 103

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | Water Well Record

1. LOCATION OF WELL — MW3

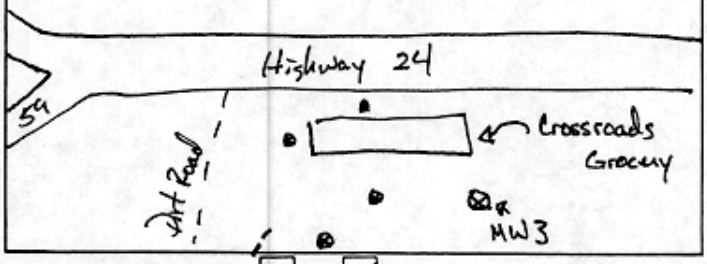
County: Oconee | System Name:

Latitude: | Longitude:

Distance And Direction from Road Intersections: 1/4 Mile west of intersection of U.S. 24 & U.S. 59

Street address & City of Well Location:

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☒ No

Geophysical Logs ☐ Yes (Please enclose) ☒ No

FORMATION DESCRIPTION	*THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Well Constructed by auger probe, No Samples obtained		

* Indicate water bearing zones (use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address: c/o Crossroads Grocery, Rt. 2 Box 149, Westminster, SC 29693
Telephone No. (803) 972-3489

Engineer: Froehling & Robertson, Inc.
Address: P.O. Box 17186, Greenville, SC 29606
Telephone No. (803) 271-2840

5. WELL DEPTH (Completed): 30 ft. Date Started: 6/19/93 Date Completed: 6/19/93

6. ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☒ Test Well ☐

8. CASING: ☒ Threaded ☐ Welded
Diam. 2" Type ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 20 ft. depth
in. to ft. depth
Height: Above/Below Flush
Surface ft. Weight lbs./ft. Drive Shoe? ☐ Yes ☒ No

9. SCREEN: Type: PVC Diam. 2" Slot/Gauze .010" Length 10'
Set Between 20 ft. and 30 ft. NOTE: MULTIPLE SCREENS USE SECOND SHEET
ft. and ft.
Sieve Analysis ☐ Yes (Please enclose) ☒ No

10. STATIC WATER LEVEL: 26.20 ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface: ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☒ No
Yield

12. WATER QUALITY: Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please Enclose Lab Results.

13. ARTIFICIAL FILTER (Gravel Pack) ☒ Yes ☐ No
Installed from 19 ft. to 30 ft.
Effective size Filter Sand uniformity coefficient

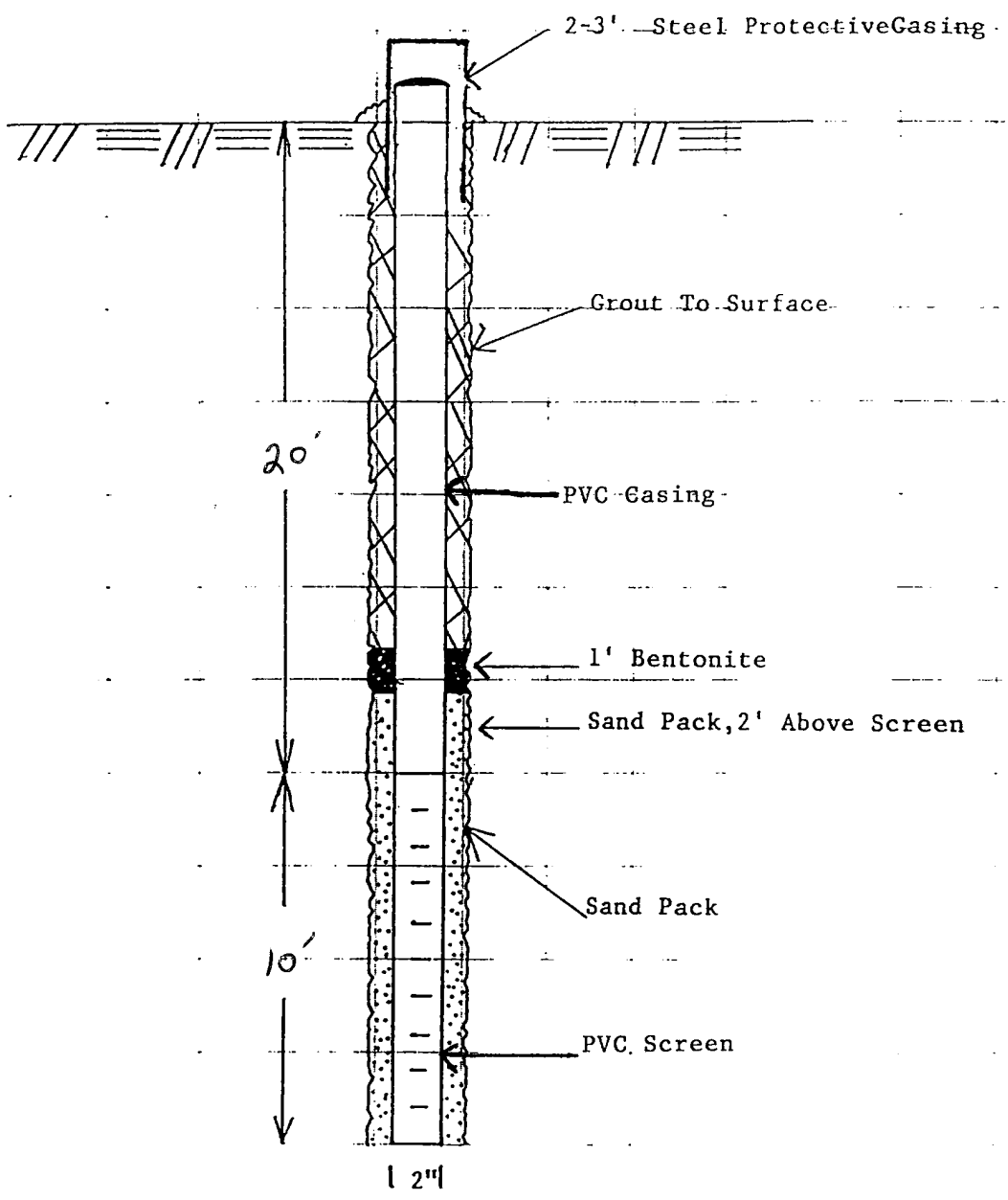
14. WELL GROUTED? ☒ Yes ☐ No Bentonite 18-19'
Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0 ft. to 18 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: Feet Direction
Former UST location Type Well disinfected upon completion ☐ Yes ☐ No Type Amount

16. PUMP: Date Installed not installed ☒
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME: Froehling & Robertson ADDRESS: G'ville S.C.
Signed Carl Langford CERT. NO. 897 Date 8/5/93
AUTHORIZED REPRESENTATIVE

DHEC # 1903 (10/86) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)



Monitor Well Schematic MW-3

FROEHLING & ROBERTSON, INC. FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS "OVER ONE HUNDRED YEARS OF SERVICE"	DATE: 3/15/93
	SCALE: NTS
	DRWN: JR
Monitoring Well Schematic Crossroads Grocery	DWG. NO. 3

Form No.: 103

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | Water Well Record

1. LOCATION OF WELL — MW4

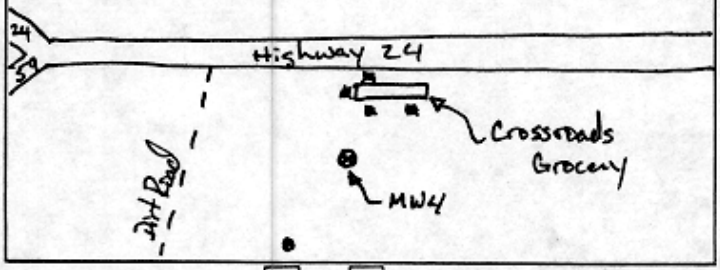
County: Oconee | System Name:

Latitude: | Longitude:

Distance And Direction from Road Intersections: 1/4 mile west of intection of US. 24 & 59

Street address & City of Well Location:

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☒ No

Geophysical Logs ☐ Yes (Please enclose) ☒ No

FORMATION DESCRIPTION	*THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Well Constructed by Auger Probe, No Cuttings obtained		

* Indicate water bearing zones

(use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL: Neil Hefander
Address: c/o Crossroads Grocery, Rt. 2 Box 149, Westminster, SC 29693
Telephone No. (803) 972-3489

Engineer: Froehling & Robertson, Inc.
Address: P.O. Box 17186, Greenville, SC 29606
Telephone No. (803) 271-2840

5. WELL DEPTH (Completed) 25 ft. Date Started: 6/21/93 Date Completed: 6/21/93

6. ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☒ Test Well ☐

8. CASING: ☒ Threaded ☐ Welded
Diam. 2"
Type ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 15 ft. depth
in. to ft. depth
Height: (Above)/Below
Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☒ No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze .010" Length 10'
Set Between 15 ft. and 25 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☒ No

10. STATIC WATER LEVEL
17.98 ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☒ No
Yield

12. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please Enclose Lab Results.

13. ARTIFICIAL FILTER (Gravel Pack) ☒ Yes ☐ No
Installed from 14 ft. to 25 ft.
Effective size Filter sand uniformity coefficient

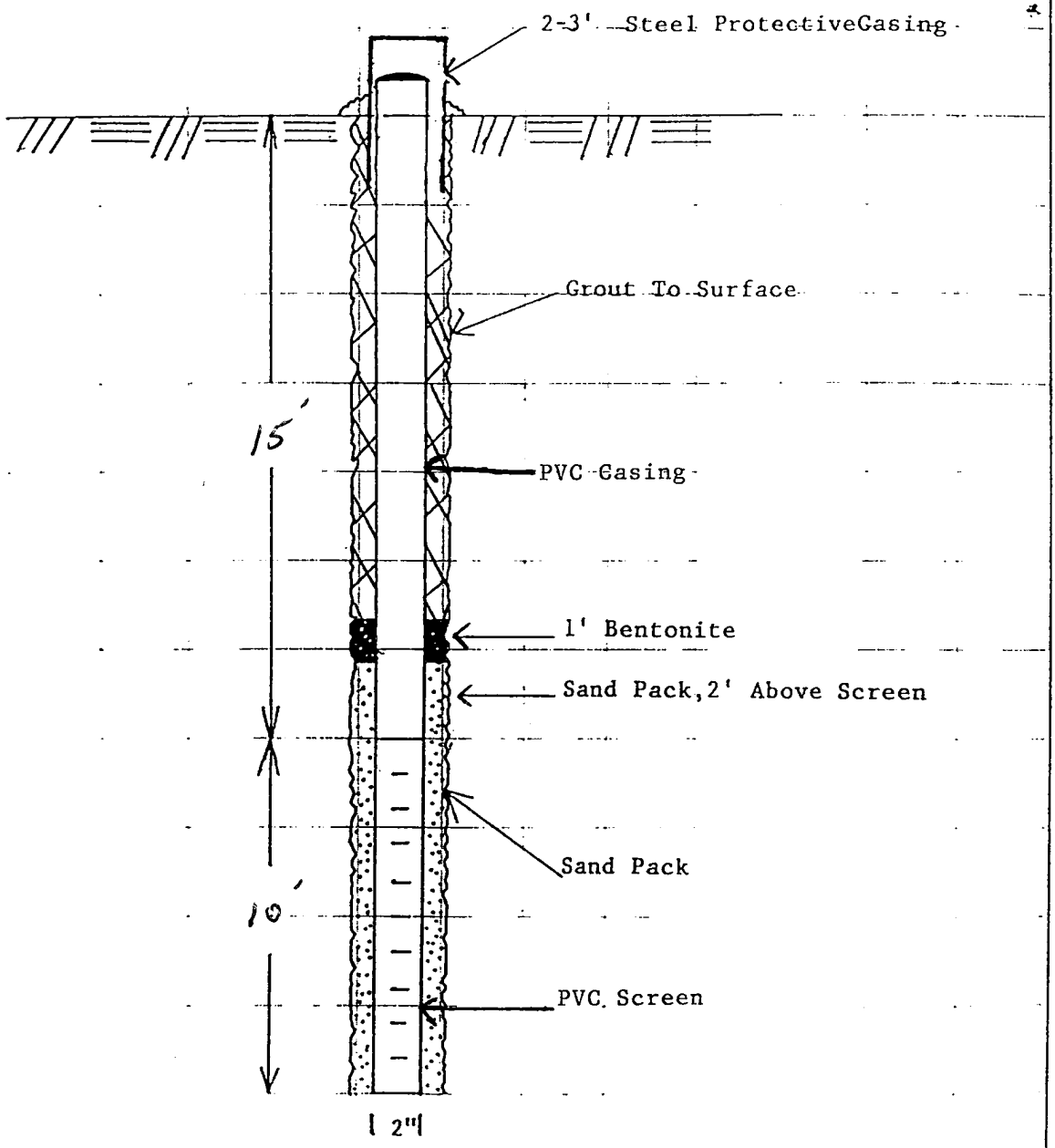
14. WELL GROUTED? ☒ Yes ☐ No Bentonite 13-14'
Neat Cement ☒ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0 ft. to 13 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: Feet Direction
Former UST location Type
Well disinfected ☐ Yes Type
upon completion ☒ No Amount

16. PUMP: Date Installed not installed ☒
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME F&R ADDRESS G'Ville S.C.
Signed Carl Lanford AUTHORIZED REPRESENTATIVE
CERT. NO. 897 Date 8/5/93

DHEC # 1903 (10/86) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)



Monitor Well Schematic MW-4

FROEHLING & ROBERTSON, INC. FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS "OVER ONE HUNDRED YEARS OF SERVICE"	DATE: 3/15/93
	SCALE: NTS
	DRWN: JR
Monitoring Well Schematic Crossroads Grocery	DWG. NO. 3

Form No. 103

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | **Water Well Record**

1. LOCATION OF WELL — MW5

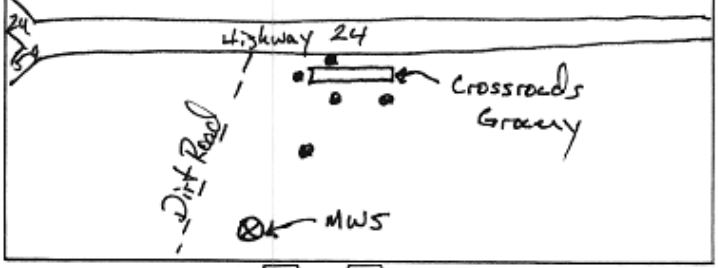
County: Oconee | System Name:

Latitude: | Longitude:

Distance And Direction from Road Intersections: 1/4 mile west of intersection of U.S. 24 & U.S. 59

Street address & City of Well Location:

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☒ No

Geophysical Logs ☐ Yes (Please enclose) ☒ No

FORMATION DESCRIPTION	*THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Well Constructed by Auger Probe, No. Samples Obtained		

* Indicate water bearing zones (use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address: c/o Crossroad Grocery, Rt. 2 Box 149, Westminster, SC 29693
Telephone No. (803) 972-3489

Engineer Address: Froehling & Robertson, Inc., P.O. Box 17186, Greenville, SC 29606
Telephone No. (803) 271-2840

5. WELL DEPTH (Completed) 20 ft. Date Started: 6/21/93 Date Completed: 6/21/93

6. ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☒ Test Well ☐

8. CASING ☒ Threaded ☐ Welded
Diam. 2" Type ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 10 ft. depth
in. to ft. depth
Height: (Above) Below
Surface ft. Weight lbs./ft. Drive Shoe? ☐ Yes ☐ No

9. SCREEN: Type PVC Diam 2" Slot/Gauze .010" Length 10'
Set Between 10 ft. and 20 ft. ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☒ No

10. STATIC WATER LEVEL 11.75 ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☒ No
Yield

12. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please Enclose Lab Results.

13. ARTIFICIAL FILTER (Gravel Pack) ☒ Yes ☐ No
Installed from 9 ft. to 20 ft.
Effective size Filter Sand uniformity coefficient

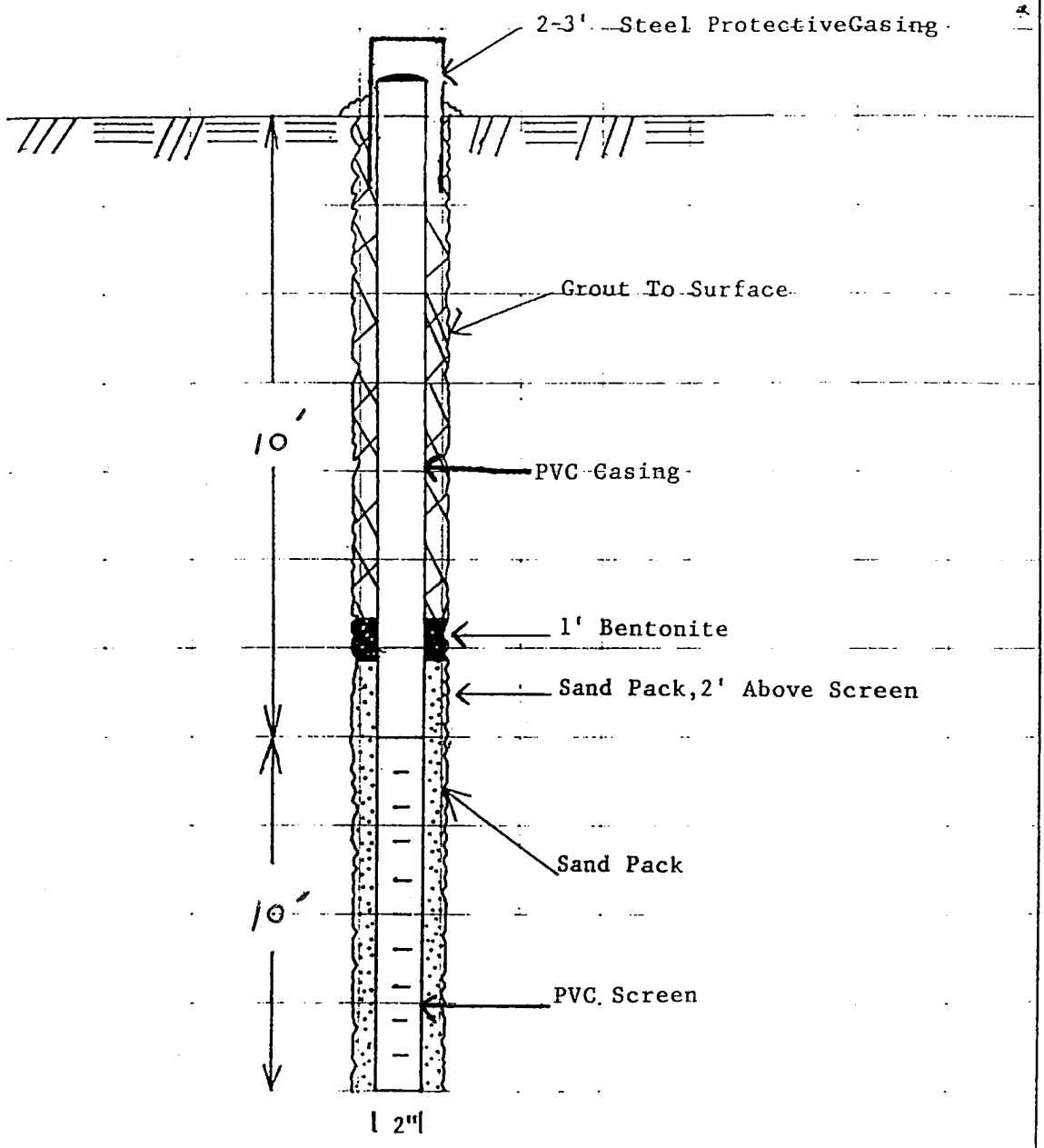
14. WELL GROUTED? ☒ Yes ☐ No Bentonite 8-9'
Neat Cement ☒ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0 ft. to 8 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: Feet Direction
Former UST location Type
Well disinfected ☐ Yes Type
upon completion ☐ No Amount

16. PUMP: Date Installed not installed ☒
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME ADDRESS
Signed Carl Lunford AUTHORIZED REPRESENTATIVE CERT. NO. 897 Date 8/5/93

DHEC # 1903 (10/86) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**



Monitor Well Schematic MW-5

FROEHLING & ROBERTSON, INC. FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS "OVER ONE HUNDRED YEARS OF SERVICE"	DATE: 3/15/93
	SCALE: NTS
	DRWN: JR
Monitoring Well Schematic Crossroads Grocery	DWG. NO. 3

Form No.: 103

FULL SERVICE LABORATORIES ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"
1881®

Report No.: **T-65-197** DATE: **January 25, 1994**

Client: **SCDHEC**

Project: **Crossroads Grocery** ***(Converted to MW-1a)**

Boring No.: **B-2*** **(1 of 1)** | Total Depth **35.0'** | Elev: | Location: **See boring location map**

Type of Boring: **Hollow Stem Auger** | Started: **6/15/93** Completed: **6/15/93** | Driller: **C. Lanford**

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (Feet)	REMARKS
				1.5	
			4/5/8	3.0	
		Medium stiff to stiff, brown clayey silt.		4.5	
			2/4/6	6.0	
	7.0				
				8.5	
			4/7/7	10.0	
				13.5	
			8/11/12	15.0	Sample from 13.5-15.0' obtained for laboratory analysis
				18.5	
			5/18/18	20.0	
		Stiff to hard, red/brown sandy to slightly sandy silt.			
				23.5	
			6/12/14	25.0	
				28.5	
			5/11/20	30.0	
				33.5	
			16/20/36		
	35.0			35.0	
		Boring terminated 40.0 ft			

*Number of blows required for a 140 lb hammerdropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the last two increments of penetration is termed the standard penetration resistance, N.

FULL SERVICE LABORATORIES ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"
1881®

Report No.: **T-65-197** DATE: **January 25, 1994**

Client: **SCDHEC**

Project: **Crossroads Grocery**

Boring No.: **B-1** **(1 of 1)** | Total Depth **15.0'** | Elev: | Location: **See boring location map**

Type of Boring: **Hollow Stem Auger** | Started: **6/14/93** Completed: **6/14/93** | Driller: **C.Lanford**

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (Feet)		REMARKS
		Stiff brown, clayey silt.	4/4/7	1.5 3.0		
	4.0	Hard, tan to brown sandy silt.	6/16/23	4.5 6.0		
	8.0	Stiff to very stiff, tan to brown sandy silt.	3/7/6 2/4/16	8.5 10.0 13.5		Sample from 13.5-15.0' obtained for laboratory analysis
	15.0	Boring terminated 15.0 ft		15.0		

*Number of blows required for a 140 lb hammerdropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the last two increments of penetration is termed the standard penetration resistance, N.

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Report No.: **T-65-197** DATE: **January 25, 1994**

Client: **SCDHEC**

Project: **Crossroads Grocery**

Boring No.: **B-3** (1 of 1) | Total Depth **15.0'** | Elev: | Location: **See boring location map**

Type of Boring: **Hollow Stem Auger** | Started: **6/15/93** Completed: **6/15/93** | Driller: **C. Lanford**

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (Feet)		REMARKS
				1.5		
			8/8/7	3.0		
		Stiff, brown to tan slightly clayey to sandy silt.		4.5		
			4/4/7	6.0		
	7.0					
				8.5		
			7/10/14	10.0		
		Very stiff, tan to brown sandy silt.				Sample from 13.5-15.0' obtained for laboratory analysis
				13.5		
			8/14/16			
	15.0			15.0		
		Boring terminated 15.0 ft				

*Number of blows required for a 140 lb hammerdropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the last two increments of penetration is termed the standard penetration resistance, N.

Appendix C

Laboratory Results

HYDROLOGIC COLUMBIA
Sample Data Report
SC Certification No. 40101

Date : 7/1/93
Project : Crossroads T-65-197
Client : Froehling & Robertson
Date Collected : 6/15 & 6/16/93
Date Received : 6/24/93
Date Analyzed : 6/28/93
Date Reported : 7/1/93

Sample ID	Client ID	Benzene	Toluene	Ethyl Benzene	Xylenes	5030 TPH	3550 TPH
93-4245	MW-1	<6.0	163	187	1070	0.16	228
93-4246	B-1	<6.0	115	83.4	505	<0.1	170
93-4247	B-2	2830	35400	9290	100,000	22.1	1950
93-4248	B-3	<6.0	209	<6.0	1210	0.19	371

BTEX Units = ug/kg (parts per billion) soil by M8020
TPH Units = mg/kg (parts per million) soil by M5030/3550

Data Approved for Release:

Joy G. Clark
Joy G. Clark
Lab Manager

HydroLogic Inc.
100 Ashland Park Lane, Suite E • Columbia, SC 29210
800-476-0913
803-750-0913
FAX 803-750-9505

HydroLogic - Columbia, South Carolina

CHAIN OF CUSTODY RECORD

SAMPLE ANALYSIS REQUIRED

Soil

CLIENT: Froehling & Robertson

SAMPLER(S) SIGNATURE: Jonett Rice

PRESERVATION (CODE)

CODE: A = NONE
B = H2SO4
C = NaOH
D = HNO3
E = _____

SAMPLE ID (LOCATION)	DATE	TIME	WELL	SOLID	COMP	GRAB	# OF CONTAINERS	INORGANIC-SPECIFY	NUTRIENT-SPECIFY	METALS-SPECIFY	VOC-602	VOC-BTEX	VOC-601	TPH-SPECIFY	B/N-EXTRACTABLES	ACIDS-EXTRACTABLES	PESTICIDES	HERBICIDES	PCB'S	TOTAL PHENOL	COLIFORM-SPECIFY	TOXICITY-SPECIFY	CYANIDE	PROGRAM C	REMARKS	LAB I.
																									Job No. -T-65-197 Crossroads (Normal Turnaround)	
MW-1 (13.5-15')	6/16/93			X		X																			93-4245	
																									BTEX, TPH (5030/3550)	
B-1 (13.5-15')	6/15/93			X		X																			93-4246	
																									BTEX, TPH (5030/3550)	
B-2 (13.5-15')	6/15/93			X		X																			93-4247	
B-3 (13.5-15')	6/15/93			X		X																			BTEX TPH (5030/3550)	
																									BTEX TPH (5030/3550)	
																									934248	

RELINQUISHED BY:(Sig.)	DATE/TIME	RECEIVED BY:(Sig)	RELINQUISHED BY:(Sig)	DATE/TIME	RECEIVED BY:(Sig.)
Jonett Rice	6/23/93				
RELINQUISHED BY:(Sig.)	DATE/TIME	RECEIVED BY:(Sig)	RELINQUISHED BY:(Sig)	DATE/TIME	RECEIVED BY:(Sig)
LAB RECEIPT BY:(Sig.)	DATE/TIME	REMARKS:			
Jean Rivera	6/24/93 10:30 AM				

HYDROLOGIC COLUMBIA
Sample Data Report
SC Certification No. 40101

Date : 8/2/93
Project : Crossroads Grocery T-65-197
Client : Froehling & Robertson
Date Collected : 7/20-21/93
Date Received : 7/23/93
Date Analyzed : 7/27-29/93
Date Reported : 8/2/93

Sample ID	Client ID	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE	Naphth
93-5230	MW1-A	39700	51300	14500	25400	227000	1450
93-5231	MW-1	39300	46400	3050	22800	14100	1360
93-5232	MW-2	41.4	27.8	3.71	15.8	665	<10
93-5233	MW-3	<2.5	<2.5	<2.5	<7.5	<50	<10
93-5234	MW-4	31000	19800	3860	24400	20000	1190
93-5235	MW-5	6.49	66.0	23.7	624	90.6	99.0

BTEX Units = ug/L (parts per billion) water by M602
MTBE Units = ug/L (parts per billion) water by Mod.602
Naphthalene Units = ug/L (parts per billion) water by Mod.602

Data Approved for Release:

Joy G. Clark
Lab Manager

HydroLogic Inc.

1020 Ashland Park Lane, Suite E • Columbia, SC 29210

800-476-0913
803-750-0913
FAX 803-750-9505

HydroLogic - Columbia, South Carolina

CHAIN OF CUSTODY RECORD

PAGE ___ OF ___

SAMPLE ANALYSIS REQUIRED

CLIENT: Froehling & Robertson

SAMPLER(S) SIGNATURE: Janeth Rios

SAMPLE ID (LOCATION)	DATE	TIME	WELL	SOLID	COMP	GRAB	# OF CONTAINERS	INORGANIC-SPECIFY	NUTRIENT-SPECIFY	METALS-SPECIFY	VOC-602	VOC-BTEX	VOC-601	TPH-SPECIFY	B/N-EXTRACTABLES	ACIDS-EXTRACTABLES	PESTICIDES	HERBICIDES	PCB-S	TOTAL PHENOL	COLIFROM-SPECIFY	TOXICITY-SPECIFY	CYANIDE	PROGRAM SC
MW1-A	7/20	PM	X																					
MW1	7/20	PM	X																					
MW2	7/20	PM	X																					
MW3	7/20	PM	X																					
MW4	7/21	PM	X																					
MW5	7/21	PM	X																					

PRESERVATION (CODE)

CODE: A = NONE
B = H2SO4
C = NaOH
D = HNO3
E = _____

LAB USE ONLY

REMARKS: Crossroads Grocery T-65-197

LAB I.D.: BTEX, MTBE, Napthalene

93-5230
93-5231
93-5232
93-5233
93-5234
93-5235

RELINQUISHED BY:(Sig.)	DATE/TIME	RECEIVED BY:(Sig)	RELINQUISHED BY:(Sig)	DATE/TIME	RECEIVED BY:(Sig.)
Janeth Rios	7/22/94 4:00P	LPS			
RELINQUISHED BY:(Sig.)	DATE/TIME	RECEIVED BY:(Sig)	RELINQUISHED BY:(Sig)	DATE/TIME	RECEIVED BY:(Sig)
LAB RECEIPT BY:(Sig.) Alyson P. Cockrell	DATE/TIME 7/23 10:15	REMARKS:			

LIMITED ASSESSMENT REPORT

CROSSROAD GROCERY
850 WEST OAK HIGHWAY
(INTERSECTION OF SC HIGHWAYS 24 & 59)
WESTMINSTER, OCONEE COUNTY, SC
GWPD SITE ID #06742

SUBMITTED AND PREPARED BY:
ESCM & ASSOCIATES, INC., CONSULTING ENGINEERS
394 SOUTH MILLEDGE AVENUE
ATHENS, GEORGIA 30605
(706) 546-1149

RECEIVED
JAN 23 1996
Groundwater Protection Division

ON BEHALF OF:
MR. NEIL ALEXANDER
CROSSROADS GROCERY
ROUTE 2, BOX 149
WESTMINISTER, SC 29693

JANUARY 1996

73 tech

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2. Location Map of the Site
3. OVA-FID Readings in ppm measured on 12/6/95
4. Oxygen and Lower Explosive Limit readings measured on 12/6/95
5. Ground-Water and Surface Water BTEX Concentrations in ppb
6. Ground-Water and Surface Water Benzene Concentrations in ppb
7. Ground-Water and Surface Water MTBE Concentrations in ppb
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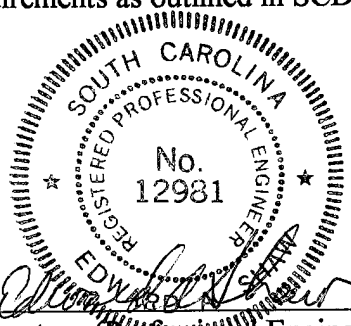
1. BTEX and MTBE Concentrations in Ground-Water and Surface Water Samples, in µg/L

List of Appendices

A. Laboratory Analyses and Chain of Custody Documentation

CERTIFICATION

I hereby certify that the information contained in this report and attachments, is true, accurate, complete, and satisfies all the criteria and requirements as outlined in SCDHEC's letter dated September 15, 1995.



Edward A. Shaw
Printed Name (Professional Engineer)

Signature (Professional Engineer)

INTRODUCTION

In accordance with instructions outlined in a letter from South Caroline Department of Health and Environmental Control (SCDHEC), the information in this Limited Assessment Report is provided. ESCM & Associates, Inc., (ESCM) was commissioned by Neil Alexander (owner) to perform environmental testing at Crossroads Grocery. Crossroads Grocery is a gasoline station/convenient store and is located at the intersection of State Highways 24 and 59 in Westminster, South Carolina (Figures 1 and 2).

FIELD ACTIVITIES, METHODOLOGY, AND RESULTS

On December 6, 1996, ESCM & Associates, Inc., (ESCM) personnel measured the hydrocarbon vapor concentrations at all exposure points (Figure 3). The hydrocarbon vapor concentrations at the monitor well openings were measured using an organic vapor analyzer - flame ionization detector (OVA-FID). An examination of the OVA-FID readings indicates that the greatest concentration of vapors was measured in monitor wells MW-1A, MW-1, MW-2, and MW-4 with 5000+ ppm at each (Figure 3). These same monitor wells either contained free product or contained dissolved-phase hydrocarbons as discussed below.

On December 6, 1996, ESCM personnel measured the oxygen (O_2) and lower explosive levels (LEL) at each monitor well opening (Figure 4). The O_2 and LEL readings were measured using an oxygen meter/explosimeter. An examination of the O_2 and LEL readings indicates explosive levels in monitor wells MW-1A, MW-1, MW-2, and MW-4. These same monitor wells either contained free product or contained dissolved-phase hydrocarbons. These same monitor wells had 5000+ hydrocarbon vapor concentrations as measured with the OVA-FID.

On December 6, 1996, ESCM personnel collected ground-water samples from all the monitor wells on and off site which did not contain free product. Ground-water samples were collected from monitor wells MW-2, MW-3, and MW-4. Monitor well MW-5 was not sampled because it was destroyed. Surface water samples were collected from an unnamed stream located approximately ½ mile south of the trailer home near monitor well (Figure 2). The water samples were packed in an iced cooled insulated chest and shipped to Southern Petroleum Laboratories for analysis of BTEX and MTBE (EPA Method 8020). An examination of the laboratory results indicates that the greatest BTEX concentration was measured in ground-water samples collected from monitor well MW-4 with 19,000 ppb benzene, 44,000 ppb toluene, 3,100 ppb ethylbenzene, and 18, 000 ppb total xylenes (Figures 5 and 6, Table 1, Appendix A). An examination of the laboratory results indicates that the greatest MTBE concentration was measured in ground-water samples collected from monitor well MW-4 with 15,000 ppb (Figure 7, Table 1, Appendix A). BTEX and MTBE concentrations were measured in the water samples collected from the stream with 30 ppb benzene, 13 ppb toluene, non-detect level of ethylbenzene, 15 ppb total xylenes, and 290 ppb MTBE (Figures 5 through 7, Table 1, Appendix A).

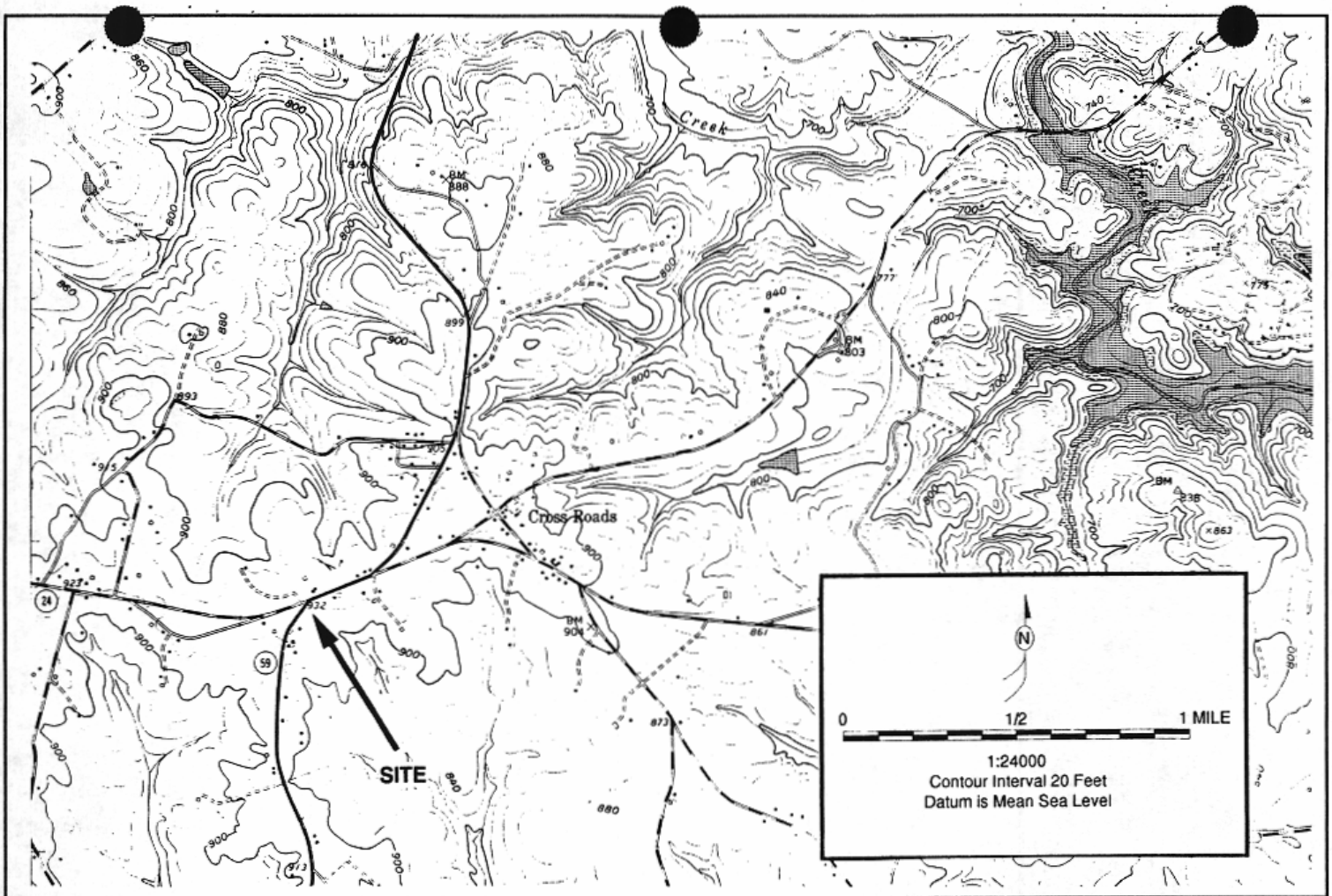
The site is located in a rural residential area that is serviced by Pioneer Water. Pioneer Water purchases water for public use from the Westminster Water Department and from Seneca Light and Water. According to Mr. Jerry Wirtz, Assistant Superintendent of the Westminster Commissioner of Public Works, Westminster pumps water for public use from the Chattooga River. The Chattooga River is located approximately three to four miles northwest of Westminster, South Carolina. According to Mr. Dewitt Martin, Assistant Director of Utilities at Seneca Light & Water, Seneca pumps water for public use from Lake Keowee. Lake Keowee is located approximately four miles east of Seneca. The unnamed stream located ½ mile south of monitor well MW-5 empties into Mud Creek. Mud Creek empties into Beaverdam Creek which empties into Lake Hartwell. Lake Hartwell is used as a public water source for many communities in Georgia and South Carolina.

On December 6, 1996, ESCM & Associates, Inc., gauged monitor wells MW1A, MW1, MW2, MW3, MW4, and MW5 (Figure 2). Monitor well MW1A contained 3.70 feet of free-phase hydrocarbons and four gallons of free-product was bailed out of this well. Free-product was detected to the bottom of MW1 therefore neither the actual free product thickness nor the groundwater level could be measured in this monitor well. One fourth of a gallon was bailed out of monitor well MW-1. Monitor well 2 contained 0.04 feet of free-phase hydrocarbons. The depth to groundwater was measured in the remaining wells. No free-phase hydrocarbons were detected in monitor wells MW-3, MW-4, and MW-5. On December 8, 1993, the elevation of the top of casing (TOC) and land surface grade at each monitor well, except MW5, were measured relative to a temporary benchmark (TBM) using a surveyor's transit (EAP Addendum, ESCM, February 1994, Figure 3). On December 6, 1995, monitor well MW-5 was surveyed (Figure 8). Depth to groundwater measurements were referenced to the top of casing (TOC) at each well (Figure 8). Based on the water level readings obtained on December 8, 1993, the groundwater appears to be flowing in a southwesterly direction (EAP Addendum, ESCM, February 1994, Figure 3). Based on the water level readings obtained on December 6, 1995, the groundwater appears to be flowing in a southwesterly direction (Figure 8).

RECOMMENDATIONS

In accordance with SCDHEC's letter dated September 13, 1995, the data in this report is presented for the purpose of ensuring correct site classification under Risk-Based Corrective Action (RBCA). Based on the RBCA Classification/Priority System, this site should be placed in Classification 1 since chemicals of concern (COC) exist in the unnamed stream located ½ mile south of the trailer home near monitor well MW-5. Initial abatement activities should be re-started immediately.

FIGURES



Crossroads Grocery

USGS MAP SHOWING SITE LOCATION

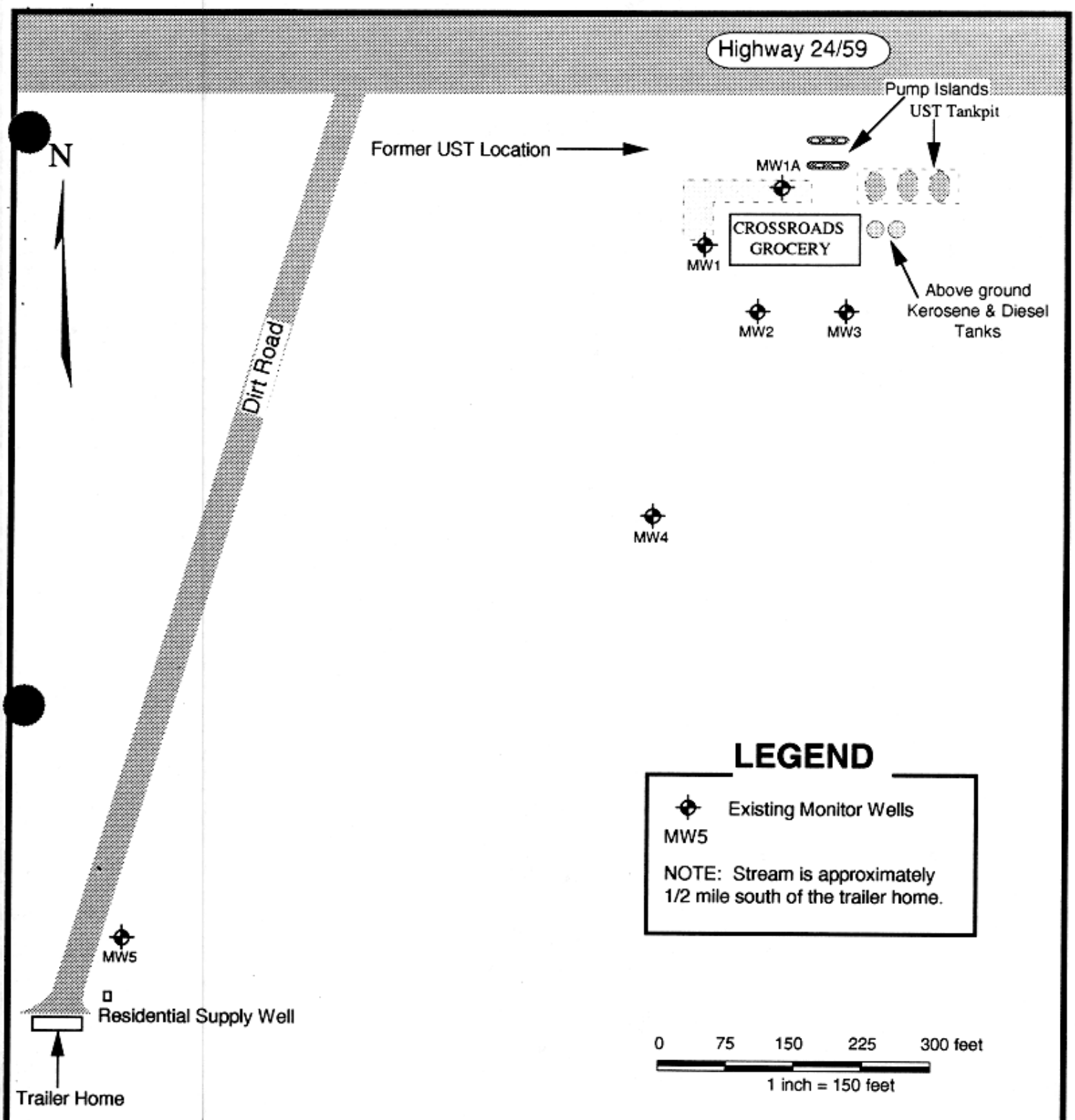
Highway 24/59, Tokeena, Oconee County, South Carolina

(Fair Play, SC, Quad, 1958-Photorevised 1979)

ESCM & Associates, Inc. 394 S. Milledge Avenue Athens, Georgia 30605

Scale: 1:24000

FIGURE 1



Crossroads Grocery

SITE MAP AND MONITOR WELL LOCATIONS

Highway 24/59, Tokeena, Oconee County, South Carolina

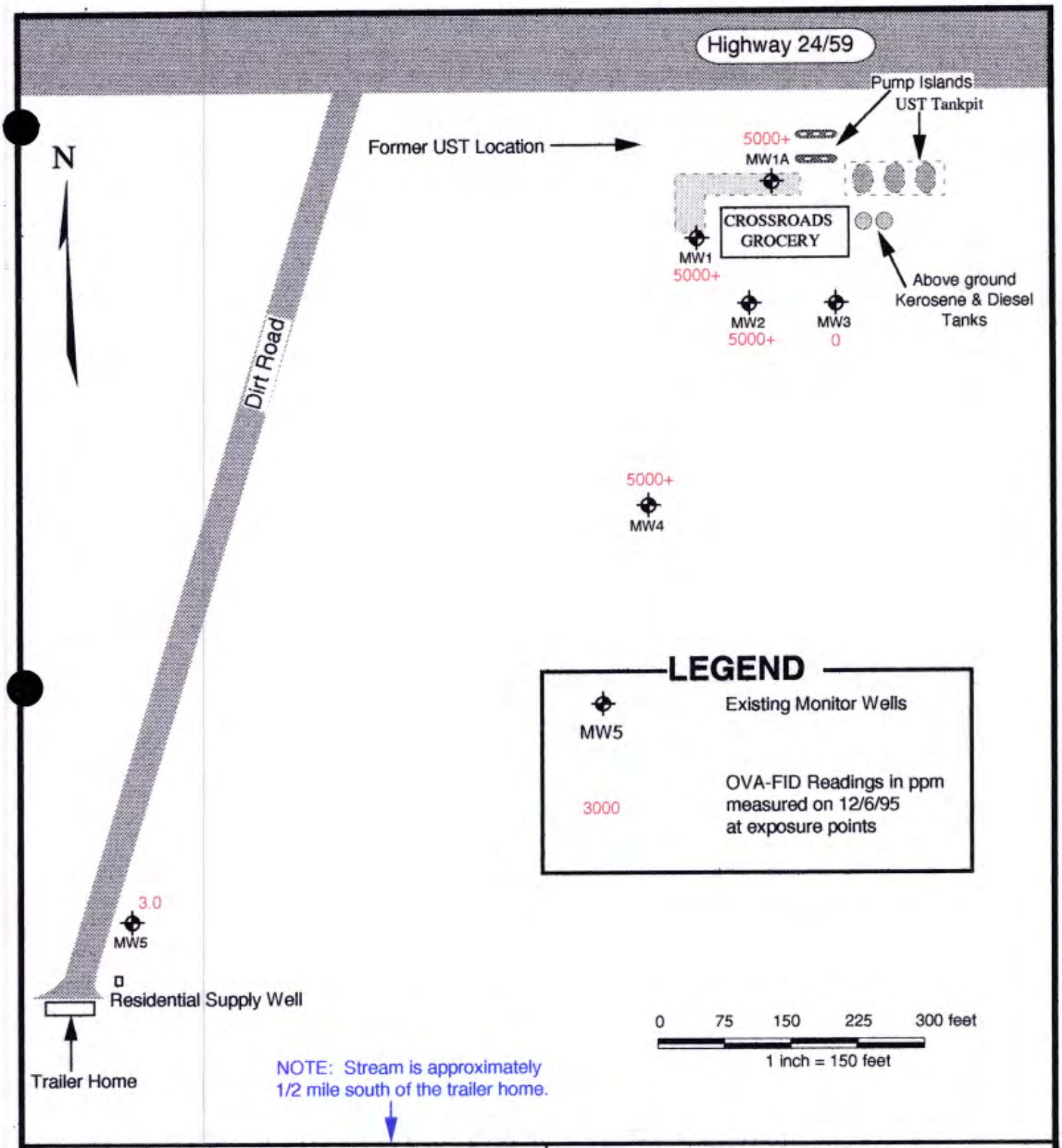
ESCM

P.O. Box 7487
Athens Georgia, 30604

Drafted by: Mirta A. Carpenter

Draft Date: 2/21/94

FIGURE 2

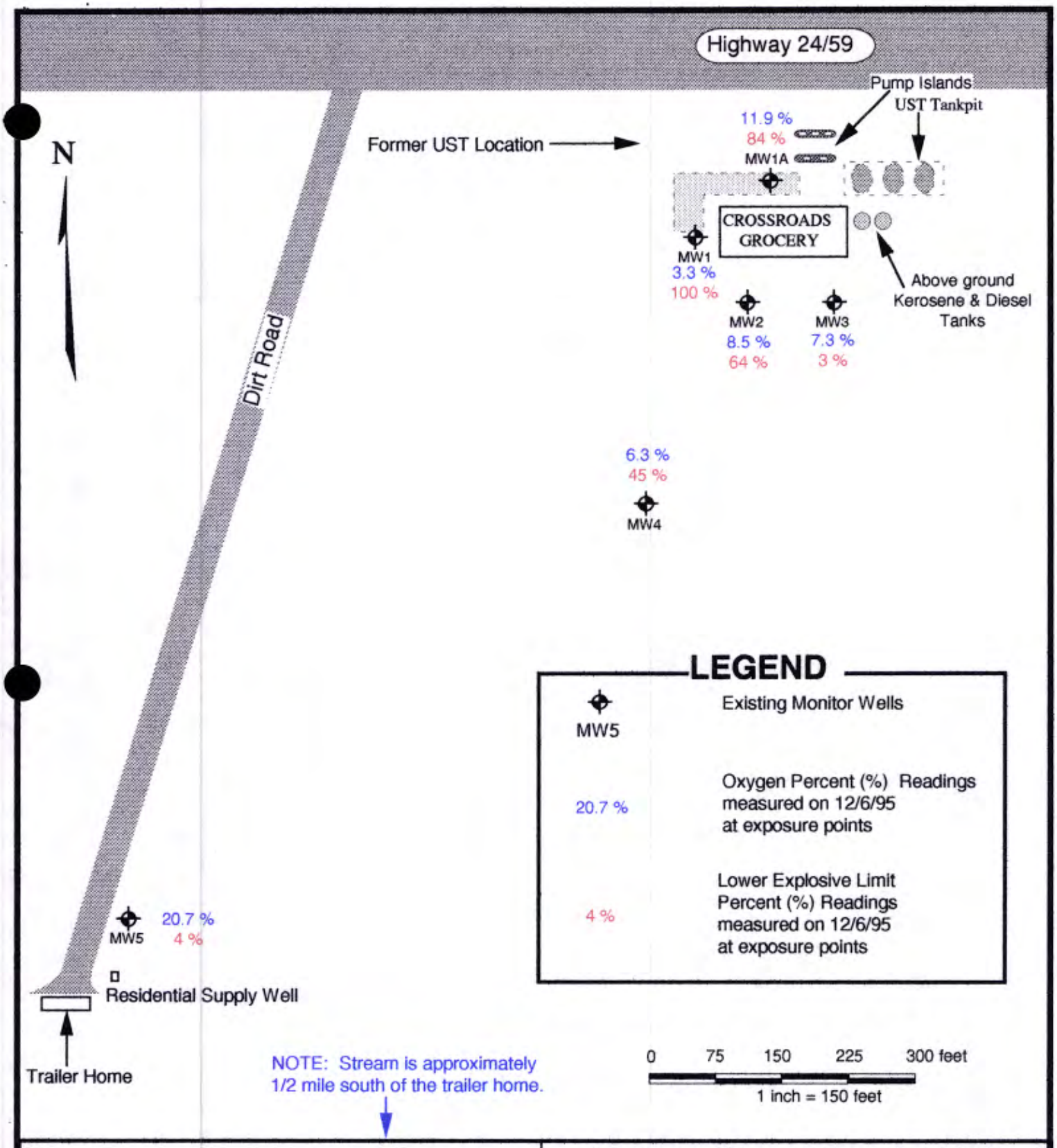


Crossroads Grocery

OVA-FID Readings in ppm Measured on 12/6/95

Highway 24/59, Tokeena, Oconee County, South Carolina

E S C M	P.O. Box 7487 Athens Georgia, 30604	Drafted by: Mirta A. Carpenter Draft Date: 1/8/96	FIGURE 3



Crossroads Grocery

Oxygen and Lower Exposive Limit Readings Measured on 12/6/95

Highway 24/59, Tokeena, Oconee County, South Carolina

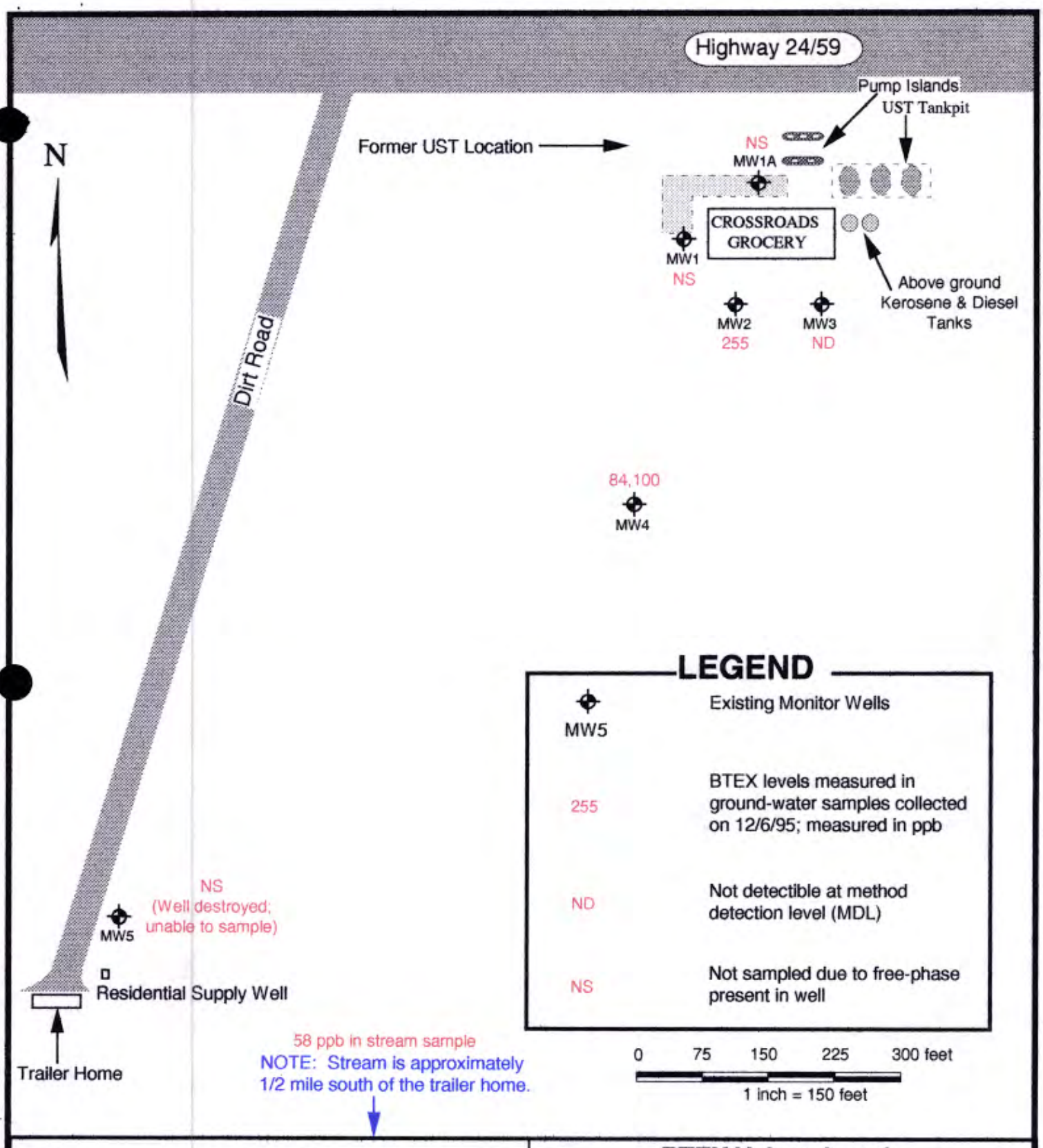
E S C M

P.O. Box 7487
Athens Georgia, 30604

Drafted by: Mirta A. Carpenter

Draft Date: 1/8/96

FIGURE 4



Crossroads Grocery

BTEX Values in ppb
December 6, 1995

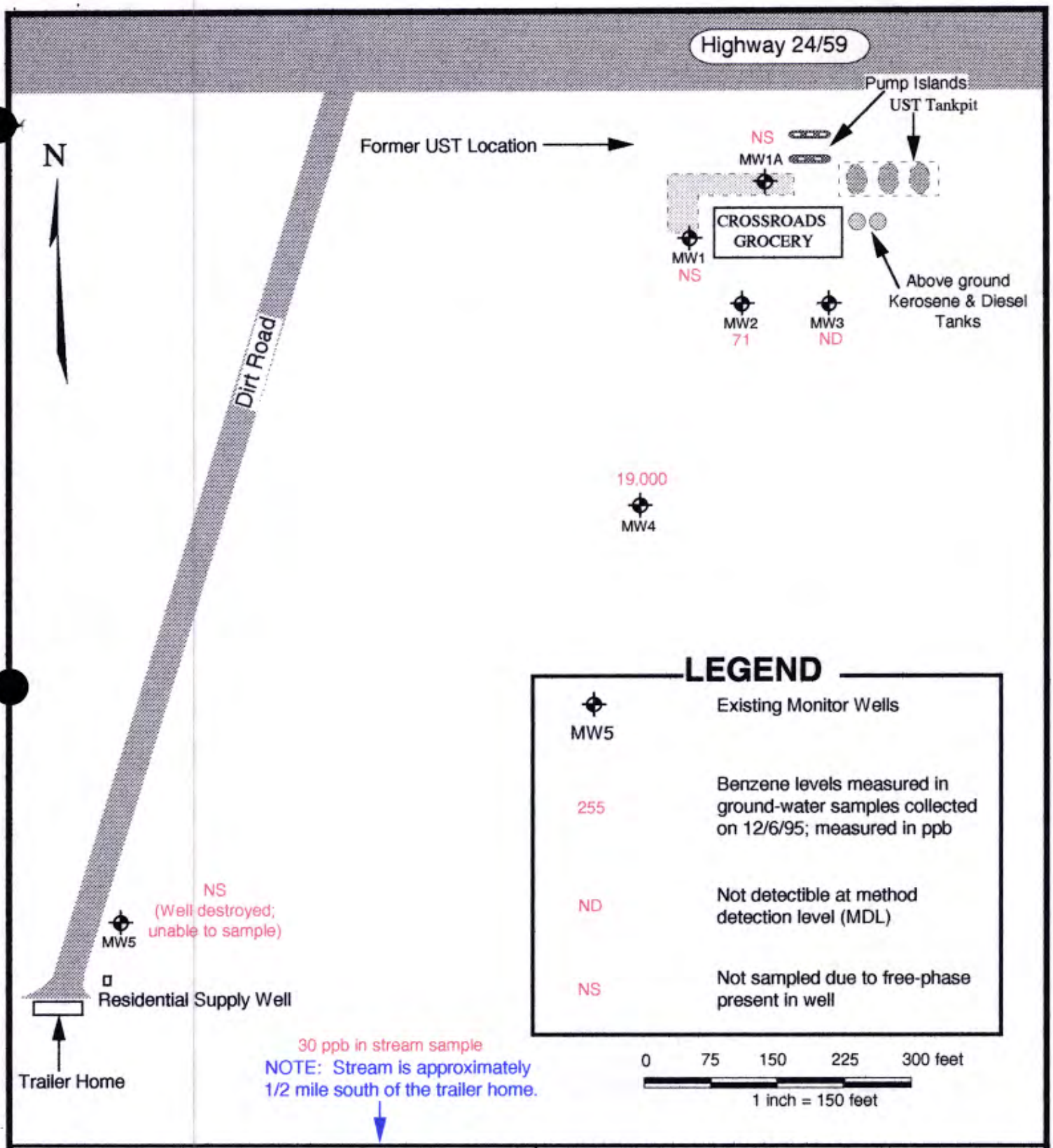
Highway 24/59, Tokeena, Oconee County, South Carolina

E S C M

P.O. Box 7487
Athens Georgia, 30604

Drafted by: Mirta A. Carpenter
Draft Date: 1/9/96

FIGURE 5



Crossroads Grocery

Benzene Values in ppb
December 6, 1995

Highway 24/59, Tokeena, Oconee County, South Carolina

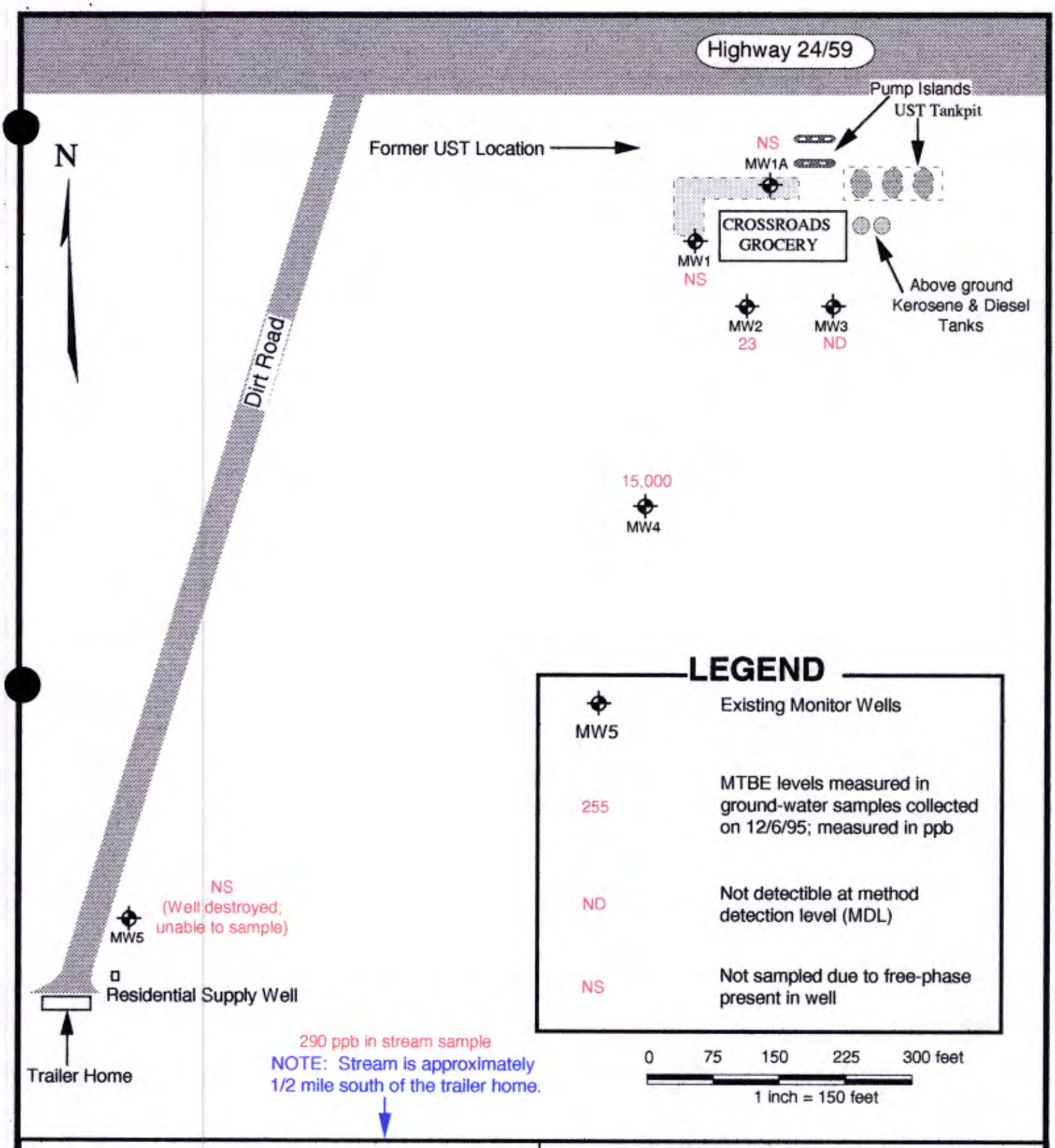
E S C M

P.O. Box 7487
Athens Georgia, 30604

Drafted by: Mirta A. Carpenter

Draft Date: 1/9/96

FIGURE 6



Crossroads Grocery

MTBE Values in ppb
December 6, 1995

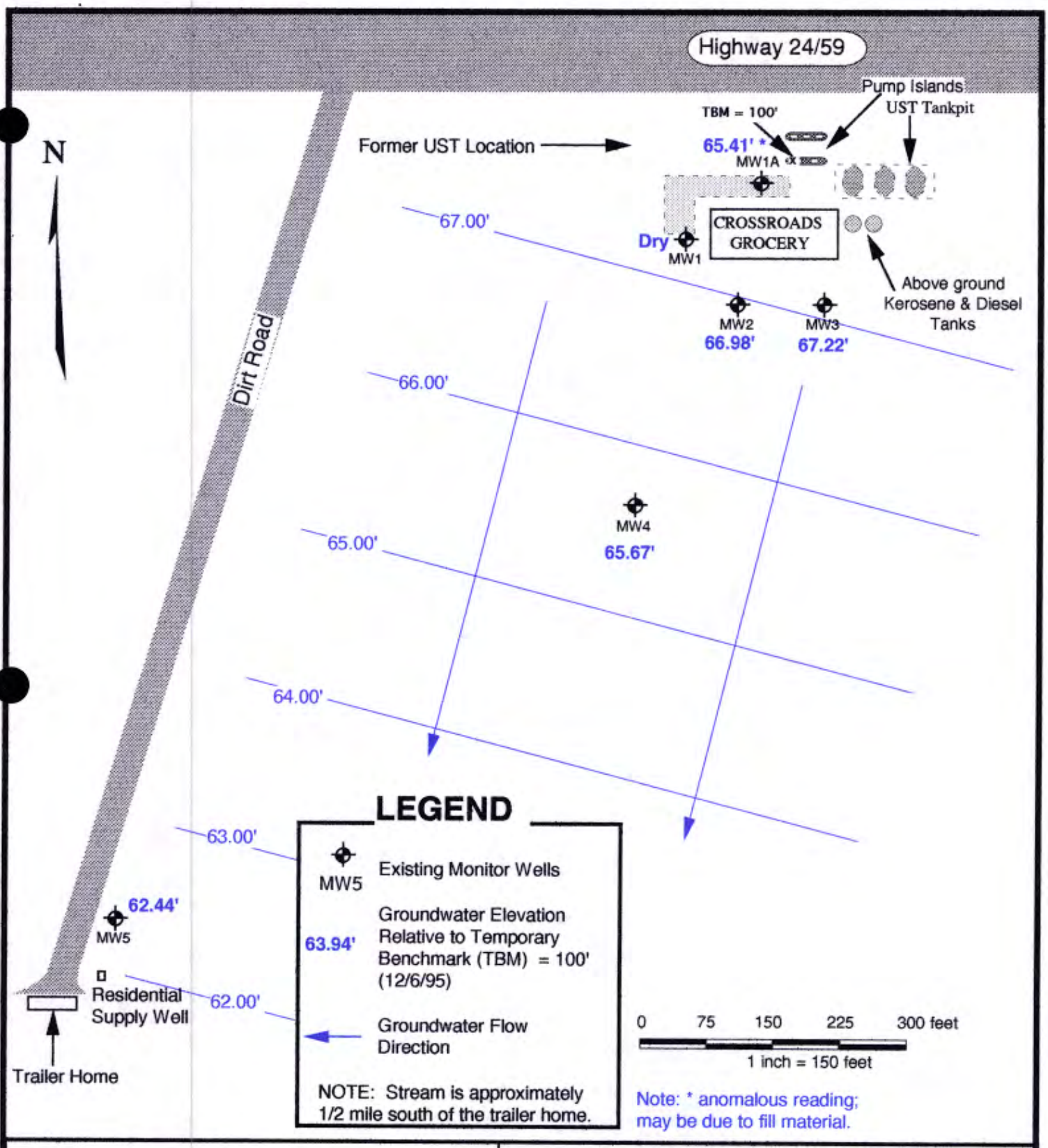
Highway 24/59, Tokeena, Oconee County, South Carolina

E S C M

P.O. Box 7487
Athens Georgia, 30604

Drafted by: Mirta A. Carpenter
Draft Date: 1/9/96

FIGURE 7



Crossroads Grocery

WATERTABLE MAP
(Water Levels Measured on 12/6/95)

Highway 24/59, Tokeena, Oconee County, South Carolina

E S C M
P.O. Box 7487
Athens Georgia, 30604

Drafted by: Mirta A. Carpenter
Draft Date: 1/16/96

FIGURE 8

TABLES

TABLE 1

BTEX Concentrations in Ground-Water and Surface Water Samples, in µg/L (ppb)

SAMPLE NUMBER	DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL-BENZENE (ppb)	XYLENES (ppb)	TOTAL BTEX (ppb)	MTBE (ppb)
MW-2	12/6/95	71	110	10	64	255	23
MW-3	12/6/95	ND	ND	ND	ND	ND	ND
MW-4	12/6/95	19,000	44,000	3,100	18,000	84,100	15,000
STREAM	12/6/95	30	13	ND	15	58	290

Note: ND = constituent not detected at the method detection limit

APPENDIX A

LABORATORY REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Southern Petroleum Laboratories
****SUMMARY REPORT*****

12/15/95

Company: ESCM
Site: WESTMINSTER, SC
Project No:
Project: CROSSROADS GROCERY

ANALYTICAL DATA
NOTE: ND - Not Detected

SPL ID MATRIX	CLIENT ID DATE SAMPLED	BENZENE PQL	TOLUENE PQL	ETHYLBENZ. PQL	XYLENE PQL	TPH-IR	TPH-GC	LEAD	MTBE PQL
9512394-01 LIQUID	STREAM 12/06/95 16:00:00	30 1µg/L	13 1µg/L	ND 1µg/L	15 1µg/L				290 8µg/L
9512394-02 LIQUID	MW-2 12/06/95 12:36:00	71 1µg/L	110 1µg/L	10 1µg/L	64 1µg/L				23 8µg/L
9512394-03 LIQUID	MW-3 12/06/95 13:00:00	ND 1µg/L	ND 1µg/L	ND 1µg/L	ND 1µg/L				ND 8µg/L
9512394-04 LIQUID	MW-4 12/06/95 13:10:00	19000 100µg/L	44000 100µg/L	3100 100µg/L	18000 100µg/L				15000 800µg/L
9512394-05 LIQUID	FIELD BLANK 12/06/95 12:30:00	ND 1µg/L	ND 1µg/L	ND 1µg/L	ND 1µg/L				ND 8µg/L
9512394-06 LIQUID	EQUIPMENT BLANK 12/06/95 12:30:00	ND 1µg/L	ND 1µg/L	ND 1µg/L	ND 1µg/L				ND 8µg/L

BTEX - Method 602 [40 CFR]
MTBE - Method 602 [40 CFR]

D B Cocco Jr
John Troost, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. L1-9512394-01

ESCM
394 S. MILLEDGE AVE.
ATHENS, GA 30605
ATTN: M. CARPENTER

DATE: 12/15/95

PROJECT: CROSSROADS GROCERY
SITE: WESTMINSTER, SC
SAMPLED BY: ESCM
SAMPLE ID: STREAM

PROJECT NO:
MATRIX: LIQUID
DATE SAMPLED: 12/06/95 16:00:00
DATE RECEIVED: 12/08/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	290	8 P	µg/L
BENZENE	30	1 P	µg/L
TOLUENE	13	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	15	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	58		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	102
4-Bromofluorobenzene	99

Method 602 [40 CFR]
Analyzed by: TB
Date: 12/13/95

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results on Wet Weight Basis. SPL Certification #73004 #LUFT Field Manual, CA DHS, May 1988

DR Coco Jr

John Troost, Laboratory Director

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. L1-9512394-02

ESCM
394 S. MILLEDGE AVE.
ATHENS, GA 30605
ATTN: M. CARPENTER

DATE: 12/15/95

PROJECT: CROSSROADS GROCERY
SITE: WESTMINSTER, SC
SAMPLED BY: ESCM
SAMPLE ID: MW-2

PROJECT NO:
MATRIX: LIQUID
DATE SAMPLED: 12/06/95 12:36:00
DATE RECEIVED: 12/08/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	23	8 P	µg/L
BENZENE	71	1 P	µg/L
TOLUENE	110	1 P	µg/L
ETHYLBENZENE	10	1 P	µg/L
TOTAL XYLENE	64	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	255		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	108
4-Bromofluorobenzene	94

Method 602 [40 CFR]
Analyzed by: TB
Date: 12/13/95

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results on Wet Weight Basis. SPL Certification #73004 #LUFT Field Manual, CA DHS, May 1988

John Troost, Laboratory Director

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. L1-9512394-03

ESCM
394 S. MILLEDGE AVE.
ATHENS, GA 30605
ATTN: M. CARPENTER

DATE: 12/15/95

PROJECT: CROSSROADS GROCERY
SITE: WESTMINSTER, SC
SAMPLED BY: ESCM
SAMPLE ID: MW-3

PROJECT NO:
MATRIX: LIQUID
DATE SAMPLED: 12/06/95 13:00:00
DATE RECEIVED: 12/08/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	8 P	µg/L
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	95

Method 602 [40 CFR]
Analyzed by: TB
Date: 12/13/95

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results on Wet Weight Basis. SPL Certification #73004 #LUFT Field Manual, CA DHS, May 1988

John Troost, Laboratory Director

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237 4775

Certificate of Analysis No. L1-9512394-04

ESCM
394 S. MILLEDGE AVE.
ATHENS, GA 30605
ATTN: M. CARPENTER

DATE: 12/15/95

PROJECT: CROSSROADS GROCERY
SITE: WESTMINSTER, SC
SAMPLED BY: ESCM
SAMPLE ID: MW-4

PROJECT NO:
MATRIX: LIQUID
DATE SAMPLED: 12/06/95 13:10:00
DATE RECEIVED: 12/08/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	15000	800 P	µg/L
BENZENE	19000	100 P	µg/L
TOLUENE	44000	100 P	µg/L
ETHYLBENZENE	3100	100 P	µg/L
TOTAL XYLENE	18000	100 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	84100		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	102
4-Bromofluorobenzene	103

Method 602 [40 CFR]
Analyzed by: TB
Date: 12/13/95

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results on Wet Weight Basis. SPL Certification #73004 #LUFT Field Manual, CA DHS, May 1988

John Troost, Laboratory Director

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. L1-9512394-05

ESCM
394 S. MILLEDGE AVE.
ATHENS, GA 30605
ATTN: M. CARPENTER

DATE: 12/15/95

PROJECT: CROSSROADS GROCERY
SITE: WESTMINSTER, SC
SAMPLED BY: ESCM
SAMPLE ID: FIELD BLANK

PROJECT NO:
MATRIX: LIQUID
DATE SAMPLED: 12/06/95 12:30:00
DATE RECEIVED: 12/08/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	8 P	µg/L
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	98
4-Bromofluorobenzene	92

Method 602 [40 CFR]
Analyzed by: TB
Date: 12/13/95

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results on Wet Weight Basis. SPL Certification #73004 #LUFT Field Manual, CA DHS, May 1988

John Troost, Laboratory Director

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237 4775

Certificate of Analysis No. L1-9512394-06

ESCM
394 S. MILLEDGE AVE.
ATHENS, GA 30605
ATTN: M. CARPENTER

DATE: 12/15/95

PROJECT: CROSSROADS GROCERY
SITE: WESTMINSTER, SC
SAMPLED BY: ESCM
SAMPLE ID: EQUIPMENT BLANK

PROJECT NO:
MATRIX: LIQUID
DATE SAMPLED: 12/06/95 12:30:00
DATE RECEIVED: 12/08/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	8 P	µg/L
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	98
4-Bromofluorobenzene	95

Method 602 [40 CFR]
Analyzed by: TB
Date: 12/13/95

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results on Wet Weight Basis. SPL Certification #73004 #LUFT Field Manual, CA DHS, May 1988

DB Cocola

John Troost, Laboratory Director

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

PAGE

** SPL BATCH QUALITY CONTROL REPORT **
Method 602 [40 CFR]

Matrix: Water
Units: µg/L

Batch Id: HPAA951212105602

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	75	150	39 - 150
Benzene	ND	50	51	102	39 - 150
Toluene	ND	50	50	100	46 - 148
EthylBenzene	ND	50	47	94.0	32 - 160
O Xylene	ND	50	50	100	32 - 160
M & P Xylene	ND	100	103	103	32 - 160

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	ND	50	74	148	74	148	0	20	39 - 150
Benzene	ND	50	59	118	58	116	1.71	20	39 - 150
Toluene	ND	50	56	112	56	112	0	20	46 - 148
EthylBenzene	ND	50	53	106	53	106	0	20	32 - 160
O Xylene	ND	50	56	112	56	112	0	20	32 - 160
M & P Xylene	ND	100	116	116	115	115	0.866	20	32 - 160

Analyst: TB
Sequence Date: 12/12/95
SPL ID of sample spiked: 9512394-06A
Sample File ID: AL12238.TXO
Method Blank File ID:
Blank Spike File ID: AL12204.TXO
Matrix Spike File ID: AL12239.TXO
Matrix Spike Duplicate File ID: AL12240.TXO

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: 602 Table 2
(***) = Source: 602 Table 2

SAMPLES IN BATCH(SPL ID): 9512394-02A 9512394-03A 9512394-04A 9512394-06A

Karen Grizzaffi

Karen Grizzaffi, QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237 4775

PAGE

** SPL BATCH QUALITY CONTROL REPORT **
Method 602 [40 CFR]

Matrix: Water
Units: µg/L

Batch Id: HPAA951213113101

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	40	80.0	39 - 150
Benzene	ND	50	41	82.0	39 - 150
Toluene	ND	50	57	114	46 - 148
EthylBenzene	ND	50	56	112	32 - 160
O Xylene	ND	50	59	118	32 - 160
M & P Xylene	ND	100	123	123	32 - 160

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	ND	50	77	154 «	79	158 «	2.56	20	39 - 150
BENZENE	ND	50	68	136	68	136	0	20	39 - 150
TOLUENE	ND	50	65	130	64	128	1.55	20	46 - 148
ETHYLBENZENE	ND	50	63	126	63	126	0	20	32 - 160
O XYLENE	ND	50	65	130	68	136	4.51	20	32 - 160
M & P XYLENE	ND	100	135	135	136	136	0.738	20	32 - 160

Analyst: TB
Sequence Date: 12/13/95
SPL ID of sample spiked: 9512410-02A
Sample File ID: AL13312.TXO
Method Blank File ID:
Blank Spike File ID: AL13304B.TXO
Matrix Spike File ID: AL13329.TXO
Matrix Spike Duplicate File ID: AL13330.TXO

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: 602 Table 2
(***) = Source: 602 Table 2

SAMPLES IN BATCH(SPL ID): 9512394-04A 9512394-05A

Karen Grizzaffi

Karen Grizzaffi, QC Officer

SPL/LE/SM-F1.04

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE: (318) 237-4775

SPL Lafayette Environmental Laboratory
Sample Login Checklist

Date: 12-8-95	Time: 11:20

Client: ESCM	
Project #: Crossroad Grocery	Project Loc: SC

			Yes	No
1	Chain-of-Custody (COC) form is present.		~	
2	COC is properly completed.		~	
3	If no, Non-Conformance Worksheet has been completed.			~
4	Custody seals are present on the shipping container.		~	
5	If yes, custody seals are intact.		~	
6	All samples are tagged or labeled.		~	
7	If no, Non-Conformance Worksheet has been completed.			~
8	Sample containers arrived intact.		~	
9	Temperature of samples upon arrival: SM-2 FS-2		4 C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	Did not receive Airbill	
		Other:		
11	Method of sample disposal:	SPL Disposal	yes	
		HOLD		
		Return to Client		

Name: Kenneth Constantine	Date: 12-8-95

9512394

Page 1 of 1

SPL Environmental Laboratories, Inc.
500 Ambassador Caffery Pkwy.
Scott, Louisiana 70583
(318) 237-4775

Analysis Request and Chain of Custody Record

Sample submitted by: M.A. Carpenter

Client/Project Name: Crossroads Grocery

Company	Address	Contact	Project Location	Project No.
ESCM	394 S. Milledge Athens, GA 30604	M. Carpenter Phone: 706-886-7634	Westminster, SC	Crossroads Grocery

Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid, Soil Sludge, Etc.)	Preservative	ANALYSIS REQUESTED TEST	METHOD	REMARKS
Stream	12/6/95 4:00 pm	✓		40 mL	Liquid	HCl & Ice	BTEX & MTBE	per SC regs 602/8020	duplicate - test one only
MW2	12/6/95 12:36 pm	✓		"	"	"	"	"	one bottle only
MW3	12/6/95 1:00 pm	✓		"	"	"	"	"	one bottle only
MW4	12/6/95 1:10 pm	✓		"	"	"	"	"	duplicate - test one only
Field Blank	12/6/95 12:30	✓		"	"	"	"	"	
Equipment Blank	12/6/95 12:30	✓		"	"	"	"	"	
Trip Blank									B602MW 12/15

Samplers: (Signature)	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
Mike Carpenter	[signature] to Fed Ex	12/7/95 17:30			
Jeff [signature]	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
Affiliation	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
			Received for laboratory: (Signature)	Date: Time:	Laboratory No.
SAMPLER REMARKS:			Data Results to:		
Seal #					

RISK-BASED CORRECTIVE ACTION - TIER 1 AND 2
(STANDARD LIMITED ASSESSMENT: REPORT OF FINDINGS)

Crossroads Grocery
SCDHEC GWPD Site ID #06742; CP #02047
Highways 24 and 59; Route 2, Box 149
Oconee County
Westminster, South Carolina

Prepared for:

Mr. Neil Alexander
Crossroads Grocery
Route 2, Box 149
Westminster, SC 29693

Prepared by:

ESCM & Associates, Inc.
1781 Mars Hill Road
Watkinsville, Georgia, 30677

RECEIVED
FEB 1 0 1997
Bureau of Underground
Storage Tank Management

74 tech

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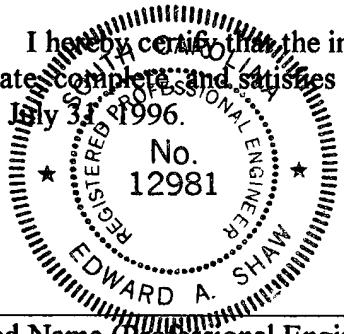
I. PLAN CERTIFICATION

I hereby certify that the information, contained in this plan and attachments, is true, accurate, complete, and satisfies all the criteria and requirements as outlined in SCDHEC's letter dated July 31, 1996.



Printed Name (Professional Engineer)

Signature/Date (Professional Engineer)

II. REPORT OF FINDINGS

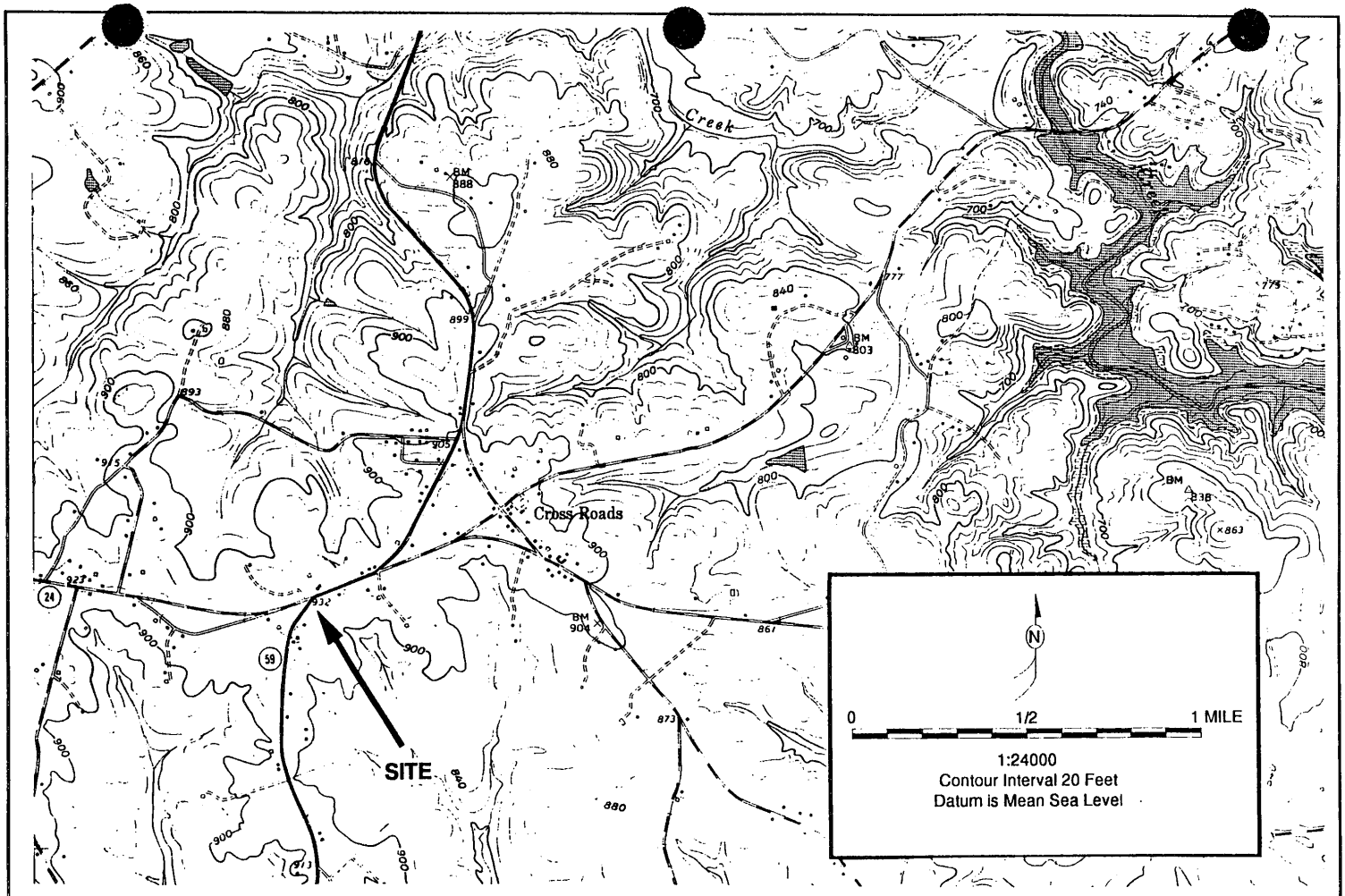
A. Introduction

The UST owner/operator is Mr. Neil Alexander, Crossroads Grocery, Route 2, Box 149, Westminster, Oconee County, South Carolina. The site identification number is # 06742. The contractor that conducted the Limited Assessment is ESCM & Associates, Inc., 1781 Mars Hill Road, Watkinsville, Georgia, 30677. Any questions regarding this report should be directed to Mr. Edward Shaw at (706) 769-4434 or Ms. Mirta Carpenter at (706) 886-7634. The SLA approval letter is dated July 31, 1996, and field work began on September 9, 1996. Crossroads Grocery is a gasoline station/convenient store currently in operation. The source of the hydrocarbon constituents measured at the site is most likely the former tankpit (Figure 1) which was closed in June of 1990. New underground storage tanks were installed in July and August of 1990. The new underground storage tanks have passed tightness and line tests in February of 1993 and in January of 1997. The property surrounding the site is mostly rural residential and/or pasture lands. Free-phase hydrocarbons and dissolved-phase hydrocarbons have been detected in the ground-water monitor wells on the property, in a down-gradient monitor well on the adjacent residential property, and in a down-gradient stream approximately 1200 feet south of the site.

B. Site Characteristics

1. Site Geography

Crossroads Grocery is located within the Inner Piedmont Geologic Province. The Inner Piedmont extends from Alabama to North Carolina and is approximately 50 miles wide, on average. The Inner Piedmont is a region of gently rolling to hilly slopes with narrow-stream valleys. The elevation increases gradually from the southwest part of South Carolina to the northeast part of the state. Local relief is mainly in tens of feet but ranges to several hundred feet (Godley & Anderson, 1979). Crossroads Grocery is located on the topographically high position at 932 feet above mean sea level according to the Fair Play Topographic Quad (1958, photorevised 1979). The surrounding land slopes down away from the site in all directions. Surface drainage flows primarily to the south where the slopes are steeper.



Crossroads Grocery

USGS MAP SHOWING SITE LOCATION

Highway 24/59, Tokeena, Oconee County, South Carolina

(Fair Play, SC, Quad, 1958-Photorevised 1979)

ESCM & Associates, Inc. 394 S. Milledge Avenue Athens, Georgia 30605

Scale: 1:24000

FIGURE 1

2. Exposure Analysis and Tier 1 Evaluation

A survey of all receptors within a 1000 foot radius of the site was conducted by ESCM personnel. Several residential trailers exist within a 1000 foot radius of the site. However, only one trailer 428 feet south of the site had a drinking water well (Figure 2). This drinking water well was permanently closed when the resident of the trailer reported a hydrocarbon taste in the water from their water well in January of 1993. SCDHEC officials immediately had the well permanently closed and the resident was hooked up to the local public water supply. According to a telephone discussion between ESCM personnel and Mr. Eddie Clements of the SCDHEC Anderson District Office on December 3, 1996, no other water supply wells were located within a 1000 foot radius during Mr. Clements water well survey in 1993. A list of all water wells reported to the Anderson District Office was provided by Mr. Rob Devlin on December 3, 1996; no water wells were listed within 1000 foot radius of the site. According to Mr. Devlin and Mr. Clements, the closest public supply wells are located approximately three miles east of the site off of SC Highway 24 (West Oak Hwy). These public supply wells are listed at Timber Lake 1 and 2. One unnamed stream is located approximately 1100 feet southeast of the site. This unnamed stream empties into Mud Creek. Mud Creek empties into Beaverdam Creek which empties into Lake Hartwell. Lake Hartwell is used as a public water source for many communities in Georgia and South Carolina. Underground utilities are located in the right-of-way section of the property including water lines and natural gas lines (Figure 2).

The exposure assessment for the Tier 1 evaluation was conducted using three sub-steps as follows: (1) a site conceptual exposure model was developed (Tables 1 and 2); (2) the data required to estimate the exposure dose for the complete pathways identified in (1) was identified; and (3) the dose was estimated.

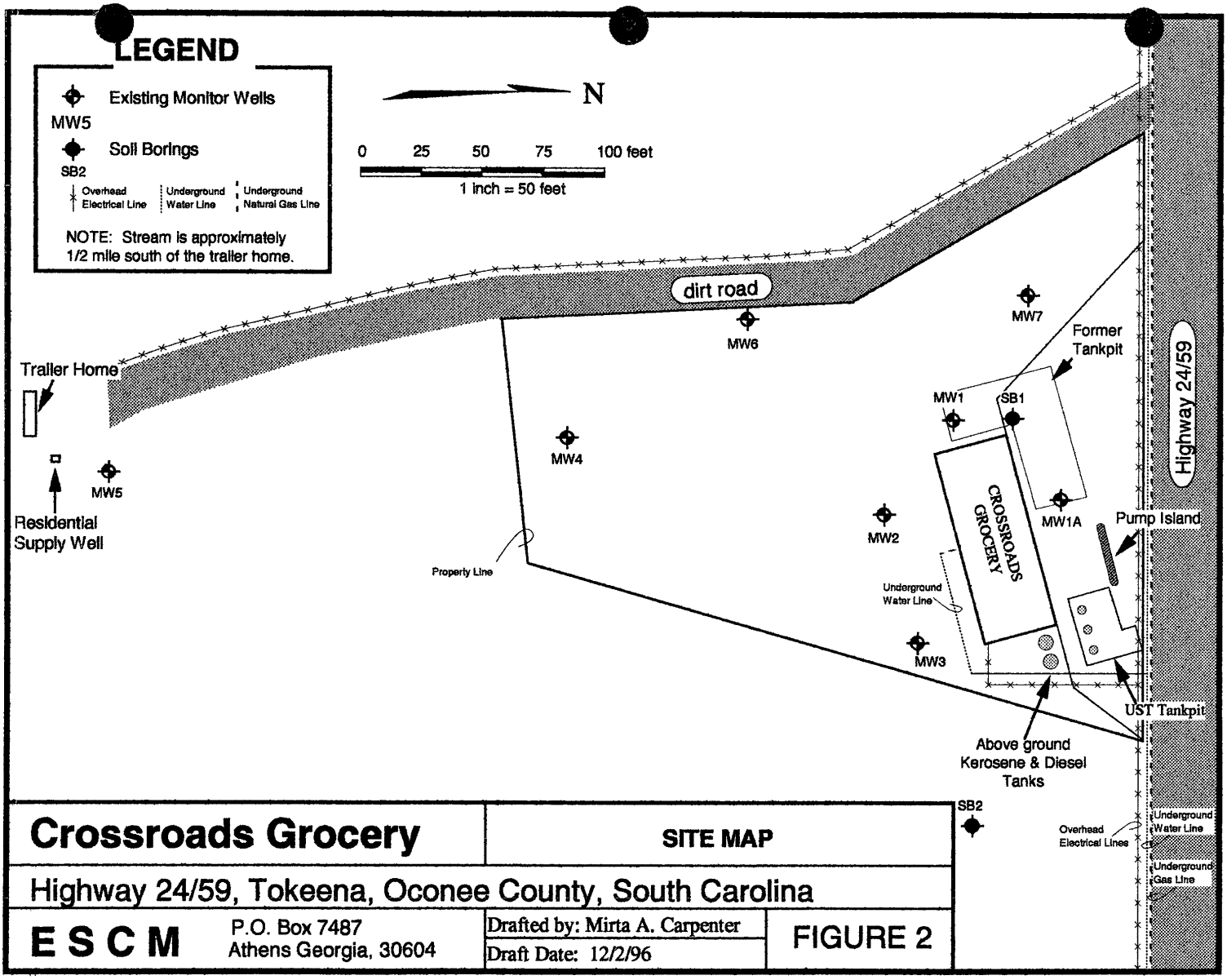
Based on the site conceptual exposure model (Tables 1 and 2), the risk-based screening levels (RBSLs) for the ground water ingestion pathway needs to be determined for this site. The RBSLs for soil do not need to be calculated nor can they be calculated since all constituents analyzed for in the soil samples collected throughout the site on September 10, 1996, measured non-detect. No other previous soil data is available. The previous consultant, Froehling & Robertson, Inc., did not collect soil samples during the installation of monitor wells MW-1A and MW-1 through MW-5. Therefore, the average COC concentration in the source area for the soil leaching to ground water pathway is not available and the leachability model for petroleum contaminated soil can not be used. The vapor inhalation pathway RBSLs do not need to be calculated nor can they be calculated since no indoor nor outdoor hydrocarbon vapor readings measured greater than 0 ppm throughout the site (Limited Assessment Report, ESCM & Associates, January 1995). On December 6, 1996, ESCM personnel measured the hydrocarbon vapor concentrations at all exposure points (Limited Assessment Report, Figure 3). Hydrocarbon vapor concentrations were detected only in the monitor well openings of those wells that either contained free product or contained dissolved-phase hydrocarbons (Limited Assessment Report, Figure 3).

The risk-based screening level for benzene, toluene, ethylbenzene, and xylenes in the ground water ingestion pathway are based upon the Maximum Contaminant Levels (MCL) published in the Environmental Protection Agency *Drinking Water Regulations and Health Advisories* as stated in SCDHEC's "Risk-Based Corrective Action for Petroleum Releases" (June, 1995, Table 4). The RBSLs for ground water are listed in Table 3 of this report.

Tier 1 action is decided based on the comparison of the risk-based screening levels for each pathway and the actual data measured during field analyses. At Crossroads Grocery only the ground water ingestion pathway needs to be considered at this time. Based upon the Maximum Contaminant Levels (MCL) published in the Environmental Protection Agency *Drinking Water Regulations and Health Advisories,* the dissolved-phase hydrocarbon concentrations measured in monitor wells MW-2, MW-4, MW-5, MW-6, and MW-7 exceed the RBSLs established for ground water. The dissolved-phase hydrocarbon concentration of benzene measured in the surface water sample collected upstream in the unnamed stream southeast of the site also exceeded the RBSL establish for benzene in ground water. Based on the comparison of the risk-based screening levels for groundwater and the actual data measured during field analyses, the preparation of a Corrective Action Plan (CAP) is warranted at this time.

3. Utilities Survey

An underground water line is located parallel to West Oak Highway in the right-of-way of the site property. An underground natural gas line is located parallel to West Oak Highway in the right-of-way of the property. The underground gas line is buried approximately 12 feet for the centerline of the highway (Figure 2).



Crossroads Grocery

SITE MAP

Highway 24/59, Tokeena, Oconee County, South Carolina

ESCM
P.O. Box 7487
Athens Georgia, 30604

Drafted by: Mirta A. Carpenter

Draft Date: 12/2/96

FIGURE 2

4. Regional and Site Geology

a. Regional Geology and Hydrogeology

Crossroads Grocery is located within the Inner Piedmont Geologic Province. The Inner Piedmont extends from Alabama to North Carolina and is approximately 50 miles wide, on average. The rocks of the Piedmont Province range from low grade metamorphosed sediments and volcanics to high grade metasedimentary and meta-igneous rocks and intrusive mafic to felsic igneous rocks. These rocks are characteristically folded and faulted and are believed to be of late Precambrian to early Paleozoic in age. The primary rocks of this region include granitic gneiss, biotite gneiss, amphibolite, and schists, which are usually well foliated due to tectonic activity throughout the geologic history of the region (Johnson, 1964; Secor, 1987). These crystalline rocks have been structurally deformed into a series of recumbent isoclinal folds with axial planes dippings to the southeast. Furthermore, these rocks have undergone post-genetic stresses which have caused the formation of a number of fractures (Secor, 1987).

Since the Inner Piedmont Province consists of fractured media, the permeability depends on the width of the fractures and their density, or spacing. Overall, the igneous, metamorphic, and sedimentary rocks in this region have very low permeability and hydraulic conductivity range from one to five feet/day. With lower effective porosities of 1 to 5 percent, flow velocity through the fractured rock will be 0.04 to 1.0 ft/day. The Inner Piedmont region characteristically has a humid climate which enhances chemical weathering of bedrock and results in the formation of saprolite. Saprolite forms when bedrock decomposes in place due to chemical weathering. The chemical and physical characteristics of the saprolite depends on the relative quantities of parent minerals in the original bedrock. The flow domain in the Piedmont consists of the following materials: a thin layer of soil, a variably thick zone of chemically weathered bedrock (saprolite), a transition zone of less-well weathered rock that gradates into a relatively unweathered fractured bedrock (Dowd, Wenner, Carpenter; 1993).

b. Site Geology and Stratigraphy

The geologic unit mapped at Crossroads Grocery is of Upper Precambrian to Devonian in age and consists of biotite gneiss and migmatite which is light to dark gray, fine to medium-grained, and layered. Typical mineral assemblages contain garnetiferous biotite, sillimanite, oligoclase, and quartz, lesser amounts of banded granitoid layers, and veins and segregations of gneissic pegmatites, and biotite sillimanite schist (Overstreet & Bell, 1965). During the installation of monitor wells MW-6 and MW-7 and the drilling of soil boring SB-1 and SB-2 on September 9 and 10, 1996, the predominant lithology of the soils noted was course silt with micro veins of sand (Appendix A).

C. Chemicals of Concern - Soil

1. Soil Assessment

The risk-based screening levels for soil cannot be calculated at this site based on the most recent soil sampling results. On September 10, 1996, one soil boring was drilled within the most probable area of concern and completed to the water table (i.e., SB-1) (Figure 3). Split spoon soil samples were collected at five foot intervals. Each soil sample was screened in the field for organic volatiles in accordance with established SCDHEC guidelines and lithologically classified (Table 4, Appendix A). A soil sample from the depth (vadose zone) that exhibited the highest organic reading (i.e., 9-11 feet) was shipped to and analyzed by Entech Analytical Labs, Inc., (Table 4). The soil samples from SB-1 (9-11') were analyzed for BTEX constituents using EPA method 8020, PAH constituents using EPA method 8270, naphthalene using EPA method 8240, and TPH using EPA method 8015M (Appendix B). Non-detect levels were measured for all constituents analyzed in the soil samples from soil boring SB-1 (Table 5).

On September 10, 1996, a soil sample from the bottom of soil boring SB-1 (i.e., 18.5 - 21.5 feet) was sent to Southern Petroleum Laboratories, Inc., for a grain size/hydrometer test. The sand/silt and silt/clay fractions were segregated at 0.074 mm (#200 screen) and 0.0004 mm, respectively. According to the results of the grain size/ hydrometer analysis, the dry weight percentages measured of sand, silt, and clay were 41.1%, 53.8%, and 5.2%, respectively (Appendix B).

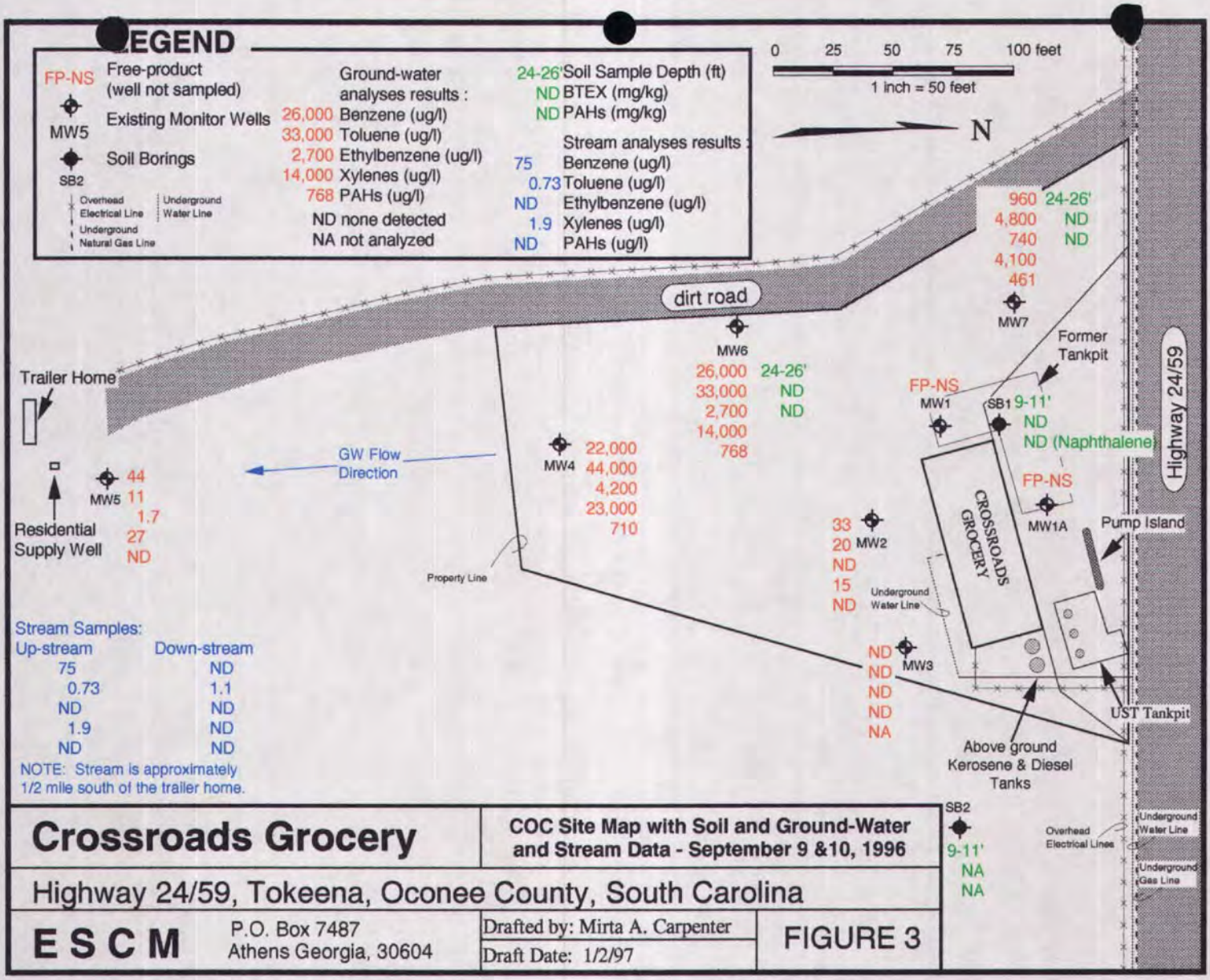
On September 10, 1996, a second soil boring (SB-2) was installed outside of the area of known soil contamination based on existing data (Expanded Assessment Plan, Froehling & Robertson, Inc., November 1993; Expanded Assessment Plan Addendum, ESCM & Associates, Inc., February 1994; Limited Assessment Report, ESCM & Associates, Inc., January 1995; and Rapid Assessment Plan, ESCM & Associates, Inc., June 1996). Split spoon soil samples were collected at five foot intervals. Each soil sample was screened in the field for organic volatiles in accordance with established SCDHEC guidelines and lithologically classified (Table 4, Appendix A). A soil sample was collected below the "A" horizon at a depth of nine to eleven feet. The soil sample was analyzed for total organic carbon (TOC) using EPD method 415.1. The laboratory result indicates 2,700 mg/kg TOC in the soil sample analyzed from soil boring SB-2 (Figure 3 and Table 5).

On September 10, 1996, soil borings were drilled during the installation of monitor wells MW-6 and MW-7 (Figure 3). Split spoon soil samples were collected at five foot intervals. Each soil sample was screened in the field for organic volatiles in accordance with established SCDHEC guidelines and lithologically classified (Appendix A). A soil sample from the depth (vadose zone) that exhibited the highest organic reading (i.e., 24-26 feet) at each boring was shipped to and analyzed by Entech Analytical Labs, Inc., (Tables 4 and 5). The soil samples from MW-6 (24-26') and MW-7 (24-26') were analyzed for BTEX constituents using EPA method 8020, PAH constituents using EPA method 8270, naphthalene using EPA method 8240, and TPH

using EPA method 8015M (Table 5 and Appendix B). Non-detect levels were measured for all constituents analyzed in the soil samples from soil borings MW-6 and MW-7 (Table 5).

2. Chemical of Concern

All constituents analyzed in all the soil samples collected at the site on September 10, 1996, measured non-detect levels (Figure 3, Table 5, and Appendix B).



Crossroads Grocery

COC Site Map with Soil and Ground-Water and Stream Data - September 9 &10, 1996

Highway 24/59, Tokeena, Oconee County, South Carolina

E S C M
P.O. Box 7487
Athens Georgia, 30604

Drafted by: Mirta A. Carpenter
Draft Date: 1/2/97

FIGURE 3

D. Chemicals of Concern - Ground-Water

1. Ground-Water Assessment

Monitor wells MW-1A, MW-1, MW-2, and MW-3 were installed on-site near the source of hydrocarbons on June 16, 1993, by Froehling & Robertson, Inc., (Table 6). Monitor wells MW-4 and MW-5 were installed down-gradient of the source on June 21, 1993, by Froehling & Robertson, Inc., (Table 6). Monitor well MW-5 was installed on an off-site property adjacent to a private water well where hydrocarbons were detected by the private resident. Monitor wells MW-6 and MW-7 were installed and developed on September 9, 1996, by ESCM and Associates, Inc., (Table 6). Monitor wells MW-6 and MW-7 were positioned to delineate the lateral extent of the COC plume; the positions were determined by Mirta Carpenter of ESCM and Ms. Joanne Cooper of SCDHEC (Figure 3).

The last sampling event at this site was conducted on September 9 and 10, 1996 (Table 7, Appendix B). The ground-water samples were packed on ice in a cooler and forwarded to Entech Analytical Labs, Inc. The water samples were analyzed for MTBE and BTEX using EPA method 8020 and PAH and naphthalene using EPA method 8270 (Table 7 and Appendix B). Water samples were also collected from the unnamed stream ½ mile south of the site. Stream samples were collected near the start of the stream (i.e., up-stream) and 200 feet south of the up-stream location (i.e., down-stream). These stream samples were analyzed for the same hydrocarbon constituents analyzed in the ground-water samples.

2. Chemicals of Concern (COC)

Free-product was detected in monitor wells MW-1 and MW-1A therefore ground-water samples were not collected from these wells. The free-product thickness as measured on September 9, 1996, was 2.84 feet in monitor well MW-1A and 0.23 feet in monitor well MW-1. As depicted in Figure 3, the greatest concentration of dissolved-phase hydrocarbons was detected in monitor wells MW-4 and MW-6 which are located down-gradient of the source; the concentration of BTEX constituents in these wells exceeds the risk-based screening levels for groundwater (Figure 3 and Table 7). The benzene concentration in monitor wells MW-2, MW-5, and MW-7 exceeds the risk-based screening level for groundwater (Figure 3 and Table 7). The benzene concentration in the up-stream surface water sample exceeds the risk-based screening level for groundwater (Figure 3, Table 7, and Appendix B).

E. Aquifer Characteristics

The Bouwer and Rice method (1976) was used to analyze the slug test results. The aquifer underlying the site is unconfined and satisfies the assumptions and conditions outlined in Kruseman & de Ridder (1989) for using the Bouwer-Rice method. A computer program base on the Bouwer-Rice method was used to determine the hydraulic conductivity (AQTESOLV™, Duffield & Rumbaugh, 1989). The slug tests results were plotted on semi-log graphs to illustrate

how the hydraulic conductivity is determined (Figures 5, 6, 7 and 8). The arithmetic mean of the hydraulic conductivity at the site, based on the slug tests conducted at monitor wells MW-1A and MW-6, is 5.41 x 10^{-5} ft/min (2.75 x 10^{-5} cm/sec) (Appendix C). This value is indicative of a sandy silt lithology.

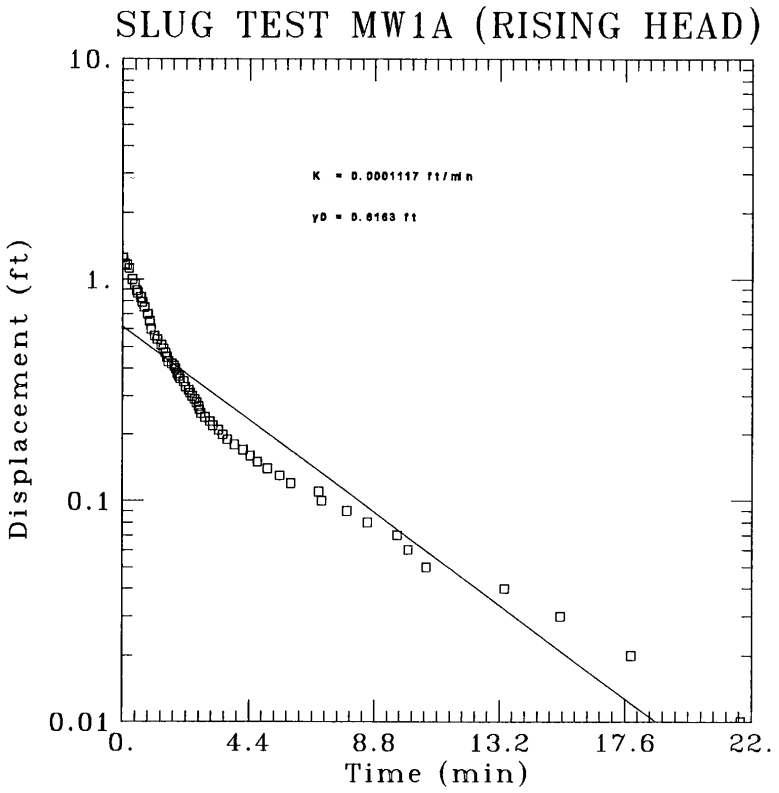
The rate at which groundwater actually moves through sediments can be calculated using the equation for seepage velocity or average linear velocity (Fetter, 1988). The average linear velocity or seepage velocity was calculated using the following equation:

$$V_x = \frac{Q}{n_e A} = - \frac{K \, \partial h}{n_e \, \partial l}$$

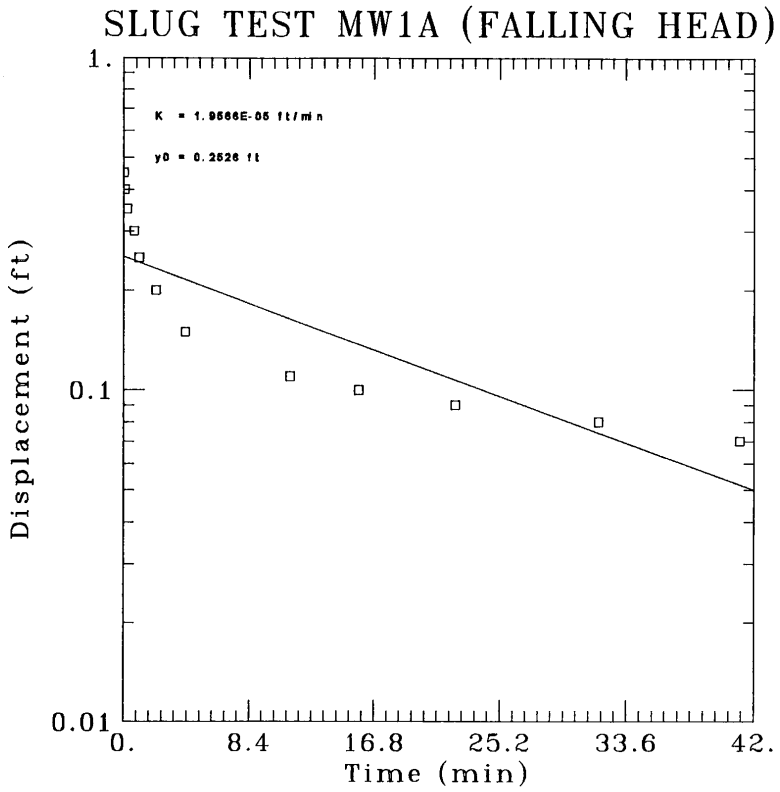
where

K is the hydraulic conductivity
V_x is the average linear velocity (seepage velocity)
n_e is the effective porosity

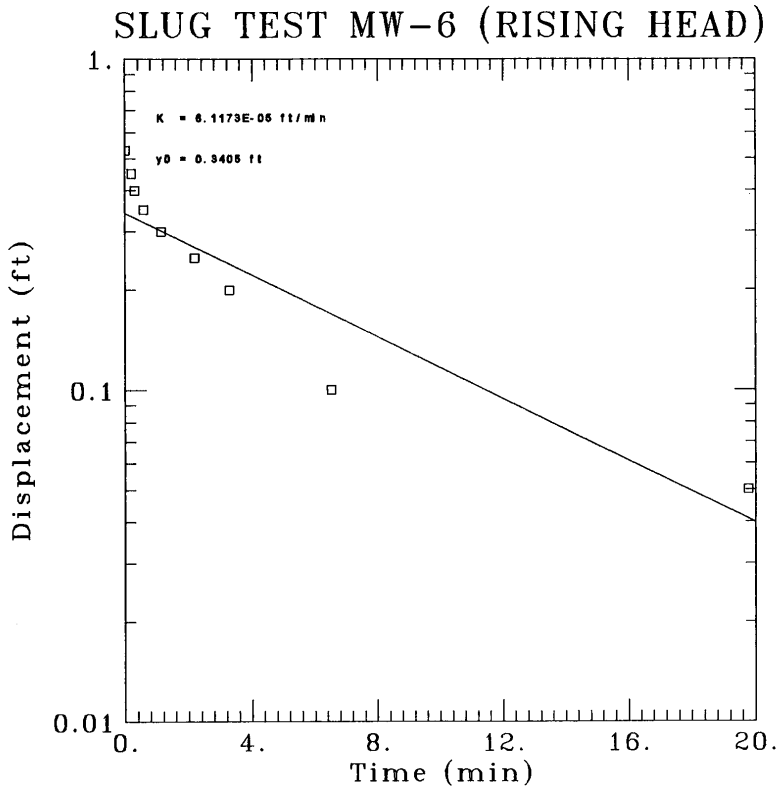
The hydraulic conductivity at the site, based on the slug tests conducted at monitor wells MW-1A and MW-6, is 5.41 x 10^{-5} ft/min. This value is indicative of a sandy silt lithology which is supported by the laboratory grain size/ hydrometer test results (Appendix B). The porosity has not been calculated for the sediments at this site, but the values generally range from 35 to 50 percent (Driscoll, 1986). The effective porosity, n_e, can be calculated, but accurate calculations of this value require determination of the weight of the sample following gravity drainage which may take periods of one year to complete. During gravity drainage the sample must be kept in an atmosphere with 100 percent relative humidity (Fetter, 1980). "Effective porosity is difficult to measure and is typically selected by intuition or experience" (Nielsen, 1991). The Georgia Environmental Protection Division suggests using values calculated for specific yield, S_y, as a substitute for effective porosity (L. Lewis, GAEPD, personal communication, February 13, 1995). An average specific yield of 0.05 was estimated from literature source (Nielsen, 1991). The seepage velocity was calculated for the unconfined aquifer using the estimated value of S_y in place of effective porosity. The hydraulic gradient calculated at the site is 0.03 based on a 10.51 feet drop in water level at the site over a distance of 350 feet (Figure 4). Using the equation above the seepage velocity at the site was calculated to be 0.047 ft/day.



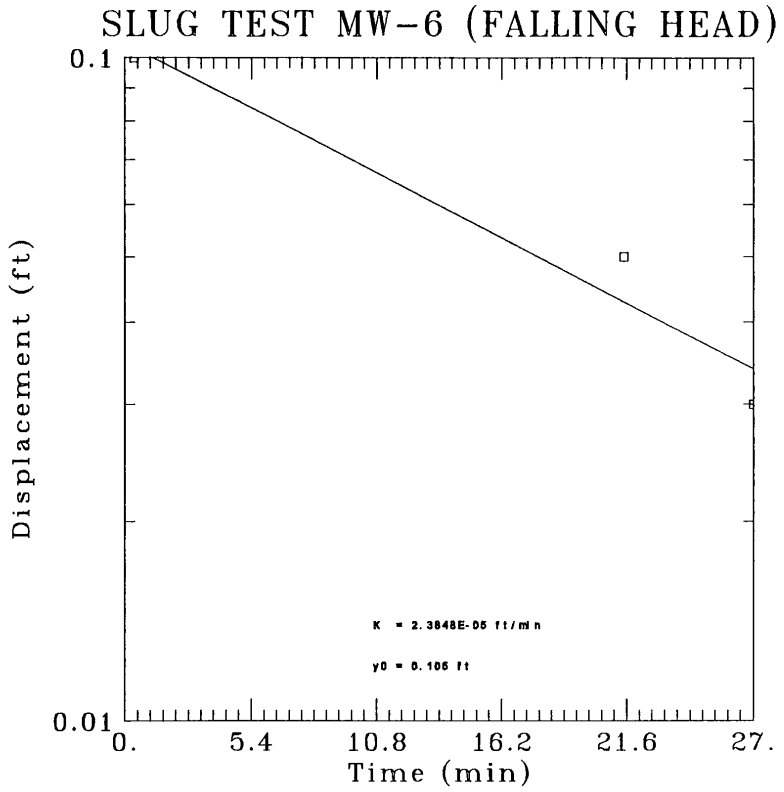
Crossroads Grocery	**SLUG TEST PLOT FOR MW-1A (RISING HEAD)**	
Highway 24/59, Tokeena, Oconee County, South Carolina	(AQTESOLV TM, Duffield & Rumbaugh, 1989)	
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/10/97	**FIGURE 5**



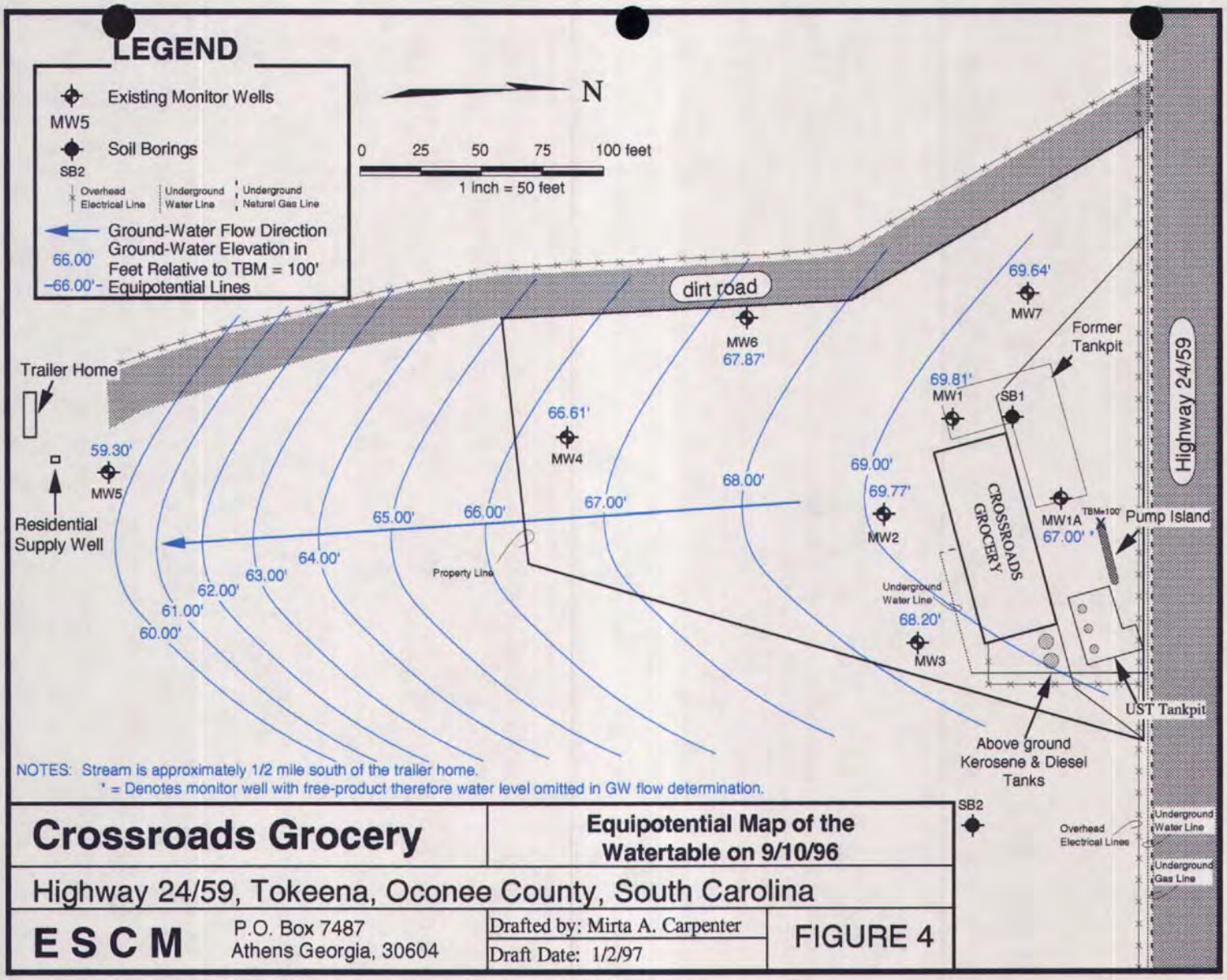
Crossroads Grocery	**SLUG TEST PLOT FOR MW-1A (FALLING HEAD)**
Highway 24/59, Tokeena, Oconee County, South Carolina	(AQTESOLV TM, Duffield & Rumbaugh, 1989)
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/10/97 — **FIGURE 6**



Crossroads Grocery	**SLUG TEST PLOT FOR MW-6 (RISING HEAD)**
Highway 24/59, Tokeena, Oconee County, South Carolina	(AQTESOLV TM, Duffield & Rumbaugh, 1989)
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/10/97 — **FIGURE 7**



Crossroads Grocery	**SLUG TEST PLOT FOR MW-6 (FALLING HEAD)**
Highway 24/59, Tokeena, Oconee County, South Carolina	(AQTESOLV TM, Duffield & Rumbaugh, 1989)
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/10/97 — **FIGURE 8**



NOTES: Stream is approximately 1/2 mile south of the trailer home.
* = Denotes monitor well with free-product therefore water level omitted in GW flow determination.

Crossroads Grocery

Equipotential Map of the Watertable on 9/10/96

Highway 24/59, Tokeena, Oconee County, South Carolina

E S C M

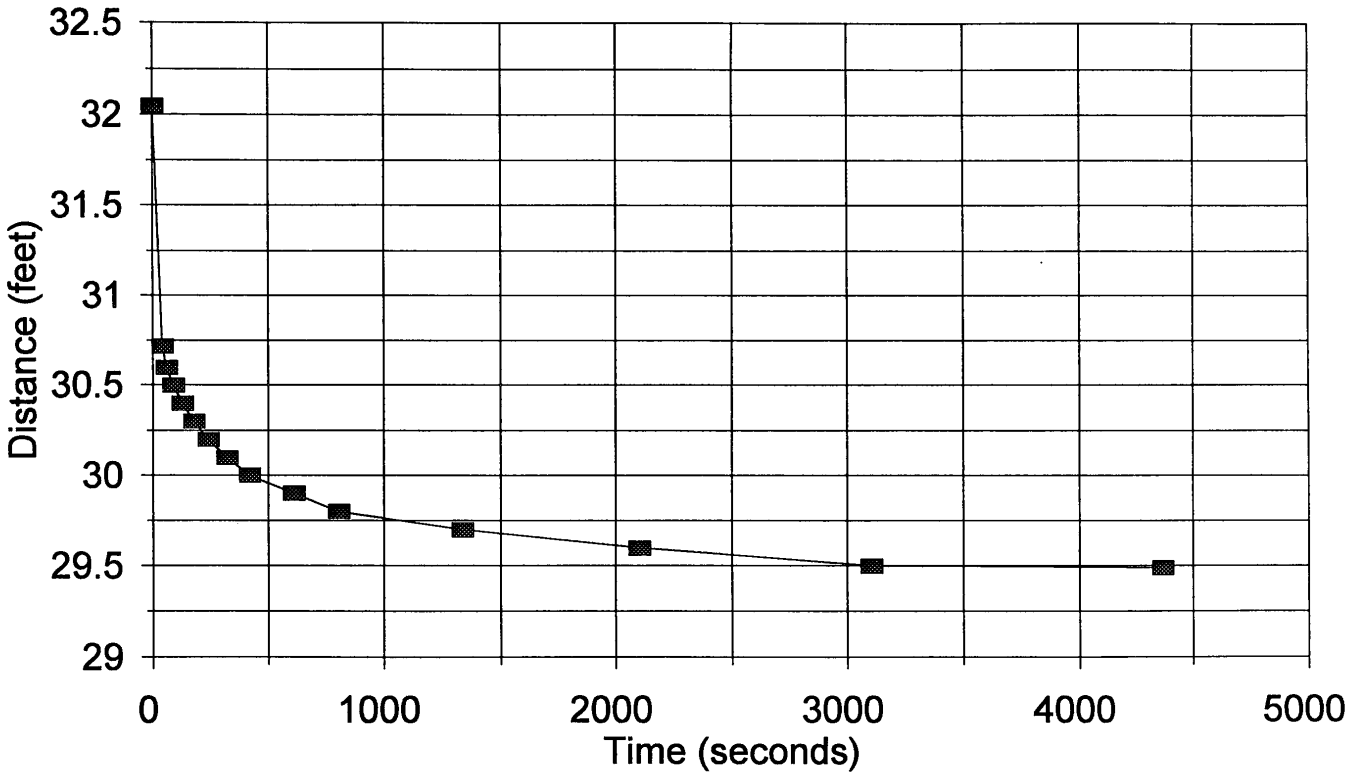
P.O. Box 7487
Athens Georgia, 30604

Drafted by: Mirta A. Carpenter
Draft Date: 1/2/97

FIGURE 4

FREE PRODUCT RECOVERY TEST

Crossroads Grocery MW-1A

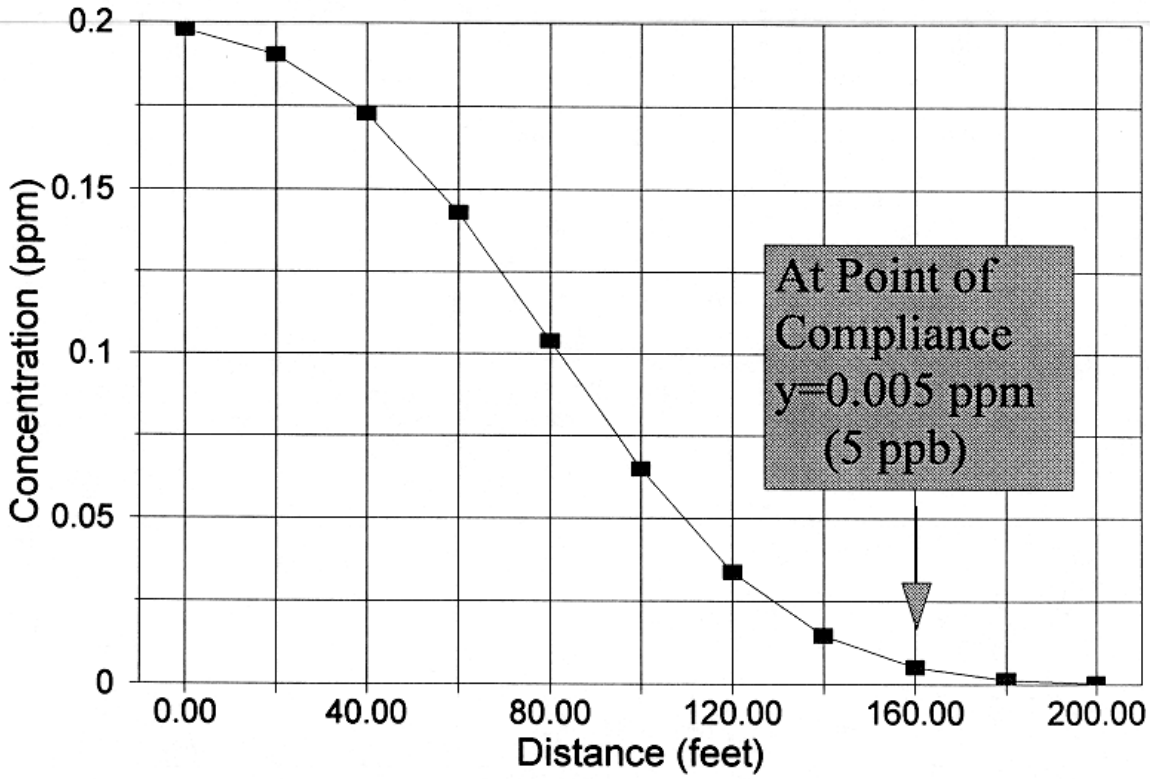


Crossroads Grocery	**FREE-PRODUCT RECOVERY TEST AT MW-1A**
Highway 24/59, Tokeena, Oconee County, South Carolina	Field Data Collected By: Mirta Carpenter & Tracy Olexa Date Data Collected: September 9, 1996
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/11/97

FIGURE 9

SITE SPECIFIC TARGET LEVEL FOR BENZENE

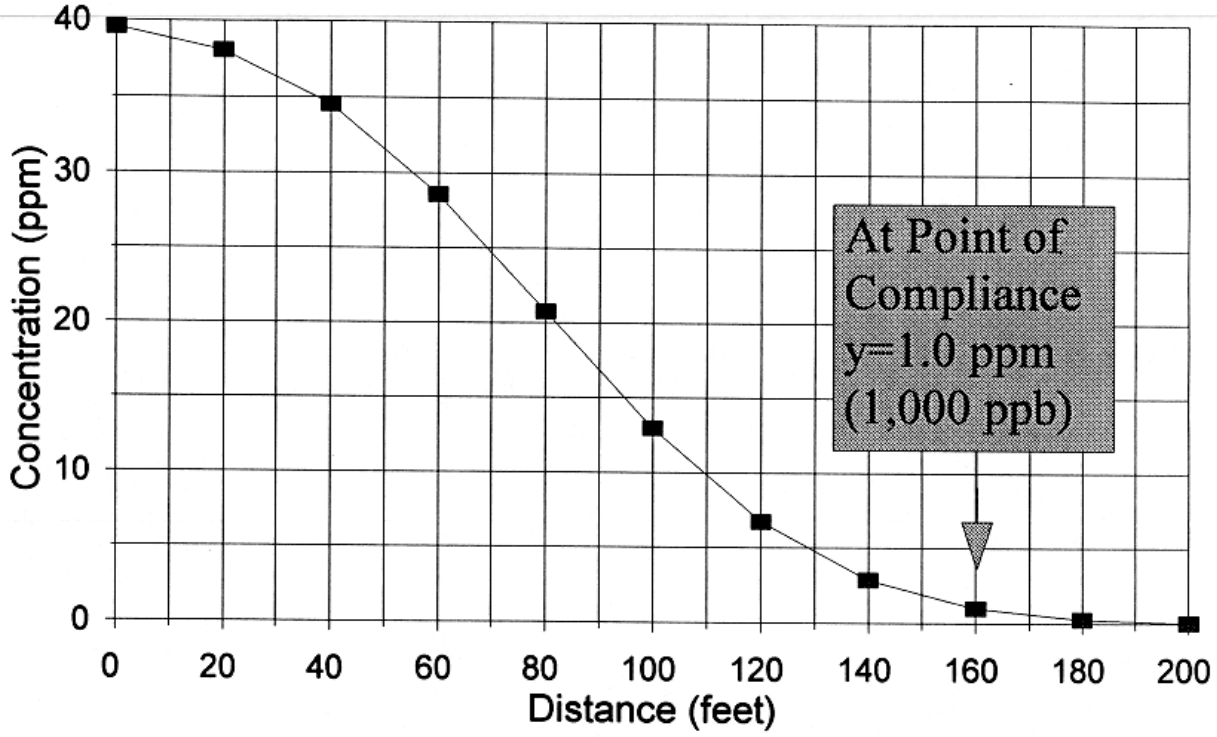
Simulation: SSTL=0.2 ppm; T=2292 days



Crossroads Grocery	**SITE SPECIFIC TARGET LEVEL FOR BENZENE**
Highway 24/59, Tokeena, Oconee County, South Carolina	(SOLUTE Analytical Solute Transport, IGWMC - BAS 15, 1/1995)
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/22/97
	FIGURE 10

SITE SPECIFIC TARGET LEVEL FOR TOLUENE

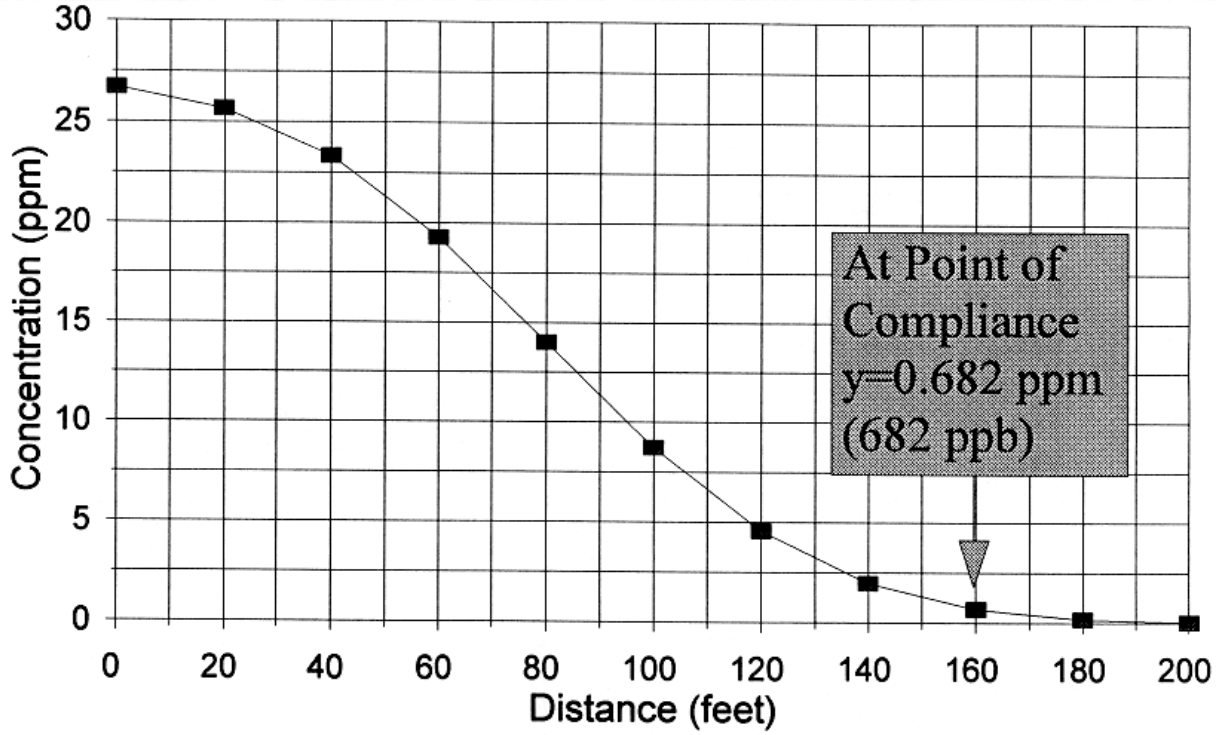
Simulation: SSTL=40 ppm, T=2292 days



Crossroads Grocery	**SITE SPECIFIC TARGET LEVEL FOR TOLUENE**
Highway 24/59, Tokeena, Oconee County, South Carolina	(SOLUTE Analytical Solute Transport, IGWMC - BAS 15, 1/1995)
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/22/97
	FIGURE 11

SSTL FOR ETHYLBENZENE

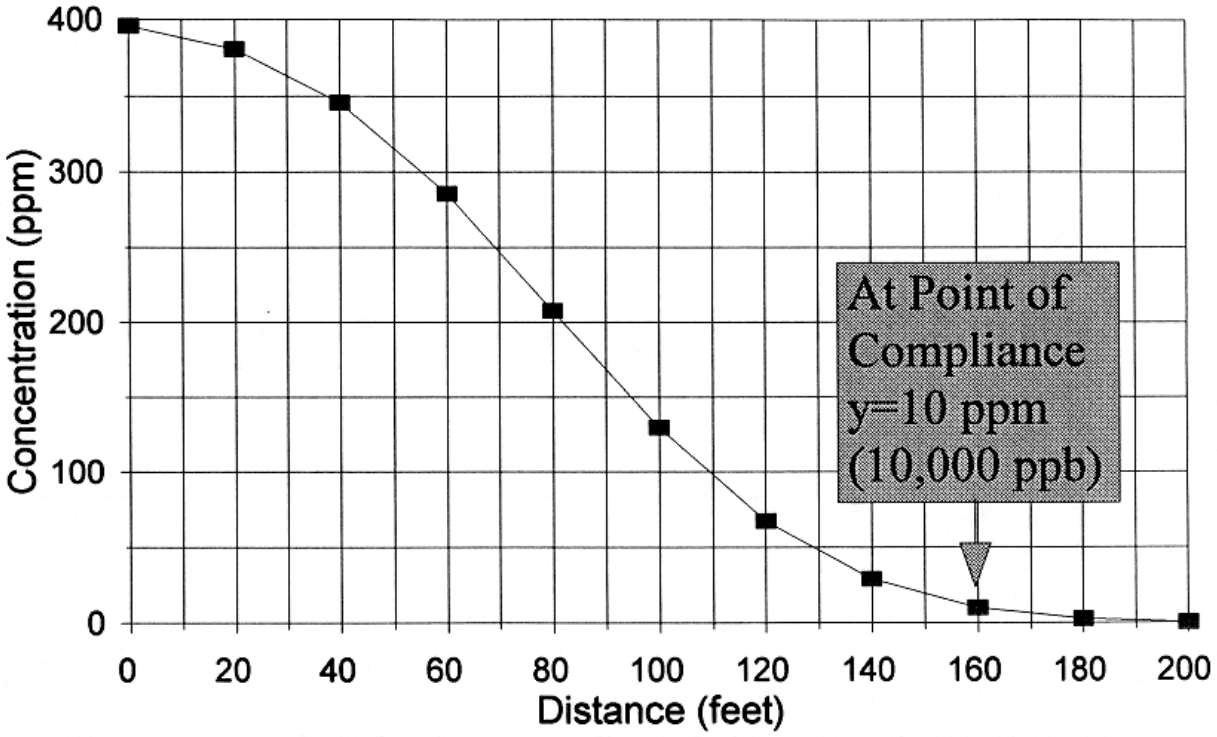
Simulation: SSTL=27 ppm, T=2292 days



Crossroads Grocery	**SITE SPECIFIC TARGET LEVEL FOR ETHYLBENZENE**
Highway 24/59, Tokeena, Oconee County, South Carolina	(SOLUTE Analytical Solute Transport, IGWMC - BAS 15, 1/1995)
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/22/97
	FIGURE 12

SITE SPECIFIC TARGET LEVEL FOR XYLENES

Simulation: SSTL=400 ppm, T=2292 days



Crossroads Grocery	**SITE SPECIFIC TARGET LEVEL FOR XYLENES**
Highway 24/59, Tokeena, Oconee County, South Carolina	(SOLUTE Analytical Solute Transport, IGWMC - BAS 15, 1/1995)
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/22/97
	FIGURE 13

F. Soil Leachability

The soil leachability model was not used since all soil hydrocarbon readings were non-detect as discussed in the soil assessment section of this report.

G. Tier 1 Evaluation

1. Site Conceptual Model

Based on the site conceptual exposure model (Tables 1 and 2), the risk-based screening levels (RBSLs) for the ground water ingestion pathway is the only pathway that needs to be considered. Refer to section II.B.2 of this report for a detailed discussion of exposure analysis and tier 1 evaluation. The risk-based screening level for benzene, toluene, ethylbenzene, and xylenes in the ground water ingestion pathway are based upon the Maximum Contaminant Levels (MCL) published in the Environmental Protection Agency *Drinking Water Regulations and Health Advisories* as stated in SCDHEC's "Risk-Based Corrective Action for Petroleum Releases" (June, 1995, Table 4). The RBSLs for ground water are listed in Table 3 of this report.

2. Data Requirements

The site conceptual model was used to identify the data required to quantify the exposure of hydrocarbon constituents in the ground water ingestion pathway. The data required is discussed in sections II.E (Aquifer Characteristics) and II.I.2 (Established SSTL) of this report.

3. Calculated Exposure

The concentrations of the COC in the groundwater are above the risk-based screening levels and have impacted the closest down-gradient stream (i.e., 75 ppm benzene in the up-stream sample). Refer to section II.D.1 and 2 of this report for ground-water assessment information (Tables 3 and 7).

4. Tier 1 Action

Tier 1 action is decided based on the comparison of the risk-based screening levels for each pathway and the actual data measured during field analyses. At Crossroads Grocery only the ground water ingestion pathway needs to be considered at this time. Based upon the Maximum Contaminant Levels (MCL) published in the Environmental Protection Agency *Drinking Water Regulations and Health Advisories,* the dissolved-phase hydrocarbon concentrations measured in monitor wells MW-2, MW-4, MW-5, MW-6, and MW-7 exceed the RBSLs established for ground water. The dissolved-phase hydrocarbon concentration of benzene measured in the surface water sample collected upstream in an unnamed stream southeast of the site also exceeded the RBSL establish for benzene in ground water. Based on the comparison of the risk-based screening levels for groundwater and the actual data measured during field analyses, the

preparation of a Corrective Action Plan (CAP) is warranted at this site. An important assumption in Tier 1 evaluation is that the exposure point(s) and point(s) of compliance are assumed to be located within the source area or the area containing the highest concentrations of the COC. However, since COC analyses conducted on surface water samples from a down-gradient receptor (i.e., unnamed stream-upstream samples) have indicated COC concentrations greater than the RBSL for benzene and MTBE, further Tier evaluation is warranted at this time. Furthermore, COC analyses, conducted on ground-water samples collected from a down-gradient monitor well placed adjacent to a closed-down residential drinking well, have indicated COC concentrations greater than the RBSL for benzene. During a meeting with Ms. Joanne Cooper and Mr. Read Miner of SCDHEC on January 9, 1997, Mr. Miner recommended that this residence be established as an exposure point and that the SSTLs for this site be determined. Therefore, a Tier 2 assessment/evaluation has been included in this report. However, since the COC have already migrated off the property on which the release occurred and the off-site groundwater is a current source of drinking water, an exposure point has been established at monitor well MW-4, which is located 22 feet north of the hydraulically down-gradient facility property boundary (Figure 3). This choice for an exposure point was verified during a telephone discussion between Mr. Read Miner of SCDHEC and Ms. Mirta Carpenter of ESCM on January 15, 1997.

H. Tier 2 Assessment

The information necessary for a Tier 2 evaluation has already been gathered and discussed previously in this report including site-specific hydrogeologic data, the concentrations of COC measured at exposure point(s), etc.

I. Tier 2 Evaluation

1. Exposure Point(s)

Since the COC have already migrated off the property on which the release occurred and the off-site groundwater is a current source of drinking water, an exposure point (i.e., exposure point EP-1) has been established at monitor well MW-4, which is located 22 feet north of the hydraulically down-gradient facility property boundary (Figure 3). Another monitor well cannot be installed further south of monitor well MW-4 due to dense forest vegetation.

2. Established SSTL

For the ground-water ingestion pathway, the reduction of COC in the saturated zone was estimated using empirical data as well as SOLUTE v.3.01 (Beljin and van der Heijde, 1995). SOLUTE is an analytical model used to simulate solute transport in groundwater. SOLUTE, a one-dimensional model, was used to establish the site-specific target levels (SSTL) for benzene, toluene, ethylbenzene, and xylenes for the source area COC concentrations. The nearest receptor is an unnamed stream ½ mile south of the site (i.e., 2,640 feet) (USGS Topographic Fair Play,

SC., Quadrangle; photorevised 1979) (Figure 1). The aquifer matrix is assumed homogenous and isotropic when using SOLUTE. The following one dimensional advection/dispersion equation is used to simulate the migration and concentration of hydrocarbons in the groundwater (Van Genuchten and Alves, 1982):

$$D\frac{\partial^2 C}{\partial X^2} - V_x\frac{\partial C}{\partial X} - \lambda RC = R\frac{\partial C}{\partial t}$$

Where:

D	=	Coefficient of Longitudinal Dispersion
R	=	Retardation Factor
V	=	Seepage Velocity
λ	=	First-Order Decay Term
C	=	Concentration of Solute in Aquifer

Subject to the following boundary conditions:

$$C(x,0) = C_i$$

$$\frac{\partial C}{\partial x}(\infty,t) = 0$$

$$C(0,t) = \begin{cases} C_0 & 0 < t \le t_0 \\ 0 & t > t_0 \end{cases}$$

where:

C_0	=	Constant Concentration of the Pulse at the Inlet Boundary
t_0	=	Duration of the Solute Pulse

A value of longitudinal dispersion is not input directly during the model simulation. Instead, the characteristic length of dispersivity is used by the model to calculate dispersion. A conservative value of 10 feet was input for dispersivity. The dispersivity value was chosen based

on published literature (Freeze and Cherry, 1979). An average value for the retardation factor (1.3) was chosen based on the generally accepted range measured in sediments (F. Arnold, IGWMC, 1995, personal communication). A seepage velocity of 0.047 ft/day was used based on analysis of slug tests data conducted at the site. Refer to section II.E for seepage velocity calculation. Since there is not enough historical COC concentration data available for this site at this time, the most conservative biodegradation rate or no decay has been used when modeling the site-specific target levels (SSTL) (R. Miner, SCDHEC, 1/97, personal communication).

Free product has been present at the site for approximately six years and was considered an instantaneous point source of COC to the groundwater. Because the simulations were conducted from the approximate date that the release began (1990), the initial concentration of COC in the aquifer was set at 0.0 mg/L. The duration of the source was set at 2292 days (i.e., from June 1990 to September 10, 1996) based on the time period that free product has been detected in the monitor wells at this site. On September 9, 1996, a free product recovery test was conducted by ESCM personnel at monitor well MW-1A. Monitor well MW-1A contained 2.84 feet of free product on that date. The free product recovery rate is 1.19×10^{-4} ft/sec (10.3 ft/day) (Figure 9, Appendix C).

Prior to modeling the site-specific target levels, the model was calibrated and validated using actual field data collected on September 10, 1996. At a source concentration of 22 ppm for benzene at monitor well MW-4, the model-simulated concentration at monitor well MW-5 was 0.0355 ppm compared to the actual field measured concentration of 0.044 ppm (Appendix D). At a source concentration of 44 ppm for toluene at monitor well MW-4, the model-simulated concentration at monitor well MW-5 was 0.0710 ppm compared to the actual field measured concentration of 0.011 ppm (Appendix D). At a source concentration of 4.2 ppm for ethylbenzene at monitor well MW-4, the model-simulated concentration at monitor well MW-5 was 0.0068 ppm compared to the actual field measured concentration of 0.0017 ppm (Appendix D). At a source concentration of 23 ppm for xylenes at monitor well MW-4, the model-simulated concentration at monitor well MW-5 was 0.0371 ppm compared to the actual field measured concentration of 0.027 ppm (Appendix D). Monitor well MW-5 is located 195 feet down-gradient of monitor well MW-4 along the x-axis which is parallel to the direction of ground-water flow.

The results of the modeling simulations indicate that the site-specific target levels (SSTL) in the groundwater to be met at the source should be 200 µg/L for benzene, 40,000 µg/L for toluene, 27,000 µg/L ethylbenzene, and 400,000 µg/L for xylenes (Figures 10, 11, 12, and 13; Appendix D). Since the down-gradient property boundary is located ½ mile up-gradient of the impacted unnamed stream, these SSTLs should be conservative enough to eliminate further discharge into the stream. However, since the current benzene concentration in the stream (i.e., 75 µg/L) exceeds the benzene concentration measured in the most down-gradient monitor well MW-5 (i.e., 44 µg/L), there is a possibility that a subsurface natural preferential pathway such as a fracture exists. Therefore, the stream needs to be sampled periodically to determine if the COC concentrations are being sufficiently eliminated.

3. Established Point(s) of Compliance

Monitor well MW-4 is an established point of compliance. Monitor well MW-4 is located hydraulically down-gradient of the source area and hydraulically up-gradient of the property boundary (i.e., exposure point). Monitor well MW-4 is where the dissolved-phase COC must be at or below the determined site-specific target levels (SSTLs) in the groundwater.

4. Tier 2 Action

Based on the Tier 2 evaluation, interim remedial action is warranted at this time. Free-product recovery is recommended as soon as possible. A cost proposal for enhanced free-product recovery has been submitted with this report. Free-product will be removed to the extent practicable pursuant to R.61-92, Section 280.

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Tables

TABLE 1
Complete Exposure Pathways at Crossroads Grocery
(Current Land Use)

Potentially Exposed Population	Exposure Route, Medium, and Exposure Point	Pathway Selected for Evaluation?	Reason for Selection or Non-selection
Off-site resident	Ingestion of ground water from impacted water well	No or **Yes**	No drinking water wells in area, **but surface water receptor approximately 1000 feet down-grad of site could be affected**
	Direct contact with surface soil	No	On-site soil hydrocarbon readings measured non-detect in samples collected on 9/10/96
	Inhalation while showering	No	Residents do not use ground water for showering
	Dermal contact while showering	No	Residents do not use ground water for showering
	Inhalation of volatiles	No	0 ppm with FID-PID except inside on-site monitor wells
On-site resident	Ingestion of ground water	No	No residents on-site
	Direct contact with surface soil	No	
	Inhalation while showering	No	
	Dermal contact while showering	No	
	Inhalation of volatiles	No	
Worker	Ingestion of ground water	No	No water well on site
	Direct contact with surface soil	No	On-site soil hydrocarbon readings measured non-detect on samples collected on 9/9-10/96
	Inhalation while showering	No	N/A
	Dermal contact while showering	No	N/A
	Inhalation of volatiles	No	0 ppm with FID-PID except inside on-site monitor wells

Potentially Exposed Population	Exposure Route, Medium, and Exposure Point	Pathway Selected for Evaluation?	Reason for Selection or Non-selection
Visitor	Ingestion of ground water	No	No water well on site
	Direct contact with surface soil	No	On-site soil hydrocarbon readings measured non-detect on samples collected on 9/9-10/96
	Inhalation while showering	No	N/A
	Dermal contact while showering	No	N/A
	Inhalation of volatiles	No	0 ppm with FID-PID except inside on-site monitor wells

TABLE 2
Complete Exposure Pathways at Crossroads Grocery
(Future Land Use)

Potentially Exposed Population	Exposure Route, Medium, and Exposure Point	Pathway Selected for Evaluation?	Reason for Selection or Non-selection
Off-site resident	Ingestion of ground water from impacted water well	Yes	No drinking water wells in area, **but possible future installation and surface water receptor approximately 1000 feet down-grad of site could be affected**
	Direct contact with surface soil	No	On-site soil hydrocarbon readings measured non-detect in samples collected on 9/10/96.
	Inhalation while showering	Yes	Residents may use ground water for showering
	Dermal contact while showering	Yes	Residents may use ground water for showering
	Inhalation of volatiles	No	0 ppm with FID-PID except inside on-site monitor wells
On-site resident	Ingestion of ground water	No	No residents on-site, property is zoned commercial and is reasonably anticipated to remain commercial
	Direct contact with surface soil	No	
	Inhalation while showering	No	
	Dermal contact while showering	No	
	Inhalation of volatiles	No	
Worker	Ingestion of ground water	No	No water well on site
	Direct contact with surface soil	No	On-site soil hydrocarbon readings measured non-detect on samples collected on 9/9-10/96
	Inhalation while showering	No	N/A
	Dermal contact while showering	No	N/A
	Inhalation of volatiles	No	0 ppm with FID-PID except inside on-site monitor wells

Potentially Exposed Population	Exposure Route, Medium, and Exposure Point	Pathway Selected for Evaluation?	Reason for Selection or Non-selection
Visitor	Ingestion of ground water	No	No water well on site
	Direct contact with surface soil	No	On-site soil hydrocarbon readings measured non-detect on samples collected on 9/9-10/96
	Inhalation while showering	No	N/A
	Dermal contact while showering	No	N/A
	Inhalation of volatiles	No	0 ppm with FID-PID except inside on-site monitor wells

TABLE 3
Risk-Based Screening Levels for Ground Water

Chemical of Concern	Concentration (µg/l)
Benzene	5
Toluene	1000
Ethylbenzene	700
Xylenes	10,000
MTBE	40
Naphthalene	25
Benzo(a)anthracene	10
Benzo(b)fluoranthene	10
Benzo(k)fluoranthene	10
Chrysene	10
Dibenz(a,h)anthracene	10

TABLE 4
Soil Boring Data

Borehole Number	Sampling Date	Split-Spoon Interval (ft)	Field Screening OVA-FID (ppm) Results
Soil Boring SB-1	9/10/96	4-6 9-11 14-16	4.2 14.0 5.0
Soil Boring SB-2	9/10/96	4-6 9-11 14-16	0.0 0.0 0.0
Soil Boring MW-6	9/10/96	4-6 9-11 14-16 19-21 24-26 29-31 34-36	1.0 2.4 28.0 28.0 200.0 80.0 20.0
Soil Boring MW-7	9/10/96	4-6 9-11 14-16 19-21 24-26 29-31 34-36 39-41	0.0 0.0 3.2 19.4 42.0 50.0 68.0 60.0

TABLE 5
Soil Analytical Data for all COC
September 9, 1996

Test	Units	MW-6 (24-26')	MW-7 (24-26')	SB-1 (9-11')	SB-2 (9-11')
TOC	mg/kg	NA	NA	NA	2,700 mg/kg
TPH-Gas	mg/kg	NA	NA	ND	NA
Benzene	mg/kg	ND	ND	ND	NA
Toluene	mg/kg	ND	ND	ND	NA
Ethylbenzene	mg/kg	ND	ND	ND	NA
Xylenes	mg/kg	ND	ND	ND	NA
PAH	µg/kg	ND	ND	NA	NA
Naphthalene	mg/kg	ND	ND	ND	NA

Notes:
NA - not analyzed
ND - none detected at or above detection reporting limit

TABLE 6
Monitoring Well and Ground-Water Data

MW#	Sampling Date	Screen Depth (ft)	Screened Interval (ft)	Depth to Water (ft)	Water Table Elevation (ft)
MW-2	9/9/96	20	20-30	28.00	69.77
MW-3	9/9/96	20	20-30	28.57	68.20
MW-4	9/9-10/96	15	15-25	23.49	66.61
MW-5	9/10/96	10	10-20	15.44	59.30
MW-6	9/10/96	20	20-35	24.80	67.87
MW-7	9/10/96	24	24-39	28.04	69.64

TABLE 7
Ground-Water Analytical Data in µg/liter

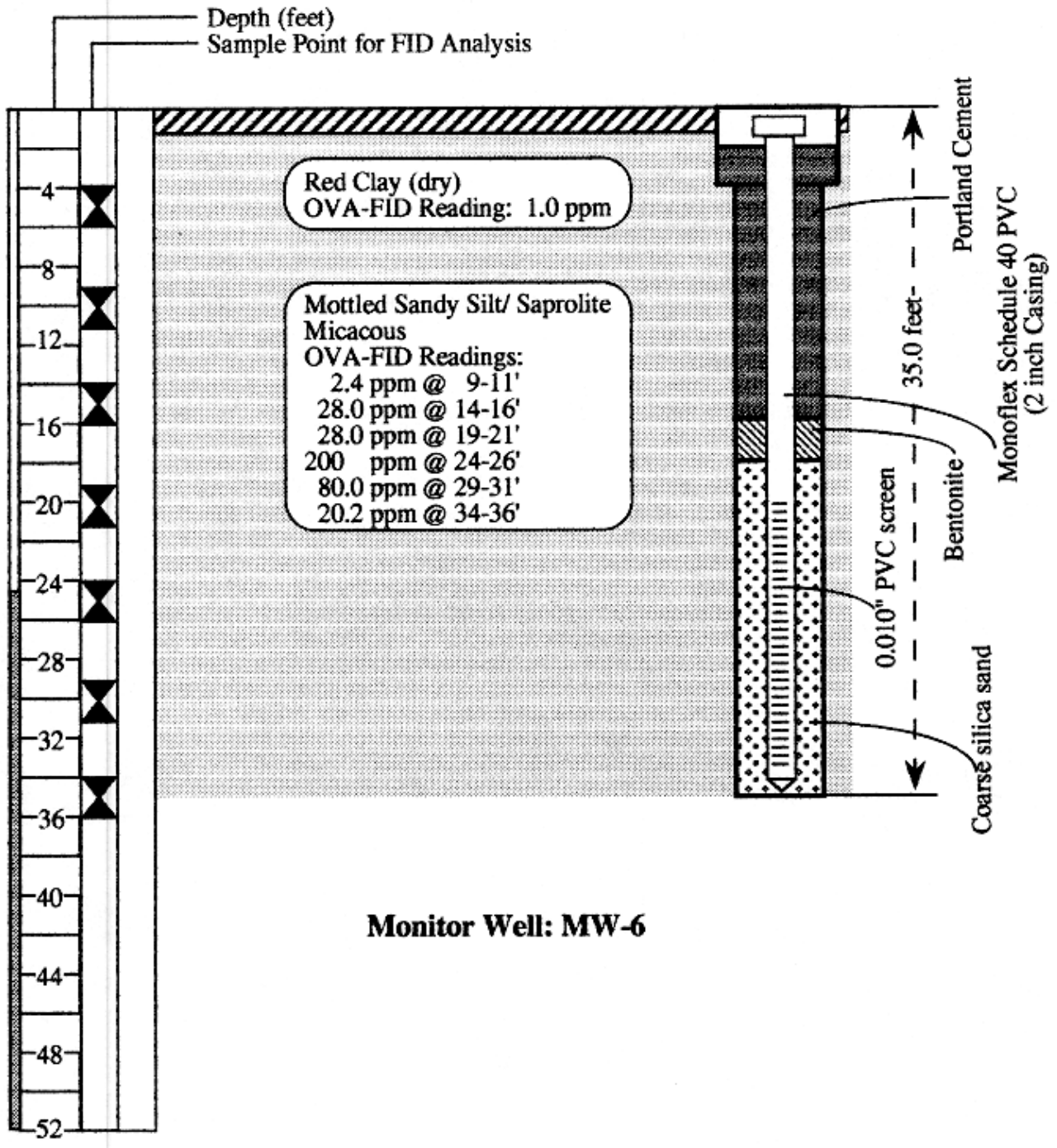
Test	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	Up-stream	Down-stream
Sample Date	9/9/96	9/9/96	9/9-10/96	9/10/96	9/10/96	9/10/96	9/9/96	9/9/96
MTBE	470	ND	19,000	12	6,100	160	110	ND
Benzene	33	ND	22,000	44	26,000	960	75	ND
Toluene	20	ND	44,000	11	33,000	4,800	0.73	1.1
Ethylbenzene	ND	ND	4,200	1.7	2,700	740	ND	ND
Xylene	15	ND	23,000	27	14,000	4,100	1.9	ND
PAH	ND	NA	710	ND	768	461	ND	ND
Naphthalene	ND	ND	540	ND	530	330	ND	ND

Notes:
NA- not analyzed due to lack of sample quantity available for sampling
ND- none detected at or above detection reporting limit

Appendices

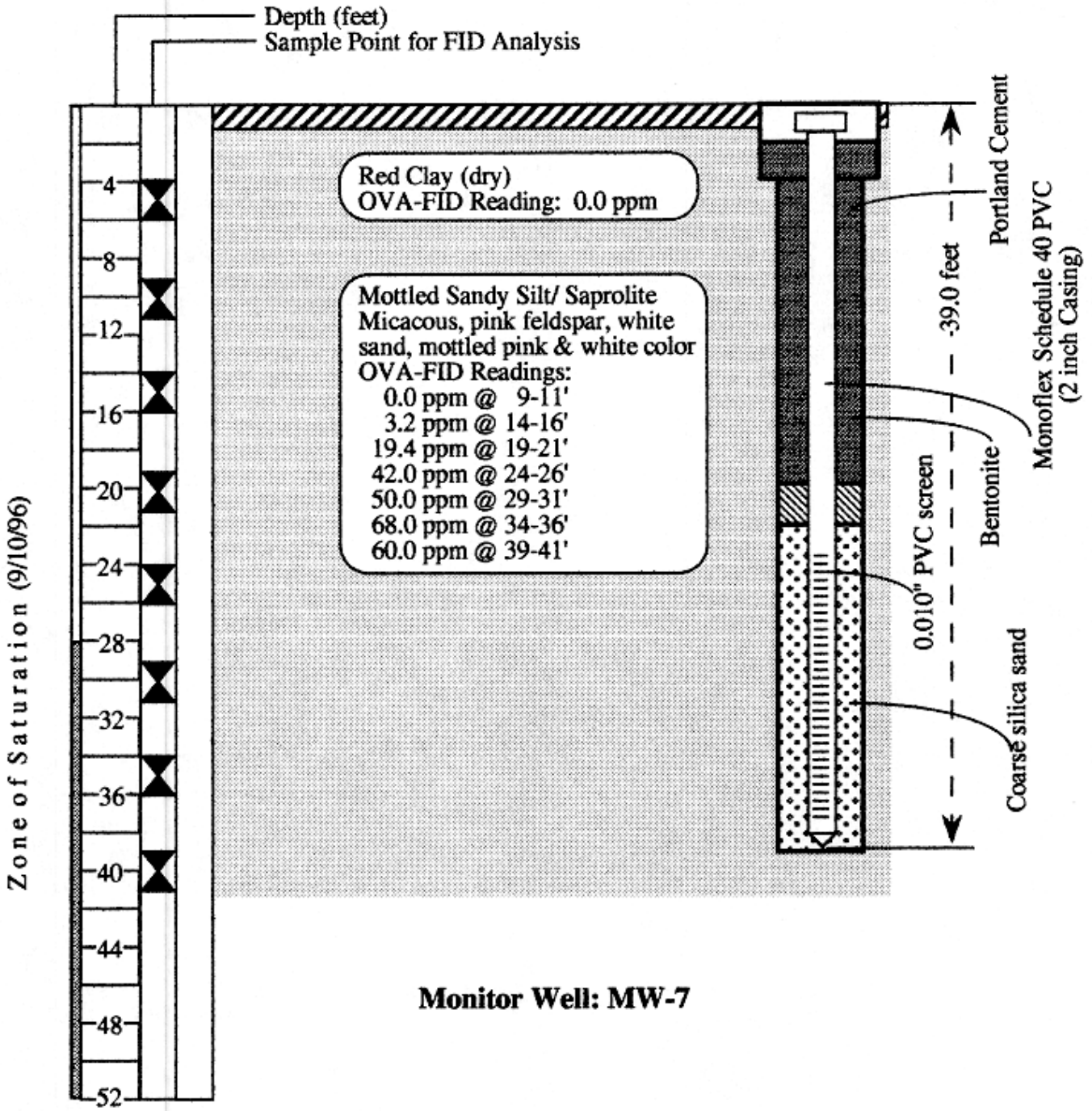
Appendix A

Well Construction Logs
Soil Boring Logs



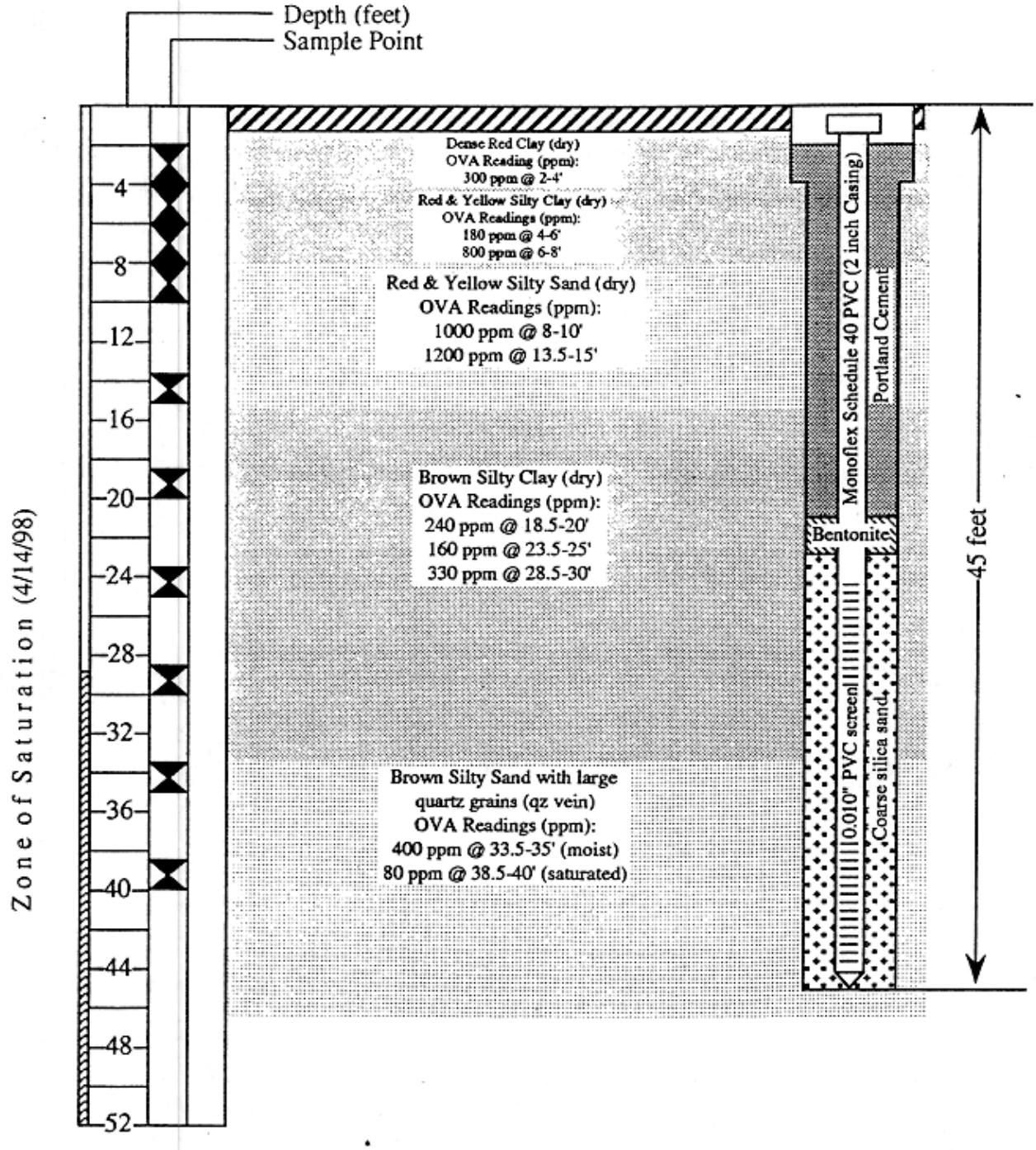
Monitor Well: MW-6

CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Monitor Well Boring Log**
Location: Highway 24/59, Westminster, Oconee Co., SC	
ESCM & Associates, Inc. 1781 Mars Hill Road, Watkinsville, Oconne Co., GA	Drafted By: Mirta A. Carpenter Date Drafted: January 15, 1997



Monitor Well: MW-7

CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Monitor Well Boring Log**
Location: Highway 24/59, Westminster, Oconee Co., SC	
ESCM & Associates, Inc. 1781 Mars Hill Road, Watkinsville, Oconne Co., GA	Drafted By: Mirta A. Carpenter Date Drafted: January 15, 1997



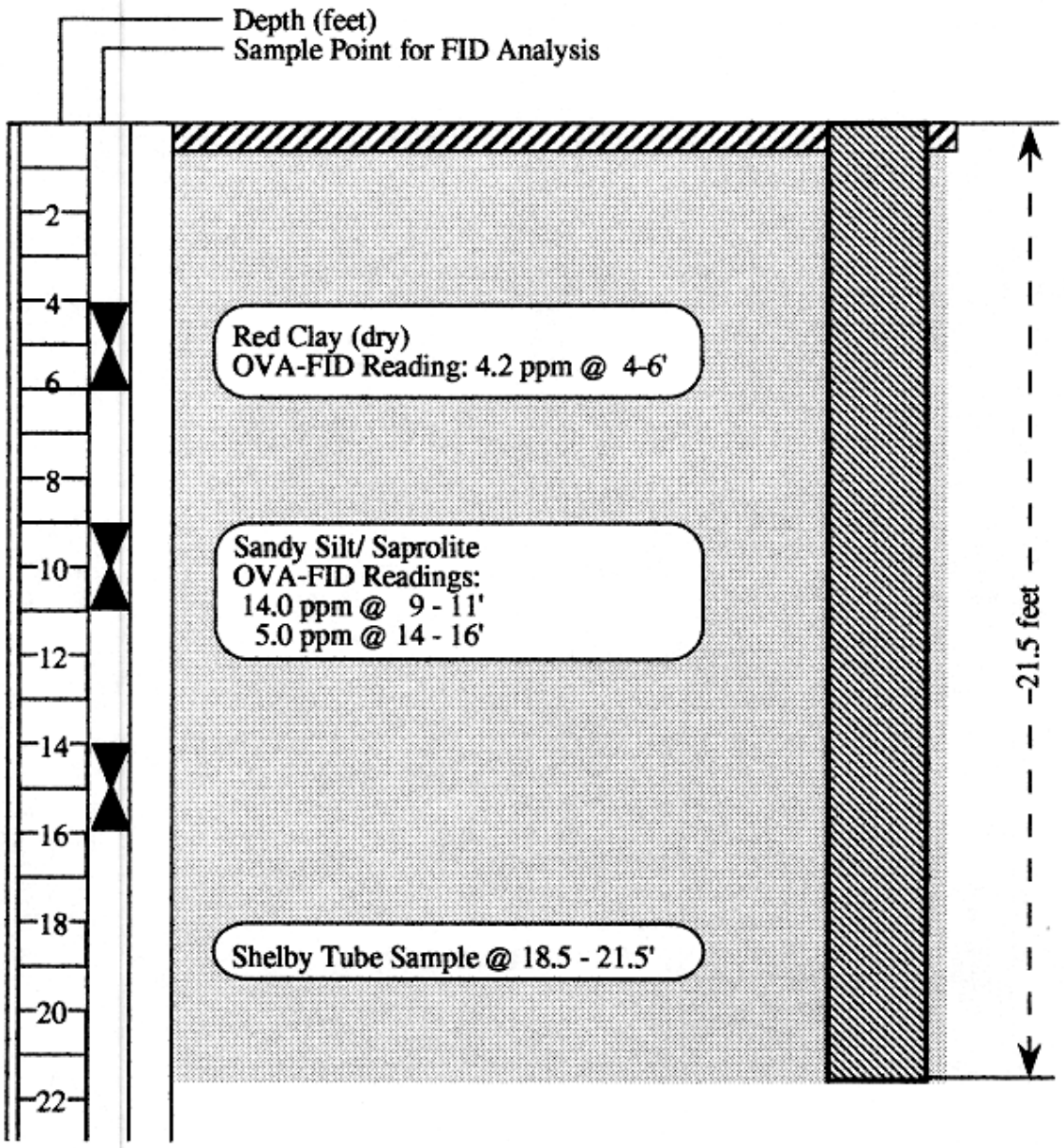
Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Monitor Well MW-8
(Line & Dispenser SB#8)

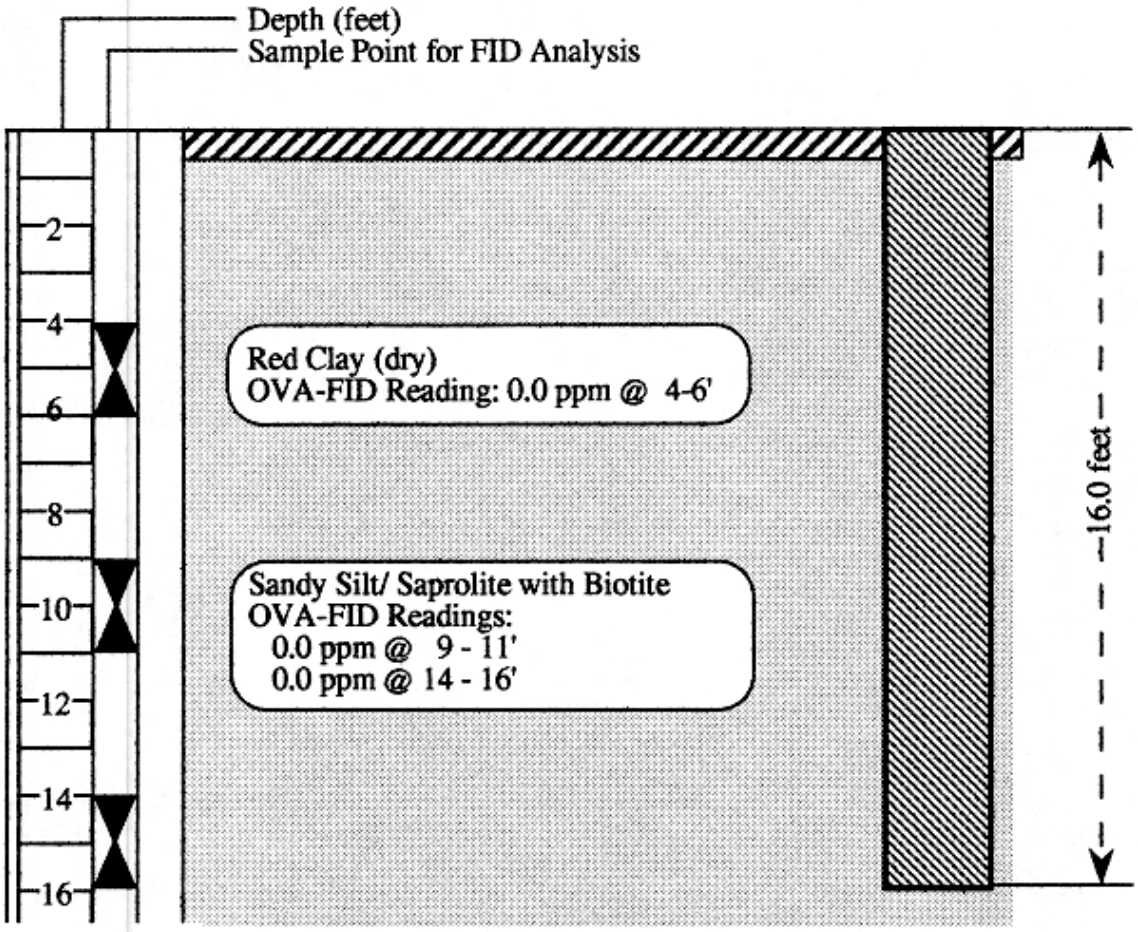
Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 14, 1998



Soil Boring SB-1
(drilled 9/9/96)

CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Soil Boring Log**
Location: Highway 24/59, Westminster, Oconee Co., SC	
ESCM & Associates, Inc. 1781 Mars Hill Road, Watkinsville, Oconee Co., GA	Drafted By: Mirta A. Carpenter Date Drafted: January 15, 1997



Soil Boring SB-2
(drilled 9/10/96)

CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Soil Boring Log**
Location: Highway 24/59, Westminster, Oconee Co., SC	
ESCM & Associates, Inc. 1781 Mars Hill Road, Watkinsville, Oconee Co., GA	Drafted By: Mirta A. Carpenter Date Drafted: January 15, 1997

Appendix C

Aquifer Calculations and Data

SUMMARY of SLUG TEST

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID: # 06742 COUNTY Oconee

FACILITY NAME Crossroads Grocery

Slug Data

See Appendix C Table _____ Figures 5, 6, 7 & 8 for a list of all data measurements.
(water level logs, etc.) (Complete as appropriate).

Water Level Recovery Data was measured by manually with water level ind.
(Hermit Data Logger, Manually with Water Level Indicator, etc.) (List Method).

Complete the following table for each well tested.
COMPETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in well(s) number	(RH) MW1A	(FH) MW1A	MW6 (RH)	MW6 (FH)
Initial Rise/Drawdown in well (feet)	1.25'	0.45'	0.53'	0.15'
Radius of Well Casing (feet)	0.0833'	0.0833'	0.0833'	0.0833'
Effective Radius of Well (feet)	0.25'	0.25'	0.25'	0.25'
Static Saturated Aquifer Thickness (feet)	100'	100'	100'	100'
Length of Well Screen (feet)	15'	15'	15'	15'
Static Height of Water Column in Well (ft)	5.96'	5.96'	10.20'	10.20'

Calculations

See Appendix C ~~Table~~ Section II.E. Figure _____ for calculations. (Complete as appropriate).

The method for aquifer calculations was Bouwer-Rice (i.e. Bouwer–Rice, Cooper, etc

Calculated values by well were as follows:

Slug Test Conducted in well(s) number	MW1A (RH)	MW1A (FH)	MW6 (RH)	MW6 (FH)
Hydraulic Conductivity	0.0001117 Ft/min	1.9566×10^{-5} Ft/min	6.1173×10^{-5} Ft/min	2.3848×10^{-5} Ft/min

Thickness of the aquifer used to calculate hydraulic conductivity was 100 feet.

The aquifer is _____ confined _____ semi–confined ✓ water table (Check as appropriate).

The estimated seepage velocity is 17.1 feet per year based on a hydraulic conductivity of 5.41×10^{-5} Ft/min, a hydraulic gradient of 0.03, and a porosity of 5 per cent for sandy silt soil (list type i.e., silty sand ,clay, etc).

Note: Specific Yield used in lieu of effective Porosity (see pg. 12 of RBCA - Tier 1/2)

SUMMARY of SLUG TEST

SLUG TEST DATA FOR MW1A (RISING HEAD)

Client:	Mr. Neil Alexander
Address:	Crossroads Grocery
	Route 2, Box 149
	Westminster, SC 29693
Date:	December 8, 1993
Operator:	Mirta A. Carpenter
Assistant(s):	Jewell Shaw

Initial Drawdown:	1.25	feet
Radius of Well Casing:	0.0833	feet
Radius of Well:	0.25	feet
Saturated Thickness:	100	feet
Screen Thickness:	15	feet
Static Height of Water:	5.96	feet

Time (minutes)	Drawdown (feet)
0.08	1.17
0.15	1.16
0.22	1.12
0.33	1.00
0.42	0.95
0.48	0.89
0.52	0.87
0.63	0.83
0.68	0.79
0.75	0.75
0.87	0.70
0.93	0.65
0.98	0.60
1.10	0.56
1.20	0.54
1.33	0.51
1.40	0.49
1.47	0.47
1.52	0.45
1.57	0.43
1.70	0.42
1.77	0.41
1.82	0.40
1.87	0.38

SLUG TEST DATA FOR MW1A (RISING HEAD)

Time (minutes)	Drawdown (feet)
1.93	0.37
1.98	0.36
2.10	0.35
2.17	0.33
2.28	0.32
2.33	0.31
2.40	0.30
2.48	0.29
2.55	0.28
2.62	0.27
2.65	0.26
2.70	0.25
2.85	0.24
3.02	0.23
3.13	0.22
3.32	0.21
3.47	0.20
3.63	0.19
3.87	0.18
4.17	0.17
4.42	0.16
4.68	0.15
5.03	0.14
5.47	0.13
5.85	0.12
6.83	0.11
6.92	0.10
7.82	0.09
8.55	0.08
9.60	0.07
9.98	0.06
10.62	0.05
13.37	0.04
15.33	0.03
17.83	0.02
21.62	0.01

SLUG TEST DATA FOR MW1A (FALLING HEAD)

Client:	Mr. Neil Alexander
Address:	Crossroads Grocery
	Route 2, Box 149
	Westminster, SC 29693
Date:	December 8, 1993
Operator:	Mirta A. Carpenter
Assistant(s):	Jewell Shaw

Initial Drawdown:	0.45	feet
Radius of Well Casing:	0.0833	feet
Radius of Well:	0.25	feet
Saturated Thickness:	100	feet
Screen Thickness:	15	feet
Static Height of Water:	5.96	feet

Page No. 1

Time (minutes)	Drawdown (feet)
0.07	0.40
0.25	0.35
0.70	0.30
1.02	0.25
2.15	0.20
4.10	0.15
11.15	0.11
15.75	0.10
22.22	0.09
31.77	0.08
41.07	0.07

SLUG TEST DATA FOR MW-6 (RISING HEAD)

Client:	Mr. Neil Alexander
Address:	Crossroads Grocery
	Route 2, Box 149
	Westminster, SC 29693
Date:	September 10, 1996
Operator:	Mirta A. Carpenter
Assistant(s):	Tracy Olexa

Initial Drawdown:	0.53	feet
Radius of Well Casing:	0.0833	feet
Radius of Well:	0.25	feet
Saturated Thickness:	100	feet
Screen Thickness:	15	feet
Static Height of Water:	10.2	feet

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Time (minutes)	Drawdown (feet)
0.20	0.45
0.30	0.40
0.58	0.35
1.13	0.30
2.18	0.25
3.28	0.20
6.52	0.10
19.77	0.05

SLUG TEST MW-6 (FALLING HEAD)

Client:	Mr. Neil Alexander
Address:	Crossroads Grocery
	Route 2, Box 149
	Westminster, SC 29693
Date:	September 10, 1996
Operator:	Mirta A. Carpenter
Assistant(s):	Tracy Olexa

Initial Drawdown:	0.15	feet
Radius of Well Casing:	0.0833	feet
Radius of Well:	0.25	feet
Saturated Thickness:	100	feet
Screen Thickness:	15	feet
Static Height of Water:	10.2	feet

Time (minutes)	Drawdown (feet)
0.40	0.10
21.47	0.05
27.00	0.03

FREE PRODUCT RECOVERY TEST AT MONITOR WELL MW-1A
CROSSROADS GROCERY WESTMINSTER, SC
September 9, 1996

Time (seconds)	Distance (feet)
0	32.05
44	30.72
59	30.6
89	30.5
128	30.4
177	30.3
239	30.2
323	30.1
421	30
611	29.9
807	29.8
1337	29.7
2105	29.6
3106	29.5
4370	29.49

Appendix D

SOLUTE Modeling Simulations: Assumptions and Results

****
INTERNATIONAL GROUND WATER MODELING CENTER
S O L U T E version 3.01
ANALYTICAL MODELS FOR SOLUTE TRANSPORT
****

Model: ONEd-3
PROJECT = **Site-Specific Target Level for Benzene: Model Calibration**
USER NAME = Mirta A. Carpenter
DATE = 01-22-1997
DATA FILE = b:sstlbc.txt

INPUT DATA:
GROUNDWATER (SEEPAGE) VELOCITY = .047 [ft/d]
LONGITUDINAL DISPERSIVITY..... = 10 [ft]
RETARDATION FACTOR..... = 1.3
INITIAL CONCENTRATION..... = 0 [mg/l]
CONCENTRATION AT SOURCE..... = 22 [mg/l]
DISTANCE INCREMENT..... = 20 [ft]
NUMBER OF DISTANCE INCREMENTS. = 10
NUMBER OF TIME PERIODS..... = 1
1 TIME..... = 2292 [d]
DURATION OF SOLUTE PULSE..... = 2292 [d]
HALF-LIFE (0 if no decay)..... = 0 [d]
DECAY CONSTANT (lambda)..... = .0000D+00 [1/d]

CONCENTRATION C [mg/l]

DISTANCE [ft]	1 TIME 2292.00 [d]
0.0000	2.1771E+01
20.0000	2.0937E+01
40.0000	1.9008E+01
60.0000	1.5719E+01
80.0000	1.1431E+01
100.0000	7.1265E+00
120.0000	3.7112E+00
140.0000	1.5915E+00
160.0000	5.5571E-01
180.0000	1.5675E-01
200.0000	**3.5513E-02**

At a source concentration of 22 ppm at monitor well MW-4 the model-simulated concentration at monitor well MW-5 is 0.0355 ppm compared to the actual field data concentration of 0.044 ppm. Monitor well MW-5 is 195 feet down-gradient of monitor well MW-4 along the x-axis which is parallel to the direction of ground-water flow.

****

INTERNATIONAL GROUND WATER MODELING CENTER

S O L U T E version 3.01

ANALYTICAL MODELS FOR SOLUTE TRANSPORT

****

Model: ONEd-3

PROJECT = **Site-Specific Target Level for Benzene**

USER NAME = Mirta A. Carpenter

DATE = 01-22-1997

DATA FILE = b:sstlbenz.dat

INPUT DATA:

GROUNDWATER (SEEPAGE) VELOCITY = .047 [ft/d]

LONGITUDINAL DISPERSIVITY..... = 10 [ft]

RETARDATION FACTOR..... = 1.3

INITIAL CONCENTRATION..... = 0 [mg/l]

CONCENTRATION AT SOURCE..... = .2 [mg/l] SSTL for benzene

DISTANCE INCREMENT..... = 20 [ft]

NUMBER OF DISTANCE INCREMENTS. = 10

NUMBER OF TIME PERIODS..... = 1

1 TIME..... = 2292 [d]

DURATION OF SOLUTE PULSE..... = 2292 [d]

HALF-LIFE (0 if no decay)..... = 0 [d]

DECAY CONSTANT (lambda)..... = .0000D+00 [1/d]

CONCENTRATION C [mg/l]

DISTANCE [ft]	1 TIME 2292.00 [d]
0.0000	1.9792E-01
20.0000	1.9033E-01
40.0000	1.7280E-01
60.0000	1.4290E-01
80.0000	1.0392E-01
100.0000	6.4786E-02
120.0000	3.3739E-02
140.0000	1.4468E-02
160.0000	**5.0519E-03 (Monitor Well MW-4 is a Point of Compliance)**
180.0000	1.4250E-03
200.0000	3.2284E-04

At a source concentration of 200 ppb at the source (i.e., monitor well MW-1) the model-simulated concentration at the down-gradient point of compliance (i.e., monitor well MW-4) is 0.005 ppm or 5 ppb which is the risk-based screening level for benzene in ground-water. Therefore, the site-specific target level for benzene at this site based on the assumptions stated above and in the report is 200 ppb.

****
INTERNATIONAL GROUND WATER MODELING CENTER
S O L U T E version 3.01
ANALYTICAL MODELS FOR SOLUTE TRANSPORT
****

Model: ONEd-3
PROJECT = **Site-Specific Target Level for Toluene: Model Calibration/Verification**
USER NAME = Mirta A. Carpenter
DATE = 01-22-1997
DATA FILE = b:sstltc.dat

INPUT DATA:
GROUNDWATER (SEEPAGE) VELOCITY = .047 [ft/d]
LONGITUDINAL DISPERSIVITY..... = 10 [ft]
RETARDATION FACTOR..... = 1.3
INITIAL CONCENTRATION..... = 0 [mg/l]
CONCENTRATION AT SOURCE..... = 44 [mg/l]
DISTANCE INCREMENT..... = 20 [ft]
NUMBER OF DISTANCE INCREMENTS. = 10
NUMBER OF TIME PERIODS..... = 1
1 TIME..... = 2292 [d]
DURATION OF SOLUTE PULSE..... = 2292 [d]
HALF-LIFE (0 if no decay)..... = 0 [d]
DECAY CONSTANT (lambda)..... = .0000D+00 [1/d]

CONCENTRATION C [mg/l]

DISTANCE [ft]	1 TIME 2292.00 [d]
0.0000	4.3543E+01
20.0000	4.1873E+01
40.0000	3.8016E+01
60.0000	3.1437E+01
80.0000	2.2862E+01
100.0000	1.4253E+01
120.0000	7.4225E+00
140.0000	3.1829E+00
160.0000	1.1114E+00
180.0000	3.1349E-01
200.0000	**7.1025E-02**

At a source concentration of 44 ppm at monitor well MW-4 the model-simulated concentration at monitor well MW-5 is 0.0710 ppm compared to the actual field data concentration of 0.011 ppm. Monitor well MW-5 is 195 feet down-gradient of monitor well MW-4 along the x-axis which is parallel to the direction of ground-water flow.

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INTERNATIONAL GROUND WATER MODELING CENTER
S O L U T E version 3.01
ANALYTICAL MODELS FOR SOLUTE TRANSPORT
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Model: ONEd-3
PROJECT = **Site-Specific Target Level for Toluene**
USER NAME = Mirta A. Carpenter
DATE = 01-22-1997
DATA FILE = b:sstltol.dat

INPUT DATA:
GROUNDWATER (SEEPAGE) VELOCITY = .047 [ft/d]
LONGITUDINAL DISPERSIVITY..... = 10 [ft]
RETARDATION FACTOR..... = 1.3
INITIAL CONCENTRATION..... = 0 [mg/l]
CONCENTRATION AT SOURCE..... = 40 [mg/l] SSTL for toluene
DISTANCE INCREMENT..... = 20 [ft]
NUMBER OF DISTANCE INCREMENTS. = 10
NUMBER OF TIME PERIODS..... = 1
1 TIME..... = 2292 [d]
DURATION OF SOLUTE PULSE..... = 2292 [d]
HALF-LIFE (0 if no decay)..... = 0 [d]
DECAY CONSTANT (lambda)..... = .0000D+00 [1/d]

CONCENTRATION C [mg/l]

DISTANCE [ft]	1 TIME 2292.00 [d]
0.0000	3.9585E+01
20.0000	3.8067E+01
40.0000	3.4560E+01
60.0000	2.8579E+01
80.0000	2.0784E+01
100.0000	1.2957E+01
120.0000	6.7477E+00
140.0000	2.8936E+00
160.0000	**1.0104E+00 (Monitor Well MW-4 is a Point of Compliance)**
180.0000	2.8499E-01
200.0000	6.4569E-02

At a source concentration of 40,000 ppb at the source (i.e., monitor well MW-1) the model-simulated concentration at the down-gradient point of compliance (i.e., monitor well MW-4) is 1.0 ppm or 1,000 ppb which is the risk-based screening level for toluene in ground-water. Therefore, the site-specific target level for toluene at this site based on the assumptions stated above and in the report is 40,000 ppb.

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INTERNATIONAL GROUND WATER MODELING CENTER

S O L U T E version 3.01

ANALYTICAL MODELS FOR SOLUTE TRANSPORT

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Model: ONEd-3

PROJECT = **Site-Specific Target Level for Ethylbenzene: Model Calibration/Verification**

USER NAME = Mirta A. Carpenter

DATE = 01-22-1997

DATA FILE = b:sstlec.dat

INPUT DATA:

GROUNDWATER (SEEPAGE) VELOCITY = .047 [ft/d]

LONGITUDINAL DISPERSIVITY..... = 10 [ft]

RETARDATION FACTOR..... = 1.3

INITIAL CONCENTRATION..... = 0 [mg/l]

CONCENTRATION AT SOURCE..... = 4.2 [mg/l]

DISTANCE INCREMENT..... = 20 [ft]

NUMBER OF DISTANCE INCREMENTS. = 10

NUMBER OF TIME PERIODS..... = 1

1 TIME..... = 2292 [d]

DURATION OF SOLUTE PULSE..... = 2292 [d]

HALF-LIFE (0 if no decay)..... = 0 [d]

DECAY CONSTANT (lambda)..... = .0000D+00 [1/d]

CONCENTRATION C [mg/l]

DISTANCE [ft]	1 TIME 2292.00 [d]
0.0000	4.1564E+00
20.0000	3.9970E+00
40.0000	3.6288E+00
60.0000	3.0008E+00
80.0000	2.1823E+00
100.0000	1.3605E+00
120.0000	7.0851E-01
140.0000	3.0383E-01
160.0000	1.0609E-01
180.0000	2.9924E-02
200.0000	**6.7797E-03**

At a source concentration of 4.2 ppm at monitor well MW-4 the model-simulated concentration at monitor well MW-5 is 0.0068 ppm compared to the actual field data concentration of 0.0017 ppm. Monitor well MW-5 is 195 feet down-gradient of monitor well MW-4 along the x-axis which is parallel to the direction of ground-water flow.

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INTERNATIONAL GROUND WATER MODELING CENTER
S O L U T E version 3.01
ANALYTICAL MODELS FOR SOLUTE TRANSPORT
****

Model: ONEd-3
PROJECT = **Site-Specific Target Level for Ethylbenzene**
USER NAME = Mirta A. Carpenter
DATE = 01-22-1997
DATA FILE = b:sstleth.dat

INPUT DATA:
GROUNDWATER (SEEPAGE) VELOCITY = .047 [ft/d]
LONGITUDINAL DISPERSIVITY..... = 10 [ft]
RETARDATION FACTOR..... = 1.3
INITIAL CONCENTRATION..... = 0 [mg/l]
CONCENTRATION AT SOURCE..... = 27 [mg/l] SSTL for ethylbenzene
DISTANCE INCREMENT..... = 20 [ft]
NUMBER OF DISTANCE INCREMENTS. = 10
NUMBER OF TIME PERIODS..... = 1
1 TIME..... = 2292 [d]
DURATION OF SOLUTE PULSE..... = 2292 [d]
HALF-LIFE (0 if no decay)..... = 0 [d]
DECAY CONSTANT (lambda)..... = .0000D+00 [1/d]

CONCENTRATION C [mg/l]

DISTANCE [ft]	1 TIME 2292.00 [d]
0.0000	2.6720E+01
20.0000	2.5695E+01
40.0000	2.3328E+01
60.0000	1.9291E+01
80.0000	1.4029E+01
100.0000	8.7461E+00
120.0000	4.5547E+00
140.0000	1.9532E+00
160.0000	**6.8200E-01 (Monitor Well MW-4 is a Point of Compliance)**
180.0000	1.9237E-01
200.0000	4.3584E-02

At a source concentration of 27,000 ppb at the source (i.e., monitor well MW-1) the model-simulated concentration at the down-gradient point of compliance (i.e., monitor well MW-4) is 0.682 ppm or 682 ppb. The risk-based screening level for ethylbenzene in ground-water is 700 ppb; therefore, at a SSTL for ethylbenzene of 27,000 ppb, the point of compliance ethylbenzene concentration (i.e., 682 ppb) is projected to be below the RBSL for ethylbenzene. The site-specific target level for ethylbenzene at this site based on the assumptions stated above and in the report is 27,000 ppb.

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INTERNATIONAL GROUND WATER MODELING CENTER
S O L U T E version 3.01
ANALYTICAL MODELS FOR SOLUTE TRANSPORT
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Model: ONEd-3
PROJECT = **Site-Specific Target Level for Xylenes: Model Calibration/Verification**
USER NAME = Mirta A. Carpenter
DATE = 01-22-1997
DATA FILE = b:sstlxc.dat

INPUT DATA:
GROUNDWATER (SEEPAGE) VELOCITY = .047 [ft/d]
LONGITUDINAL DISPERSIVITY..... = 10 [ft]
RETARDATION FACTOR..... = 1.3
INITIAL CONCENTRATION..... = 0 [mg/l]
CONCENTRATION AT SOURCE..... = 23 [mg/l]
DISTANCE INCREMENT..... = 20 [ft]
NUMBER OF DISTANCE INCREMENTS. = 10
NUMBER OF TIME PERIODS..... = 1
1 TIME..... = 2292 [d]
DURATION OF SOLUTE PULSE..... = 2292 [d]
HALF-LIFE (0 if no decay)..... = 0 [d]
DECAY CONSTANT (lambda)..... = .0000D+00 [1/d]

CONCENTRATION C [mg/l]

DISTANCE [ft]	1 TIME 2292.00 [d]
0.0000	2.2761E+01
20.0000	2.1888E+01
40.0000	1.9872E+01
60.0000	1.6433E+01
80.0000	1.1951E+01
100.0000	7.4504E+00
120.0000	3.8799E+00
140.0000	1.6638E+00
160.0000	5.8096E-01
180.0000	1.6387E-01
200.0000	**3.7127E-02**

At a source concentration of 23 ppm at monitor well MW-4 the model-simulated concentration at monitor well MW-5 is 0.0371 ppm compared to the actual field data concentration of 0.027 ppm. Monitor well MW-5 is located 195 feet down-gradient of monitor well MW-4 along the x-axis which is parallel to the direction of ground-water flow.

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INTERNATIONAL GROUND WATER MODELING CENTER

S O L U T E version 3.01

ANALYTICAL MODELS FOR SOLUTE TRANSPORT

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Model: ONEd-3
PROJECT = **Site-Specific Target Level for Xylenes**
USER NAME = Mirta A. Carpenter
DATE = 01-22-1997
DATA FILE = b:sstlxyl.dat

INPUT DATA:

GROUNDWATER (SEEPAGE) VELOCITY = .047 [ft/d]
LONGITUDINAL DISPERSIVITY..... = 10 [ft]
RETARDATION FACTOR..... = 1.3
INITIAL CONCENTRATION..... = 0 [mg/l]
CONCENTRATION AT SOURCE..... = 400 [mg/l] SSTL for xylenes
DISTANCE INCREMENT..... = 20 [ft]
NUMBER OF DISTANCE INCREMENTS. = 10
NUMBER OF TIME PERIODS..... = 1
1 TIME..... = 2292 [d]
DURATION OF SOLUTE PULSE..... = 2292 [d]
HALF-LIFE (0 if no decay)..... = 0 [d]
DECAY CONSTANT (lambda)..... = .0000D+00 [1/d]

CONCENTRATION C [mg/l]

DISTANCE [ft]	1 TIME 2292.00 [d]
0.0000	3.9585E+02
20.0000	3.8067E+02
40.0000	3.4560E+02
60.0000	2.8579E+02
80.0000	2.0784E+02
100.0000	1.2957E+02
120.0000	6.7477E+01
140.0000	2.8936E+01
160.0000	**1.0104E+01 (Monitor Well MW-4 is a Point of Compliance)**
180.0000	2.8499E+00
200.0000	6.4569E-01

At a source concentration of 400 ppm or 400,000 ppb at the source (i.e., monitor well MW-1) the model-simulated concentration at the down-gradient point of compliance (i.e., monitor well MW-4) is 10 ppm or 10,000 ppb which is the risk-based screening level for xylenes in ground-water. Therefore, the site-specific target level for xylenes at this site based on the assumptions stated above and in the report is 400,000 ppb.

DHEC
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

BUREAU OF
BUSINESS MANAGEMENT
DIVISION OF PROCUREMENT SERVICES
2600 Bull Street
Columbia, SC 29201-1708
Telephone (803) 898-3501 Fax (803) 898-3505

BID MUST BE SUBMITTED ON THIS FORM TO BE ACCEPTED

SEALED BID INVITATION	BID NUMBER: SB-6672-07/29/99-REB (Number Must Be Shown On Front Of Envelope)	DATE ISSUED: 06/22/99 PAGE 1 OF 93

SEALED BIDS WILL BE RECEIVED UNTIL:

TIME: 2:30 pm (Local Time) DATE: 07/29/99

AND THEN PUBLICLY OPENED

Mail To:
S.C. Department of Health & Environmental Control
Division of Procurement Services
2600 Bull Street
Columbia, South Carolina 29201-1708
ATTENTION: BID CLERK
BID NUMBER: SB-6672-07/29/99-REB

DIRECT INQUIRIES TO: Releata E. Baker
Releata E. Baker, (803) 898-3501

REASON FOR NO BID:

VENDOR:

This Section Must Be Completed By Vendor:

Vendor Name

Mailing Address

City State Zip Code

Area Code: Telephone Number _____

Toll Free Number _____

Facsimile Number _____

Federal I.D. Or Social Security Number: _____

Bid Security Is Attached When Required In The Amount of: $_____

By signing this bid, I certify to comply with the Drug-Free Workplace Act, Section 44-107-10 et seq. Of the South Carolina Code of Laws to provide a drug-free workplace. This clause applies to any resultant contract of $50,000.00 or more. The State of South Carolina has amended Title 44, Code of Laws of South Carolina, 1976, relating to health, by adding Chapter 107, so as to enact the Drug-Free Workplace Act.

I certify that this bid is made without prior understanding, agreement or connection with any corporation, firm or person submitting a bid for the same materials, supplies or equipment and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder.

Authorized Signature (Manual) Authorized Signature (Typed) Title Date Signed ___/___/___

COMMODITY: To perform corrective action of a petroleum release from regulated underground storage tank site at site number 06742, Crossroads Grocery, 850 West Oak Highway, Oconee County, South Carolina.

METHOD OF BID AWARD: Award will be made by total to the lowest responsive and responsible bidder.

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SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

BID NUMBER: SB-6672-07/29/99-REB

PURPOSE and SCOPE OF WORK

The Division of Underground Storage Tank (UST) Management of the South Carolina Department of Health and Environmental Control (DHEC) is seeking services to perform corrective action of a petroleum release from a regulated underground storage tank site in accordance with defined remediation goals. The objective is to remove free product and reduce the levels of chemicals of concern (CoC) in the ground-water to or below defined site specific target levels (SSTLs). All bidders must be South Carolina Certified Class I Site Rehabilitation Contractors. The scope of work defined in this bid invitation is to be implemented at **Crossroads Grocery (UST Permit #06742), 850 West Oak Highway, Oconee County, South Carolina,** for the release reported on January 11, 1993.

SPECIAL CONDITIONS

1. CONTRACT PERIOD: The contract will be effective from date of award until the corrective action is complete as described in this contract.

2. This contract is for corrective action at only one (1) site in South Carolina. Compensation from the SUPERB Account is not considered a state contract for purposes of procurement or subject to state bid requirements in accordance with Section 44-2-130(D) of the SUPERB Act.

3. AWARD: Award will be made to a South Carolina Certified UST Site Rehabilitation Contractor based on the total cost of corrective action to SSTLs and removal or abandonment of assessment and rehabilitation items. The proposed implementation schedule to achieve the remediation goals, the removal of all equipment and abandonment of wells, (including pre-existing wells), trenches, etc. installed by the contractor, and the proposed remediation technology(ies) or method(s) must protect public health and the environment and be eligible for permitting by DHEC. The total cost, methods, and estimated time to complete the contract must also be advantageous to the State of South Carolina.

4. REASONABLE BID: DHEC reserves the right to reject any and all bids that appear to be above the customary and reasonable cost for the same scope of work in a similar geologic setting.

5. Contractor must agree to make positive efforts to use women and minority owned businesses and individuals.

6. AMENDMENTS: All amendments to this solicitation will be in writing from the DHEC Procurement Officer indicated on page one of this solicitation. DHEC will not be legally bound by any amendment or interpretation that is not in writing.

7. QUESTIONS: Questions or requests for information must be submitted in writing and received by 5:00 P.M., July 8, 1999. After this date, no further questions will be addressed. A written response will be mailed to all requestors of the bid package. The questions may be faxed to Releata Baker, fax number (803) 898-3505.

8. **NOTE... THE ONLY OFFICIAL CONTACT PERSON AT DHEC DURING THE BIDDING AND**

AWARDING PROCESS IS THE PROCUREMENT OFFICER INDICATED ON PAGE ONE OF THIS SOLICITATION. BIDDING CONTRACTORS ARE NOT TO CONTACT DHEC PERSONNEL LOCATED OUTSIDE THE BUREAU OF BUSINESS MANAGEMENT.

9. **The contractor will be required to treat the area of concern (see figure #2) such that the thickness of free product does not exceed .01 foot and the levels of CoC do not exceed the site-specific target levels (SSTLs) defined in item 11.C. at any point. Verification that interim corrective action goals have been met will be based upon ground-water quality samples collected from monitoring wells MW- 1, MW-1A, MW-2, MW-4, MW-6, MW-7, MW-8, MW-11, MW-13, and MW-14. Verification that final corrective goals have been met will be based upon ground-water quality samples collected from all existing monitoring wells, and additional verification wells to be installed at locations designated by DHEC (see specification #10 for more detail).**

10. REPORTS: Deliver the reports to: SCDHEC, Division of UST Management, ATTN: **Read Miner**, 2600 Bull Street, Columbia, SC 29201. A minimum of two (2) copies of each plan and two (2) copies of each report must be delivered to the above address. Based on permitting and other requirements, engineering report, UIC permits, air modeling forms or NPDES Permits may be required. Please contact the Department for the exact number of copies of each document to be submitted.

11. INVOICING: Invoices will be submitted to: SCDHEC, Division of UST Management, ATTN: Financial Section, 2600 Bull Street, Columbia, SC 29201, using the Department's Corrective Action (CA) Bid Invoice form. The initial invoice must be received at the above address within four months or funds will be uncommitted as required by the Section 44-2-40(B) of the SUPERB Act. If funds are uncommitted this invoice will be held until funding is available. Payment to the contractor will be a pay for performance system as follows:

    A. Payment of forty percent (40%) of the total bid price will be made within 90 days of operation of the remediation system or implementation of corrective action as described in the approved corrective action plan (CAP), subject to the limitations of Section 44-2-40 of the SUPERB Act. This will be documented in the initial monitoring report.

    B. Payment of thirty-five percent (35%) of the total bid price will be made based on removal of free product to .01 foot as verified in monitoring wells MW-1, MW-4, MW-6, and MW-8 and achieving interim CoC mass reduction goals at the site as verified in monitoring wells MW- 1, MW-1A, MW-2, MW-4, MW-6, MW-7, MW-8, MW-11, MW-13, and MW-14. Payment will be made for interim goals of 25, 50, and 75 percent reduction of <u>total</u> CoC mass by the implementation of corrective action. **NOTE: Payment cannot be based on laboratory analyses for any well that has been used for injection unless that well has returned to ambient conditions.** The CoC mass requiring reduction is as follows:

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

BID NUMBER: SB-6672-07/29/99-REB

CoC mass in parts per billion (µg/l) based on January 25, 1999, sampling: (CoC may increase or decrease in the future)

Well	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene	Total Mass
MW- 1	28,200	37,200	2,750	19,500	24,600	4,750	117,000
MW- 1A	33,700	39,300	1,700	13,500	193,000	<5000	286,200
MW- 2	19	12	<5	21	67	5	129
MW- 4*	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
MW- 6	6,920	9,600	1,080	7,460	1,810	495	27,365
MW- 7	2,200	9,360	1,280	7,440	110	430	20,820
MW- 8**	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
MW- 11	24	106	189	825	<10	731	1,885
MW- 13	1,810	26	38	382	2,810	154	5,220
MW- 14	17	21	50	334	7	452	881
Initial Mass*	524,890	697,625	567,092	605,462	10,442,414	16,017	12,853,500
SSTL Mass	678	100,392	32,951	418,839	3,044	3,483	559,387
Initial Mass above SSTL	524,212	597,233	534,141	186,623	10,439,370	12,534	12,294,113

* CoC mass may change due to seasonal fluctuations in the groundwater

**Contains free phase product (MW-4 - 0.05 feet, MW- 8 - 2.49 feet), initial mass based on Henry's Law solubility limits.

(1) 25 percent total mass reduction will be achieved when free product has been removed to .01 foot from MW-1, MW-4, MW-6, and MW-8, and one-quarter of the initial BTEX, MTBE, and Naphthalene mass from monitoring wells MW- 1, MW-1A, MW-2, MW-4, MW-6, MW-7, MW-8, MW-11, MW-13, and MW-14 is removed as compared to the SSTLs. The following formula will be used to calculate the percent total mass reduction: total mass above SSTLs from initial sampling less total mass above SSTLs from subsequent sampling divided by total mass above SSTLs from initial sampling. Payment of 10 percent (10%) of the total bid price will be made upon verification (see Specifications item 10 for the method of verification) of at least one-quarter of the total CoC mass above SSTLs is removed.

(2) 50 percent total mass reduction will be achieved when one-half of the initial BTEX, MTBE, and Naphthalene mass from monitoring wells MW- 1, MW-1A, MW-2, MW-4, MW-6, MW-7, MW-8, MW-11, MW-13, and MW-14 is removed as compared to the SSTLs. The formula outlined in item 11. B. (1) will be used. Payment of 10 percent (10%) of the total bid price will be made upon verification (see Specifications item 10 for the method of verification) of at least one-half of the total CoC mass above SSTLs is removed.

(3) 75 percent total mass reduction will be achieved when three-quarters of the initial BTEX, MTBE, and Naphthalene mass from monitoring wells MW- 1, MW-1A, MW-2, MW-4, MW-6, MW-7, MW-8, MW-11, MW-13, and MW-14 is removed as compared to the SSTLs. The formula outlined in item 11 B (1) will be used. Payment of 15 percent (15%) of the total bid price will be made upon verification (see Specifications item 10 for the method of verification) of at least three-quarters of the total CoC mass above SSTLs is removed.

C. **The final 25 percent (25%) of the total bid price will be paid upon: 1) verification that the thickness of free product does not exceed .01 foot and the levels of CoC do not exceed the site-specific target levels (SSTLs) defined in item 11.C. at any point in the area of concern (see figure #2). Verification that the SSTLs have been met will be based upon ground-water quality samples collected from all existing monitoring wells, and additional verification wells to be installed at locations designated by DHEC (see specification #10 for more detail); and 2) all remediation and assessment items installed by the contractor (e.g., wells [including preexisting wells], trenches, etc.) are removed from the site or properly abandoned.** The SSTLs are as follows:

Site specific target levels (SSTLs) in parts per billion (µg/l)

Well	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene
MW- 1	111	22,164	2,750*	19,500*	887	554
MW- 1A	111	22,164	1,700*	13,500*	187	554
MW- 2	19*	12*	<5**	21*	67*	5*
MW- 4	74	14,775	10,344	147,734	592	369
MW- 6	97	9,600*	1,080*	7,460*	163	482
MW- 7	111	9,360*	1,280*	7,440*	110*	430*
MW- 8	111	22,164	15,515	221,643	887	554
MW- 11	24*	106*	189*	825*	<10**	369
MW- 13	10	26*	38*	382*	134	83

MW- 14	10	21*	50*	334*	7*	83
Total	678	100,392	32,951	418,839	3,044	3,483

* Laboratory analysis is less than calculated SSTLs; therefore, SSTL mass is set equal to laboratory mass.

** Laboratory analysis is below detection limits; therefore, SSTL mass is set equal to detection limits.

12. NOTIFICATION FOR FAILURE TO PERFORM: If the contractor fails to meet any specification of corrective action as outlined in this document, DHEC will notify the contractor by certified letter of the deficiency(ies). If the contractor does not correct the deficiency(ies) within 30 days, the contractor will be in breach of contract and the bid award may be voided by DHEC. DHEC will notify the contractor by certified letter that the bid award is void and any invoices are payable upon review and approval of DHEC. If the contractor corrects the deficiency(ies) within 30 days, the bid award will continue. Please note contractor-owned items used on-site for the contract that are destroyed by acts of nature, improper maintenance or handling, theft or vandalism will not be replaced or reimbursed by the SUPERB fund. The accepted bid will be final and will not be increased or cancelled for any reason (e.g., unanticipated iron fouling of a system, wells clogging because of biological activity or sediments, increased subcontractor costs, loss of utilities, modification to the system to meet the remediation goals, etc.) with the exception of unforeseen geologic circumstances or identification of additional CoC from another release.

13. SITE SPECIFIC DETAILS: A brief technical summary of the release, including a location map and specifics of existing wells, is attached. The detailed technical file will be available for review through the Freedom of Information (FOI) Office located on the third floor of the Sims Building, 2600 Bull Street, Columbia, SC. Appointments to view the technical file may be scheduled on weekdays between the hours of 8:30 A.M. to 5:00 P.M. by calling the SCDHEC Freedom of Information Office at (803) 898-3882. Please request file # 06742.

14. **The contractor will submit a CAP within 30 days of Statement of Award notification from the Bureau of Business Management in accordance with Specification item 2.** The implementation of the CAP will be initiated immediately upon Departmental approval of the CAP and all associated permit(s), and in accordance with the schedule presented in the bid. A performance, bond equal to the award price, will be required by DHEC. The original performance bond will be submitted to the Division of UST Management,Attn: Chris Doll, within 30 days of award. The performance bond will specify that the SUPERB Account will be the recipient of any forfeiture.

15. **MINIMUM REQUIREMENTS: Corrective action will be considered complete once the levels of CoC in the area of concern (see figure #2) are verified to be at or below the SSTLs listed in item 11.C., and removal or abandonment of all remediation and assessment items installed by the contractor (e.g., wells [including preexisting wells], trenches, etc.). See Specification #10 for the method of verification.** All rehabilitation activities associated with a UST release must be performed by a SCDHEC certified Class I site rehabilitation contractor as required by R. 61-98. All corrective action plans and reports must be sealed by a Professional Engineer or Professional Geologist registered in the State of South Carolina. All engineering reports, drawings and plans must be sealed by a Professional Engineer registered in the State of South Carolina. All laboratory analysis for CoC must be performed by a SC certified laboratory. All

monitoring, verification, injection, or recovery wells must be installed and abandoned by a SC certified well driller. All applicable certification, training, permits, applications, and fees associated with: well installation; injection, discharge, treatment, or transportation of ground water, air, or soil; construction or operation of a remediation system; and any other action requiring a permit are the responsibility of the contractor. Any required business or occupation license and occupational safety and health training (e.g., OSHA) as defined by the laws and regulations of the United States of America, State of South Carolina, county or city is also the responsibility of the contractor. The terms and conditions of all applicable permits will be met. Any contaminated ground water, soil, or construction material must be properly transported and disposed of, or treated at an approved facility with prior approval from DHEC. Any costs for utilities construction and service (electric, telephone, sewer, etc.) required by the corrective action are the responsibility of the contractor.

SPECIFICATIONS for CORRECTIVE ACTION

The successful contractor must meet the following specifications as required by the proposed treatment method(s) or corrective action technology(ies):

1. Submit a CAP bid proposal. The proposal will outline in general terms an approach to achieve the remediation goals (e.g., reduction of each CoC to SSTL). The proposal must outline the following:

   A. A description of the proposed treatment method(s) or technology(ies) for corrective action.

   B. The total cost (in thousands of dollars) to complete site rehabilitation to meet the remediation goals and to remove or abandon all assessment and remediation items installed as part of corrective action.

   C. The estimated amount of time in months to complete site rehabilitation to meet the remediation goals, install verification wells, and remove or abandon all assessment and remediation items installed as part of corrective action.

2. Complete and submit a detailed CAP (three copies) for the release at Crossroads Grocery, 850 West Oak Highway, Oconee County, South Carolina. **within 30 days of Statement of Award notification by the Bureau of Business Management. NOTE:** ***Use of monitoring well(s) for injection purposes is not allowed.*** A condition of the plan may include installation of additional recovery, sparge, compliance, or injection wells. The plan must define all active (pump and treat, sparge, vapor extraction, excavation of impacted soils, bioremediation, etc.) and passive (intrinsic remediation, monitoring, etc.) corrective action method(s) proposed to reduce CoC to SSTLs. It must be shown, by use of scientific models, computations, or discussion, how each CoC will be reduced to the SSTL for each remediation method proposed for the release. Any assumptions used in a model will be listed or shown, as well as, appropriate references. Intrinsic corrective action will require monitoring to verify remediation. General construction details will be included (e.g., install four additional recovery wells, construct a compliance point, install four air injection wells, excavate 3,000 cubic yards of impacted soils, etc.) as well as details of well abandonment and equipment removal. A remediation time table including abandonment of wells and removal of

equipment will be included with the CAP. The Division of UST Management will review the CAP and initiate a public notice period for a maximum of 30 days. The contractor must obtain a copy of the applicable portion of the tax map. This map will depict the location of the facility, and all impacted properties, and all properties located adjacent to the impacted properties. The names and addresses of the owners of each of these properties will be provided. The contractor may be required to attend or provide input at a public meeting upon request by DHEC. Any CAP amendments and modifications arising from public notice must be submitted within 15 days of notification by DHEC. The CAP and any amendments or modifications must be sealed by a qualified Professional Engineer or Geologist registered in the State of South Carolina. The owner/operator, Neil Alexander, will be consulted and will approve the location of the corrective action system. If permanent, the system must be enclosed in a fenced area or small building. **The use of above-ground piping is not allowed without prior consent of the property owner.** The initial invoice must be received at the above address within four months or funds will be uncommitted as required by the SUPERB Act. If funds are uncommitted this invoice will be held until funding is available.

3. Complete and submit all applications for permits (injection, NPDES, BAQC modeling form, thermal treatment, construction, etc.; 3 copies) and an engineering report (ER; 4 copies) with the CAP. Any required permit changes or corrections will be submitted within 15 days of notification by DHEC. The ER and any ER amendments and modifications, must be sealed by a Professional Engineer registered in the State of South Carolina. After review of the CAP and all permit applications by DHEC, the Division of UST Management will issue a notice to proceed with CAP implementation.

   Implementation of the corrective action plan before the completion of the public notice process and approval of all permits by DHEC is not authorized. If premature implementation occurs, the Department will not reimburse those costs from the SUPERB Account, and the bid award will be reduced by that amount. If the Department agrees with early implementation to better protect human health in an emergency and provides approval in writing, early implementation without any reduction to the bid amount will be authorized.

4. Implement the CAP within 30 days of receipt of notice to proceed and any required permit to construct. Disruption to the owner/operator's normal business will be kept to a minimum. Upon completion of any required construction, DHEC will inspect the system and issue a permit to operate.

5. Gain access to the adjacent property to sample monitoring wells and to install any corrective action equipment, as required.

6. Initiate system startup within 15 days of receipt of the permit to operate. Remediation as defined in the CAP and ER will begin upon system startup. An initial monitoring report documenting CoC concentrations in all wells and potentiometric conditions prior to start up (including verification of system operation or CAP implementation) must be submitted to the Division of UST Management. If any problem with CAP implementation occurs, the contractor will contact the UST project manager within 24 hours of problem identification and will submit written documentation within five days of notification.

   Based on naturally occurring conditions, the concentration of petroleum chemicals of concern (CoC) will increase or decrease. The CoC for the wells included in the bid package may increase or decrease, DHEC

will pay for mass reduction based on this sampling event with no increase in bid price. If the concentration in two or more wells increases more than 500 percent based on the initial or base line sampling or free product is detected, the contractor may request in writing that the award be canceled. The contractor will be reimbursed for one personnel mobilization to collect samples, a sample collection and analytical fee each monitoring well sampled as outlined in SUPERB Allowable Costs, plus $6,000 for all other costs incurred e.g., CAP preparation, obtaining performance bond, business license. The contract will be canceled and the performance bond will be returned to the company. If the corrective action system is started or treatment is performed, the contractor will be required to complete the contract unless geological conditions change or another release is confirmed. See special condition 12. If the contract is canceled for some reason by DHEC, the contractor will be notified by certified letter and an invoice for the above outlined items may be submitted for reimbursement from the SUPERB Account.

7. Complete and submit a corrective action monitoring report (3 copies plus one copy for any DHEC Bureau that issued a permit) on a quarterly basis. The corrective action monitoring reports must include:

A. A narrative portion that documents current site conditions and system effectiveness in achieving the remediation goals (e.g., free product removal, reducing CoC to the SSTLs) as outlined in the CAP. Any system down time and the associated reason(s) will be included in the report.

B. Conclusions and recommendations based on the reported data.

C. Ground-water laboratory analytical data for all monitoring wells in the following format (additional parameters such as dissolved oxygen may be required; do not sample wells containing free product):

Analytical Data (µg/l)

Monitoring Well	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene
MW-1	7/15/97 10/15/97	145 140	200 190	146 140	1,000 900	170 50	47 165
MW-2	7/15/97 10/15/97	580 480	800 690	300 257	1,000 912	60 50	20 19

D. Ground-water potentiometric data for all monitoring wells in the following format:

Ground-water Data (feet)

Monitoring Well	Date	TOC Elevation	TOC to GW	TOC to FP	FP Thickness	GW Elevation
MW-1	7/15/97 10/15/97	98.0 98.0	17.54 17.90			80.46 80.10
MW-2	7/15/97 10/15/97	100.0 100.0	20.50 21.50	20.47 21.48	0.03 0.02	79.50 78.50

E. A ground-water elevation contour map of the site based on current ground-water potentiometric data.

F. A CoC map based upon current ground-water laboratory analytical data. The ground-water data should be adjacent to the relevant monitoring well using the following format (additional parameters such as dissolved oxygen may be required):

MW - Number
Benzene (µg/l)
Toluene (µg/l)
Ethylbenzene (µg/l)
Xylenes (µg/l)
MTBE (µg/l)
Naphthalene (µg/l)

G. A copy of the DHEC approval letter and manifests for any contaminated soil and ground-water removed from the site for treatment and/or disposal.

H. Additional data required by permits (e.g., air analyses, wastewater effluent analyses and amounts, etc.). The data should be reported on a form or in a format specified in the permits, and attached to the monitoring report as an addendum.

All rehabilitation activities associated with the UST release must be performed by a SCDHEC Certified Site Rehabilitation Contractor. All air, soil, and ground-water analyses must be performed by a South Carolina certified laboratory. The corrective action monitoring report must be sealed by a Professional Engineer or Geologist registered in the State of South Carolina. All monitoring wells associated with the release will be sampled on a quarterly basis for the first year. Thereafter, the number of wells sampled may be reduced and/or the interval between corrective action monitoring reports may be lengthened upon clear demonstration of CoC reduction, unless restricted by permit requirements. DHEC may require data to be reported on a form or in a specific format. The contractor will be provided with the proper report forms and format prior to system startup. The contractor will be notified of any revisions to the report forms or format 90 days prior to the due date for the corrective action monitoring report.

8. Collect one (1) ground-water sample per monitoring event for all monitoring wells associated with the release. Each well should be purged prior to sampling. Purging is considered complete once the ground-water temperature and pH have stabilized. Sampling logs should note all temperature and pH measurements, as well as the location and type of each sample submitted for laboratory analysis. Each ground-water sample will be collected in accordance with established QA/QC protocol and submitted to a certified laboratory for analysis. The samples must be analyzed for the following parameters:

Analyte	Analytical Method*	Reporting Limit (µg/l)
BTEX	8260B/5030B	5
Naphthalene	8260B/5030B	5
MTBE	8260B/5030B	5

*or EPA equivalent method that can achieve the same reporting level

Additional samples (air, groundwater, effluent, soil) required by permits must be collected in accordance with established QA/QC protocol and submitted to a certified laboratory for analysis. The samples will be analyzed for parameters stipulated in the permits. Sampling and analytical data for each sample (e.g., field sampling logs, chain of custody forms, certificates of analysis, and the lab certification number) will be included in the corrective action monitoring report.

9. Properly dispose of all contaminated soil and ground water generated during the implementation of the CAP and installation of verification wells. DHEC must approve the disposal facility selected for treatment and disposal of the free product and contaminated soil and ground water. The owner/operator of the facility is considered the generator for any contaminated soil and ground water. The contractor must document all disposal of free product and contaminated soil and ground water in the corrective action monitoring report.

10. Verification for the removal of free product will be conducted by SCDHEC personnel with an interface probe. If the remediation technology is in-situ (e.g., pump and treat, air sparging, vapor extraction): suspend operation of the system once the remediation goals for all CoC have been maintained for a period of 30 days. Samples are to be taken after one (1) quarter or after all CoC levels have reached equilibrium and again after a second quarter. Along with the parameters listed in Specification #8, the ground-water samples should also be sampled for the following parameters:

Analyte	Analytical Method*	Reporting Limit (µg/l)
Dissolved Oxygen	SM4500-O G	500
Ferrous Iron	SM3500-Fe D	30
Nitrate	9056/9210	100
Sulfate	9038/9056	1000

*or EPA equivalent method that can achieve the same reporting level

If sample results indicate that the remediation goals are not sustained, the contractor must submit a corrective action status report (3 copies) that outlines the deficiency(ies) and offers recommendations for achieving the remediation goals with a revised timetable. Modifying and restarting of the system will be directed by DHEC. The system will operate until all remediation goals are again maintained for a period of 30 days. Operation of the system will then be suspended again and samples taken to verify that remediation

goals are sustained. This cycle of activity, including status reports, will be repeated until all CoC levels remain below SSTLs for all wells listed in Special Conditions item 11 C for two (2) consecutive quarters. Three verification wells may then be installed at locations designated by DHEC. Costs for verification well installation are considered part of this bid price. Each well will be sampled in accordance with Specifications item 8. and the analyses compared to the calculated SSTLs for the CoC at that well location. If the laboratory analyses are at or below the SSTLs, corrective action will be considered complete. If any analysis is above the SSTL, the corrective action will not be considered complete, and the activity cycle described above must be repeated until all CoC levels remain below SSTLs for those wells listed in Special Conditions item 11 C. Split or duplicate samples may be collected **by DHEC (or its subcontractors)** to verify achievement of remediation goals. **At least two weeks notice will be provided to DHEC prior to mobilizing to the site for sampling to verify attainment of remediation goals.** Costs for transportation and analysis of split or duplicate samples will be paid by DHEC.

or

If the remediation technology is a single event (e. g. excavation of impacted soils, vacuum enhanced recovery): collect sufficient samples as outlined in the CAP to verify the reduction of CoC to the remediation goals. The contractor may be required to install and sample three verification wells at locations designated by DHEC. If the levels of CoC in all samples are at or below SSTLs, corrective action will be considered complete. If the level of any CoC is above the SSTL, additional corrective action will be required. The contractor will submit one (1) corrective action status report to document the reduction of CoC to the remediation goals. Split or duplicate samples will be collected **by DHEC (or its subcontractors)** to verify achievement of remediation goals. **At least two weeks notice will be provided to DHEC prior to mobilizing to the site for sampling to verify attainment of remediation goals.** Costs for transportation and analysis of split or duplicate samples will be paid by DHEC.

11. Disassemble and remove the remediation system and all associated remediation items including utilities from the site within 60 days of notification by DHEC that the remediation goal for the release associated with the UST(s) at the site has been achieved. Disruption to the owner/operator's normal business will be kept to a minimum.

12. Properly abandon all wells (including preexisting wells), borings, trenches, and piping/utility runs installed by the contractor as part of corrective action within 60 days of notification by DHEC that the remediation goal for the release associated with the UST(s) at the site has been achieved. The abandonment will be in accordance with South Carolina Well Standards and Regulations R. 61-71 and accepted industry standards for abandonment of trenches and piping/utility runs. Disruption to the property owner's normal business will be kept to a minimum. The contractor must notify DHEC of the method of well abandonment and final disposal of any free product and contaminated soil or ground water. The contractor will return the site to the condition prior to corrective action (e.g., asphalt paved areas will be repaved with asphalt, concrete areas will be replaced with concrete, grass areas will have soil replaced to the original grade and reseeded or sodded with grass, etc.).

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

BID NUMBER: SB-6672-07/29/99-REB

BIDDING SCHEDULE

The total cost in dollars to treat the area of concern (see figure #2) such that the thickness of free product does not exceed .01 foot and the levels of CoC do not exceed the site-specific target levels (SSTLs) defined in item 11.C. at any point, complete all associated monitoring and post-remediation verification, prepare all plans, reports, and correspondence; obtain and meet all terms and conditions of all required permits and licenses; design, install, monitor, operate, maintain, and when completed, properly abandon or remove all assessment and remediation items installed as part of corrective action; provide evidence of performance bond; and other items outlined in this bid invitation for the Crossroads Grocery, (UST Permit # 06742), 850 West Oak Highway, Oconee County, South Carolina is: $ _____

OTHER CRITERIA

Please respond to the following questions which have been designed to verify your corrective action qualifications:

1. The corrective action method(s) or technology (ies) that will be proposed in the CAP will be (list all active and/or intrinsic methods or technologies for remediation of the aquifer; attach additional pages(s) as required):

   _____

   _____

   _____

   _____

   _____

2. The estimated time in months to complete the corrective action from the date of bid award, corrective action goals are met, and all corrective action items are removed from the site or properly abandoned is approximately _____ months. This time assumes all submitted plans and reports will be reviewed by DHEC within 30 days of receipt.

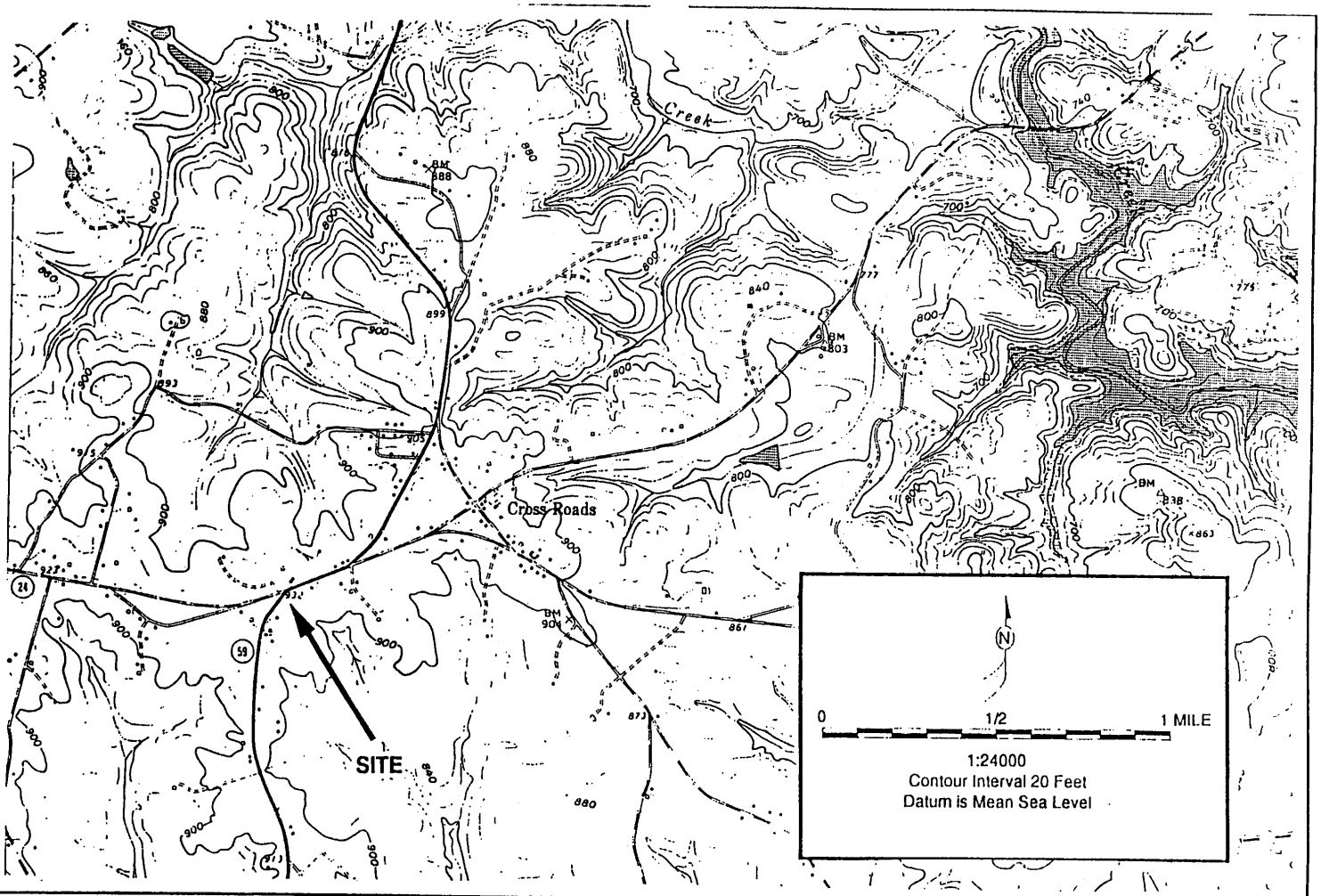
3. When can you begin work (earliest date that a CAP, ER and all permit applications would be submitted after notification of Statement of Award from the Bureau of Business Management)? _____

BID ACCEPTANCE and DELIVERY STATEMENT

In compliance with the bid solicitation and subject to all conditions thereof, the contractor offers and agrees, if this bid is accepted within _____ days from date of bid opening, to furnish any or all items/services quoted at the prices set forth.

APPENDIX

A



Crossroads Grocery

USGS MAP SHOWING SITE LOCATION

Highway 24/59, Tokeena, Oconee County, South Carolina

(Fair Play, SC, Quad, 1958-Photorevised 1979)

ESCM & Associates, Inc. 394 S. Milledge Avenue Athens, Georgia 30605

Scale: 1:24000

FIGURE 1

Cr ssroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Site & Vicinity Map Based on Taxmap #301
Oconee Co., Tax Assessor's Office

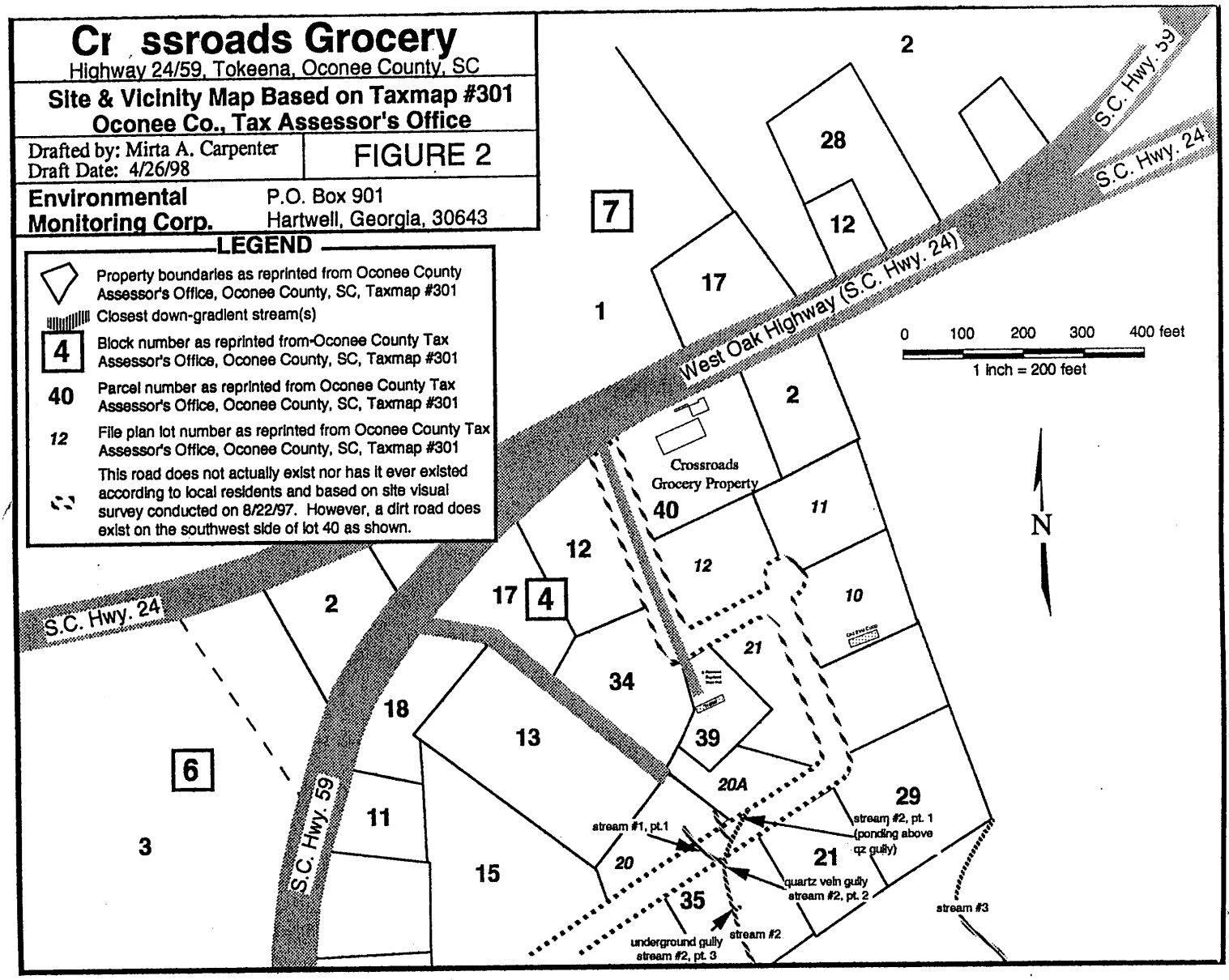
Drafted by: Mirta A. Carpenter
Draft Date: 4/26/98

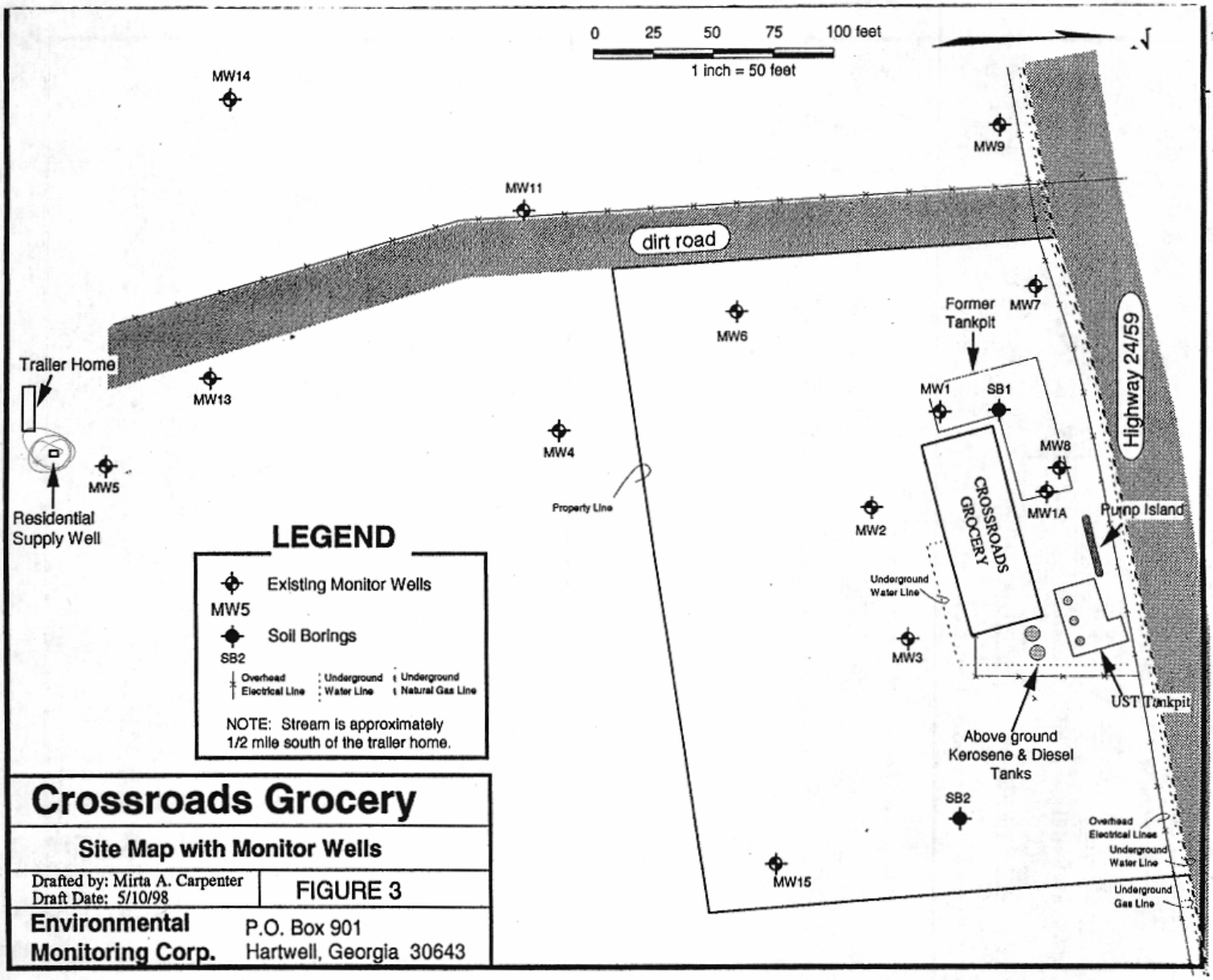
FIGURE 2

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- 4 — Block number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- 40 — Parcel number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- 12 — File plan lot number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- This road does not actually exist nor has it ever existed according to local residents and based on site visual survey conducted on 8/22/97. However, a dirt road does exist on the southwest side of lot 40 as shown.





Crossroads Grocery

Site Map with Monitor Wells

Drafted by: Mirta A. Carpenter
Draft Date: 5/10/98

FIGURE 3

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia 30643

Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Monitor Wells Location Map

Drafted by: Mirta A. Carpenter
Draft Date: 5/7/98

FIGURE 5

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

0 100 200 300 400 feet
1 inch = 200 feet

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N

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- 4 — Block number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
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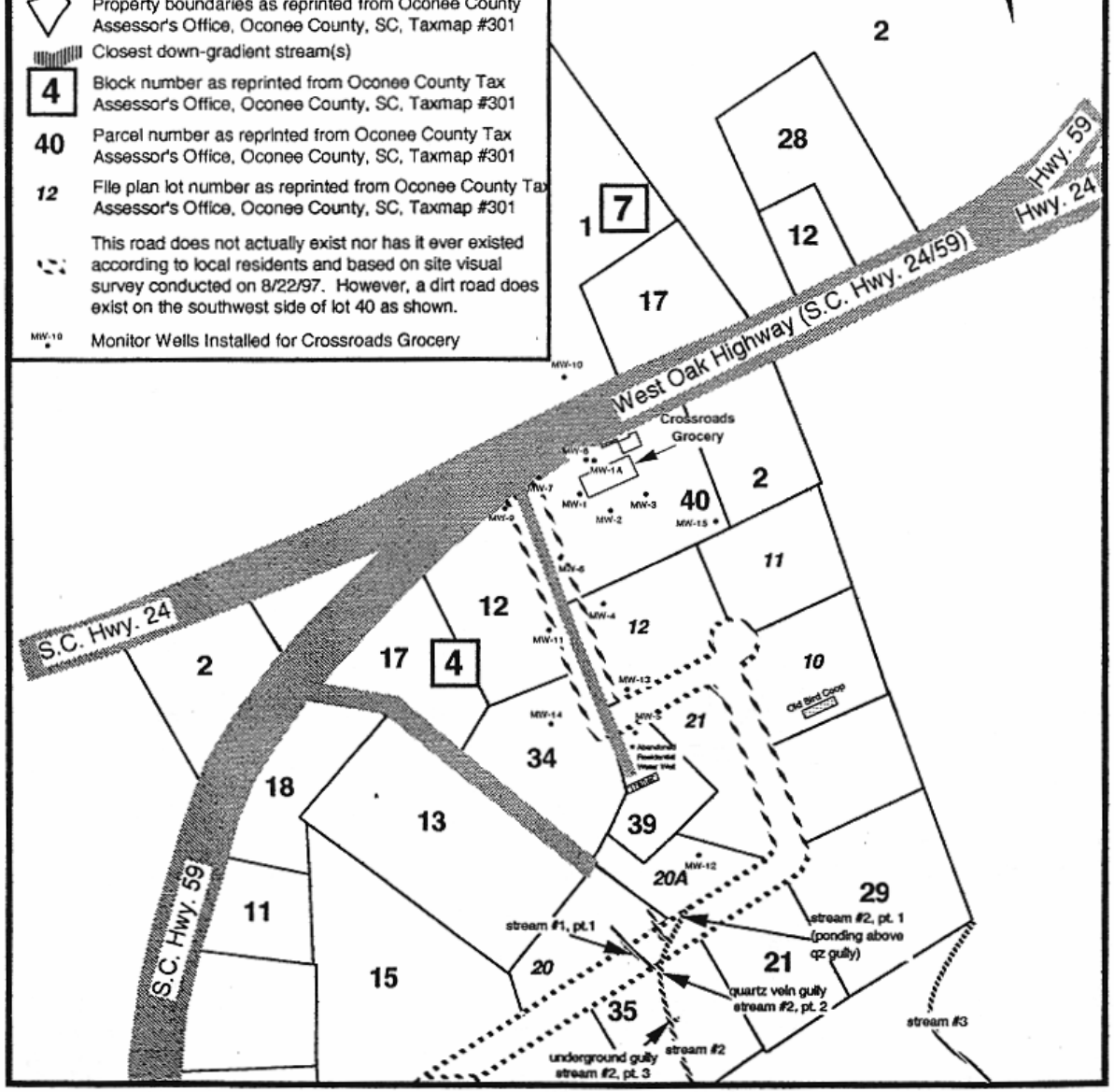
- MW-10 — Monitor Wells Installed for Crossroads Grocery



Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Monitor Wells Location Map

Drafted by: Mirta A. Carpenter
Draft Date: 5/7/98

FIGURE 5

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

0 100 200 300 400 feet

1 inch = 200 feet

SC DHEC Page 18
SB-6672-07/29/99-REB

N

LEGEND

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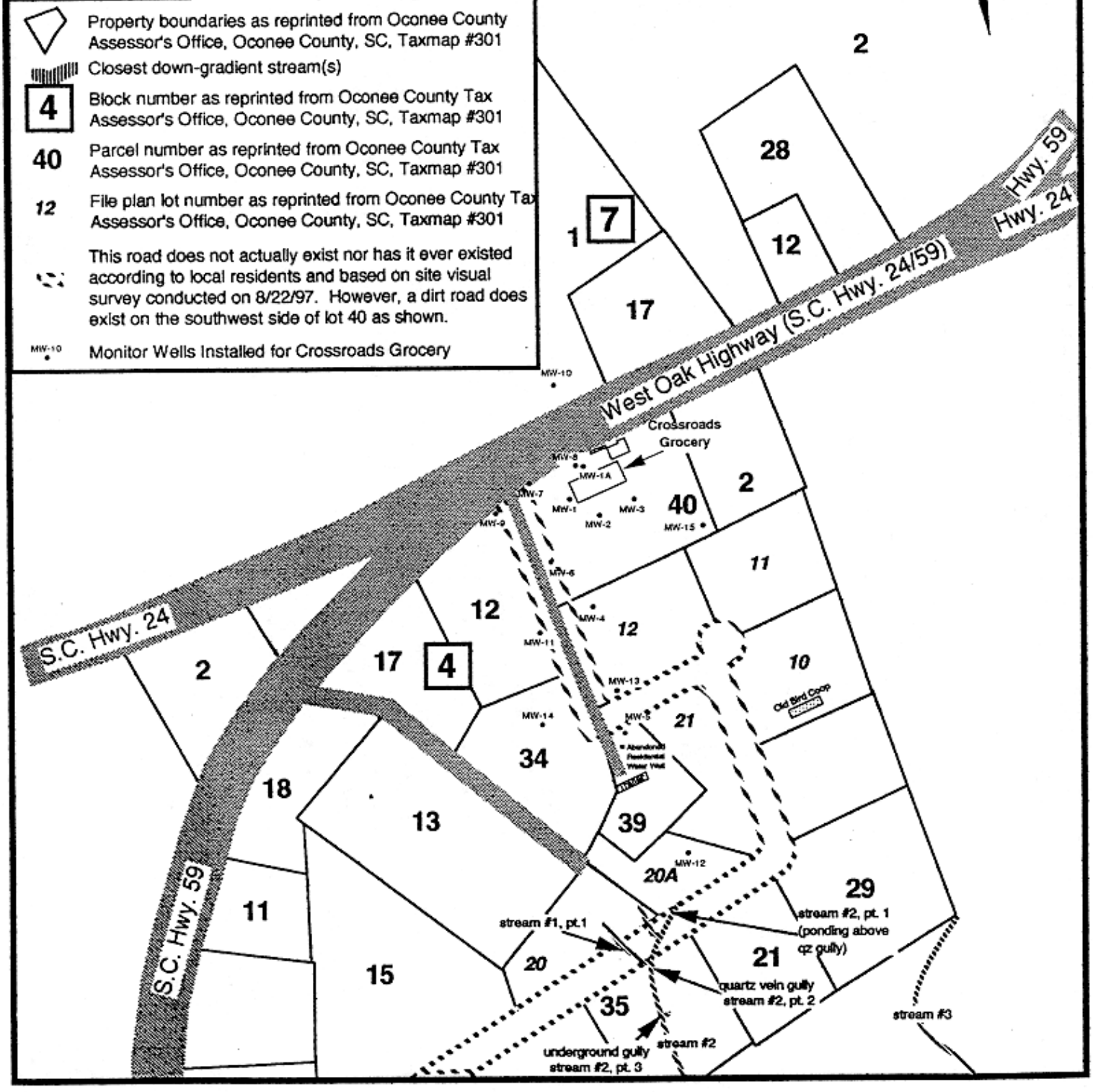

Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

MTBE Dissolved-Phase Hydrocarbon Plume
April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/11/98

FIGURE 14

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

0 100 200 300 400 feet
1 inch = 200 feet

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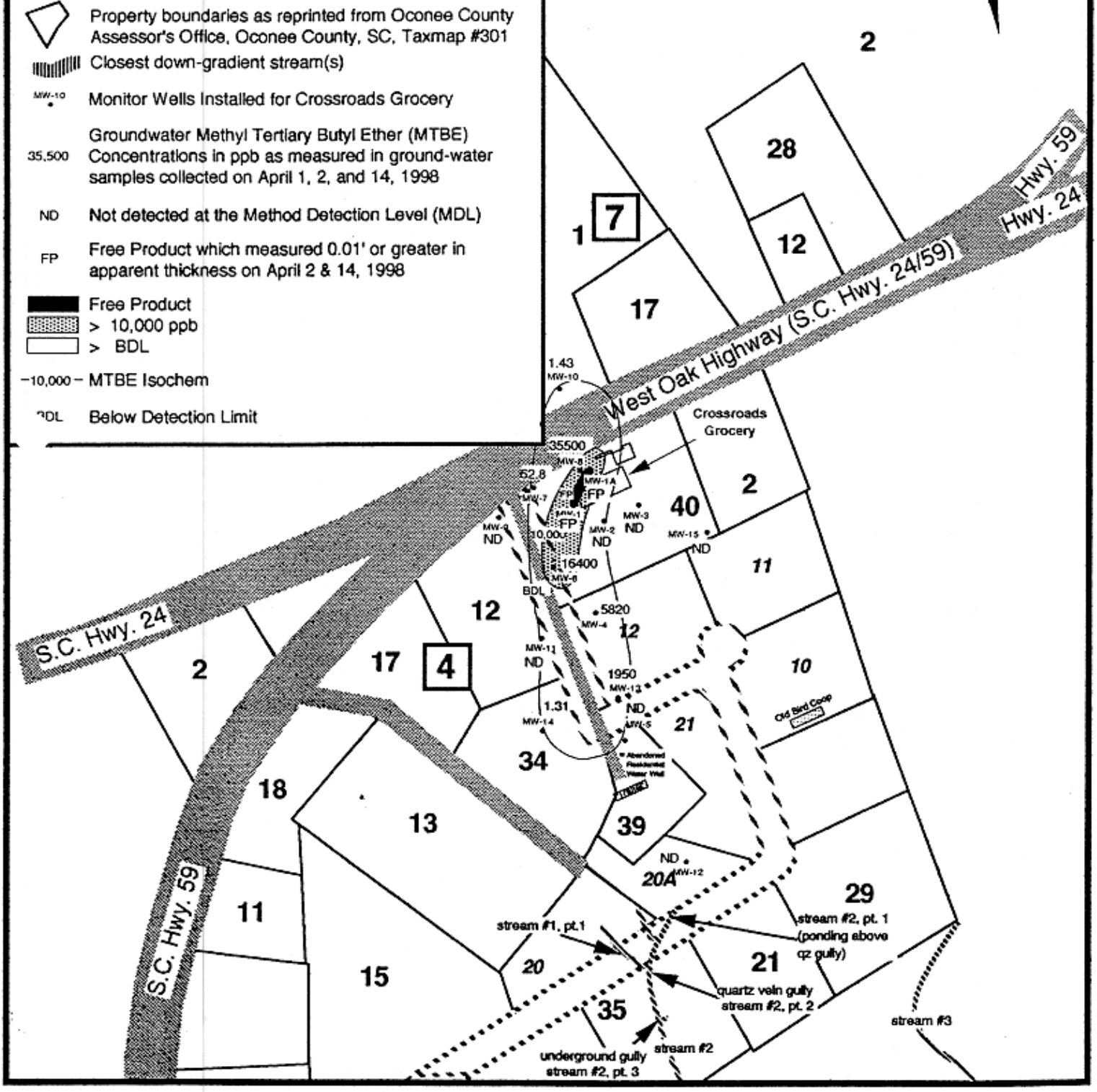
N

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- MW-10 — Monitor Wells Installed for Crossroads Grocery
- 35,500 — Groundwater Methyl Tertiary Butyl Ether (MTBE) Concentrations in ppb as measured in ground-water samples collected on April 1, 2, and 14, 1998
- ND — Not detected at the Method Detection Level (MDL)
- FP — Free Product which measured 0.01' or greater in apparent thickness on April 2 & 14, 1998
- Free Product
- > 10,000 ppb
- > BDL
- −10,000− MTBE Isochem
- BDL — Below Detection Limit



Crossroads Grocery

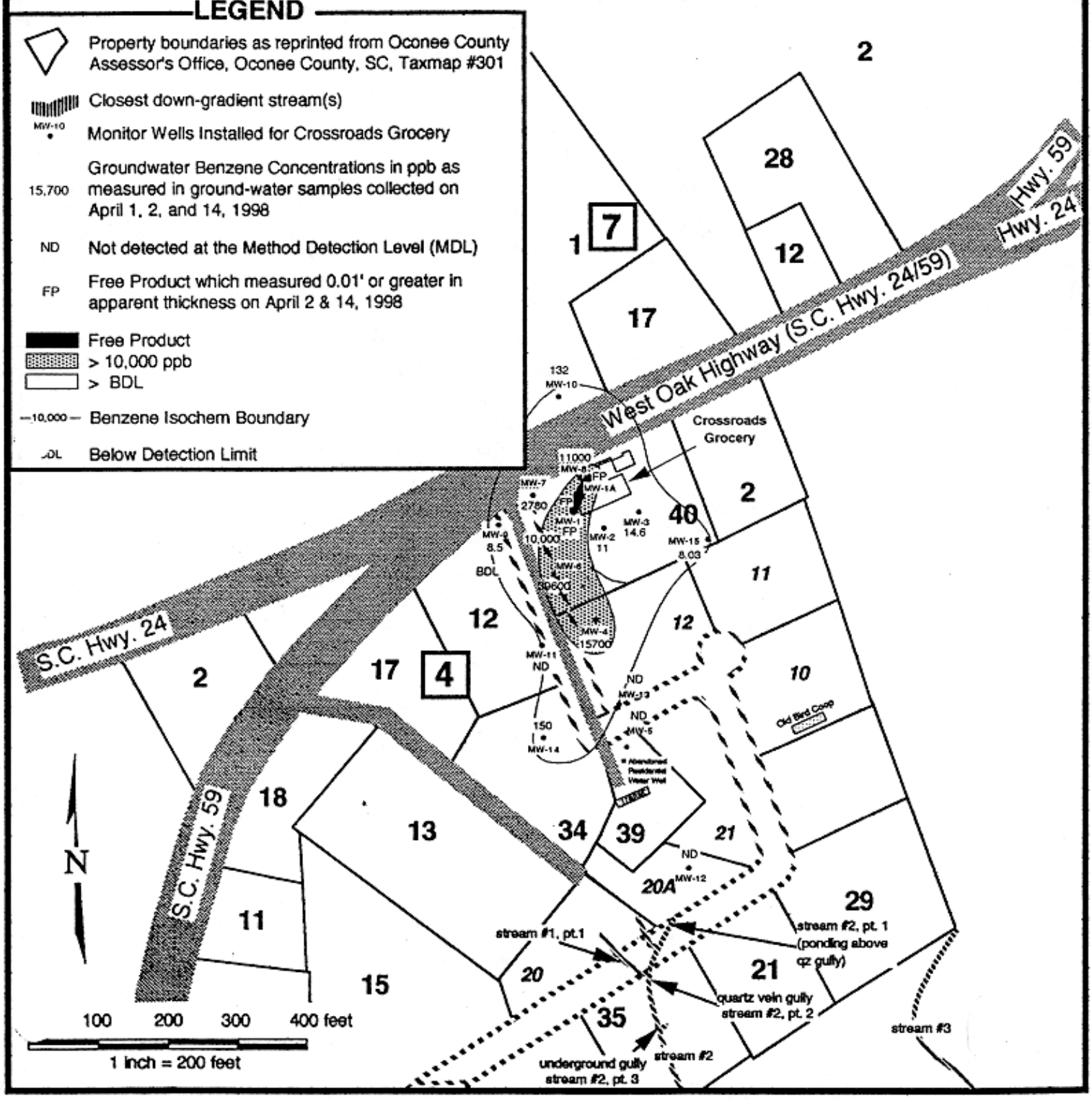
Highway 24/59, Tokeena, Oconee County, SC

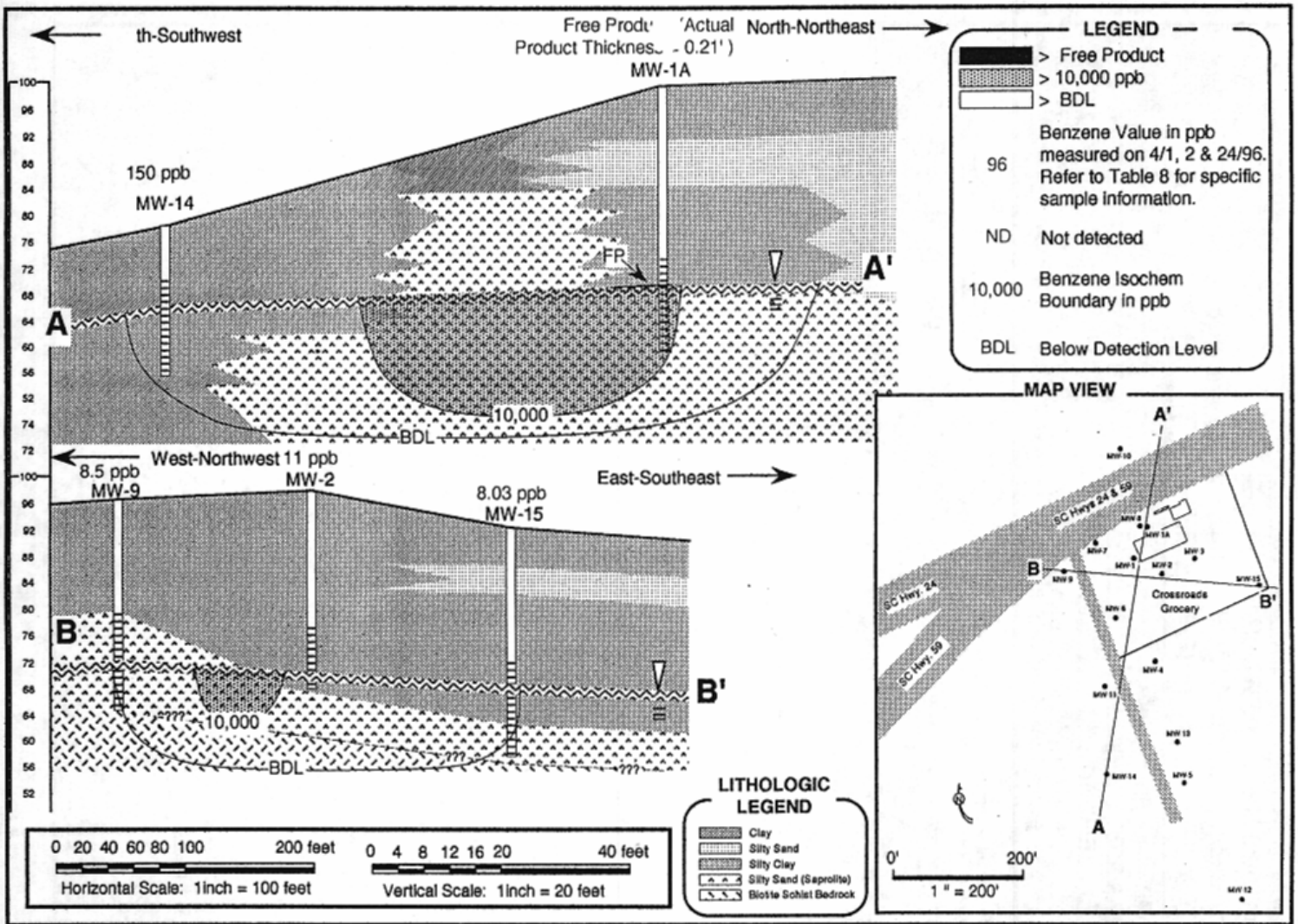
Benzene Dissolved-Phase Horizontal Plume - April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/13/98

FIGURE 15

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643





Crossroads Grocery

Ground-Water Benzene Concentrations in ppb
(A-A' & B-B' Cross-Sections) April 1,2 & 14, 1998

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia

Drafted by: Mirta A. Carpenter 5/13/98
Scale: 1"=100' Horizontal 1"= 20' Vertical

FIGURE 16

Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Equipotential Map of the Watertable on 4/1&2/98 - Site and Vicinity

Drafted by: Mirta A. Carpenter
Draft Date: 5/10/98

FIGURE 22

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

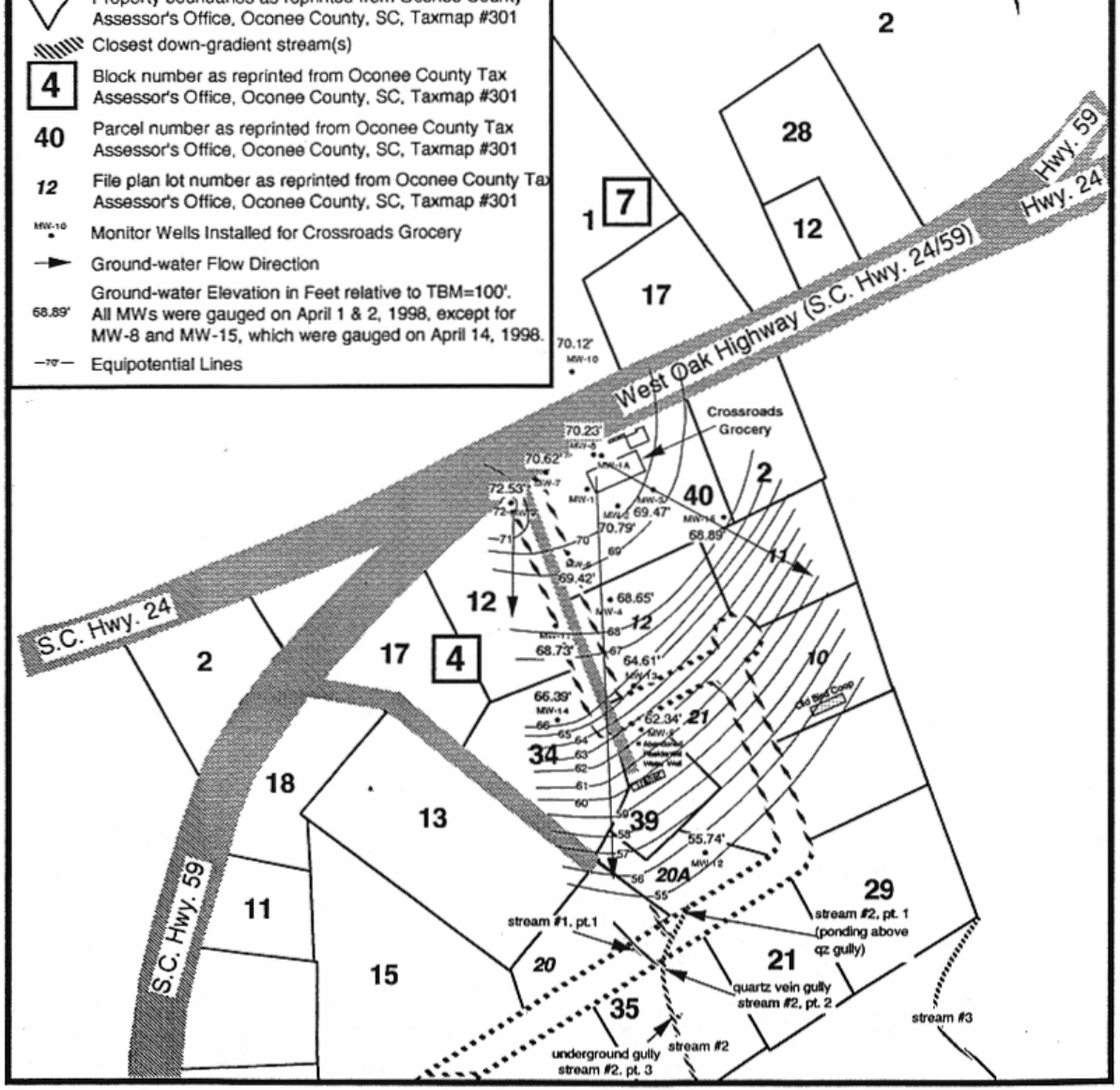
0 100 200 300 400 feet
1 inch = 200 feet

SC DHEC Page 22
SB-6672-07/29/99-REB

N

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- 4 — Block number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- 40 — Parcel number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- 12 — File plan lot number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- MW-10 — Monitor Wells Installed for Crossroads Grocery
- Ground-water Flow Direction
- 68.89' — Ground-water Elevation in Feet relative to TBM=100'. All MWs were gauged on April 1 & 2, 1998, except for MW-8 and MW-15, which were gauged on April 14, 1998.
- —70'— Equipotential Lines



Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Equipotential Map of the Watertable on 4/1&2/98 - Site and Vicinity

Drafted by: Mirta A. Carpenter
Draft Date: 5/10/98

FIGURE 22

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

0 100 200 300 400 feet
1 inch = 200 feet

SC DHEC Page 22
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N

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
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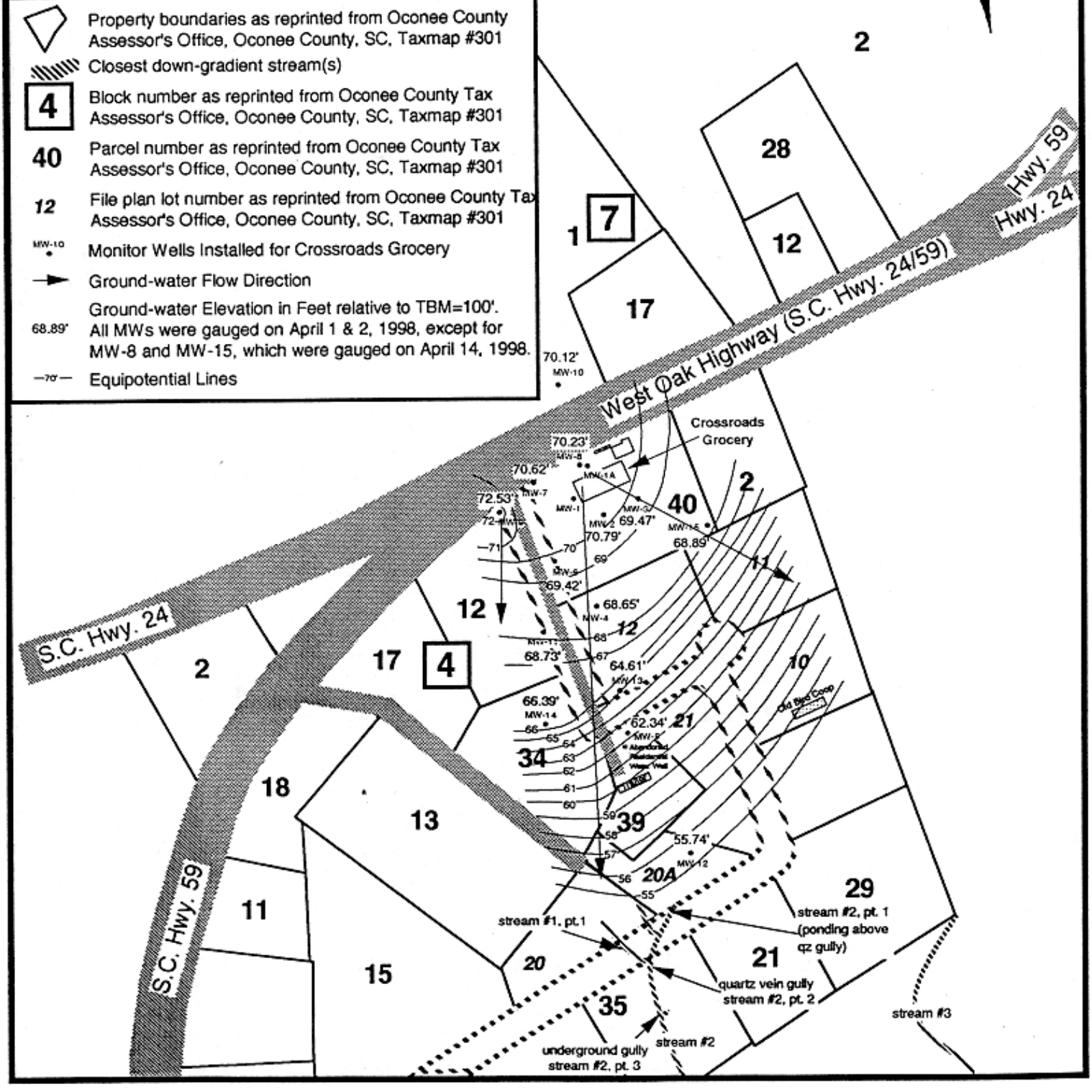
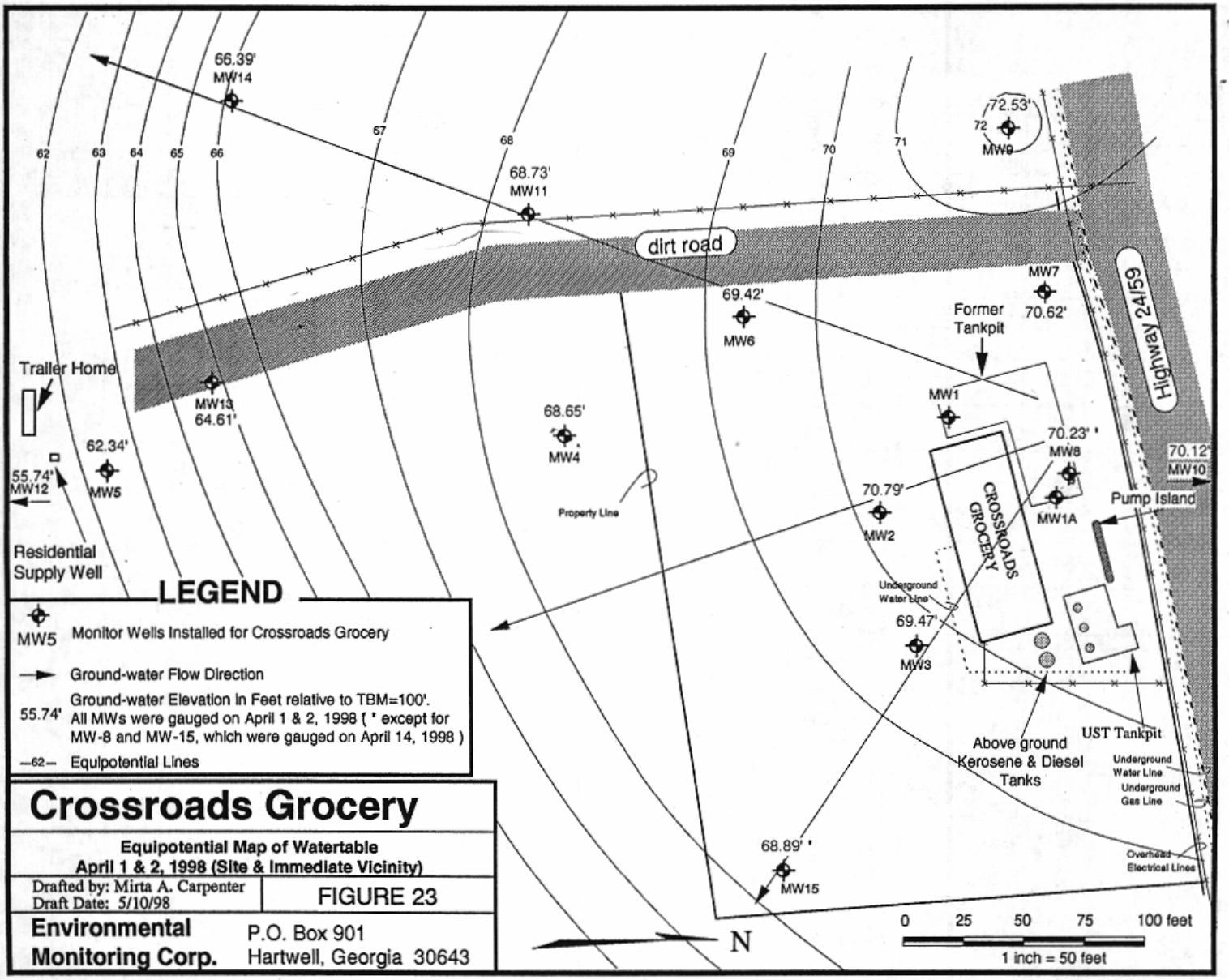




Crossroads Grocery

Equipotential Map of Watertable
April 1 & 2, 1998 (Site & Immediate Vicinity)

Drafted by: Mirta A. Carpenter
Draft Date: 5/10/98

FIGURE 23

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia 30643

SC DHEC
SB-6672-07/29/99-REB
Page 23

TABLE 8
Monitor Well Data and
Ground-Water Depth and Elevation Data

MW#	Date Level Measured	Rim Elevation (ft)	Screened Interval Depth (ft)	Depth to Water (ft)	Depth to Free Product (ft)	Water Table Elevation (ft)	Apparent Free-Phase Hydrocarbon Thickness (ft)
MW-1	4/2/98	99.04	20-30	28.47	28.45	70.57	0.02
MW-1A	4/2/98	99.01	25-40	31.50	28.66	67.51	2.84
	4/5/98			31.49 (29.80' based on FP Rec Test - 4/5/98)	29.50	69.21 (based on FP Rec Test - 4/5/98)	1.99 (0.21' = Actual Thickness based on FP Rec Test - 4/5/98)
	4/14/98			29.26	28.71	---	0.55 (represents thickness after FP bailed)
MW-2	9/9/96	97.77	20-30	28.00	--	69.77	--
	4/2/98			26.98	--	70.79	--
MW-3	9/9/96	96.77	20-30	28.57	--	68.20	--
	4/2/98			27.30	--	69.47	--
MW-4	9/9-10/96	90.10	15-25	23.49	--	66.61	--
	4/2/98			21.45	--	68.65	sheen
MW-5	9/10/96	74.74	10-20	15.44	--	59.30	--
	4/1/98			12.40	--	62.34	--
MW-6	9/10/96	92.67	20-35	24.80	--	67.87	--
	4/2/98			23.25	--	69.42	sheen
MW-7	9/10/96	97.68	24-39	28.04	--	69.64	--
	4/2/98			27.06	--	70.62	--
MW-8	4/14/98	99.10	25-45	28.87	--	70.23	sheen
MW-9	4/1/98	96.47	17-32	23.94	--	72.53	--
MW-10	4/2/98	99.89	27-42	29.77	--	70.12	--
MW-11	4/1/98	86.57	10-25	17.84	--	68.73	--
MW-12	4/1/98	62.71	7-12	6.97	--	55.74	--
MW-13	4/1/98	75.50	10-20	10.89	--	64.61	--
MW-14	4/2/98	78.38	8-23	11.99	--	66.39	sheen
MW-15	4/14/98	92.54	20-35	23.65	--	68.89	--

TABLE 8
Monitor Well Data and
Ground-Water Depth and Elevation Data

MW#	Date Level Measured	Rim Elevation (ft)	Screened Interval Depth (ft)	Depth to Water (ft)	Depth to Free Product (ft)	Water Table Elevation (ft)	Apparent Free-Phase Hydrocarbon Thickness (ft)
MW-1	4/2/98	99.04	20-30	28.47	28.45	70.57	0.02
MW-1A	4/2/98	99.01	25-40	31.50	28.66	67.51	2.84
	4/5/98			31.49 (29.80' based on FP Rec Test - 4/5/98)	29.50	69.21 (based on FP Rec Test - 4/5/98)	1.99 (0.21' = Actual Thickness based on FP Rec Test - 4/5/98)
	4/14/98			29.26	28.71	---	0.55 (represents thickness after FP bailed)
MW-2	9/9/96	97.77	20-30	28.00	--	69.77	--
	4/2/98			26.98	--	70.79	--
MW-3	9/9/96	96.77	20-30	28.57	--	68.20	--
	4/2/98			27.30	--	69.47	--
MW-4	9/9-10/96	90.10	15-25	23.49	--	66.61	--
	4/2/98			21.45	--	68.65	sheen
MW-5	9/10/96	74.74	10-20	15.44	--	59.30	--
	4/1/98			12.40	--	62.34	--
MW-6	9/10/96	92.67	20-35	24.80	--	67.87	--
	4/2/98			23.25	--	69.42	sheen
MW-7	9/10/96	97.68	24-39	28.04	--	69.64	--
	4/2/98			27.06	--	70.62	--
MW-8	4/14/98	99.10	25-45	28.87	--	70.23	sheen
MW-9	4/1/98	96.47	17-32	23.94	--	72.53	--
MW-10	4/2/98	99.89	27-42	29.77	--	70.12	--
MW-11	4/1/98	86.57	10-25	17.84	--	68.73	--
MW-12	4/1/98	62.71	7-12	6.97	--	55.74	--
MW-13	4/1/98	75.50	10-20	10.89	--	64.61	--
MW-14	4/2/98	78.38	8-23	11.99	--	66.39	sheen
MW-15	4/14/98	92.54	20-35	23.65	--	68.89	--

TABLE 9

COC Concentrations in Ground-Water Samples, in µg/L* (ppb)

Analysis **Polynuclear Aromatic Hydrocarbons:**	Sample Date	Concentrations, in µg/L (ppb) *														
		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	Up-stream	Down-stream
Nitrate (Method 9200) Units: mg/L (ppm) (BIOSCREEN parameter)	4/1/98 4/2/98 4/14/98	5.2	18	0.2	ND	0.3	ND	1.5	4	1.4	1.9	0.6	ND	ND	1.1		
Sulfate (Method 375.4) Units: mg/L (ppm) (BIOSCREEN parameter)	4/1/98 4/2/98 4/14/98	1	27	1	13	1	1	7	118	41	83	164	119	100	3		
Ferrous Iron (Method 8146) Units: mg/L (ppm) (BIOSCREEN parameter)	4/1/98 4/2/98 4/14/98	0.1	0.03	ND	0.07	ND	ND	ND	0.13	ND	0.04	0.07	ND	0.08	ND		
Dissolved Oxygen (Measured with YSI Model 55 Field Meter) Units: mg/L (ppm) Temperature in degrees Celsius (BIOSCREEN parameter)	4/1/98 4/2/98 4/14/98	6.24 @ 23.7°C	7.07 22.7°C	3.84 22.9°C	5.86 14.1°C	0.66 17.6°C	5.18 21.7°C	3.83 19.7°C	5.45 18.7°C	7.27 20.7°C	3.03 17.3°C	8.28 20.4°C	4.79 14.7°C	5.54 18.5°C	9.89 18.0°C		
Lead (Method 239.1) Units: mg/L (ppm)	4/1/98 4/2/98 4/14/98	ND	ND	ND	ND	ND	ND	ND	0.22	ND	0.33	0.1	0.17	0.3	ND		
Methyl Tertiary Butyl Ether (Method 8260) (Method 8020 on 9/9/96)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	470 ND	ND ND	19,000 5,820	12 ND	6,100 16,400	160 62.8	35,500	ND	1.43	ND	ND	1,950	1.31	ND	110	
Naphthalene (Method 8260)	4/1/98 4/2/98 4/14/98	9.28	11.3	882	ND	561	468	188	2.3	10.6	272	ND	24.7	80.2	3.22		
1,2,4-Trimethylbenzene (Method 8260)	4/1/98 4/2/98 4/14/98	26.3	34	1,830	ND	1,730	1,160	908	19	28.4	2,480	ND	140	595	4.34		

Analysis	Sample Date	Concentrations, in µg/L (ppb) *														
Polynuclear Aromatic Hydrocarbons:		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	Up-stream	Down-stream
1,2-Dibromoethane (EDB) (Method 8260)	4/1/98 4/2/98 4/14/98	0.06	ND	0.96	ND	1.72	ND	1.3	ND	ND	0.36	ND	ND	0.24	ND		
1,3,5-Trimethylbenzene (Method 8260)	4/1/98 4/2/98 4/14/98	8.85	10.5	494	ND	531	304	256	5.44	7.87	743	ND	30.6	162	1.17		
Benzene (Method 8260)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	33 11	ND 14.6	22,000 15,700	44 ND	26,000 39,600	960 2,780	11,000	8.5	132	ND	ND	ND	150	8.03	75	
Ethylbenzene (Method 8260)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND 17.3	ND 23.9	4,200 2,570	1.7 ND	2,700 2,460	740 1,630	722	12.4	48.2	1,090	ND	130	149	5.26	ND	ND
Toluene (Method 8260)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	20 13.6	ND 9.17	44,000 27,600	11 ND	33,000 41,100	4,800 10,500	15,900	4.24	464	312	ND	78	501	33.3	0.73	1.1
Xylenes (Method 8260)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	15 87	ND 117	23,000 13,300	27 ND	14,000 12,400	4,100 7,610	6,520	54.2	224	5,090	ND	434	921	26.2	1.9	ND
Total BTEX (BIOSCREEN Modeling Tool used with Instantaneous Reaction Model)	4/1/98 4/2/98 4/14/98	128.9	164.67	59,170	ND	95,560	22,520	34,142	79.34	868.2	6,492	ND	642	1,721	72.79		
Naphthalene (Method 8270)	9/9/96 9/10/96	ND	ND	539	ND	528	329									ND	ND
2-Methylnaphthalene (Method 8270)	9/9/96 9/10/96	ND		171	ND	240	132									ND	ND

Analysis	Sample Date	Concentrations, in µg/L (ppb) *														
Polynuclear Aromatic Hydrocarbons:		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	Up-stream	Down-stream
Benzo(a)anthracene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analysis	Sample Date	Concentrations, in µg/L (ppb) *														
Polynuclear Aromatic Hydrocarbons:		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	Up-stream	Down-stream
Acenaphthylene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analysis **Polynuclear Aromatic Hydrocarbons:**	Sample Date	Concentrations, in µg/L (ppb) *														
		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	Up-stream	Down-stream
Benzo(g,h,i)perylene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	 ND	ND	ND	ND	 ND	 ND	ND	ND

Note: ND = was not detected at the method detection limit
* = concentrations measured in ppb unless otherwise specified
ND[1] = Analyzed by EPA Method 8240; performed by Trace Analysis Laboratory

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division 2600 Bull Street Columbia, S.C. 29201 (803) 734-5331 Water Well Record

SC DHEC Page 30
SB-6672-07/29/99-REB

1. LOCATION OF WELL MW1-A

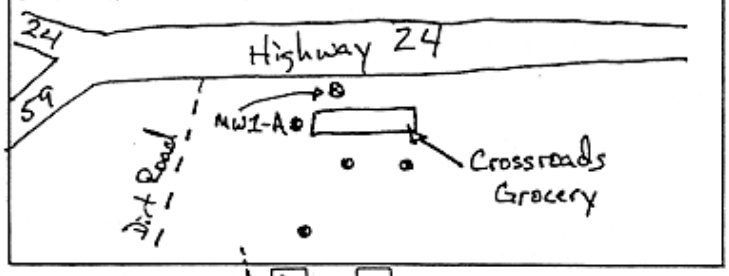
County: Oconee System Name:

Latitude: Longitude:

Distance And Direction from Road Intersections
1/4 mi. West of U.S. 24 & U.S. 59 intersection

Street address & City of Well Location

Sketch Map: (See example on back)



2. CUTTING SAMPLES [X] Yes [ ] No

Geophysical Logs [X] Yes (Please enclose) [ ] No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Water @ 32.6'		
* Indicate water bearing zones (use a 2nd sheet if needed)		

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address 40 Crossroads Grocery
Rt. 2 Box 149
Westminster, SC 29693
Telephone No. (803) 972-3489

Engineer Address Froehling & Robertson, Inc
P.O. Box 17186
Greenville, SC 29606
Telephone No. (803) 271-2840

5. WELL DEPTH (Completed) 40 ft. Date Started: 6/15/93 Date Completed: 6/15/93

6. [ ] Mud Rotary [ ] Jetted [X] Bored [ ] Dug [ ] Air Rotary [ ] Driven [ ] Cable tool [ ] Other

7. USE: [ ] Domestic [ ] Public Supply Permit No. ____ [ ] Industry [ ] Irrigation [ ] Air Conditioning [ ] Commercial [X] Test Well [ ] ____

8. CASING: [X] Threaded [ ] Welded
Diam. 2"
Type [X] PVC [ ] Galvanized [ ] Steel [ ] Other
[redacted] in. to [redacted] ft. depth
0 in. to 30 ft. depth
Height: Above/Below Flush
Surface ____ ft.
Weight ____ lbs./ft.
Drive Shoe? [ ] Yes [ ] No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze .010" Length 15'
Set Between [redacted] 30 ft. and 40 ft. NOTE: MULTIPLE SCREENS USE SECOND SHEET
____ ft. and ____ ft.
Sieve Analysis [ ] Yes (Please enclose) [X] No

10. STATIC WATER LEVEL
[redacted] 25' ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
____ ft. after ____ hrs. pumping ____ G.P.M.
Pumping Test: [ ] Yes (Please enclose) [X] No
Yield ____

12. WATER QUALITY
Chemical Analysis [X] Yes [ ] No Bacterial Analysis [ ] Yes [X] No
Please Enclose Lab Results.

13. ARTIFICIAL FILTER (Gravel Pack) [X] Yes [ ] No
Installed from 29 ft. to 40 ft.
Effective size Filter sand uniformity coefficient ____

14. WELL GROUTED? [X] Yes [ ] No Bentonite [redacted] 28-29'
Neat Cement [X] Sand Cement [ ] Concrete [ ] Other [ ] ____
Depth From 0 ft. to 28 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ Feet ____ Direction
Former UST location Type Well disinfected [ ] Yes Type ____
upon completion [X] No Amount ____

16. PUMP: Date Installed ____ not installed [X]
Mfr. name ____ model no. ____
H.P. ____ volts ____ length of drop pipe ____ ft. capacity ____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine [ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

REGISTERED BUSINESS NAME F&R ADDRESS G Villes S.C.
CERT. NO. 897
Signed Carl Hanford Date 8/5/93
AUTHORIZED REPRESENTATIVE

SC DHEC e 31
SB-6672-07/29/99-REB

FULL SERVICE LA[illegible]TORIES ENGINEERS & CHEMISTS
"OVER ONE HUN[illegible]RED YEARS OF SERVICE"
1881®

Report No.: **T-65-197** DATE: **August 5, 1993**

Client: **SCDHEC**

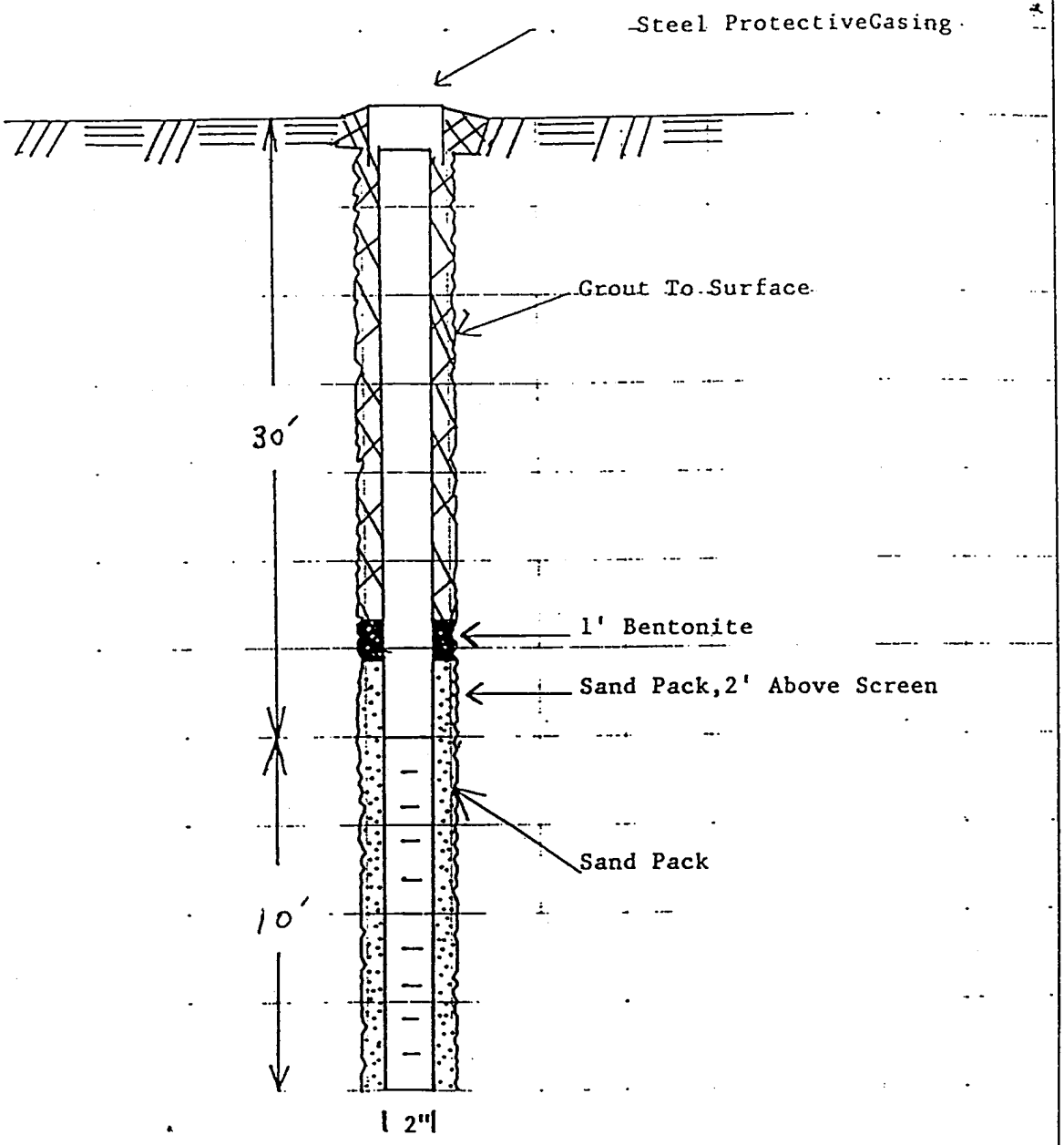
Project: **Crossroads Grocery**

Boring No.: **MW1-A (1 of 1)** | Total Depth **35.0'** | Elev: | Location: **See boring location map**

Type of Boring: **Hollow Stem Auger** | Started: **6/15/93** | Completed: **6/15/93** | Driller: **C. Lanford**

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (Feet)	REMARKS
				1.5	
			4/5/8	3.0	
		Brown medium stiff to stiff clayey silt.		4.5	
			2/4/6	6.0	
	7.0				
				8.5	
			4/7/7	10.0	
				13.5	
			8/11/12	15.0	
				18.5	
			5/18/18	20.0	
				23.5	
		Red-brown stiff to hard sandy to slightly sandy silt.	6/12/14	25.0	Water level @ 25' on 6/16/93
				28.5	
			5/11/20	30.0	
				33.5	Water level @ 32.6' on 6/15/93
	35.0		16/20/36	35.0	
		Well set at 40' Casing 0-25' Screen 25' - 40' Sand 20' - 40' Bentonite 19' - 20' Grout 0-19'			

*Number of blows required for a 140 lb hammerdropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the last two increments of penetration is termed the standard penetration resistance, N.



Monitor Well Schematic MW 1-a

FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

DATE:
SCALE: NTS
DRWN: JB

Crossroads Grocery

DWG. NO.

Form No 103

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | Water Well Record

SC DHEC Page 33
SB-6672-07/29/99-REB

1. LOCATION OF WELL MW1

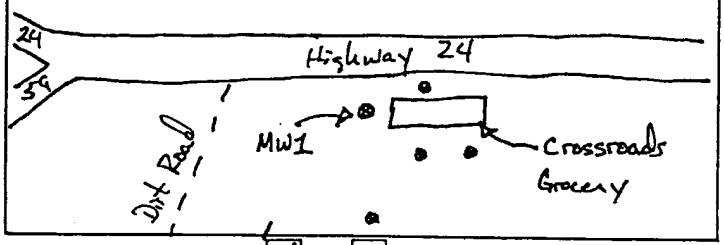
County: Oconee System Name:

Latitude: Longitude:

Distance And Direction from Road Intersections
1/4 mi. West of intersection of US. 24 & US. 59

Street address & City of Well Location

Sketch Map: (See example on back)



2. CUTTING SAMPLES [X] Yes [ ] No

Geophysical Logs [X] Yes (Please enclose) [ ] No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
* Indicate water bearing zones (use a 2nd sheet if needed)		

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address c/o Crossroads Grocery
Rt. 2 Box 149
Westminster, SC 29693
Telephone No. (803) 972-3489

Engineer Frohling & Robertson, Inc.
Address P.O. Box 17186
Greenville, SC 29606
Telephone No. (803) 271-2840

5. WELL DEPTH (Completed) 30 ft. Date Started: 6/16/93 Date Completed: 6/16/93

6. [ ] Mud Rotary [ ] Jetted [X] Bored [ ] Dug [ ] Air Rotary [ ] Driven [ ] Cable tool [ ] Other

7. USE: [ ] Domestic [ ] Public Supply Permit No. ____ [ ] Industry [ ] Irrigation [ ] Air Conditioning [ ] Commercial [X] Test Well [ ] ____

8. CASING: [X] Threaded [ ] Welded
Diam. 2"
Type [X] PVC [ ] Galvanized [ ] Steel [ ] Other
0 in. to 20 ft. depth
____ in. to ____ ft. depth
Height: Above/Below Flush
Surface ____ ft.
Weight ____ lbs./ft.
Drive Shoe? [ ] Yes [ ] No

9. SCREEN:
Type: PVC Diam. ~~Flush~~ 2"
Slot/Gauze .010" Length ____
Set Between 20 ft. and 30 ft. **NOTE: MULTIPLE SCREENS USE SECOND SHEET**
____ ft. and ____ ft.
Sieve Analysis [ ] Yes (Please enclose) [X] No

10. STATIC WATER LEVEL
27.0 ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
____ ft. after ____ hrs. pumping ____ G.P.M.
Pumping Test: [ ] Yes (Please enclose) [X] No
Yield ____

12. WATER QUALITY
Chemical Analysis [X] Yes [ ] No Bacterial Analysis [ ] Yes [X] No
Please Enclose Lab Results.

13. ARTIFICIAL FILTER (Gravel Pack) [X] Yes [ ] No
Installed from 19 ft. to 30 ft.
Effective size Filter Sand uniformity coefficient ____

14. WELL GROUTED? [X] Yes [ ] No Bentonite 18-19'
Neat Cement [X] Sand Cement [ ] Concrete [ ] Other [ ] ____
Depth From 0 ft. to 18 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ Feet ____ Direction
Former UST location Type Well disinfected [ ] Yes Type ____
upon completion [X] No Amount ____

16. PUMP: Date Installed ____ not installed [X]
Mfr. name ____ model no. ____
H.P. ____ volts ____ length of drop pipe ____ ft. capacity ____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine [ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME F&R ADDRESS G Ville S.C.
Signed Carl Hanford CERT. NO. 897
Date 8/5/93
AUTHORIZED REPRESENTATIVE

FULL SERVICE LA[illegible]ATORIES ENGINEERS & CHEMISTS
"OVER ONE HU[illegible]RED YEARS OF SERVICE"
1881®

Report No.: T-65-197 DATE: August 5, 1993

Client: SCDHEC

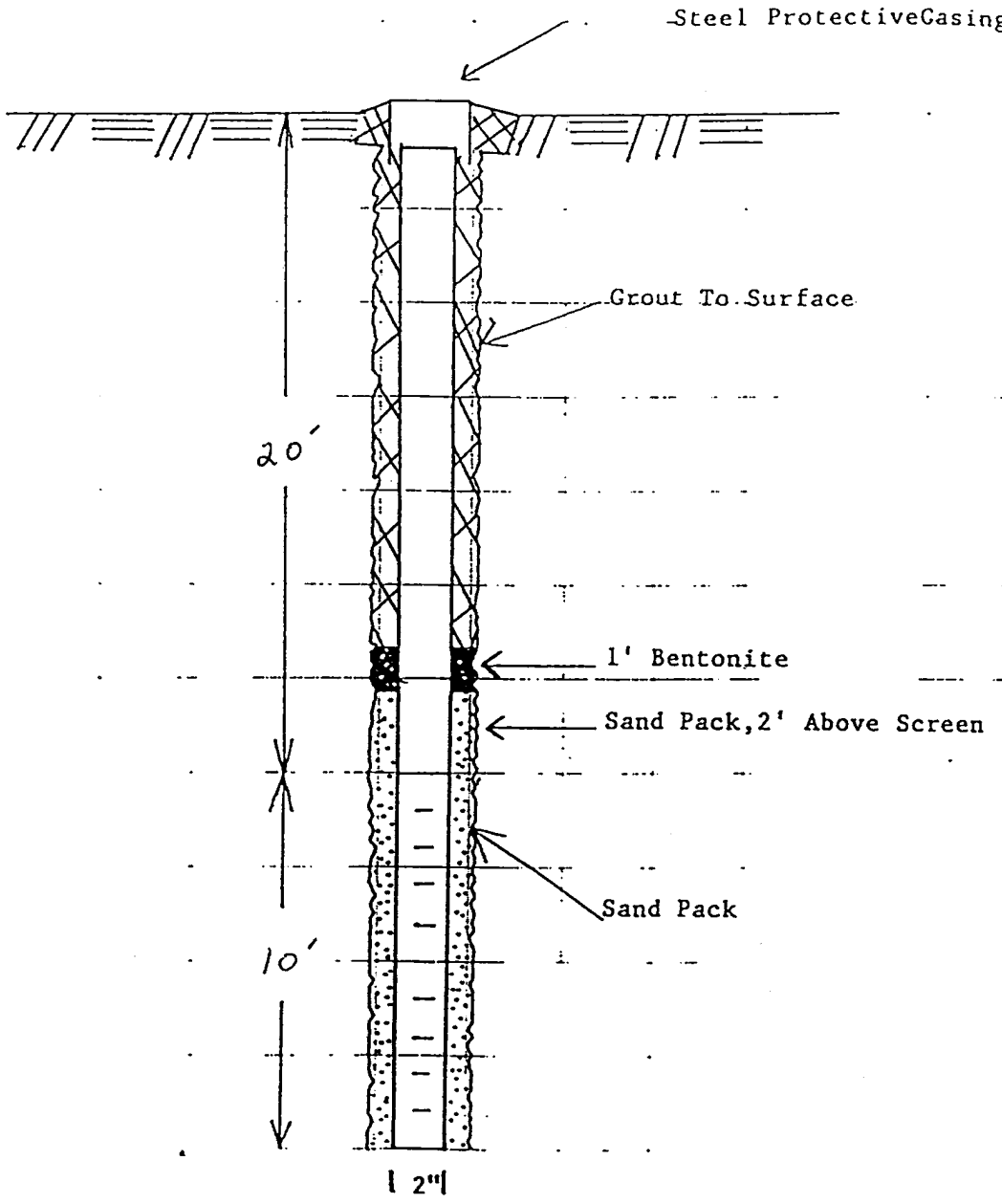
Project: Crossroads Grocery

Boring No.: MW-1 (1 of 1) | Total Depth 25.0' | Elev: | Location: See boring location map

Type of Boring: Hollow Stem Auger | Started: 6/16/93 | Completed: 6/16/93 | Driller: C.Lanford

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (Feet)		REMARKS
		Brown medium dense silty sand.	4/8/10	1.5 3.0		
	4.0					
		Brown stiff sandy silt.	3/8/9 4/5/24	4.5 6.0 8.5 10.0		
	9.0					
		Brown hard fine sandy silt.	5/7/7 7/33/30	13.5 15.0 18.5 20.0		
	23.0					
		Black very stiff fine sandy silt.	4/7/9	23.5 25.0		
	25.0					
		Well set at 30' Casing 0-20' Screen 20'-30' Sand 20'- 30' Bentonite 19' - 20' Grout 0-19"				

*Number of blows required for a 140 lb hammer dropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the last two increments of penetration is termed the standard penetration resistance, N.



Monitor Well Schematic MW-1

FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

DATE:
SCALE: NTS
DRWN: JB

Crossroads Grocery

DWG. NO.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | Water Well Record

SC DHEC Page 36
SB-6672-07/29/99-REB

1. LOCATION OF WELL MW2

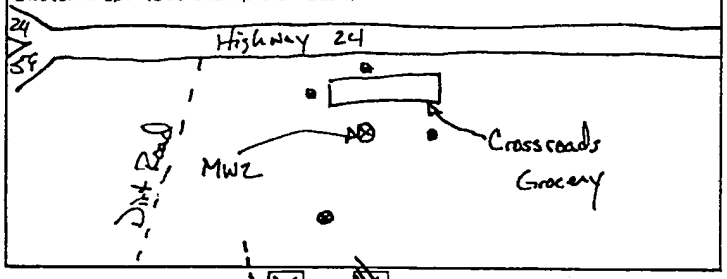
County: Oconee System Name:

Latitude: Longitude:

Distance And Direction from Road Intersections: 1/4 Mi. West of intersection of US.29 & US.59

Street address & City of Well Location

Sketch Map: (See example on back)



2. CUTTING SAMPLES: [X] Yes [X] No

Geophysical Logs: [ ] Yes (Please enclose) [X] No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
* Indicate water bearing zones (use a 2nd sheet if needed)		

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address: c/o Crossroads Grocery, Rt.2 Box 149, Westminster, SC 29693
Telephone No. (803) 972-3489

Engineer: Froehling & Robertson, Inc
Address: P.O. Box 17186, Greenville, SC 29606
Telephone No. (803) 271-2840

5. WELL DEPTH (Completed) 30 ft. Date Started: 6/16/93 Date Completed: 6/17/93

6. [ ] Mud Rotary [ ] Jetted [X] Bored [ ] Dug [ ] Air Rotary [ ] Driven [ ] Cable tool [ ] Other

7. USE: [ ] Domestic [ ] Public Supply Permit No. ____ [ ] Industry [ ] Irrigation [ ] Air Conditioning [ ] Commercial [X] Test Well [ ] ____

8. CASING: [X] Threaded [ ] Welded
Diam. 2"
Type [X] PVC [ ] Galvanized [ ] Steel [ ] Other
0 in. to 20 ft. depth
____ in. to ____ ft. depth
Height: Above/Below Flush
Surface ____ ft.
Weight ____ lbs./ft.
Drive Shoe? [ ] Yes [X] No

9. SCREEN:
Type: PVC Diam 2"
Slot/Gauze .010" Length 10'
Set Between 20 ft. and 30 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis [ ] Yes (Please enclose) [X] No

10. STATIC WATER LEVEL
25.06 ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
____ ft. after ____ hrs. pumping ____ G.P.M.
Pumping Test: [ ] Yes (Please enclose) [X] No
Yield ____

12. WATER QUALITY
Chemical Analysis [X] Yes [ ] No Bacterial Analysis [ ] Yes [X] No
Please Enclose Lab Results.

13. ARTIFICIAL FILTER (Gravel Pack) [X] Yes [ ] No
Installed from 19 ft. to 30 ft.
Effective size ____ uniformity coefficient ____

14. WELL GROUTED? [X] Yes [ ] No Bentonite 18'-19'
Neat Cement [X] Sand Cement [ ] Concrete [ ] Other [ ] ____
Depth From 0 ft. to 18 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ Feet ____ Direction
Former UST location Type
Well disinfected [ ] Yes Type ____
upon completion [X] No Amount ____

16. PUMP: Date Installed ____ not installed [X]
Mfr. name ____ model no. ____
H.P. ____ volts ____ length of drop pipe ____ ft. capacity ____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine [ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my supervision and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME F&R ADDRESS Greenville, SC
Signed Carl Lanford AUTHORIZED REPRESENTATIVE CERT. NO. 599 Date 5/8/93

FULL SERVICE LABORATORIES ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"
1881®

Report No.: T-65-197 DATE: January 25, 1994

Client: SCDHEC

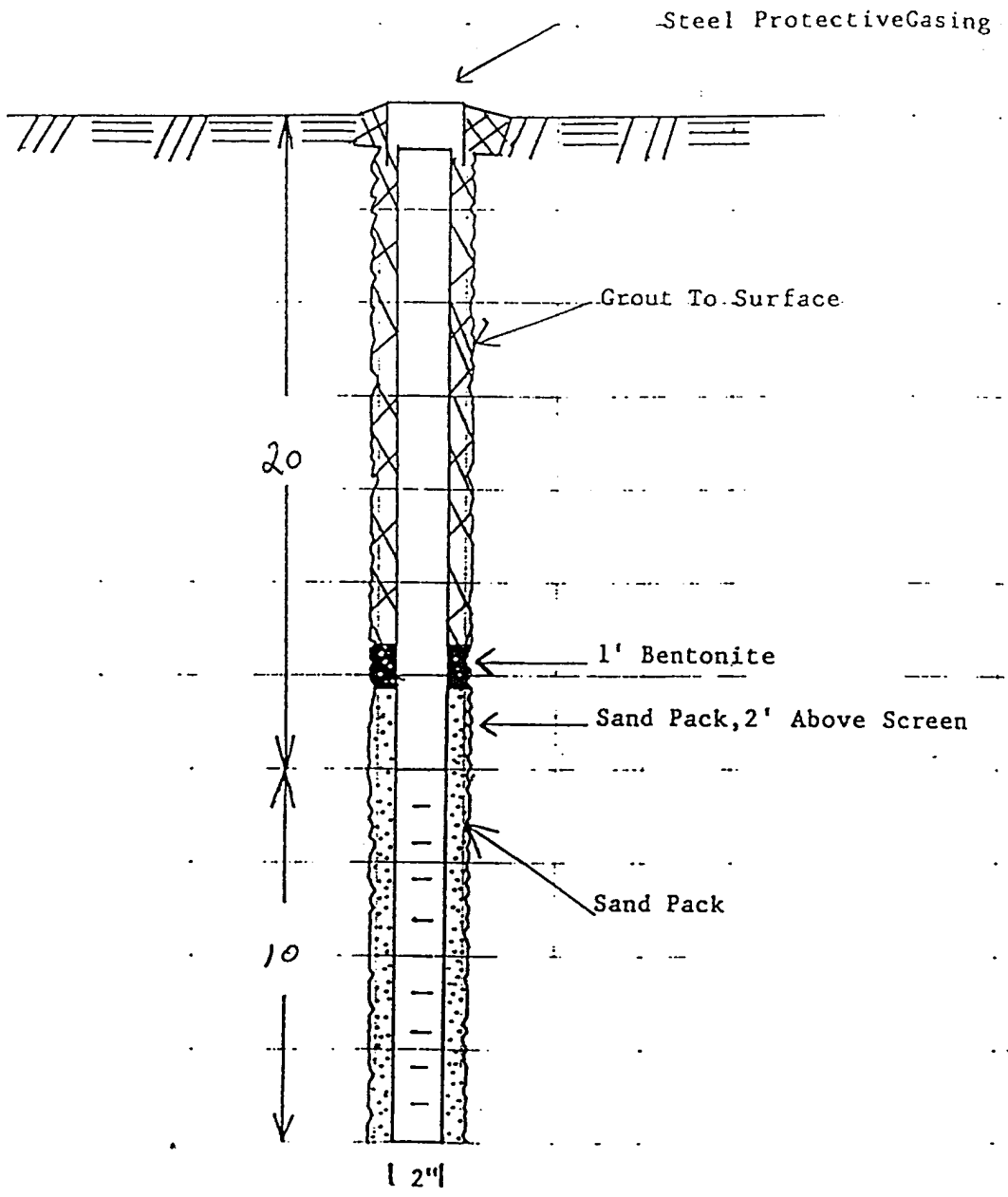
Project: Crossroads Grocery

Boring No.: MW-2 (1 of 1) | Total Depth 30.0' | Elev: | Location: See boring location map

Type of Boring: Hollow Stem Auger | Started: 6/16/93 | Completed: 6/16/93 | Driller: C. Lanford

Elevation	Depth	DESCRIPTION OF MATERIALS (Classification)	* Sample Blows	Sample Depth (Feet)		REMARKS
				1.5		
		Stiff, brown to yellow slightly clayey, silty sand.	6/5/7	3.0		
	4.0			4.5		
		Medium stiff, brown/orange slightly clayey, sandy silt.	2/3/5	6.0		
	7.5			8.5		
			3/4/7	10.0		
				13.5		
			3/6/5	15.0		
		Stiff, brown to yellow, sandy silt.				
	30.0					
		Boring terminated at 30' Well set @ 30' Casing 0-20' Screen 20-30' Sand 19-30' Bentonite 18-19' Grout 0-18'				

*Number of blows required for a 140 lb hammer dropping 30" to drive 2" O.D., 1.375" I.D. sampler a total of 18 inches in three 6" increments. The sum of the last two increments of penetration is termed the standard penetration resistance, N.



Monitor Well Schematic MW-2

FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

DATE:
SCALE: NTS
DRWN: JB

Crossroads Grocery

DWG. NO.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division **2600 Bull Street** **Columbia, S.C. 29201** **(803) 734-5331** **Water Well Record**

SC DHEC Page 39
SB-6672-07/29/99-REB

1. LOCATION OF WELL MW3

County: Oconee System Name:

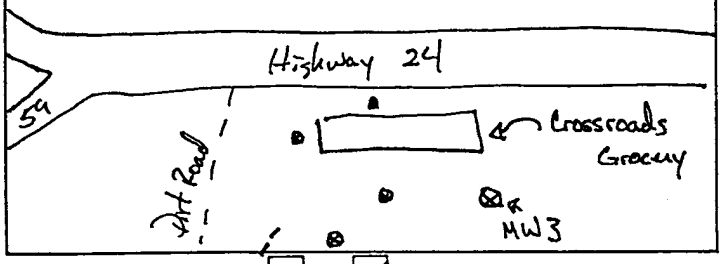
Latitude: Longitude:

Distance And Direction from Road Intersections

1/4 Mile west of intersection of U.S. 24 & U.S. 59

Street address & City of Well Location

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☒ No

Geophysical Logs ☐ Yes (Please enclose) ☒ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Well Constructed		
by auger probe, No		
Samples obtained		
* Indicate water bearing zones		
(use a 2nd sheet if needed)		

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address c/o Crossroads Grocery
Rt. 2 Box 149
Westminster, SC 29693
Telephone No. (803) 972-3489

Engineer Frochling & Robertson, Inc.
Address P.O. Box 17186
Greenville, SC 29606
Telephone No. (803) 271-2840

5. WELL DEPTH (Completed) 30 ft. Date Started: 6/19/93 Date Completed: 6/19/93

6. ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☒ Test Well ☐ ____

8. CASING. ☒ Threaded ☐ Welded
Diam. 2"
Type ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 20 ft. depth
____ in. to ____ ft. depth
Height: Above/Below Flush
Surface ____ ft.
Weight ____ lbs./ft.
Drive Shoe? ☐ Yes ☒ No

9. SCREEN:
Type: PVC Diam 2"
Slot/Gauze .010" Length 10'
Set Between 20 ft. and 30 ft. **NOTE: MULTIPLE SCREENS USE SECOND SHEET**
____ ft. and ____ ft.
Sieve Analysis ☐ Yes (Please enclose) ☒ No

10. STATIC WATER LEVEL
26.20 ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
____ ft. after ____ hrs. pumping ____ G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☒ No
Yield ____

12. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please Enclose Lab Results.

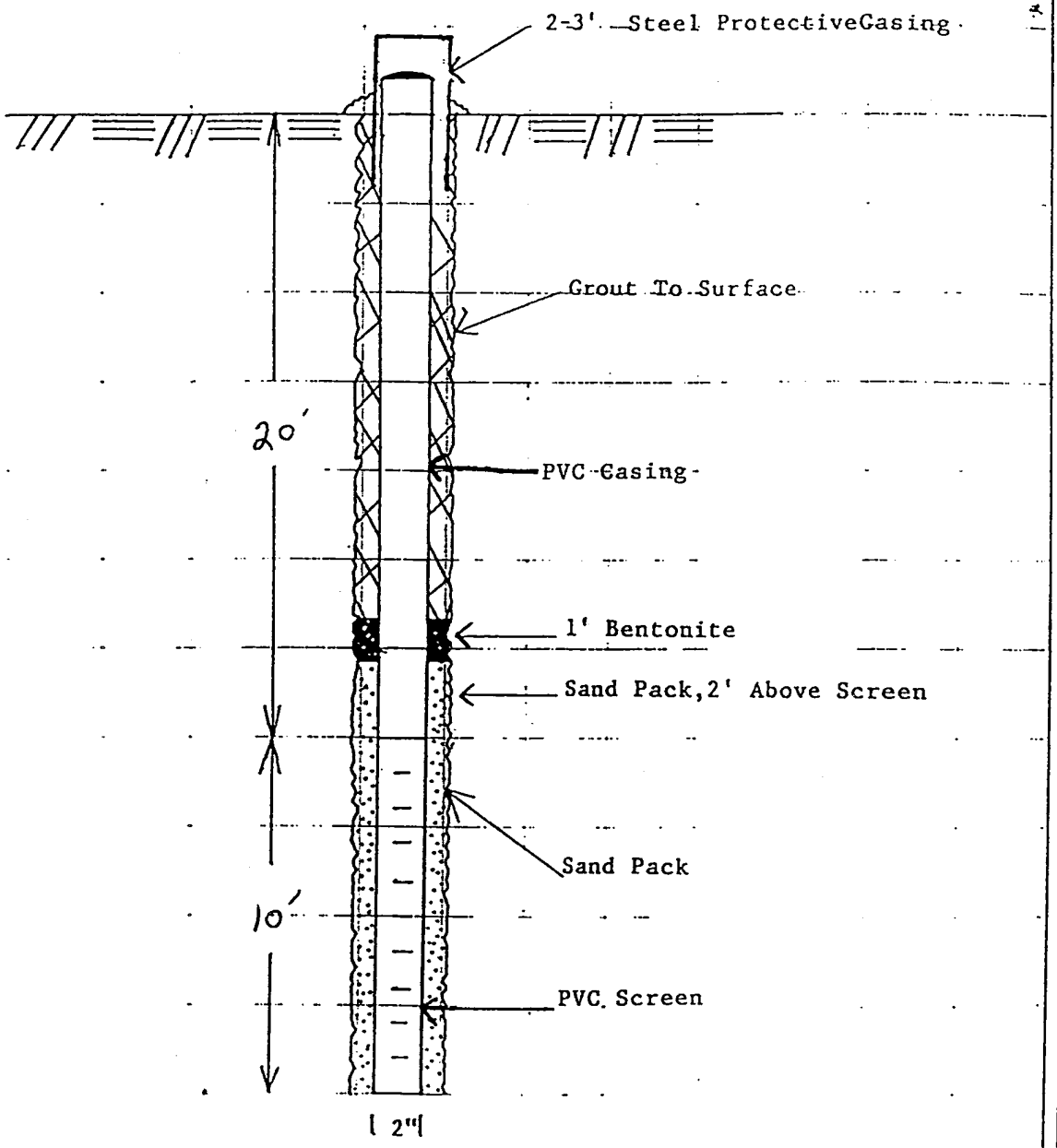
13. ARTIFICIAL FILTER (Gravel Pack) ☒ Yes ☐ No
Installed from 19 ft. to 30 ft.
Effective size Filter Sand uniformity coefficient ____

14. WELL GROUTED? ☒ Yes ☐ No Bentonite 18-19'
Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other ☐ ____
Depth From 0 ft. to 18 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ Feet ____ Direction
Former UST location Type Well disinfected ☐ Yes Type ____
upon completion ☐ No Amount ____

16. PUMP: Date Installed ____ not installed ☒
Mfr. name ____ model no. ____
H.P. ____ volts ____ length of drop pipe ____ ft. capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME Frochling & Robertson ADDRESS [illegible]
CERT. NO. 897
Signed Carl Lanford Date 8/5/93
AUTHORIZED REPRESENTATIVE



Monitor Well Schematic MW-3

FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES • ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

DATE: 3/15/93
SCALE: NTS
DRWN: JR

Monitoring Well Schematic
Crossroads Grocery

DWG. NO. 3

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | Water Well Record

SC DHEC Page 41
SB-6672-07/29/99-REB

MW4

1. LOCATION OF WELL

County: Oconee System Name:

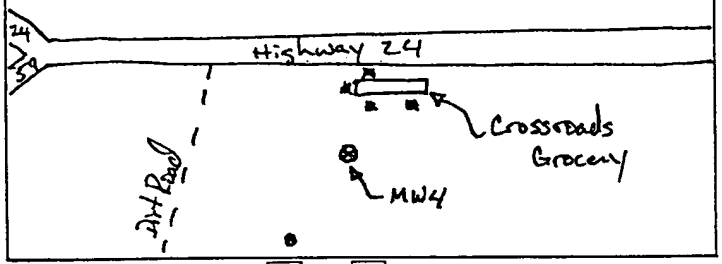
Latitude: Longitude:

Distance And Direction from Road Intersections

¼ mile west of intection of US. 24 & 59

Street address & City of Well Location

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☒ No

Geophysical Logs ☐ Yes (Please enclose) ☒ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Well Constructed by Auger Probe, No Cuttings obtained		
* Indicate water bearing zones (use a 2nd sheet if needed)		

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address c/o Crossroads Grocery
Rt. 2 Box 149
Westminster, SC 29693
Telephone No. (803) 972-3489

Engineer Froehling & Robertson, Inc.
Address P.O. Box 17186
Greenville, SC 29606
Telephone No. (803) 271-2840

5. WELL DEPTH (Completed) 25 ft. Date Started: 6/21/93 Date Completed: 6/21/93

6. ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☒ Test Well ☐ ____

8. CASING: ☒ Threaded ☐ Welded
Diam. 2"
Type ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 15 ft. depth
____ in. to ____ ft. depth
Height: (Above)/Below
Surface ____ ft.
Weight ____ lbs./ft.
Drive Shoe? ☐ Yes ☒ No

9. SCREEN:
Type: PVC Diam 2"
Slot/Gauze .010" Length 10'
Set Between 15 ft. and 25 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☒ No

10. STATIC WATER LEVEL
17.98 ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
____ ft. after ____ hrs. pumping ____ G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☒ No
Yield ____

12. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please Enclose Lab Results.

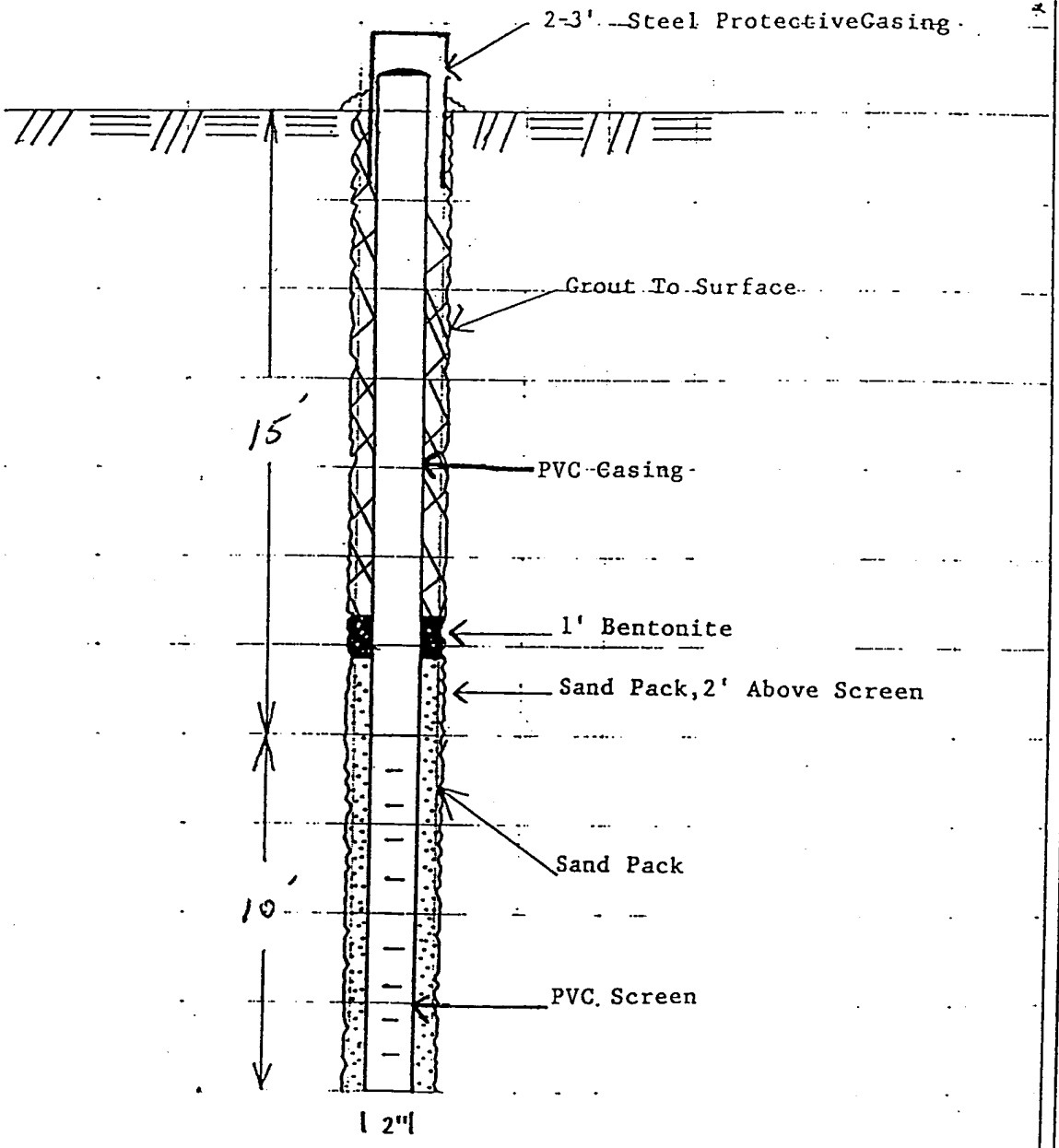
13. ARTIFICIAL FILTER (Gravel Pack) ☒ Yes ☐ No
Installed from 14 ft. to 25 ft.
Effective size Filter sand uniformity coefficient ____

14. WELL GROUTED? ☒ Yes ☐ No Bentonite 13-14'
Neat Cement ☒ Sand Cement ☐ Concrete ☐ Other ☐ ____
Depth From 0 ft. to 13 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ Feet ____ Direction
Former UST location Type
Well disinfected upon completion ☐ Yes ☒ No Type ____ Amount ____

16. PUMP: Date Installed ____ not installed ☒
Mfr. name ____ model no. ____
H.P. ____ volts ____ length of drop pipe ____ ft. capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my supervision and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME F&R ADDRESS Greenville, SC
Signed Carl Lanford CERT-NO. 892
AUTHORIZED REPRESENTATIVE Date 8/5/93



Monitor Well Schematic MW-4

FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES - ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

DATE: 3/15/93
SCALE: NTS
DRWN: JR

Monitoring Well Schematic
Crossroads Grocery

DWG. NO. 3

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division 2600 Bull Street Columbia, S.C. 29201 (803) 734-5331 Water Well Record

SC DHEC Page 43
SB-6672-07/29/99-REB

1. LOCATION OF WELL MW5

County: Oconee System Name:

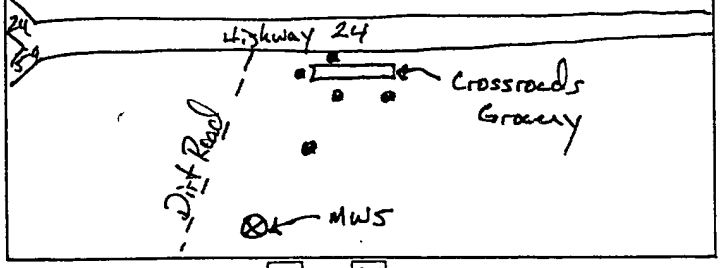
Latitude: Longitude:

Distance And Direction from Road Intersections

1/4 mile west of intersection of U.S. 24 & U.S. 59

Street address & City of Well Location

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☒ No

Geophysical Logs ☐ Yes (Please enclose) ☒ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Well Constructed by		
Auger Probe, No		
Samples Obtained		
* Indicate water bearing zones		
(use a 2nd sheet if needed)		

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address c/o Crossroad Grocery
Rt. 2 Box 149
Westminster, SC 29693
Telephone No. (803) 972-3489

Engineer Frochling & Robertson, Inc.
Address P.O. Box 17186
Greenville, SC 29606
Telephone No. (803) 271-2840

5. WELL DEPTH (Completed) 20 ft. Date Started: 6/21/93 Date Completed: 6/21/93

6. ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☒ Test Well ☐ ____

8. CASING: ☒ Threaded ☐ Welded
Diam. 2"
Type ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 10 ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam 2"
Slot/Gauze .010" Length 10'
Set Between 10 ft. and 20 ft. **NOTE: MULTIPLE SCREENS USE SECOND SHEET**
____ ft. and ____ ft.
Sieve Analysis ☐ Yes (Please enclose) ☒ No

10. STATIC WATER LEVEL
11.75 ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
____ ft. after ____ hrs. pumping ____ G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☒ No
Yield ____

12. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please Enclose Lab Results.

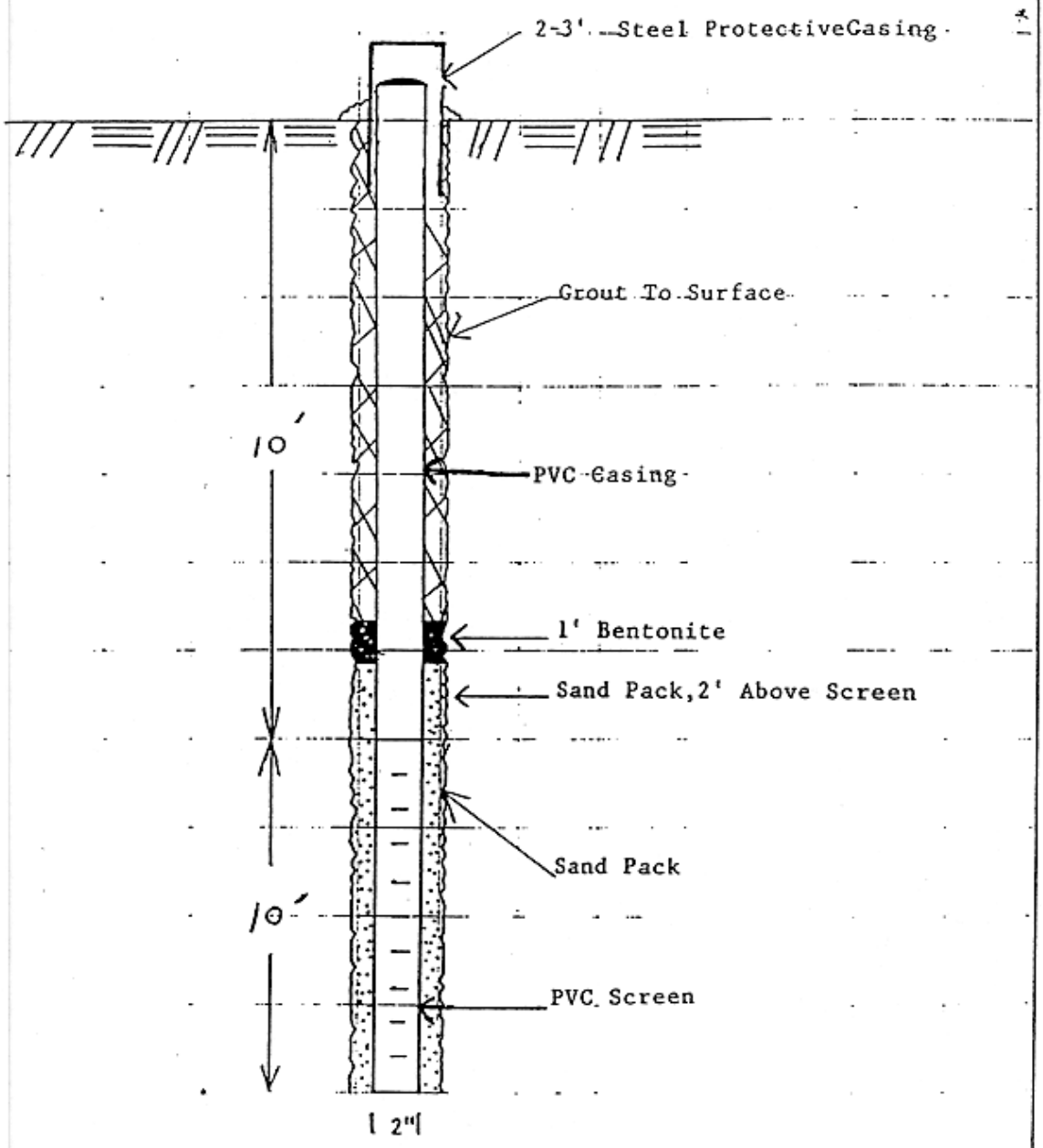
13. ARTIFICIAL FILTER (Gravel Pack) ☒ Yes ☐ No
Installed from 9 ft. to 20 ft.
Effective size Filter Sand uniformity coefficient ____

14. WELL GROUTED? ☒ Yes ☐ No Bentonite 8-9'
Neat Cement ☒ Sand Cement ☐ Concrete ☐ Other ☐ ____
Depth From 0 ft. to 8 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ Feet ____ Direction
Former UST location Type Well disinfected ☐ Yes Type ____
upon completion ☐ No Amount ____

16. PUMP: Date Installed ____ not installed ☒
Mfr. name ____ model no. ____
H.P. ____ volts ____ length of drop pipe ____ ft. capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME ____ ADDRESS ____
CERT. NO. 897
Signed Carl Lanford Date 8/5/93
AUTHORIZED REPRESENTATIVE



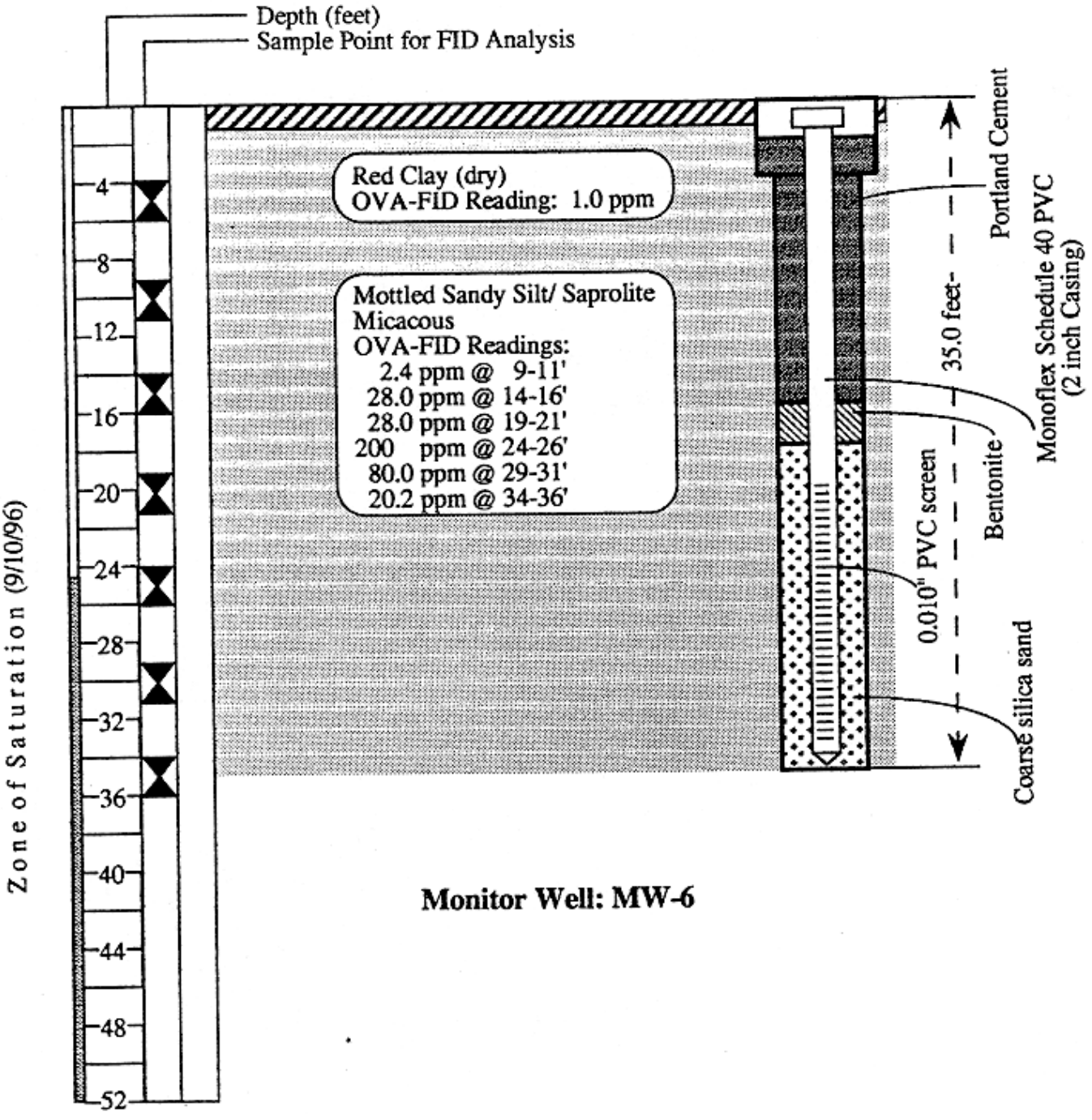
Monitor Well Schematic MW-5

FROEHLING & ROBERTSON, INC.
FULL SERVICE LABORATORIES - ENGINEERS & CHEMISTS
"OVER ONE HUNDRED YEARS OF SERVICE"

DATE: 3/15/93
SCALE: NTS
DRWN: JR

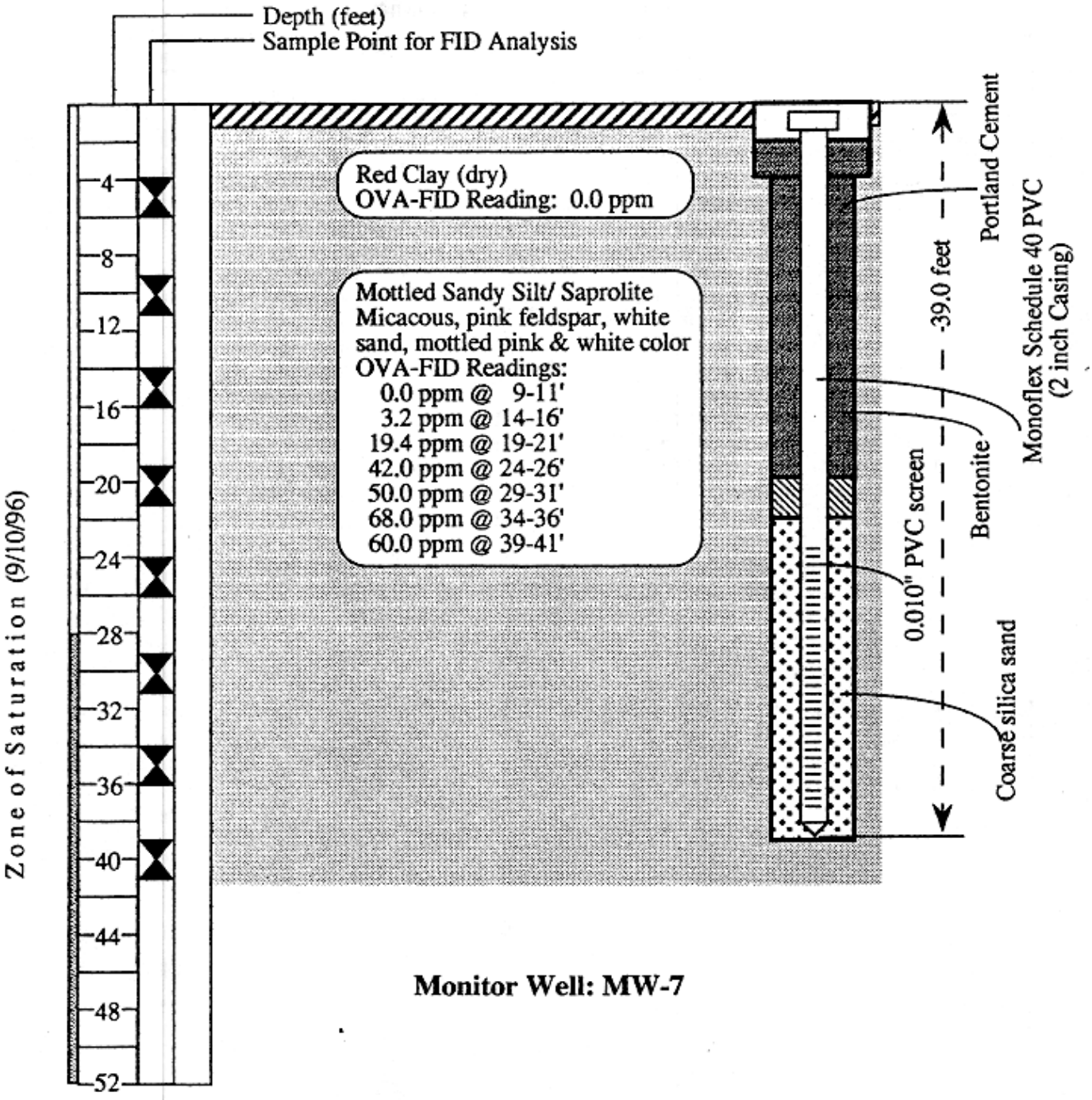
Monitoring Well Schematic
Crossroads Grocery

DWG. NO. 3



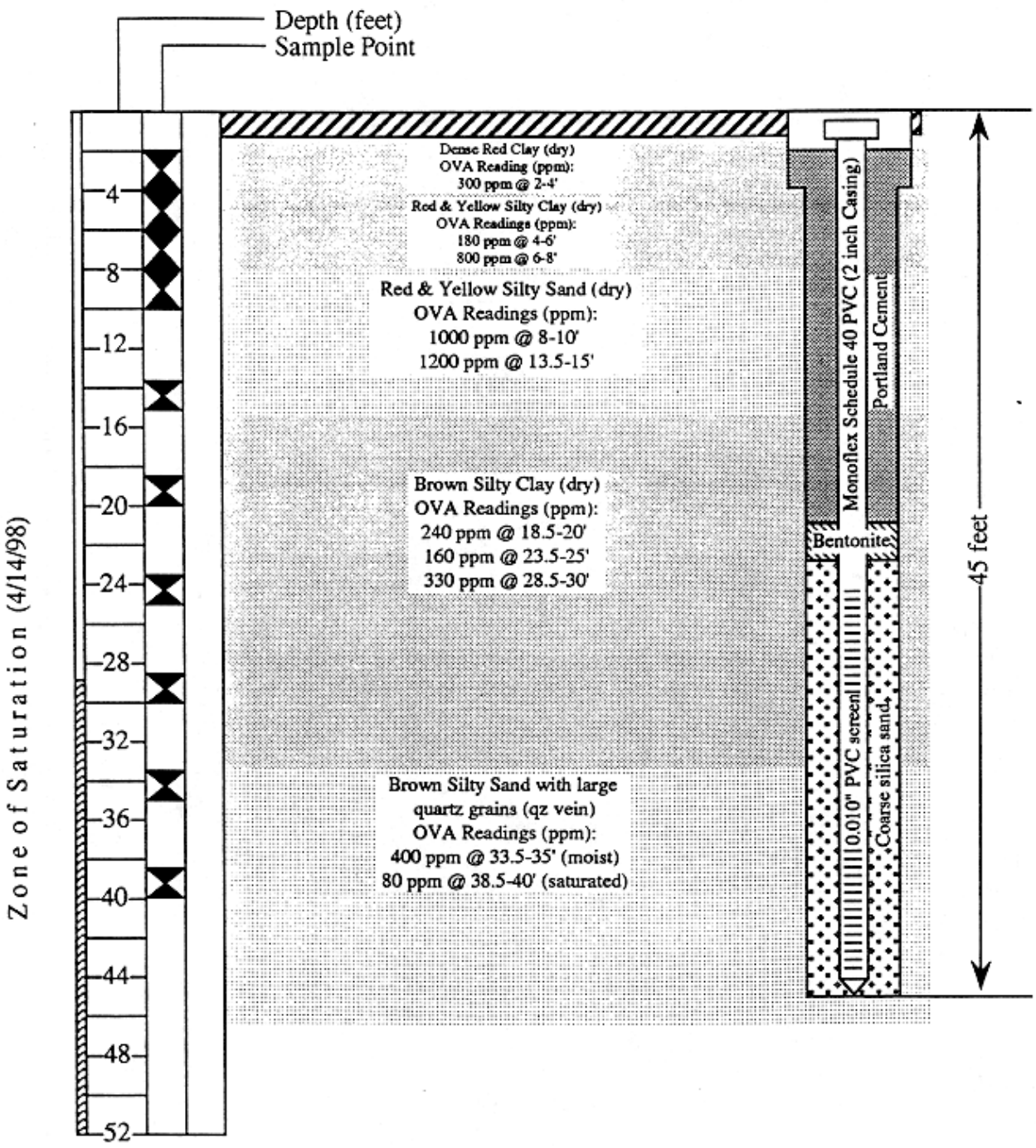
Monitor Well: MW-6

CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Monitor Well Boring Log**
Location: Highway 24/59, Westminster, Oconee Co., SC	
ESCM & Associates, Inc. 1781 Mars Hill Road, Watkinsville, Oconne Co., GA	Drafted By: Mirta A. Carpenter Date Drafted: January 15, 1997



Monitor Well: MW-7

CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Monitor Well Boring Log**
Location: Highway 24/59, Westminster, Oconee Co., SC	
ESCM & Associates, Inc. 1781 Mars Hill Road, Watkinsville, Oconne Co., GA	Drafted By: Mirta A. Carpenter Date Drafted: January 15, 1997



Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Monitor Well MW-8
(Line & Dispenser SB#8)

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 14, 1998

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | Water Well Record

SC DHEC Page 48
SB-6672-07/29/99-REB

1. LOCATION OF WELL

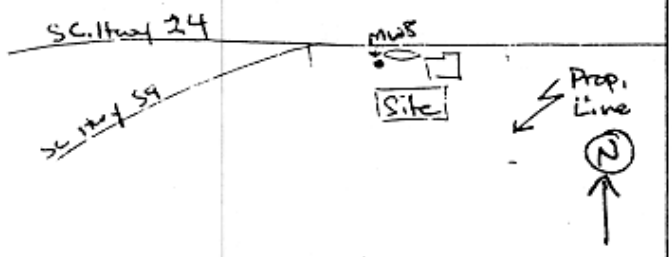
County: Oconee | System Name: Crossroads Grocery MW-8

Latitude: | Longitude:

Distance And Direction from Road Intersections: 100' due East of S.C. Hwy 24 & S.C. Hwy 59

Street address & City of Well Location:

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

Indicate water bearing zones

(use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address: Crossroad Grocery Route 2, Box 149, Westminster SC

Telephone No.

Engineer: EMC
Address: P.O. Box 901 Hartwell, GA 30643

Telephone No. 706-376-5000

5. WELL DEPTH (Completed): 45 ft. | Date Started: | Date Completed: 4/14/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply-Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☑ Test Well ☐

8. CASING ☑ Threaded ☐ Welded
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 45 ft. depth
in. to ft. depth
Height: Above/Below: flush mounted
Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: 0.010" NC Diam 2"
Slot/Gauze 0.010" Length 20'
Set Between 25 ft. and 45 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL
28.87 ft. below ~~land surface~~ top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. See RBCA Tier III 4/29/98

13. ARTIFICIAL FILTER (Gravel Pack) ☑ Yes ☐ No
Installed from 23 Sand ft. to 45 ft.
Effective size uniformity coefficient

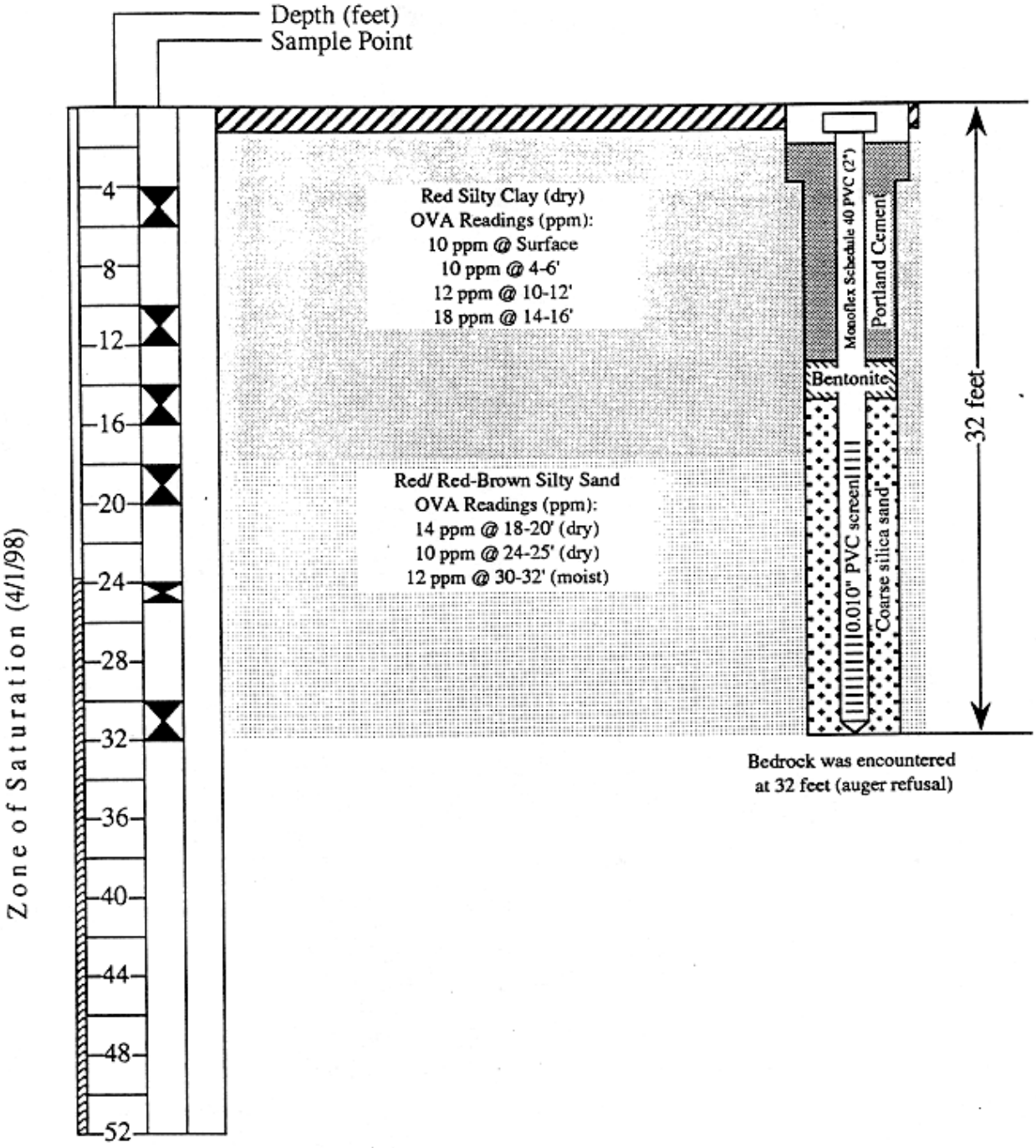
14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☑ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.5 ft. to 21 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 1 Feet S Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type monitor well Amount

16. PUMP: Date Installed not installed ☑
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my supervision and this report is true to the best of my knowledge and belief.
REGISTERED (Kilman Dellinger)
BUSINESS NAME Env. Remedial Monitoring Services ADDRESS
CERT. NO.
Signed Date
AUTHORIZED REPRESENTATIVE

COPY 1 Mail TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)



Site: Crossroads Grocery
Facility I.D. #06742

Monitor Well MW-9

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 1, 1998

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division — 2600 Bull Street — Columbia, S.C. 29201 — (803) 734-5331 — **Water Well Record**

SC DHEC Page 50
SB-6672-07/29/99-REB

1. LOCATION OF WELL

County: Oconee
System Name: Crossroads Grocery HW-9
Latitude: Longitude:

Distance And Direction from Road Intersections:
50 due South of S.C. Hwy 59 & S.C. Hwy 24

Street address & City of Well Location

Sketch Map: (See example on back)

2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

Indicate water bearing zones

(use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address: Crossroads Grocery, Route 2, Box 149, Westminster, SC
Telephone No.

Engineer Address: EMC, P.O. Box 901, Hartwell GA 30643
Telephone No. 706-376-5000

5. WELL DEPTH (Completed) 32 ft.
Date Started:
Date Completed: 4/1/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug
☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE:
☐ Domestic ☐ Public Supply Permit No. ______ ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☑ Test Well ☐

8. CASING ☐ Threaded ☐ Welded — flush mounted
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 32 ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze 0.010" Length 15'
Set Between 17 ft. and 32 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL
23.94 ft. below ~~land surface~~ top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
____ ft. after ____ hrs. pumping ____ G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. See RBCA Tier III 4/29/98

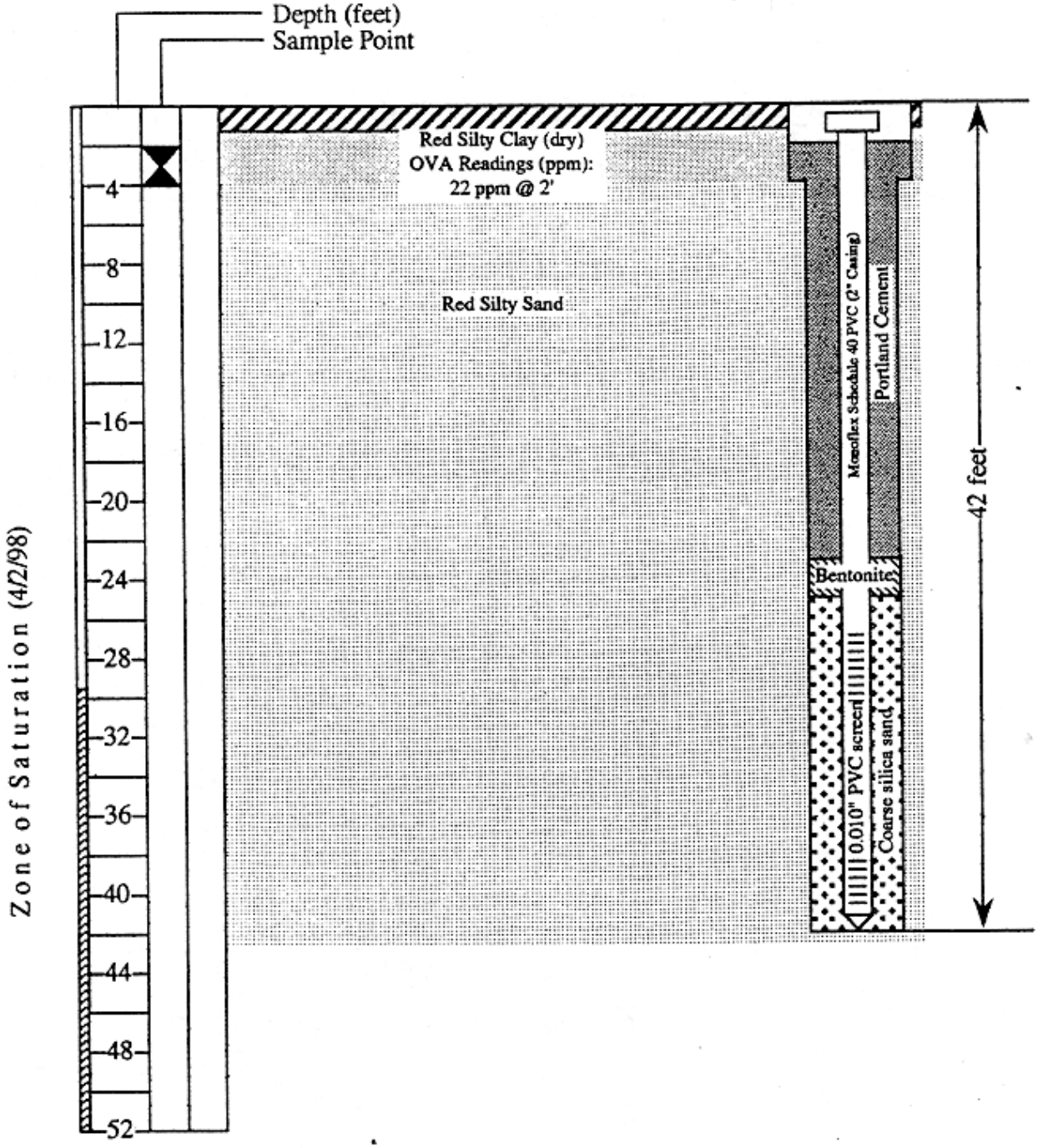
13. ARTIFICIAL FILTER (~~Gravel Pack~~ Sand) ☑ Yes ☐ No
Installed from 15 ft. to 32 ft.
Effective size ____ uniformity coefficient ____

14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☑ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.50 ft. to 13 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 130 Feet NE Direction
gasoline Type
Well disinfected upon completion ☐ Yes ☑ No
Type ~~monitor~~ well
Amount

16. PUMP: Date Installed ____ not installed ☑
Mfr. name ____ model no. ____
H.P. ____ volts ____ length of drop pipe ____ ft. capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME: (Kilman Brothers) Environmental Monitoring Corp.
ADDRESS:
CERT. NO.:
Date:
Signed: [signature]
AUTHORIZED REPRESENTATIVE



Site: Crossroads Grocery
Facility I.D. #06742

Monitor Well MW-10

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 2, 1998

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division 2600 Bull Street Columbia, S.C. 29201 (803) 734-5331 **Water Well Record**

SC DHEC Page 52
SB-6672-07/29/99-REB

1. LOCATION OF WELL

County: Oconee
System Name: Crossroads Grocery MW-10
Latitude: Longitude:

Distance And Direction from Road Intersections: 160' NE of S.C. Hwys 59 & 24

Street address & City of Well Location:

Sketch Map: (See example on back)

2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

*Indicate water bearing zones (use a 2nd sheet if needed)

3. REMARKS:

4. OWNER OF WELL: Neil Alexander
Address: Crossroads Grocery, Route 2, Box 149, Westminster, SC
Telephone No.

Engineer: EMC
Address: P.O. Box 901, Hartwell, GA 30643
Telephone No. 706-376-5000

5. WELL DEPTH (Completed) 42 ft. Date Started: Date Completed: 4/2/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☑ Test Well ☐ ____

8. CASING ☑ Threaded ☐ Welded — flush mounted
Diam. 2" Height: Above/Below
Type ☑ PVC ☐ Galvanized Surface ____ ft.
☐ Steel ☐ Other Weight ____ lbs./ft.
2 in. to 42 ft. depth Drive Shoe? ☐ Yes ☐ No
____ in. to ____ ft. depth

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze 0.010" Length 15'
Set Between 27 ft. and 42 ft. **NOTE: MULTIPLE SCREENS USE SECOND SHEET**
____ ft. and ____ ft.
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL
29.77 ft. below ~~land surface~~ top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
____ ft. after ____ hrs. pumping ____ G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield ____

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. See RBCA Tier III 4/27/98

13. ARTIFICIAL FILTER (~~Gravel~~ Sand Pack) ☐ Yes ☐ No
Installed from 25 ft. to 42 ft.
Effective size ____ uniformity coefficient ____

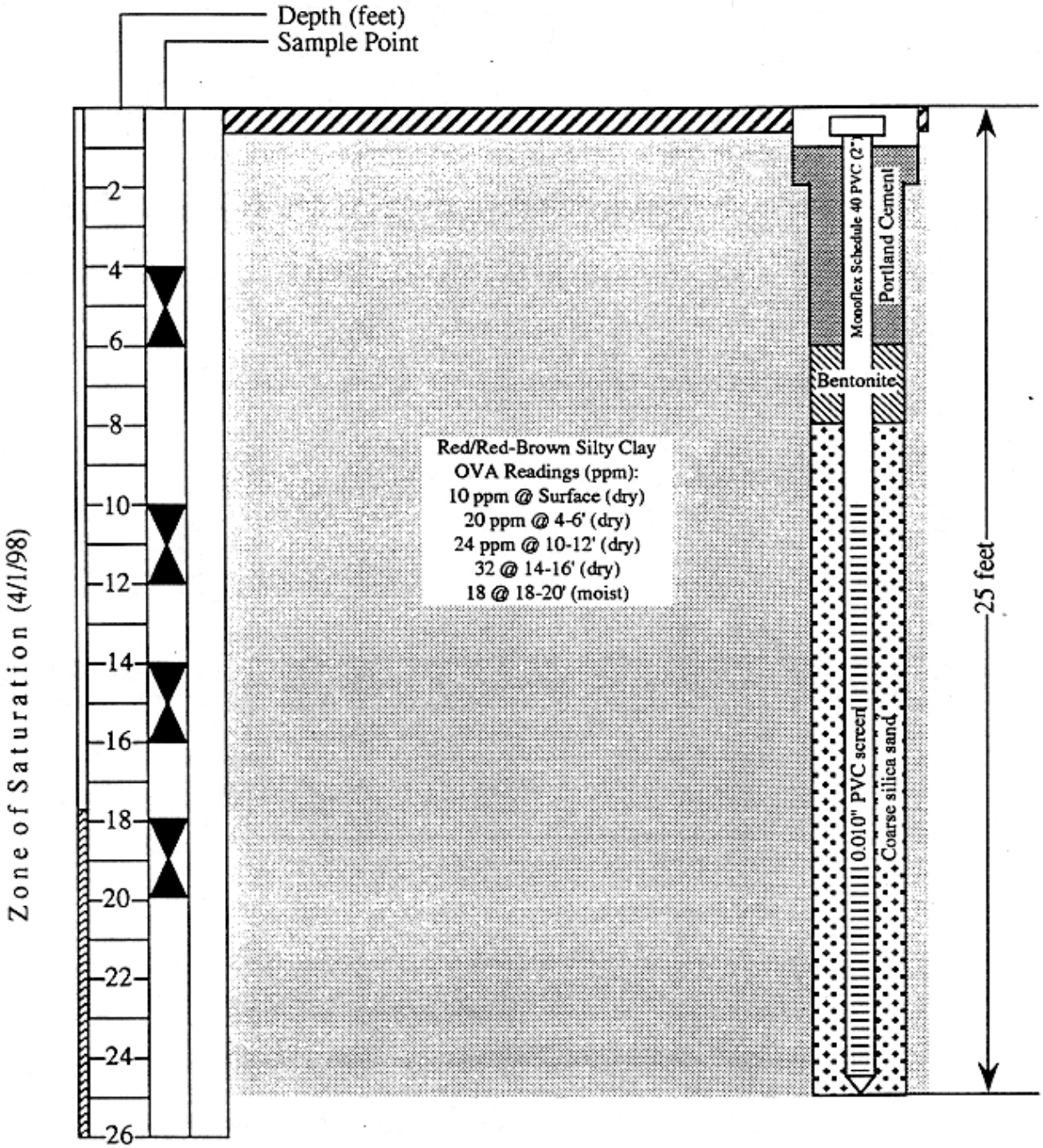
14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☑ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.50 ft. to 23 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 150 Feet S Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type Monitor Well Amount ____

16. PUMP: Date Installed ____ not installed ☑
Mfr. name ____ model no. ____
H.P. ____ volts ____ length of drop pipe ____ ft. capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME: EMC
Address:
Cert. No.:
Date:
Signed: [signature]
AUTHORIZED REPRESENTATIVE

DHEC ... COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)



Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Monitor Well MW-11

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 1, 1998

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division 2600 Bull Street Columbia, S.C. 29201 (803) 734-5331 **Water Well Record**

SC DHEC Page 54
SB-6672-07/29/99-REB

1. LOCATION OF WELL

County: Oconee System Name: Crossroads Grocery MW-11

Latitude: Longitude:

Distance And Direction from Road Intersections: 130' SE of S.C. Hwys 59 & 24

Street address & City of Well Location

Sketch Map: (See example on back)

2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

*icate water bearing zones

(use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL:
Address: Neil Alexander, Crossroads Grocery, Route 2, Box 149, Westminster, SC
Telephone No.
Engineer Address: EMC, P.O. Box 901, Hartwell, GA 30643
Telephone No. 706-376-5000

5. WELL DEPTH (Completed) 25 ft. Date Started: Date Completed: 4/1/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply-Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☑ Test Well ☐

8. CASING ☑ Threaded ☐ Welded
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 25 ft. depth
in. to ft. depth
Height: Above/Below Flush mounted
Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze 0.010" Length 15'
Set Between 10 ft. and 25 ft. **NOTE: MULTIPLE SCREENS USE SECOND SHEET**
ft. and ft.
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL
17.84 ft. below ~~land surface~~ top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. See RBCA Tier III 4/28/98

13. ARTIFICIAL FILTER (~~Gravel~~ Sand Pack) ☑ Yes ☐ No
Installed from 8 ft. to 25 ft.
Effective size uniformity coefficient

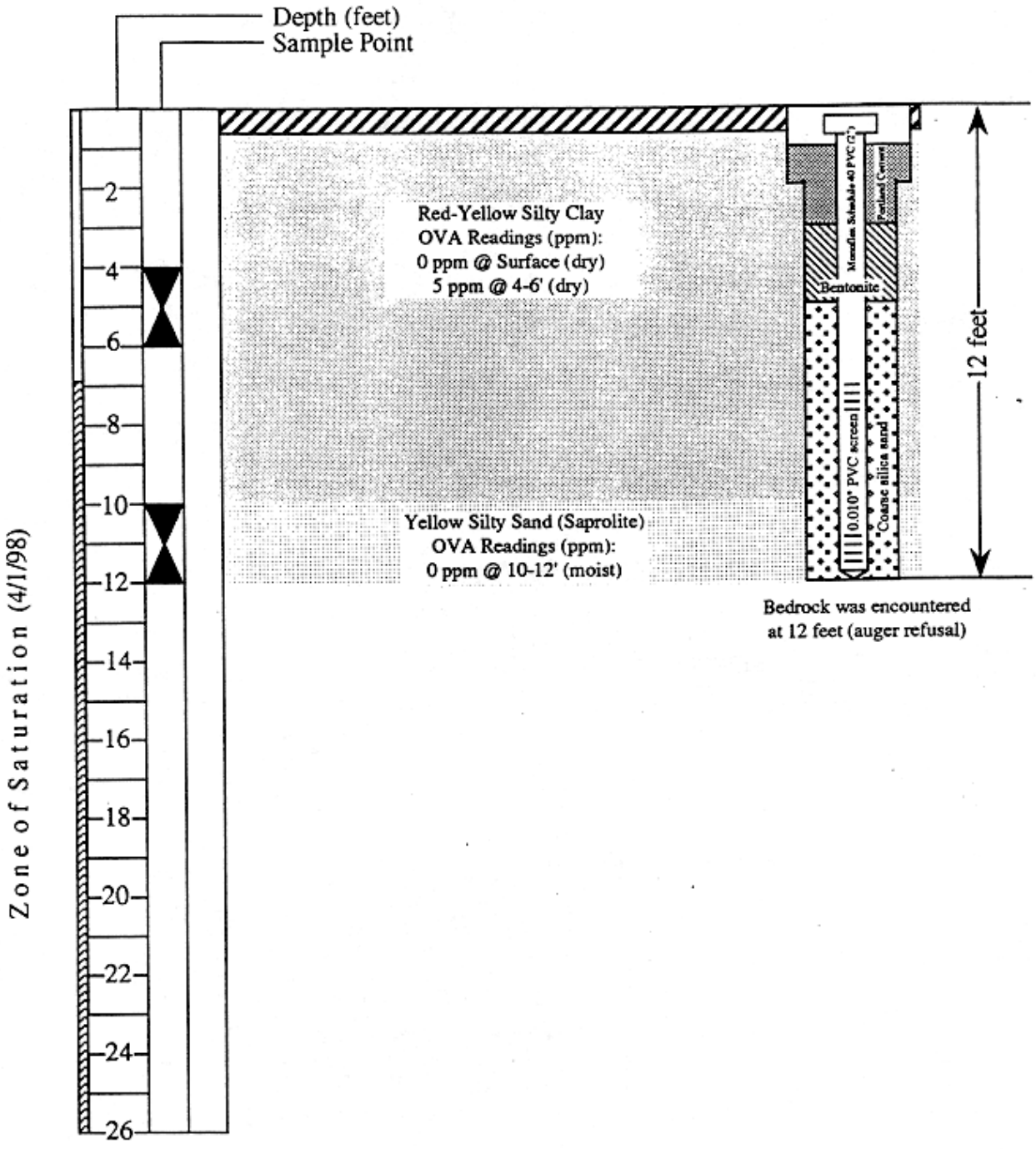
14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☑ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.50 ft. to 6 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 230 Feet NE Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type Monitor Well Amount

16. PUMP: Date Installed not installed ☑
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This [illegible] and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME (Kilman Brothers) EMC
ADDRESS [illegible]
CERT. NO. [illegible]
Signed [illegible] Date [illegible]
AUTHORIZED REPRESENTATIVE

HEC # 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL [illegible]



Site: Crossroads Grocery
Facility I.D. #06742

Monitor Well MW-12

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: March 31, 1998

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division 2600 Bull Street Columbia, S.C. 29201 (803) 734-5331 **Water Well Record**

SC DHEC Page 56
SB-6672-07/29/99-REB

1. LOCATION OF WELL

County: Oconee System Name: Crossroads Grocery MW-12

Latitude: Longitude:

Distance And Direction from Road Intersections: 600' SE of S.C. Hwys 59 & 24

Street address & City of Well Location

Sketch Map: (See example on back)

2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

Indicate water bearing zones

(use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address: Crossroads Grocery, Route 3 Box 149, Westminster, SC
Telephone No.

Engineer: EMC
Address: P.O. Box 901, Hartwell, GA 30643
Telephone No. 706-376-5000

5. WELL DEPTH (Completed) 12 ft. Date Started: Date Completed: 3/31/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☑ Test Well ☐

8. CASING ☑ Threaded ☐ Welded
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 12 ft. depth
in. to ft. depth
Height: Above/Below flush mounted
Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze 0.010" Length 5'
Set Between 7 ft. and 12 ft. **NOTE: MULTIPLE SCREENS USE SECOND SHEET**
ft. and ft.
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL
6.97 ft. below ~~land surface~~ top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. See RBCA Tier III (4/29/98)

13. ARTIFICIAL FILTER (~~Gravel~~ Sand Pack) ☑ Yes ☐ No
Installed from 5 ft. to 12 ft.
Effective size uniformity coefficient

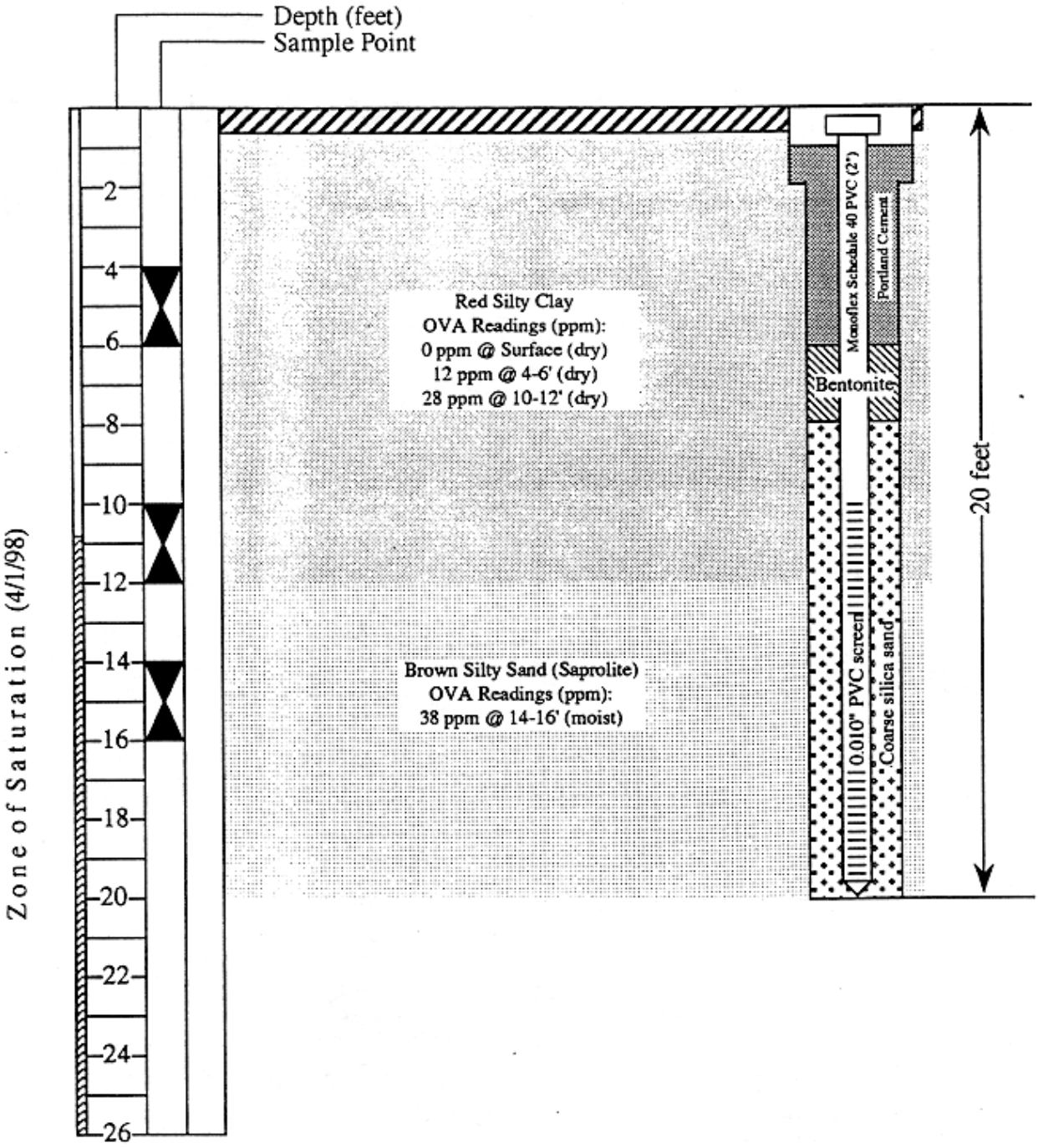
14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☑ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.50 ft. to 3 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 580 Feet NNW Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type Monitor Well Amount

16. PUMP: Date Installed not installed ☑
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME: (Gilman Brothers) EMC
ADDRESS
Signed: [signature] AUTHORIZED REPRESENTATIVE
CERT. NO.
Date

DHEC 1903 COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Monitor Well MW-13

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: March 31, 1998

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division 2600 Bull Street Columbia, S.C. 29201 (803) 734-5331 **Water Well Record**

SC DHEC Page 58
SB-6672-07/29/99-REB

1. LOCATION OF WELL

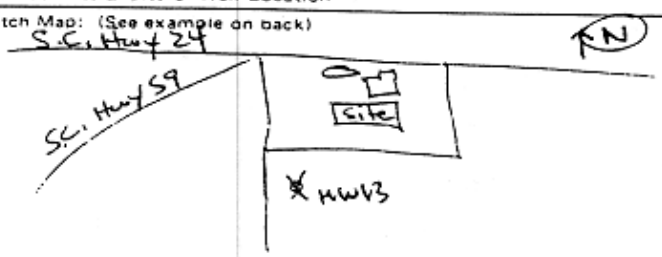
County: Oconee System Name: Crossroads Grocery MW-13

Latitude: Longitude:

Distance And Direction from Road Intersections: 350' SE of S.C. Hwys 59 & 24

Street address & City of Well Location

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

* Indicate water bearing zones (use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL:
Address: Neil Alexander, Crossroads Grocery, Route 2, Box 149, Westminster, SC
Telephone No.

Engineer
Address: EMC, P.O. Box 901, Hartwell, GA 30643
Telephone No. 706-376-5000

5. WELL DEPTH (Completed) 20 ft. Date Started: Date Completed: 3/31/98

6. ☐ Mud Rotary ☐ Jetted ☑ Boren ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☑ Test Well ☐

8. CASING ☑ Threaded ☐ Welded
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 20 ft. depth
in. to ft. depth
Height: Above/Below: Flush mounted
Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze 0.010" Length 10'
Set Between 10 ft. and 20 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL
10.89 ft. below ~~land surface~~ top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. See RBCA Tier II (4/30/98)

13. ARTIFICIAL FILTER (~~Gravel~~ Pack) ☑ Yes ☐ No
Installed from 8 (Sand) ft. to 20 ft.
Effective size uniformity coefficient

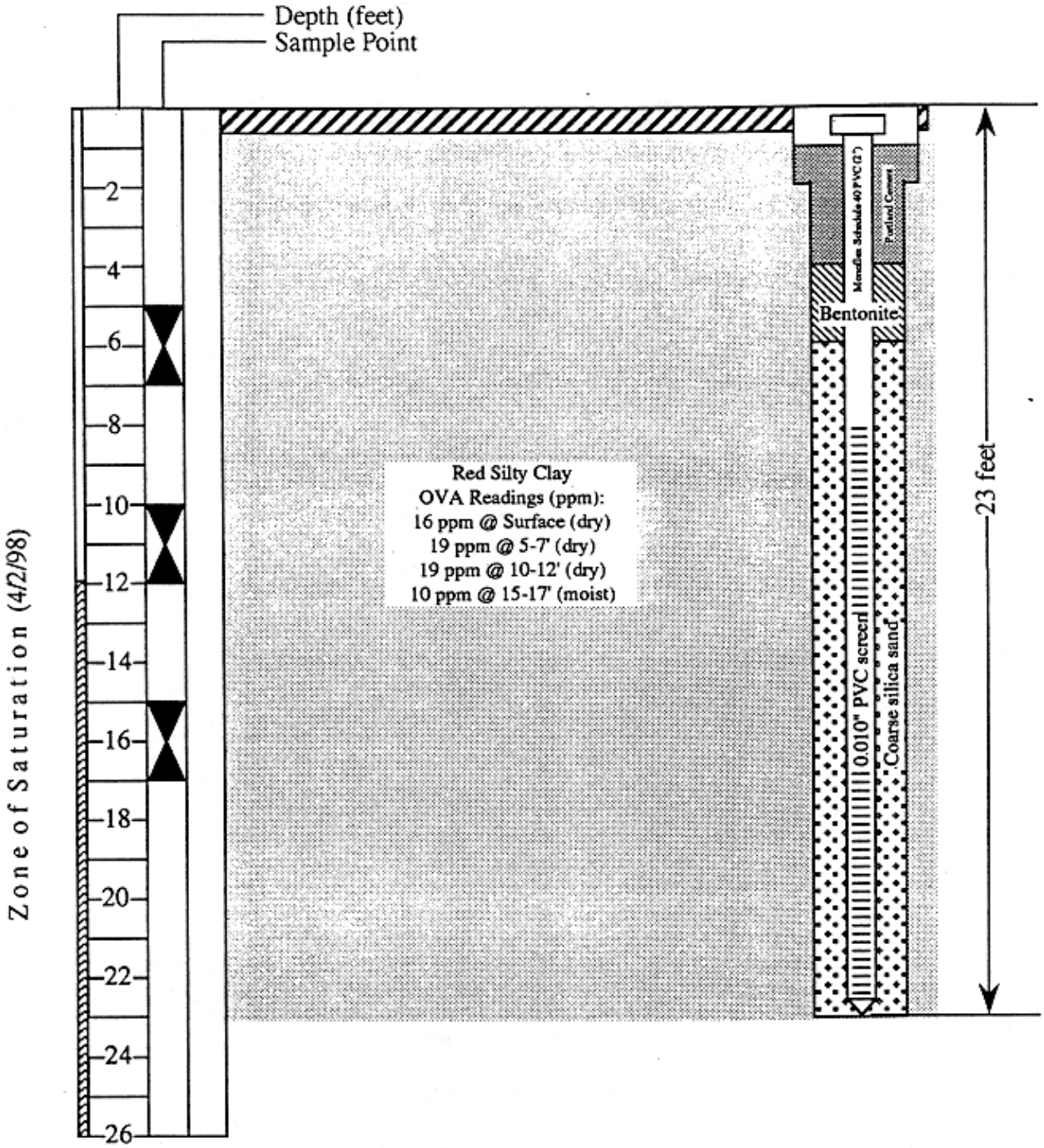
14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☑ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.50 ft. to 6 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 330 Feet NNW Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type Monitor Well Amount

16. PUMP: Date Installed not installed ☑
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME (Kilman Brothers) EMC ADDRESS
CERT. NO.
Signed Date 4/2/98
AUTHORIZED REPRESENTATIVE

DHEC 1903 (10/93) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Monitor Well MW-14

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 2, 1998

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division 2600 Bull Street Columbia, S.C. 29201 (803) 734-5331 Water Well Record

SC DHEC Page 60
SB-6672-07/29/99-REB

1. LOCATION OF WELL

County: Oconee System Name: Crossroads Grocery MW-14

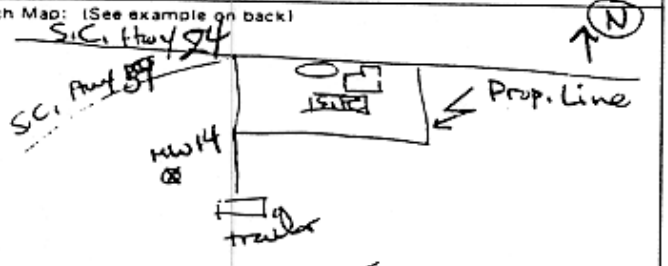
Latitude: Longitude:

Distance And Direction from Road Intersections

340' SE of S.C. Hwys 59 & 24

Street address & City of Well Location

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

* Indicate water bearing zones

(use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL:
Address: Neil Alexander, Crossroads Grocery, Route 2, Box 149, Westminster SC
Telephone No.:
Engineer
Address: EMC, P.O. Box 901, Hartwell, GA
Telephone No.: 706-376-5000

5. WELL DEPTH (Completed) 23 ft. Date Started: Date Completed: 4/2/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE:
☐ Domestic ☐ Public Supply Permit No. ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☑ Test Well ☐

8. CASING ☑ Threaded ☐ Welded
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 23 ft. depth
in. to ft. depth
Flush mounted
Height: Above/Below Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam 2"
Slot/Gauze 0.010" Length 15'
Set Between 8 ft. and 23 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL
11.99 ft. below top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. (See RBCA Tier III - 4/29/98)

13. ARTIFICIAL FILTER (~~Gravel~~ Pack) ☐ Yes ☐ No
Installed from 6 Sand ft. to 23 ft.
Effective size uniformity coefficient

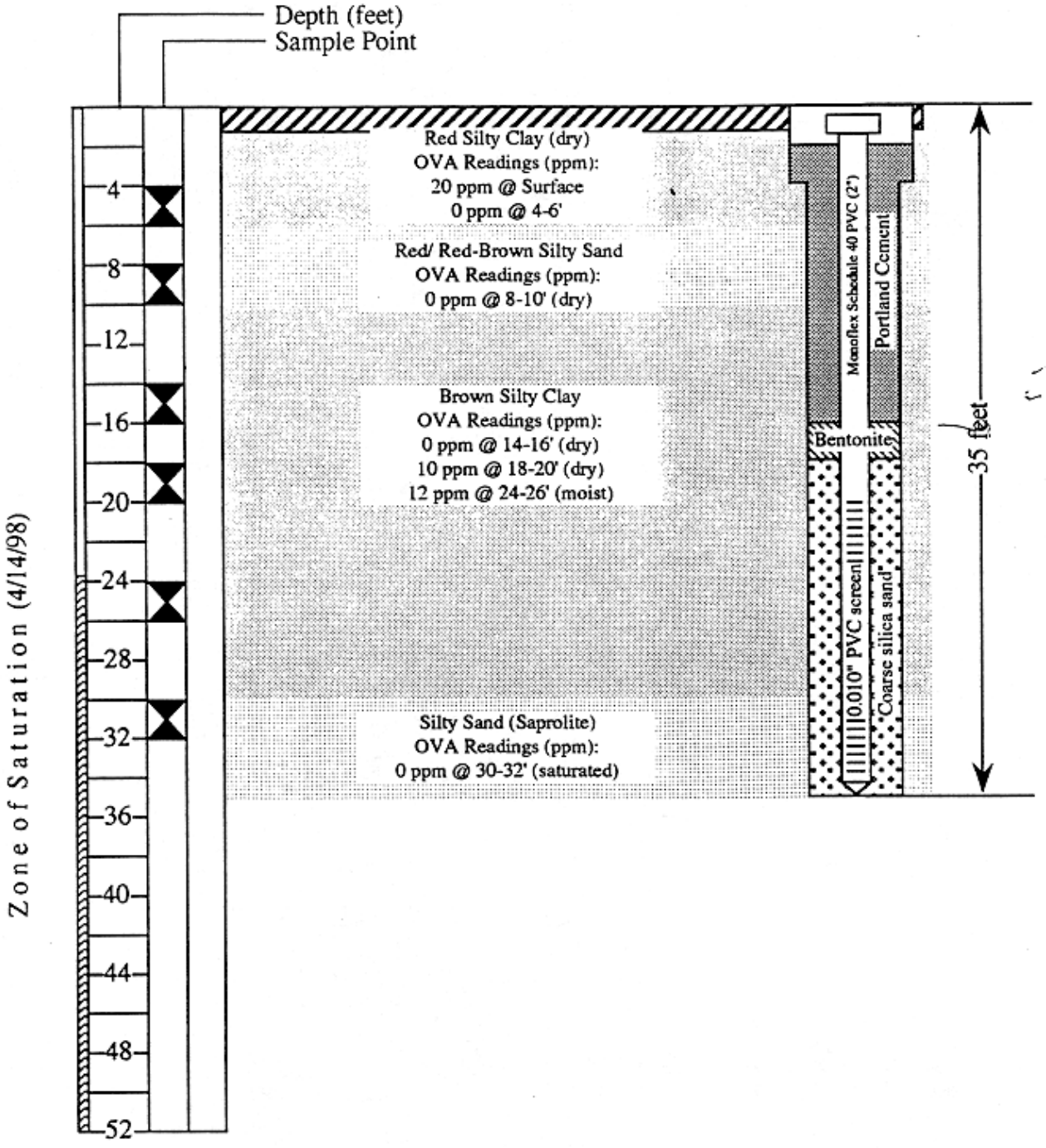
14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☑ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.50 ft. to 4 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 320 Feet NNE Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type Monitor Well Amount

16. PUMP: Date Installed not installed ☑
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my supervision and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME (Kilman Bottes) EMC ADDRESS P.O. Box 901 Hartwell GA
CERT. NO.
Signed AUTHORIZED REPRESENTATIVE Date 4/21/98

USC-1 (1993) (10-97) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL, ADDRESS LABEL



Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Monitor Well MW-15

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 5, 1998

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | Water Well Record

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SB-6672-07/29/99-REB

1. LOCATION OF WELL

County: Oconee | System Name: Crossroads Grocery MW-15

Latitude: | Longitude:

Distance And Direction from Road Intersections: 410' SE of S.C. Hwys 59 & 24

Street address & City of Well Location:

Sketch Map: (See example on back)

2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

dicate water bearing zones

fuse a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL:
Address: Neil Alexander, Crossroads Grocery, Route 2, Box 199J, Westminster, SC
Telephone No.:

Engineer
Address: EMC P.O. Box 901, Hartwell, GA
Telephone No. 706-376-5000

5. WELL DEPTH (Completed) 35 ft. Date Started: Date Completed: 4/2/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE:
☐ Domestic ☐ Public Supply Permit No. ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☑ Test Well ☐

8. CASING ☐ Threaded ☐ Welded
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 35 ft. depth
in. to ft. depth
Height: Above/Below: flush mounted
Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze 0.010" Length 15'
Set Between 20 ft. and 35 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☐ No

10. STATIC WATER LEVEL 23.65 ft. below top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☐ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. See RBBA Tier III (4/29/98)

13. ARTIFICIAL FILTER (~~Gravel~~ Pack) ☑ Yes ☐ No
Installed from 15 (Sand) ft. to 35 ft.
Effective size uniformity coefficient

14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☑ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.50 ft. to 16 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 200 Feet NW Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type Monitor Well Amount

16. PUMP: Date Installed not installed ☐
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my supervision and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME (Kilman Brothers) EMC ADDRESS CERT. NO. Date
Signed AUTHORIZED REPRESENTATIVE

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

SUMMARY of SLUG TEST

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID: # 06742 COUNTY Oconee

FACILITY NAME Crossroads Grocery

Slug Data

See Appendix C Table _____ Figures 5,6,7 & 8 for a list of all data measurements.
(water level logs, etc.) (Complete as appropriate).

Water Level Recovery Data was measured by manually with water level ind.
(Hermit Data Logger, Manually with Water Level Indicator, etc.) (List Method).

Complete the following table for each well tested.
COMPETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in well(s) number	(RH) MW1A	(FH) MW1A	MW6 (RH)	MW6 (FH)
Initial Rise/Drawdown in well (feet)	1.25'	0.45'	0.53'	0.15'
Radius of Well Casing (feet)	0.0833'	0.0833'	0.0833'	0.0833'
Effective Radius of Well (feet)	0.25'	0.25'	0.25'	0.25'
Static Saturated Aquifer Thickness (feet)	100'	100'	100'	100'
Length of Well Screen (feet)	15'	15'	15'	15'
Static Height of Water Column in Well (ft)	5.96'	5.96'	10.20'	10.20'

Calculations

See Appendix C ~~Table~~ Section II.E. Figure _____ for calculations. (Complete as appropriate).

The method for aquifer calculations was Bouwer-Rice (i.e. Bouwer–Rice, Cooper, etc

Calculated values by well were as follows:

Slug Test Conducted in well(s) number	MW1A (RH)	MW1A (FH)	MW6 (RH)	MW6(FH)
Hydraulic Conductivity	0.0001117 Ft/min	1.9566×10^{-5} Ft/min	6.1173×10^{-5} Ft/min	2.3348×10^{-5} Ft/min

Thickness of the aquifer used to calculate hydraulic conductivity was 100 feet.
The aquifer is _____ confined _____ semi–confined ✓ water table (Check as appropriate).

The estimated seepage velocity is 17.1 feet per year based on
a hydraulic conductivity of 5.41×10^{-5} Ft/min, a hydraulic gradient of 0.03, and
a porosity of 5 per cent for sandy silt soil (list type i.e., silty sand ,clay, etc).
Note: Specific Yield used in lieu of effective Porosity (see pg. 12 of RBCA - Tier 1/2)

SUMMARY of SLUG TEST

SLUG TEST DATA FOR MW1A (RISING HEAD)

Client:	Mr. Neil Alexander
Address:	Crossroads Grocery
	Route 2, Box 149
	Westminster, SC 29693
Date:	December 8, 1993
Operator:	Mirta A. Carpenter
Assistant(s):	Jewell Shaw

Initial Drawdown:	1.25	feet
Radius of Well Casing:	0.0833	feet
Radius of Well:	0.25	feet
Saturated Thickness:	100	feet
Screen Thickness:	15	feet
Static Height of Water:	5.96	feet

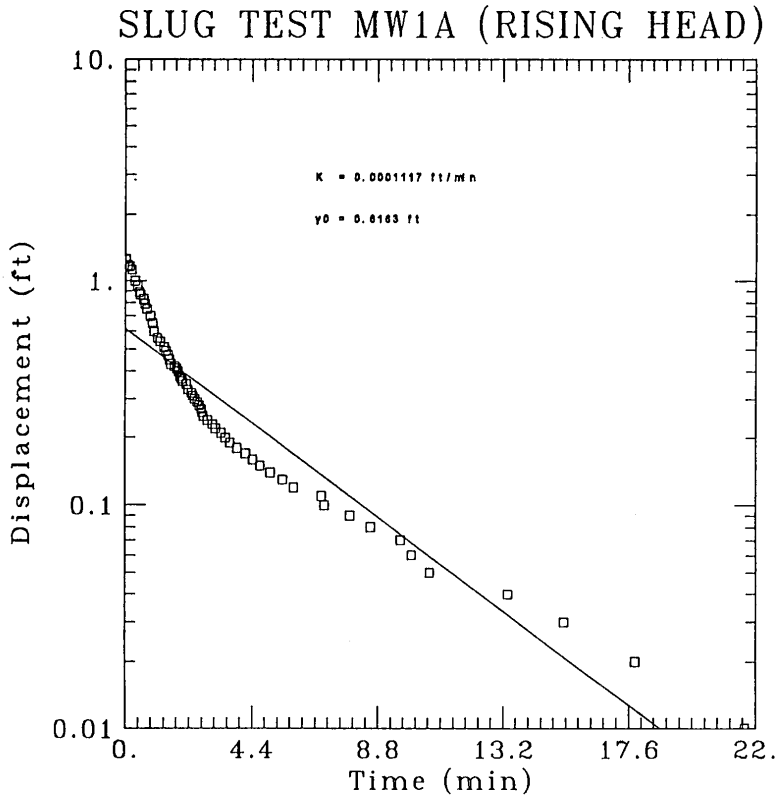
Page No. 1

Time (minutes)	Drawdown (feet)
0.08	1.17
0.15	1.16
0.22	1.12
0.33	1.00
0.42	0.95
0.48	0.89
0.52	0.87
0.63	0.83
0.68	0.79
0.75	0.75
0.87	0.70
0.93	0.65
0.98	0.60
1.10	0.56
1.20	0.54
1.33	0.51
1.40	0.49
1.47	0.47
1.52	0.45
1.57	0.43
1.70	0.42
1.77	0.41
1.82	0.40
1.87	0.38

SLUG TEST DATA FOR MW1A (RISING HEAD)

Page No. 2

Time (minutes)	Drawdown (feet)
1.93	0.37
1.98	0.36
2.10	0.35
2.17	0.33
2.28	0.32
2.33	0.31
2.40	0.30
2.48	0.29
2.55	0.28
2.62	0.27
2.65	0.26
2.70	0.25
2.85	0.24
3.02	0.23
3.13	0.22
3.32	0.21
3.47	0.20
3.63	0.19
3.87	0.18
4.17	0.17
4.42	0.16
4.68	0.15
5.03	0.14
5.47	0.13
5.85	0.12
6.83	0.11
6.92	0.10
7.82	0.09
8.55	0.08
9.60	0.07
9.98	0.06
10.62	0.05
13.37	0.04
15.33	0.03
17.83	0.02
21.62	0.01



Crossroads Grocery	**SLUG TEST PLOT FOR MW-1A (RISING HEAD)**
Highway 24/59, Tokeena, Oconee County, South Carolina	(AQTESOLV TM, Duffield & Rumbaugh, 1989)
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/10/97 — **FIGURE 5**

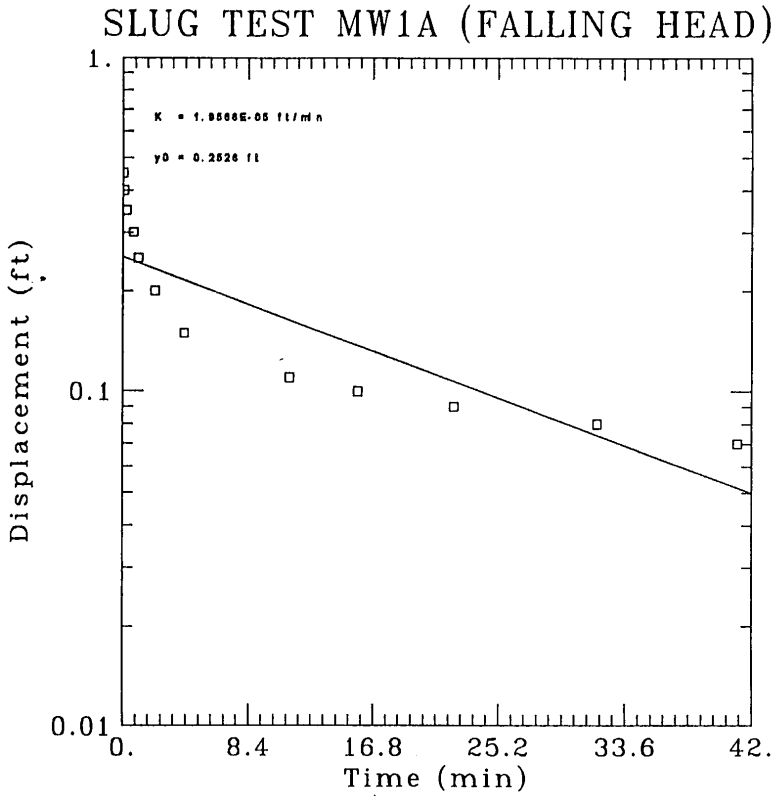
SLUG TEST DATA FOR MW1A (FALLING HEAD)

Client:	Mr. Neil Alexander
Address:	Crossroads Grocery
	Route 2, Box 149
	Westminster, SC 29693
Date:	December 8, 1993
Operator:	Mirta A. Carpenter
Assistant(s):	Jewell Shaw

Initial Drawdown:	0.45	feet
Radius of Well Casing:	0.0833	feet
Radius of Well:	0.25	feet
Saturated Thickness:	100	feet
Screen Thickness:	15	feet
Static Height of Water:	5.96	feet

Page No. 1

Time (minutes)	Drawdown (feet)
0.07	0.40
0.25	0.35
0.70	0.30
1.02	0.25
2.15	0.20
4.10	0.15
11.15	0.11
15.75	0.10
22.22	0.09
31.77	0.08
41.07	0.07



Crossroads Grocery	**SLUG TEST PLOT FOR MW-1A (FALLING HEAD)**
Highway 24/59, Tokeena, Oconee County, South Carolina	(AQTESOLV TM, Duffield & Rumbaugh, 1989)
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/10/97 — **FIGURE 6**

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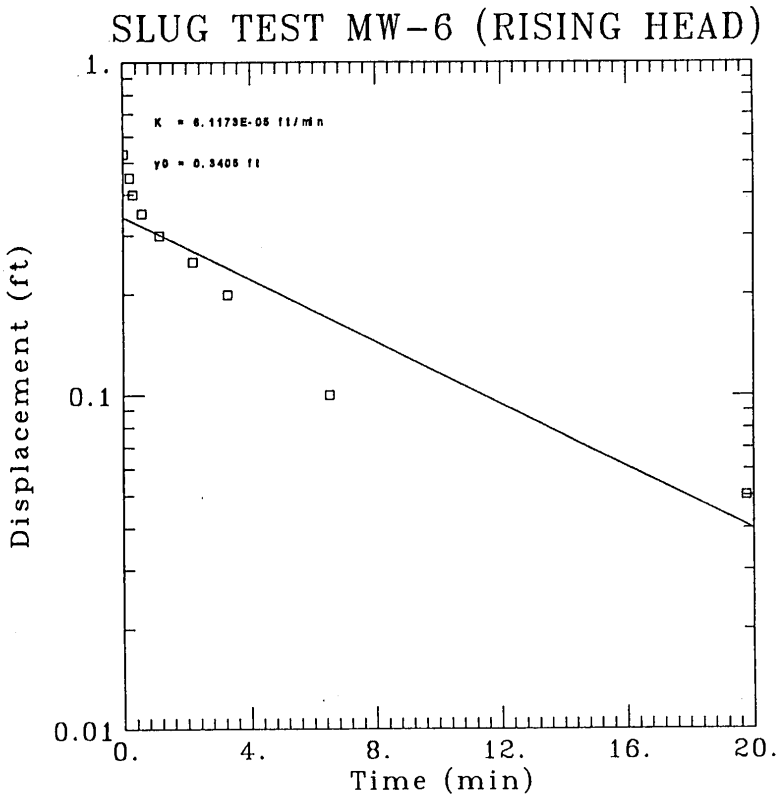
SLUG TEST DATA FOR MW-6 (RISING HEAD)

Client:	Mr. Neil Alexander
Address:	Crossroads Grocery
	Route 2, Box 149
	Westminster, SC 29693
Date:	September 10, 1996
Operator:	Mirta A. Carpenter
Assistant(s):	Tracy Olexa

Initial Drawdown:	0.53	feet
Radius of Well Casing:	0.0833	feet
Radius of Well:	0.25	feet
Saturated Thickness:	100	feet
Screen Thickness:	15	feet
Static Height of Water:	10.2	feet

Page No. 1

Time (minutes)	Drawdown (feet)
0.20	0.45
0.30	0.40
0.58	0.35
1.13	0.30
2.18	0.25
3.28	0.20
6.52	0.10
19.77	0.05



Crossroads Grocery	**SLUG TEST PLOT FOR MW-6 (RISING HEAD)**	
Highway 24/59, Tokeena, Oconee County, South Carolina	(AQTESOLV TM, Duffield & Rumbaugh, 1989)	
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/10/97	**FIGURE 7**

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SLUG TEST MW-6 (FALLING HEAD)

Client:	Mr. Neil Alexander
Address:	Crossroads Grocery Route 2, Box 149 Westminster, SC 29693
Date:	September 10, 1996
Operator:	Mirta A. Carpenter
Assistant(s):	Tracy Olexa

Initial Drawdown:	0.15	feet
Radius of Well Casing:	0.0833	feet
Radius of Well:	0.25	feet
Saturated Thickness:	100	feet
Screen Thickness:	15	feet
Static Height of Water:	10.2	feet

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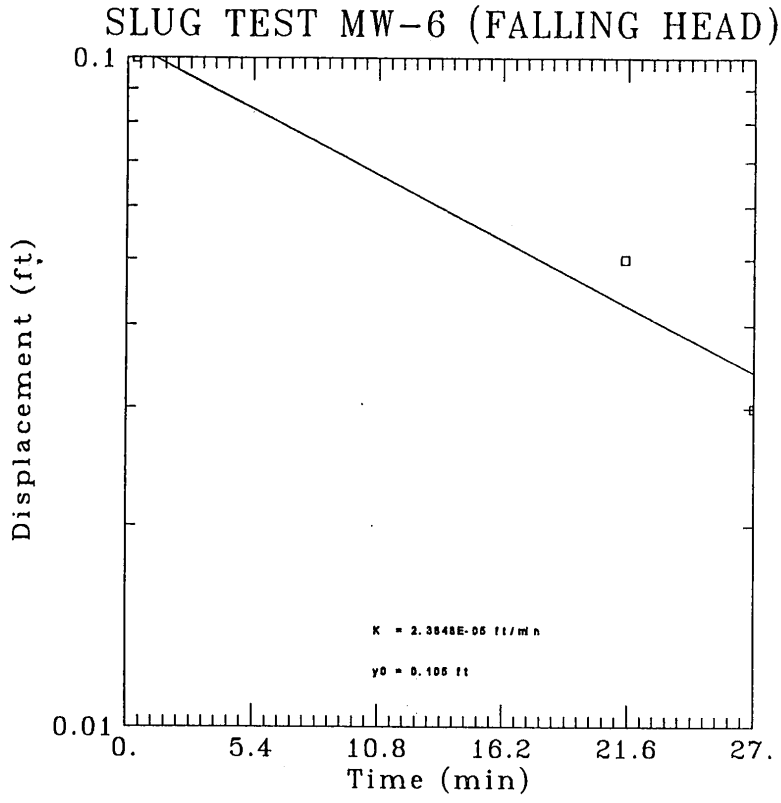
Time (minutes)	Drawdown (feet)
0.40	0.10
21.47	0.05
27.00	0.03



Crossroads Grocery	**SLUG TEST PLOT FOR MW-6 (FALLING HEAD)**	
Highway 24/59, Tokeena, Oconee County, South Carolina	(AQTESOLV TM, Duffield & Rumbaugh, 1989)	
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/10/97	**FIGURE 8**

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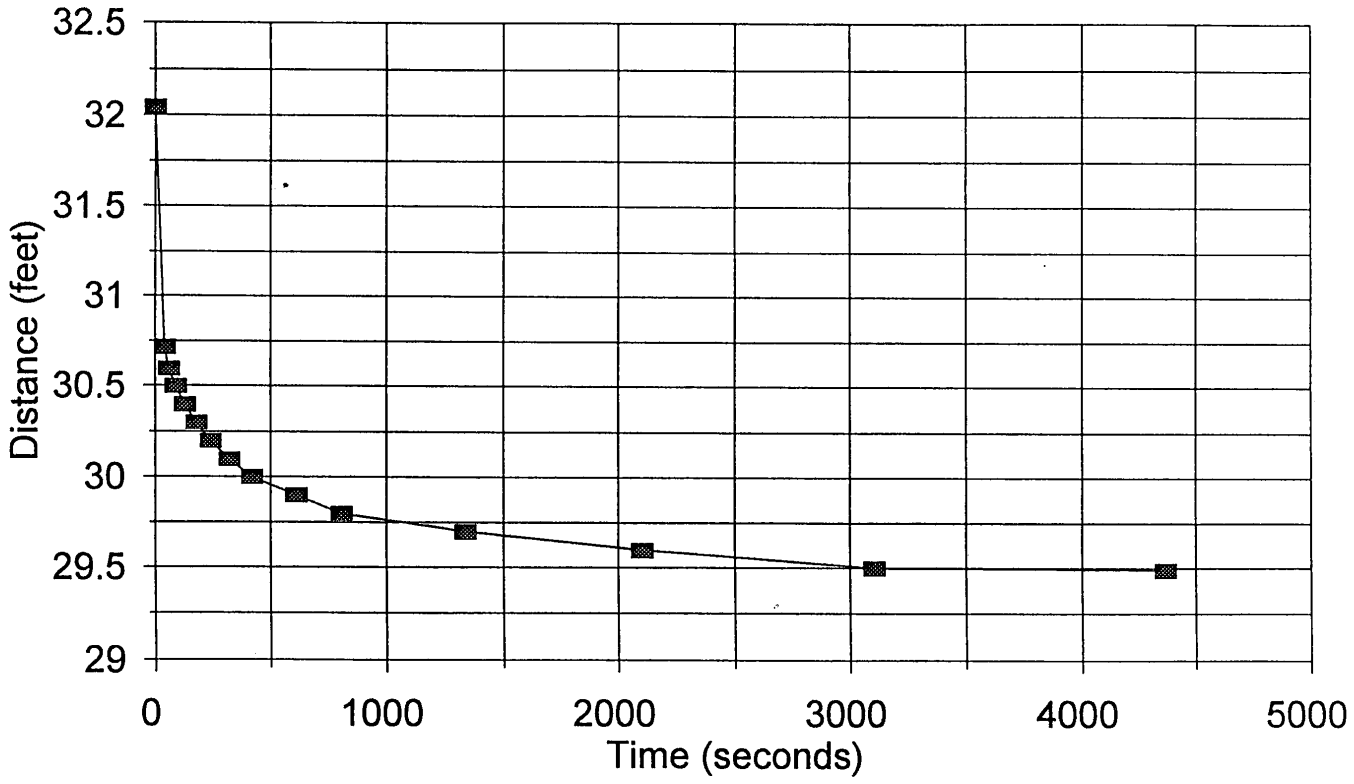
FREE PRODUCT RECOVERY TEST AT MONITOR WELL MW-1A
CROSSROADS GROCERY WESTMINSTER, SC
September 9, 1996

Time (seconds)	Distance (feet)
0	32.05
44	30.72
59	30.6
89	30.5
128	30.4
177	30.3
239	30.2
323	30.1
421	30
611	29.9
807	29.8
1337	29.7
2105	29.6
3106	29.5
4370	29.49

FREE PRODUCT RECOVERY TEST

Crossroads Grocery MW-1A



Crossroads Grocery	**FREE-PRODUCT RECOVERY TEST AT MW-1A**
Highway 24/59, Tokeena, Oconee County, South Carolina	Field Data Collected By: Mirta Carpenter & Tracy Olexa Date Data Collected: September 9, 1996
ESCM & Associates, Inc. 1781 Mars Hill Road Watkinsville, GA 30677	Drafted by: Mirta A. Carpenter Date drafted: 1/11/97 — **FIGURE 9**

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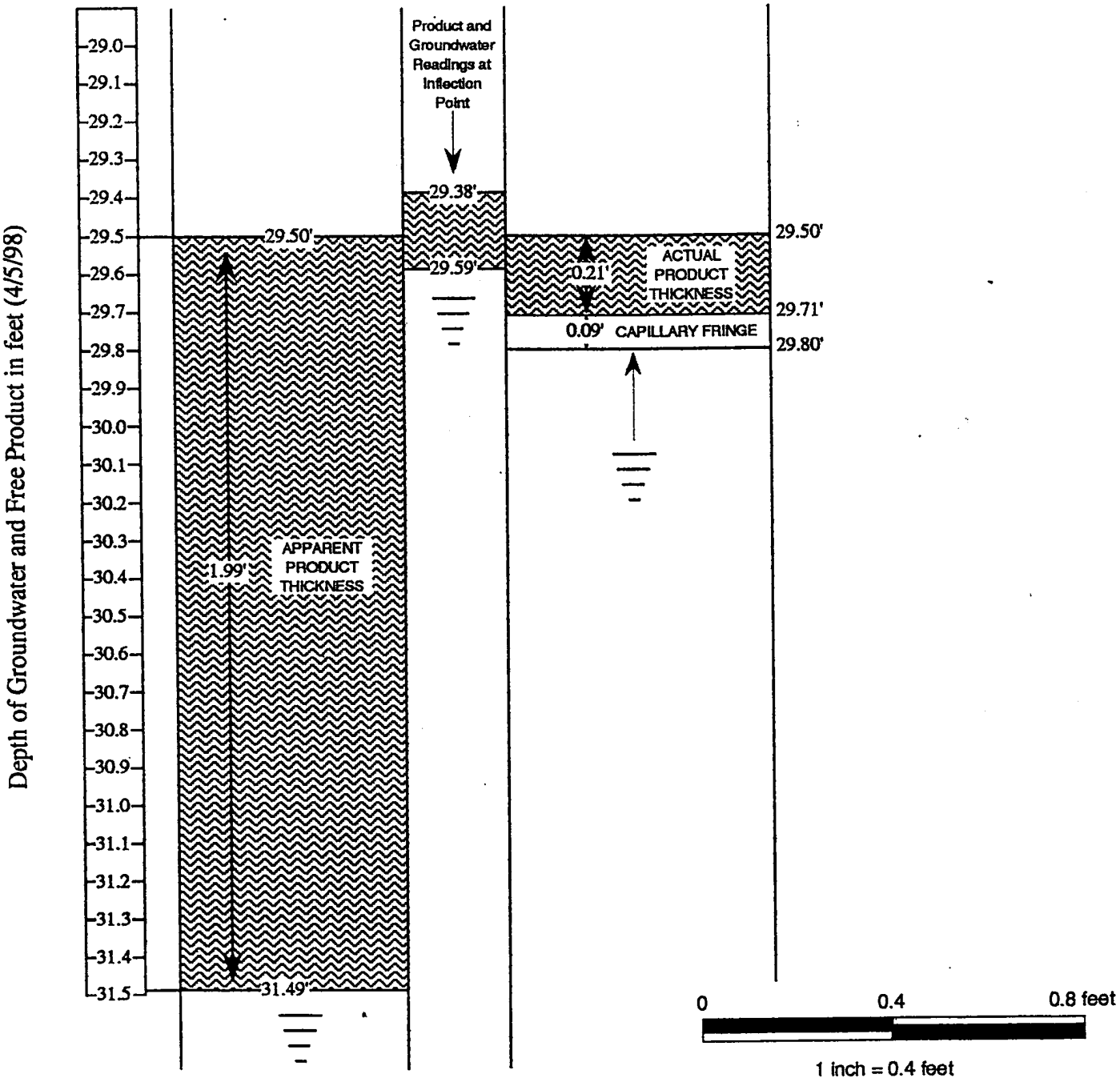
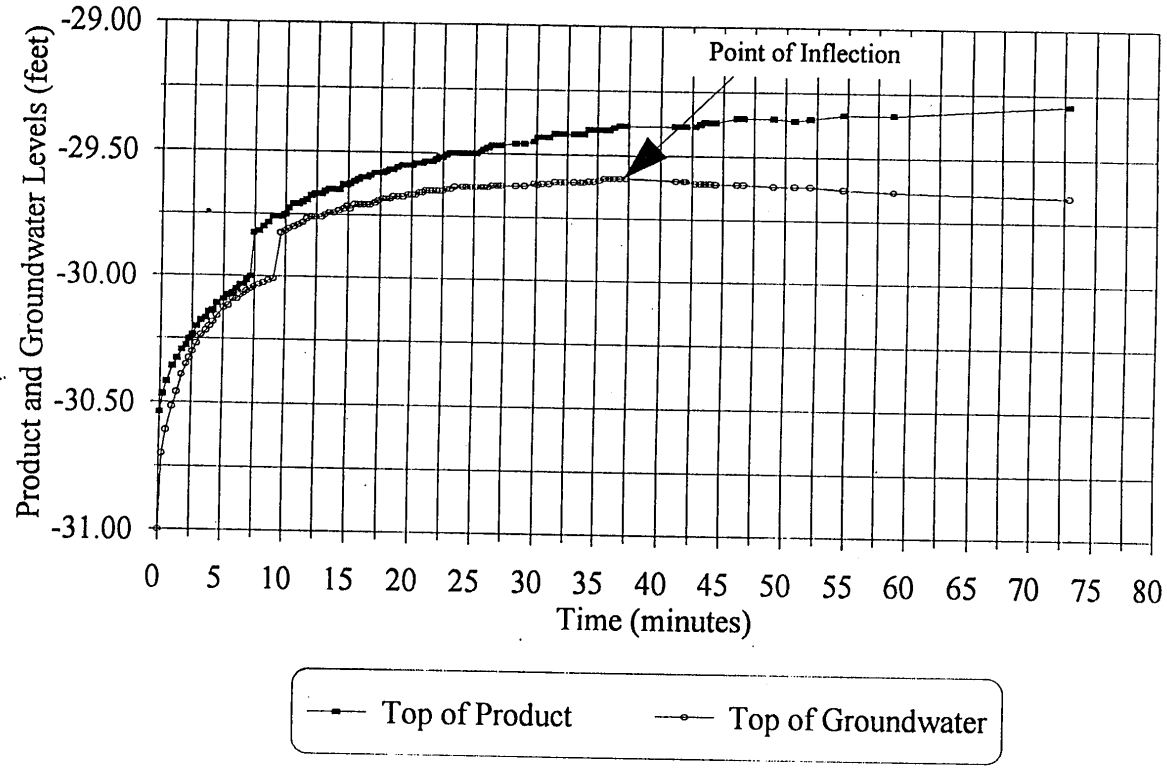
	PRODUCT	WATER	W-P
INFLECTION POINT DEPTH	29.38	29.59	0.21
STATIC DEPTH	29.50	31.49	1.99
CORRECTED DEPTH	29.29 (Stabilized Product)	29.80 (GW Depth based on Cap Fringe)	



Site: Crossroads Grocery **Facility I.D. #06742**	**Free Product Recovery Test#1** **April 5, 1998** **Calculation Brief**
Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC	**FIGURE 25**
Environmental Monitoring Corporation P.O. Box 901, Hartwell, GA 30643	Recorded By: Mirta A. Carpenter Record Date: April 5, 1998

Free Product Recovery Test #1

April 5, 1998 (MW-1A)



Site: Crossroads Grocery **Facility I.D. #06742**	**Free Product Recovery Test#1: Top of Product and Top of Groundwater Depths versus Time Plot - April 5, 1998**	
Environmental Monitoring Corporation P.O. Box 901, Hartwell, GA 30643	Recorded By: Mirta A. Carpenter Record Date: April 5, 1998	FIGURE 24

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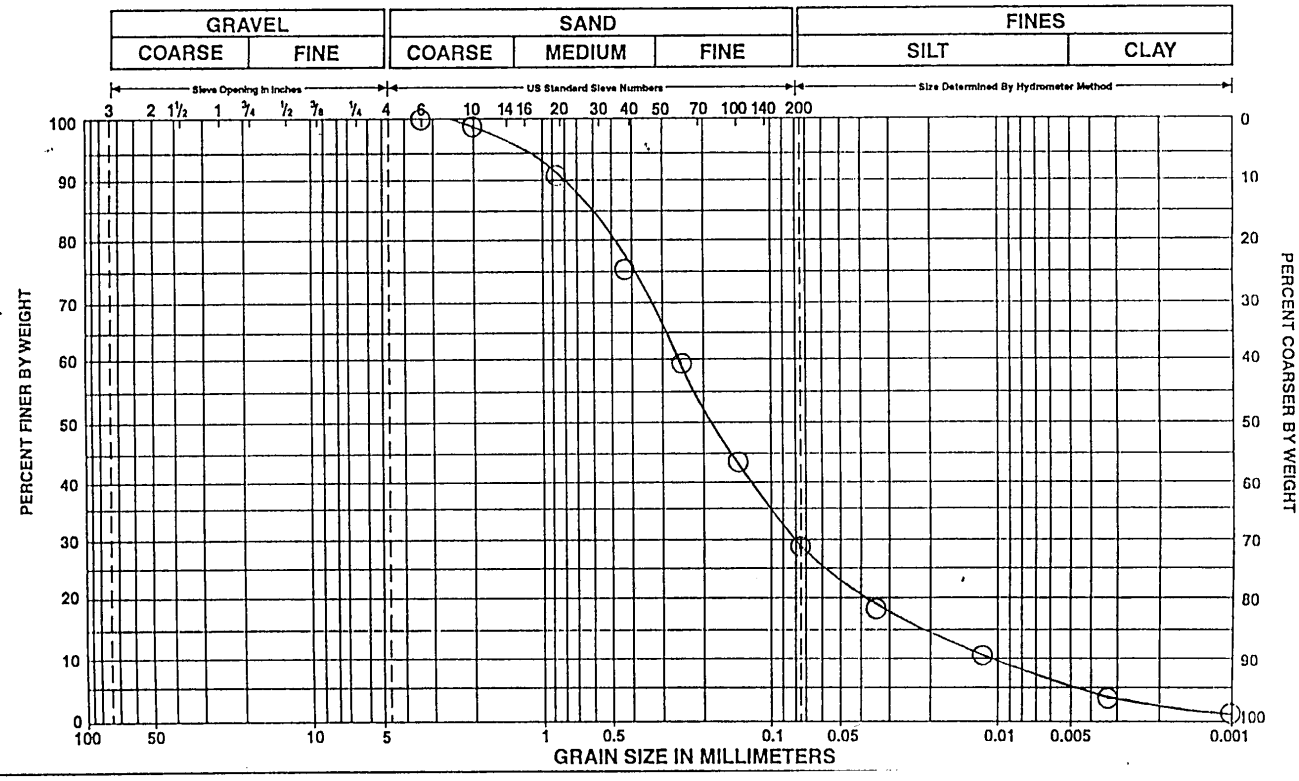
atlanta testing & engineering

GRAIN SIZE DISTRIBUTION TEST REPORT

PROJECT Crossroads Grocery		JOB NO. 5057	REPORT NO. 67503
DATE 4-30-98	LOCATION MW8 (SB8)	DEPTH/ELEV. 8-10'	REVIEWED KWW
TEST PROCEDURE ASTM D-422		SAMPLE TYPE Grab	SAMPLE NO. 1
SOIL DESCRIPTION Yellow and Red Micaceous Silty Sand (SM)			

INDEX PROPERTIES	LL -	PI -	MC,% 12.5	FINES,% 28.5	G_S 2.81



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SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11254
Sample ID: MW-1
Sample Type: Water
Site ID:

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Date Collected: 1/25/99
Time Collected: 15:45
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	28200	ug/l	500.	1.0	500	2/ 4/99	12:20	B.Herford	8021B	211
Toluene	37200	ug/l	500.	1.0	500	2/ 4/99	12:20	B.Herford	8021B	211
Ethylbenzene	2750	ug/l	500.	1.0	500	2/ 4/99	12:20	B.Herford	8021B	211
Xylenes, total	19500	ug/l	500.	1.0	500	2/ 4/99	12:20	B.Herford	8021B	211
Methyl-t-butylether	24600	ug/l	500.	1.0	500	2/ 4/99	12:20	B.Herford	8021B	211
Naphthalene	4750	ug/l	2500	5.0	500	2/ 4/99	12:20	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	91.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Lab Number: 99-A11259
Sample ID: MW-1A
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 19:00
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	33700	ug/l	1000	1.0	1000	2/ 4/99	14:47	B.Herford	8021B	211
Toluene	39300	ug/l	1000	1.0	1000	2/ 4/99	14:47	B.Herford	8021B	211
Ethylbenzene	1700	ug/l	1000	1.0	1000	2/ 4/99	14:47	B.Herford	8021B	211
Xylenes, total	13500	ug/l	1000	1.0	1000	2/ 4/99	14:47	B.Herford	8021B	211
Methyl-t-butylether	193000	ug/l	1000	1.0	1000	2/ 4/99	14:47	B.Herford	8021B	211
Naphthalene	ND	ug/l	5000	5.0	1000	2/ 4/99	14:47	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	97.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11252
Sample ID: MW-2
Sample Type: Water
Site ID:

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Date Collected: 1/25/99
Time Collected: 14:55
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	18.9	ug/l	1.0	1.0	1	2/ 3/99	22:45	B.Herford	8021B	211
Toluene	12.4	ug/l	1.0	1.0	1	2/ 3/99	22:45	B.Herford	8021B	211
Ethylbenzene	1.8	ug/l	1.0	1.0	1	2/ 3/99	22:45	B.Herford	8021B	211
Xylenes, total	20.8	ug/l	1.0	1.0	1	2/ 3/99	22:45	B.Herford	8021B	211
Methyl-t-butylether	66.5	ug/l	1.0	1.0	1	2/ 3/99	22:45	B.Herford	8021B	211
Naphthalene	5.0	ug/l	5.0	5.0	1	2/ 3/99	22:45	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	100.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Lab Number: 99-A11253
Sample ID: MW-3
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 15:06
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	ND	ug/l	1.0	1.0	1	2/ 3/99	23:14	B.Herford	8021B	211
Toluene	ND	ug/l	1.0	1.0	1	2/ 3/99	23:14	B.Herford	8021B	211
Ethylbenzene	ND	ug/l	1.0	1.0	1	2/ 3/99	23:14	B.Herford	8021B	211
Xylenes, total	ND	ug/l	1.0	1.0	1	2/ 3/99	23:14	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	1.0	1.0	1	2/ 3/99	23:14	B.Herford	8021B	211
Naphthalene	ND	ug/l	5.0	5.0	1	2/ 3/99	23:14	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	103.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Lab Number: 99-A11250
Sample ID: MW-5
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 13:15
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	ND	ug/l	1.0	1.0	1	2/ 3/99	21:47	B.Herford	8021B	211
Toluene	ND	ug/l	1.0	1.0	1	2/ 3/99	21:47	B.Herford	8021B	211
Ethylbenzene	ND	ug/l	1.0	1.0	1	2/ 3/99	21:47	B.Herford	8021B	211
Xylenes, total	ND	ug/l	1.0	1.0	1	2/ 3/99	21:47	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	1.0	1.0	1	2/ 3/99	21:47	B.Herford	8021B	211
Naphthalene	ND	ug/l	5.0	5.0	1	2/ 3/99	21:47	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	105.	50. - 150.

Report Approved By: J.J. Mitchell Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11251
Sample ID: MW-6
Sample Type: Water
Site ID:

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Date Collected: 1/25/99
Time Collected: 14:25
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	6920	ug/l	50.0	1.0	50	2/ 3/99	22:16	B.Herford	8021B	211
Toluene	9600	ug/l	50.0	1.0	50	2/ 3/99	22:16	B.Herford	8021B	211
Ethylbenzene	1080	ug/l	50.0	1.0	50	2/ 3/99	22:16	B.Herford	8021B	211
Xylenes, total	7460	ug/l	50.0	1.0	50	2/ 3/99	22:16	B.Herford	8021B	211
Methyl-t-butylether	1810	ug/l	50.0	1.0	50	2/ 3/99	22:16	B.Herford	8021B	211
Naphthalene	495.	ug/l	250.	5.0	50	2/ 3/99	22:16	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	93.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11247
Sample ID: MW-7
Sample Type: Water
Site ID:

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Date Collected: 1/25/99
Time Collected: 10:30
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	2200	ug/l	50.0	1.0	50	2/ 3/99	20:19	B.Herford	8021B	211
Toluene	9360	ug/l	50.0	1.0	50	2/ 3/99	20:19	B.Herford	8021B	211
Ethylbenzene	1280	ug/l	50.0	1.0	50	2/ 3/99	20:19	B.Herford	8021B	211
Xylenes, total	7440	ug/l	50.0	1.0	50	2/ 3/99	20:19	B.Herford	8021B	211
Methyl-t-butylether	110.	ug/l	50.0	1.0	50	2/ 3/99	20:19	B.Herford	8021B	211
Naphthalene	430.	ug/l	250.	5.0	50	2/ 3/99	20:19	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	112.	50. - 150.

Report Approved By: J M Mitchell Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
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Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Lab Number: 99-A11248
Sample ID: MW-9
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 10:55
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	5.6	ug/l	1.0	1.0	1	2/ 3/99	20:48	B.Herford	8021B	211
Toluene	2.9	ug/l	1.0	1.0	1	2/ 3/99	20:48	B.Herford	8021B	211
Ethylbenzene	ND	ug/l	1.0	1.0	1	2/ 3/99	20:48	B.Herford	8021B	211
Xylenes, total	9.3	ug/l	1.0	1.0	1	2/ 3/99	20:48	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	1.0	1.0	1	2/ 3/99	20:48	B.Herford	8021B	211
Naphthalene	ND	ug/l	5.0	5.0	1	2/ 3/99	20:48	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	102.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
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Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11258
Sample ID: MW-10
Sample Type: Water
Site ID:

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Date Collected: 1/25/99
Time Collected: 18:00
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	ND	ug/l	1.0	1.0	1	2/ 4/99	14:18	B.Herford	8021B	211
Toluene	ND	ug/l	1.0	1.0	1	2/ 4/99	14:18	B.Herford	8021B	211
Ethylbenzene	ND	ug/l	1.0	1.0	1	2/ 4/99	14:18	B.Herford	8021B	211
Xylenes, total	ND	ug/l	1.0	1.0	1	2/ 4/99	14:18	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	1.0	1.0	1	2/ 4/99	14:18	B.Herford	8021B	211
Naphthalene	ND	ug/l	5.0	5.0	1	2/ 4/99	14:18	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	105.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
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Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Lab Number: 99-A11249
Sample ID: MW-11
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 11:20
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	24.0	ug/l	10.0	1.0	10	2/ 4/99	11:51	B.Herford	8021B	211
Toluene	106.	ug/l	10.0	1.0	10	2/ 4/99	11:51	B.Herford	8021B	211
Ethylbenzene	189.	ug/l	10.0	1.0	10	2/ 4/99	11:51	B.Herford	8021B	211
Xylenes, total	825.	ug/l	10.0	1.0	10	2/ 4/99	11:51	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	10.0	1.0	10	2/ 4/99	11:51	B.Herford	8021B	211
Naphthalene	731.	ug/l	50.0	5.0	10	2/ 4/99	11:51	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	106.	50. - 150.

Report Approved By: JMitchell Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
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Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Lab Number: 99-A11255
Sample ID: MW-12
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 16:45
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	ND	ug/l	1.0	1.0	1	2/ 4/99	12:49	B.Herford	8021B	211
Toluene	ND	ug/l	1.0	1.0	1	2/ 4/99	12:49	B.Herford	8021B	211
Ethylbenzene	ND	ug/l	1.0	1.0	1	2/ 4/99	12:49	B.Herford	8021B	211
Xylenes, total	ND	ug/l	1.0	1.0	1	2/ 4/99	12:49	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	1.0	1.0	1	2/ 4/99	12:49	B.Herford	8021B	211
Naphthalene	ND	ug/l	5.0	5.0	1	2/ 4/99	12:49	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	105.	50. - 150.

Report Approved By: Johnny Mitchell Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Lab Number: 99-A11256
Sample ID: MW-13
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 17:10
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	1810	ug/l	20.0	1.0	20	2/ 4/99	13:19	B.Herford	8021B	211
Toluene	26.0	ug/l	20.0	1.0	20	2/ 4/99	13:19	B.Herford	8021B	211
Ethylbenzene	38.0	ug/l	20.0	1.0	20	2/ 4/99	13:19	B.Herford	8021B	211
Xylenes, total	382.	ug/l	20.0	1.0	20	2/ 4/99	13:19	B.Herford	8021B	211
Methyl-t-butylether	2810	ug/l	20.0	1.0	20	2/ 4/99	13:19	B.Herford	8021B	211
Naphthalene	154.	ug/l	100.	5.0	20	2/ 4/99	13:19	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	89.	50. - 150.

Report Approved By: J.M. Mitchell Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11257
Sample ID: MW-14
Sample Type: Water
Site ID:

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Date Collected: 1/25/99
Time Collected: 17:30
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	16.5	ug/l	5.0	1.0	5	2/ 4/99	13:48	B.Herford	8021B	211
Toluene	20.5	ug/l	5.0	1.0	5	2/ 4/99	13:48	B.Herford	8021B	211
Ethylbenzene	58.0	ug/l	5.0	1.0	5	2/ 4/99	13:48	B.Herford	8021B	211
Xylenes, total	334.	ug/l	5.0	1.0	5	2/ 4/99	13:48	B.Herford	8021B	211
Methyl-t-butylether	6.5	ug/l	5.0	1.0	5	2/ 4/99	13:48	B.Herford	8021B	211
Naphthalene	452.	ug/l	25.0	5.0	5	2/ 4/99	13:48	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	102.	50. - 150.

Report Approved By: J.J. Mitchell Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

BID NUMBER: SB-6672-07/29/99-REB

PLEASE READ THE FOLLOWING CAREFULLY PRIOR TO COMPLETING BID

INSTRUCTIONS TO BIDDERS

DISCUSSIONS AND NEGOTIATIONS: By submission of a bid, bidder agrees that during the period following issuance of this solicitation and prior to notification of intent or award of a contract, the bidder shall not discuss this procurement with any party except members of the DHEC Procurement Division or other parties designated in this solicitation. Bidder shall not discuss or attempt to negotiate with the using area or program any aspects of the procurement without prior approval of the DHEC Procurement Division Buyer responsible for the procurement. Infractions may result in rejection of the violator's bid.

1. Unless otherwise required herein, only one signed copy of the invitation to bid is required.
2. Bids "faxed" directly to the DHEC Procurement Office will not be accepted or considered for award.
3. Bids, amendments thereto or withdrawal request must be received by the time advertised for bid opening. It is the bidder's sole responsibility to insure that these documents are received by the person (or office) at the time indicated in this solicitation document. Any withdrawal request received after the time of the bid opening shall be governed by DHEC Underground Storage Tank Environmental Remediation Procedures.
4. When specifications or descriptive papers are submitted with the bid submission, enter bidder's name thereon.
5. Submit your signed bid on this form. Show the bid number on the envelope as instructed. DHEC assumes no responsibility for unmarked or improperly marked envelopes. All envelopes received showing a bid number are placed directly under locked security until the date and time of opening. Do not include more than one bid invitation per envelope. If directing any other correspondence, address the envelope to the Procurement Officer but do not include the bid number on the envelope since it does not include your bid.
6. Bidders must clearly mark as "CONFIDENTIAL" each part of their bid which they consider to be proprietary information that could be **exempt from disclosure** under Section 30-4-40, Code of Laws of South Carolina 1976 (1986 Cum. Supp.; Freedom of Information Act). If any part is designated as confidential, there must be attached to that part an explanation of how this information fits within one or more categories listed in Section 30-4-40. DHEC reserves the right to determine whether this information should be exempt from disclosure and no legal action may be brought against the State, DHEC or its agents for its determination in this regard.
7. By submission of a bid, **you are guaranteeing** that all goods and services meet the requirements of this solicitation during the contract period.
8. **Tie bids** will be resolved as outlined in DHEC Underground Storage Tank Environmental Remediation Procedures.
9. **Do not include any taxes** that DHEC may be required to pay in the bid price. Upon submission of a bid by a state agency, the Procurement Officer will compute a 5% sales and use tax to the non-state agency bids when applicable (service and labor excluded) in determining the low bidder. This procedure conforms with the SC Tax Commission Sales and Use Tax Regulation 117-174-.95.
10. **Correction of errors on this bid form:** All prices and notations should be printed in ink or typewritten. Errors should be crossed out, corrections entered and initialed by the person signing the bid. Erasures or use of typewriter correction fluid may be cause for rejection. No bid shall be altered or amended after the time specified for the bid opening.
11. **Ambiguous bids** which are uncertain as to terms, delivery, quantity or compliance with this solicitation may be rejected or otherwise disregarded.
12. Any bidder desiring to exercise a grievance may do so under section IV of DHEC Underground Storage Tank Environmental Remediation Procedures. All correspondence should be directed to the Director of Procurement Services, Bureau of Business Management, 2600 Bull Street, Columbia, SC 29201.
13. **Failure to respond** to three consecutive bid notices may result in removal of bidder's name from the mailing list.

GENERAL PROVISIONS

14. DHEC reserves the right to reject any and all bids, and to cancel this solicitation.
15. **Unit prices** will govern over extended prices unless otherwise stated in this solicitation.
16. **Prohibition of Gratuities:** Amended section 8-13-420 of the 1976 Code of Laws of South Carolina States: "Whoever gives or offers to any public official or public employee any compensation, including a promise of future employment, to influence his action, vote, opinion or judgement as a public official or public employee or such public official solicits or accepts such compensation to influence his action, vote, opinion or judgement shall be subject to the punishment as provided by Section 16-9-210 and Section 16-9-220. The provisions of this section shall not apply to political contributions unless such contributions are conditioned upon the performance of specific actions of the person accepting such contribution nor shall they prohibit a parent, grand-parent or relative from making a gift to a child, grandchild, or other close relative for love and affection except as hereafter provided".
17. **Bidder's Qualification:** Bidders must, upon request of DHEC, furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these specifications. DHEC reserves the right to make the final determination as to the bidder's ability to provide the products or services requested herein.
18. **Bidder's Responsibility:** Each bidder shall fully acquaint himself with conditions relating to the scope and restrictions attending the execution of

the work under the conditions of this solicitation. It is expected that this will sometimes require on-site observation. The failure or omission of a bidder to acquaint himself with existing conditions shall in no way relieve him of any obligation with respect to this bid or to the subsequent contract.

19. **Amendments:** All amendments to and interpretations of this solicitation shall be in writing from the DHEC Procurement Office. Neither DHEC o the Procurement Officer shall be legally bound by any amendment or interpretation that is not in writing.
20. **Award Criteria:** Award shall be as indicated herein to the lowest responsible and responsive bidder whose bid meets the requirements and criteria set forth in this solicitation. Award may take longer than fourteen days. A copy of the award notice should be posted on the Procurement Bulletin Board located at 2600 Bull Street in the Aycock Building directly across from the Personnel Division and next to the Bureau of Business Management Procurement Services Division.
21. **Rejection:** DHEC reserves the right to reject any bid that contains prices for individual items or services that are unreasonable when compared to the same or other bids if the rejection is in the best interest of the State.
22. **Competition:** This solicitation is intended to promote competition. If the language, specifications, terms and conditions, or any combination thereof restricts or limits the requirements in this solicitation to a single source, it shall be the responsibility of the interested bidders to notify the DHEC Procurement Office in writing so as to be received five days prior to the opening date. Notification may be "faxed" to the DHEC Procurement Office, (803) 734-4874. The solicitation may or may not be changed but a review of such notification will be made prior to award.
23. **Order of Precedence:** In the event of inconsistency between provisions of this solicitation, the inconsistency shall be resolved by giving precedence in the following order; (A) the bidding schedule, (B) general provisions and general conditions, © instruction to bidders, (D) special provisions or special conditions of the contract whether incorporated by reference or otherwise, and (E) the specifications.

GENERAL CONDITIONS

24. **Contract Administration:** Questions or problems arising after award of this solicitation/contract shall be directed to the DHEC Procurement Office, 2600 Bull Street, Columbia, SC, 29201. Reference the solicitation and contract number.
25. **Default:** In case of default by the contractor, DHEC reserves the right to purchase any or all items in default in the open market, charging the contractor with any additional costs. The defaulting contractor shall not be considered a responsible bidder until the assessed charge has been satisfied.
26. **Force Majeure:** The contractor shall not be liable for any excess costs if the failure to perform the contract arises out of causes beyond the control and without the fault or negligence of the contractor. Such causes may include, but are not restricted to, acts of God or the public enemy, acts of th Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusuall severe weather. But in every case the failure to perform must be beyond the control and without the fault or negligence of the contractor. If the failure to perform is caused by default of a subcontractor, and if such default arises out of causes beyond the control of both the contractor and subcontractor, and without the fault or negligence of either of them, the contractor shall not be liable for any excess costs for failure to perform, unless the supplies or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the contractor to meet required delivery schedule(s).
27. **Save Harmless:** (This General Condition does not apply to solicitations for service requirements). The successful bidder shall indemnify and sav harmless the State of South Carolina and DHEC and all its officers, agents and employees from all suits or claims of any character brought by reason of infringing on any patent, trade mark or copyright. The bidder shall have no liability to DHEC if such patent, trade mark or copyright infringement or claim is based upon the bidder's use of material furnished to the bidder by the State.
28. **Publicity Releases:** By submission of a bid, the contractor agrees not to refer to award of this contract in commercial advertising in such a manner as to state or imply that the products or services provided are endorsed or preferred by DHEC or user.
29. **Tax Credit Availability:** Bidders interested in income tax credit availability by subcontracting with Certified Minority Firms should contact the Office of Minority Business Assistance, 1205 Pendleton Street, Columbia, SC, 29201. (803-734-0562)
30. **Affirmative Action:** The successful bidder will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of the handicapped, and concerning the treatment of all employees, without regard or discrimination by reason of race, color, religion, sex, national origin or physical handicap.
31. **Assignment:** Unless otherwise indicated in this solicitation, no contract or its provisions may be assigned, sublet, subcontracted, or transferred without the prior written consent of the DHEC Procurement Office.
32. **Termination:** Any contract resulting from this solicitation may be terminated by DHEC by providing a thirty day advance notice in writing to the successful contractor.
33. **Non-Appropriations:** Any contract entered into by DHEC resulting from this solicitation shall be subject to cancellation without damages or further obligation when funds are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal perio or appropriated year.
34. **Convenience:** In the event that this contract is terminated or canceled upon request and for the convenience of DHEC without the required thirty days advance written notification, then DHEC shall negotiate reasonable applicable termination costs.
35. **Cause:** Any contract resulting from this solicitation may be terminated without advance notice by DHEC for cause, default or negligence on the part of the successful contractor.
36. **S.C. Law Clause:** Upon award of a contract under this bid, the person/partnership, association or corporation to whom the award is made must

comply with the laws of South Carolina which require such person or entity to be authorized and/or licensed to do business with this State. Notwithstanding the fact that applicable statutes may exempt or exclude the successful bidder from requirements that it be authorized and/or licensed to do business in this State. By submission of a bid, the bidder agrees to subject himself to the jurisdiction and process of the courts of the State of South Carolina as to all matters and disputes arising or to arise under the contract and the performance thereof, including any questions as to the liability for taxes, licenses or fees levied by the State of South Carolina.

37. **Quality of Product:** (This general condition does not apply to solicitations for printing or service requirements.) Unless otherwise indicated in this solicitation, it is understood and agreed that any item offered or shipped as a result of this solicitation shall be new and in first class condition, that all containers shall be new and suitable for storage or shipment, and that prices include standard commercial packaging. If items that are other than new (i.e., remanufactured or refurbished) are desired to be bid, the bidder must obtain written permission to bid such items at least five days in advance of the bid opening date. Written permission must be obtained from the DHEC Procurement Office.

38. **Compliance with Federal Requirements:** S.C. State or Federal requirements that are more restrictive shall be followed in bidding, awarding and performance of this contract.

39. **Drug-Free Workplace:** Required by Section 44-107-10 (Drug Free Work-Place Act) of the SC Code of Laws, 1976, as amended. By submission of a bid, the bidder certifies that he will comply with all aspects of the Drug-Free Workplace Act and will not engage in the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance in the performance of this contract. This certification also applies to any individual or firm employed by the contractor.

40. **Confidentiality Policy:** The successful contractor agrees to abide by DHEC's policy of confidentiality which states in part that all information as to personal facts and circumstances given or made available to employees and/or contractors of DHEC in administration of programs shall be held confidential and shall not be divulged without the express written consent of the individual(s) to which it pertains.

41. **Item Substitution:** No substitution of items will be allowed on any purchase made from the awarded contract without written permission from the DHEC Procurement Office.

42. **Outside Contractor Program:** If applicable to scope of contract, contracted employees working on DHEC properties are entitled to information about hazardous chemicals present at DHEC; and DHEC's personnel are entitled to information about hazardous chemicals brought to the facilities by contractors. In order to assure continued compliance with the Hazard Communication Standards while contractors are on DHEC property and to control potential compliance obligations under the Superfund Amendments and Re-authorization Act, it is DHEC's policy to:

   A. Obtain written assurance that the contractor's employees have been trained to understand the hazards of the chemicals at DHEC and how to use appropriate personal protective equipment. All personal protective equipment and training required for the contractor's employees will be provided by the contractor at the contractor's expense. (This includes SC State General Services employees).

   B. Require the contractor to notify the DHEC Bureau of Business Management or the appropriate DHEC unit Director when introducing hazardous chemicals into DHEC work areas, which may harmfully expose DHEC employees. If the contractor is introducing such hazardous chemicals into any DHEC facility or onto DHEC property, the contractor shall provide the DHEC Division of Procurement Services or the DHEC unit Director copies of the Material Safety Data Sheets (MSDS) for those chemicals. The DHEC Division of Procurement Services or the DHEC unit Director should provide appropriate information to the DHEC employees before the contractor(s) enter any DHEC facility with chemicals.

   C. DHEC reserves the right to refuse to allow any contractor to bring any chemical onto DHEC property. DHEC also reserves the right to refuse to allow any contractor to bring certain quantities of chemicals on DHEC property.

43. Any written assurances, MSDS's, or correspondence required must be submitted prior to beginning any aspect of the contract.

44. **Travel:** As applicable, reimbursement to contractors for travel expenses will be made in accordance with regulations established for State employee travel and in accordance with guidelines established by DHEC.

SPECIAL PROVISIONS

45. **FOB Destination:** All deliveries shall be FOB Destination. It is agreed by the parties hereto that delivery by the contractor to the common carrier does not constitute delivery to the State. Any claim for loss or damage shall be between the contractor and the carrier. Bids received otherwise may be subject to rejection.

46. **Shipping/Delivery Charges:** Unless otherwise indicated in the "Special Conditions", any applicable shipping, delivery, assembly or installation charges are to be indicated on the bidding schedule herein.

47. **Specifications:** The specifications listed herein are not to be considered restrictive to one source of supply. However, items offered must be equal in quality and performance. The bidder to include with his bid supporting product data sufficient for DHEC to determine equality and acceptability. DHEC reserves the right to reject any offering in which the items offered are considered unsatisfactory in any manner. DHEC will determine if minor deviations from the listed features or performance are acceptable.

48. **Confidentiality:** The Contractor and all contracting employees shall not discuss, disclose, release, divulge or otherwise communicate, any confidential information as to personal facts and circumstances observed or overheard while performing work pursuant to this contract. The Contractor and all contracting employees, their agents, personal representatives and assigns, shall be fully liable and accountable for any resulting damage or injury to any person, institution or DHEC.

Environmental Monitoring Corp.

P.O. Box 901 • Hartwell, GA 30643 • 706-376-5000

April 29, 1998

RECEIVED

JUN 2 5 1998

DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

Mr. Read S. Miner
Hydrologist
Owner/Operator Assistance Section
Assessment & Corrective Action Division
Bureau of Underground Storage Tank Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201-1708

RE: **Submittal of Risk-Based Corrective Action - Tier 3 and Invoice for Cost Proposal #03787**
Crossroads Grocery
State Highways 24 and 59
850 West Oak Highway
Westminster, Oconee County, SC 29693
GWPD Site ID #06742: CP #03787

Dear Mr. Miner:

Environmental Monitoring Corporation (EMC) has been commissioned by Mr. Neil Alexander, the owner and operator of referenced facility, to conduct assessment and remediation activities at Crossroads Grocery. In accordance with SCDHEC's letter dated September 15, 1997, two copies of the Risk-Based Corrective Action: Tier 3 Report are being submitted for your review. This report was prepared in the format outlined in SCDHEC's "Risk-Based Corrective Action for Petroleum Releases" dated June 20, 1997. Also enclosed please find the Assessment Component Invoice (Invoice #EMC042998-01; CP#03787). Please note two cost proposals have been submitted; one for ECOVAC services (four events) plus monitoring for a one year period and the other proposal is for the SWAP system plus monitoring for a one year period. Please review both cost proposals including the literature enclosed for each fluid recovery technology and let me know what you think. If you have any questions concerning the enclosures, please contact at me at (770) 577-8909. Your on-going assistance is greatly appreciated.

Sincerely,

Mirta A. Carpenter
Environmental Manager/ Hydrogeologist

Enclosures

cc: Mr. Neil Alexander, Crossroads Grocery, Westminster, SC
Mr. J. Britt Myers, EMC, Hartwell, GA
Mr. Steve Goldie and Mr. David Devoe, Goldie & Associates, Inc., Seneca, SC

96 tech

RECEIVED
JUN 2 5 1998
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

RISK-BASED CORRECTIVE ACTION: TIER 3

CROSSROADS GROCERY
SCDHEC GWPD Site ID #06742; CP #03787
Highways 24 and 59; 850 West Oak Highway
Oconee County
Westminster, South Carolina

Prepared for:

Mr. Neil Alexander
Crossroads Grocery
850 West Oak Highway
Westminster, SC 29693

Prepared by:

Environmental Monitoring Corporation
P.O. Box 901
Hartwell, Georgia, 30643

April 29, 1998

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I. PLAN CERTIFICATION

I hereby certify that the information contained in the Crossroads Grocery Risk-Based Corrective Action: Tier 3 report is to the best of my knowledge true, accurate, complete, and satisfies the criteria and requirements as outlined in SCDHEC's letter to Mr. Neil Alexander dated September 15, 1997.

Printed Name (Professional Geologist)

Signature/Date (Professional Geologist)

II. REPORT OF FINDINGS

A. Introduction

The UST owner/operator is Mr. Neil Alexander, Crossroads Grocery, Route 2, Box 149, Westminster, Oconee County, South Carolina (Figures 1, 2, and 3). The site identification number is # 06742. The contractor that conducted the assessment work and prepared this Tier III Risk-Based Corrective Action is Environmental Monitoring Corporation, P.O. Box 901, Hartwell, Georgia, 30643. Any questions regarding this report should be directed to Ms. Mirta Carpenter at (770) 577-8909 or Mr. Britt Myers at (706) 376-5000. On August 24, 1997, a Rapid Assessment Plan and Assessment Component Cost Proposal were submitted for this site. On September 15, 1997, SCDHEC approved these submitted documents as stated in the September 15, 1997, DHEC letter. Crossroads Grocery is a gasoline station/convenient store currently in operation. Based on a comprehensive review of all data collected regarding the site, the source of the hydrocarbon constituents measured at the site is most likely the former tankpit (Figures 3) which was closed in June of 1990. New underground storage tanks were installed in July and August of 1990. The new underground storage tanks have passed tightness tests in February of 1993 and on January 21, 1997 (Appendix A). Note that the product lines are European Suction product lines and, as such, do not require line tightness testing. The property surrounding the site is mostly rural residential and/or pasture lands. Free-phase hydrocarbons and dissolved-phase hydrocarbons have been detected in the ground-water monitor wells on the property, in several down-gradient monitor wells on adjacent residential properties, and in a down-gradient stream approximately 650 feet south-southeast of the source area.

B. Site Characteristics

1. Site Geography

Crossroads Grocery is located within the Inner Piedmont Geologic Province. The Inner Piedmont extends from Alabama to North Carolina and is approximately 50 miles wide, on average. The Inner Piedmont is a region of gently rolling to hilly slopes with narrow-stream valleys. The elevation increases gradually from the southwest part of South Carolina to the northeast part of the state. Local relief is mainly in tens of feet but ranges to several hundred feet (Godley & Anderson, 1979) (Figure 1). Crossroads Grocery is located on the topographically high position at 932 feet above mean sea level according to the Fair Play Topographic Quad (1958, photorevised 1979). The surrounding land slopes down away from the site in all directions. Surface drainage flows primarily to the south where the slopes are steeper.

2. Exposure Analysis and Tier Evaluation

A survey of all receptors within a 1000 foot radius of the site was conducted by EMC personnel. Several residential trailers exist within a 1000 foot radius of the site. However, only one trailer 428 feet south of the site had a drinking water well (Figure 3). This drinking water well was permanently closed when the resident of the trailer reported a hydrocarbon taste in the water from their water well in January of 1993. SCDHEC officials immediately had the well permanently closed and the resident was hooked up to the local public water supply. According to a telephone discussion between Ms. Mirta Carpenter and Mr. Eddie Clements of the SCDHEC Anderson District Office on December 3, 1996, no other water supply wells were located within a 1000 foot radius during Mr. Clements water well survey in 1993. A list of all water wells reported to the Anderson District Office was provided by Mr. Rob Devlin, of the SCDHEC Anderson District Office, on December 3, 1996; no water wells were listed within 1000 foot radius of the site. According to Mr. Devlin and Mr. Clements, the closest public supply wells are located approximately three miles east of the site off of SC Highway 24 (West Oak Hwy). These public supply wells are listed at Timber Lake 1 and 2. Several small unnamed streams are located approximately 650 feet south-southeast of the site (Figure 2). These unnamed streams empty into Mud Creek. Mud Creek empties into Beaverdam Creek which empties into Lake Hartwell. Lake Hartwell is used as a public water source for many communities in Georgia and South Carolina. Underground utilities are located in the right-of-way section of the property including water lines and natural gas lines (Figure 3).

The exposure assessment for the Tier 3 evaluation was conducted using three sub-steps as follows: (1) a site conceptual exposure model was developed (Tables 1 and 2); (2) the data required to estimate the exposure dose for the complete pathways identified in (1) was identified; and (3) the dose was estimated.

Based on the site conceptual exposure model (Tables 1 and 2), the RBSL for naphthalene in soil needs to be considered (Table 3). The measured concentrations of benzene, toluene, ethylbenzene, and total xylenes in all the soil samples collected in April of 1998, do not exceed the soil RBSLs for these constituents (Table 3). Based on the site conceptual exposure model (Tables 1 and 2), the risk-based screening levels (RBSLs) for dissolved-phase benzene, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene need to be determined for this site (Tables 4 and 9). The vapor inhalation pathway RBSLs do not need to be calculated nor can they be calculated since no indoor nor outdoor hydrocarbon vapor readings measured greater than 0 ppm throughout the site (Limited Assessment Report, ESCM & Associates, January 1995). On December 6, 1996, ESCM personnel measured the hydrocarbon vapor concentrations at all exposure points (Limited Assessment Report, Figure 3). Hydrocarbon vapor concentrations were detected only in the monitor well openings of those wells that either contained free product or contained dissolved-phase hydrocarbons (Limited Assessment Report, Figure 3).

The risk-based screening levels (RBSLs) for benzene, toluene, ethylbenzene, xylenes, and naphthalene in the soil contact pathway are based upon the RBSLs reported in SCDHEC's "Risk-

Based Corrective Action for Petroleum Releases" (June 20, 1997, Table B4). The appropriate RBSLs for soil are listed in Table 3 of this report. The risk-based screening levels (RBSLs) for benzene, toluene, ethylbenzene, xylenes, MTBE, and naphthalene in the ground water ingestion pathway are based upon the Maximum Contaminant Levels (MCL) published in the Environmental Protection Agency *Drinking Water Regulations and Health Advisories* as stated in SCDHEC's "Risk-Based Corrective Action for Petroleum Releases" (June 20, 1997, Table B1). The RBSLs for ground water are listed in Table 4 of this report.

Tier 3 action was decided based on the comparison of the risk-based screening levels for each pathway and the actual data measured during field analyses. At Crossroads Grocery the soil contact and ground water ingestion pathways need to be considered at this time. Based upon the RBSLs established for BTEX and naphthalene constituents in soil, the adsorped-phase hydrocarbon concentrations measured in soil samples collected from soil boring SB#8, exceed the RBSL established for naphthalene (Tables 3 and 6). Based upon the Maximum Contaminant Levels (MCL) published in the Environmental Protection Agency *Drinking Water Regulations and Health Advisories,* the dissolved-phase hydrocarbon concentrations measured in monitor wells MW-2, MW-3, MW-4, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-14, and MW-15 exceed the RBSLs established for ground water (Tables 4 and 9). The dissolved-phase hydrocarbon concentration of benzene measured in the surface water samples collected from several locations along an unnamed stream south-southeast of the site (i.e., "stream #2") also exceeded the RBSL establish for benzene in ground water (Figure 4). Based on the comparison of the risk-based screening levels for groundwater and the actual data measured during field analyses, a Tier 3 Risk-Based Corrective Action report is warranted.

3. Utilities Survey

An underground water line is located parallel to West Oak Highway in the right-of-way of the site property. An underground natural gas line is located parallel to West Oak Highway in the right-of-way of the property. The underground gas line is buried approximately 12 feet from the centerline of the highway (Figure 3).

4. Regional and Site Geology

a. Regional Geology and Hydrogeology

Crossroads Grocery is located within the Inner Piedmont Geologic Province. The Inner Piedmont extends from Alabama to North Carolina and is approximately 50 miles wide, on average. The rocks of the Piedmont Province range from low grade metamorphosed sediments and volcanics to high grade metasedimentary and meta-igneous rocks and intrusive mafic to felsic igneous rocks. These rocks are characteristically folded and faulted and are believed to be of late Precambrian to early Paleozoic in age. The primary rocks of this region include granitic gneiss,

biotite gneiss, amphibolite, and schists, which are usually well foliated due to tectonic activity throughout the geologic history of the region (Johnson, 1964; Secor, 1987). These crystalline rocks have been structurally deformed into a series of recumbent isoclinal folds with axial planes dippings to the southeast. Furthermore, these rocks have undergone post-genetic stresses which have caused the formation of a number of fractures (Secor, 1987).

Since the Inner Piedmont Province consists of fractured media, the permeability depends on the width of the fractures and their density, or spacing. Overall, the igneous, metamorphic, and sedimentary rocks in this region have very low permeability and hydraulic conductivity range from one to five feet/day. With lower effective porosities of 1 to 5 percent, flow velocity through the fractured rock will be 0.04 to 1.0 ft/day. The Inner Piedmont region characteristically has a humid climate which enhances chemical weathering of bedrock and results in the formation of saprolite. Saprolite forms when bedrock decomposes in place due to chemical weathering. The chemical and physical characteristics of the saprolite depends on the relative quantities of parent minerals in the original bedrock. The flow domain in the Piedmont consists of the following materials: a thin layer of soil, a variably thick zone of chemically weathered bedrock (saprolite), a transition zone of less-well weathered rock that gradates into a relatively unweathered fractured bedrock (Dowd, Wenner, Carpenter; 1993).

b. Site Geology and Stratigraphy

The geologic unit mapped at Crossroads Grocery is of Upper Precambrian to Devonian in age and consists of biotite gneiss and migmatite which is light to dark gray, fine to medium-grained, and layered. Typical mineral assemblages contain garnetiferous biotite, sillimanite, oligoclase, and quartz, lesser amounts of banded granitoid layers, and veins and segregations of gneissic pegmatites, and biotite sillimanite schist (Overstreet & Bell, 1965). In April of 1998, during the installation of monitor wells MW-8 through MW-15, and the drilling of soil borings SB#3 through SB#9, the predominant lithology of the soils noted was silty sand with micro veins of coarse-grained sand (Appendix B).

C. Chemicals of Concern - Soil

1. Soil Assessment

On January 7 and 8, and February 18 through 20, 1998, sixteen geoprobe points were punched throughout the site and vicinity (Figure 4). Soil samples were collected from each point and analyzed for BTEX constituents utilizing the services of a mobile laboratory. The results of the in-field soil analyses were used as a screening tool to determine the locations for additional monitor wells (Figures 4 and 5, Appendices B and C).

On April 2, 4, and 14, 1998, EMC personnel drilled five soil borings around the lines and dispenser island and two soil borings around the current UST tankpit (Figure 6). Split spoon soil

samples were collected at two foot intervals to a total depth of 10 feet at the borings around the lines and dispenser island. At the soil borings in the UST area, split spoon soil samples were collected at five foot intervals to above the watertable or the boring was terminated after three consecutive clean split-spoon samples (Figure 6, Appendix B). Each soil sample was screened in the field for organic volatiles in accordance with established SCDHEC guidelines and lithologically classified (Table 5, Appendix B). A soil sample from the depth (vadose zone) that exhibited the highest organic reading at each soil boring was shipped to and analyzed by Goldie & Associates Laboratory (S.C. Laboratory Certification # 04108001 and # 84002002). The soil samples were analyzed for BTEX constituents (EPA method 8060), naphthalene (EPA Method 8260), and PAH constituents (EPA method 8270) (Figures 7 through 11, Tables 6 and 7, Appendix D). On April 2, 1998, during the drilling of monitor well MW-10, a soil sample was collected below the "A" horizon at a depth of 2 to 4 feet and shipped to Goldie & Associates for total organic carbon (TOC) analysis (EPA Method 415.1) (Table 6, Appendix D). However, for soil modeling purposes, the TOC value measured in soil samples collected at soil boring SB#2 on September 9, 1996, was used since this value proved to be a more realistic representation of "background" TOC levels.

On April 14, 1998, two soil samples were collected from the soil boring exhibiting the greatest hydrocarbon concentrations based on OVA-FID analyses (i.e., SB#8) in addition to the soil samples collected for BTEX and PAH analyses. Soil samples from soil boring SB#8, which was converted to monitor well MW-8, were sent to Goldie & Associates for a grain size/hydrometer analysis and for Total Petroleum Hydrocarbon analysis (EPA Method 3550) (Table 6, Appendix D). As part of the grain size/hydrometer test, the sand/silt and silt/clay fractions were segregated at 0.074 mm (#200 screen) and 0.0004 mm, respectively. According to the results of the grain size/hydrometer analysis, the dry weight percentages measured of sand, silt, and clay were 71.5%, 23.5%, and 5%, respectively (Appendix D). According to the results of the grain size/ hydrometer analysis performed on soil samples collected from soil boring SB-2, on September 9, 1996, the dry weight percentages measured of sand, silt, and clay were 41.1%, 53.8%, and 5.2%, respectively (Tier I/II RBCA, ESCM, 1/22/97; Appendix B).

2. Chemical of Concern

Concentrations of BTEX constituents analyzed in the soil samples collected at the site on April 4 and 14, 1998, measured below the soil RBSLs for these constituents (Figures 7 through 10, Tables 3 and 6, Appendix D). Concentrations of PAH constituents analyzed in the soil samples collected at the site on April 4 and 14, 1998, measured below the soil RBSLs for those PAH constituents with established RBSLs, except for naphthalene (Figure 11, Tables 3 and 7, Appendix D). Therefore, the Soil Leachability Model was applied to determine the Site Specific Target Level (SSTL) for naphthalene in soil (SCDHEC, "Risk-Based Corrective Action for Petroleum Releases, June 20, 1997; Appendix C). Refer to section II.G., of this report for a complete discussion of the findings based on the Soil Leachability Model. The soil cuttings generated during the installation of monitor wells and the drilling of soil borings in April of 1998 were placed on plastic and covered with plastic. Since the soil hydrocarbon concentrations do not

pose a threat, the soil cuttings will be spread and grass seeded on site. Therefore, no soil disposal manifest is included with this report.

D. Chemicals of Concern - Ground-Water

1. Ground-Water Assessment

Monitor wells MW-1A, MW-1, MW-2, and MW-3 were installed on-site near the source of hydrocarbons on June 16, 1993, by Froehling & Robertson, Inc., (Table 8). Monitor wells MW-4 and MW-5 were installed down-gradient of the source on June 21, 1993, by Froehling & Robertson, Inc., (Table 8). Monitor well MW-5 was installed by Froehling & Robertson, Inc., on an off-site property adjacent to a private water well where hydrocarbons were detected by the private resident (Figure 3). Monitor wells MW-6 and MW-7 were installed and developed on September 9, 1996, by ESCM and Associates, Inc., (Table 8). Monitor wells MW-6 and MW-7 were positioned to delineate the lateral extent of the CoC plume; the positions were determined by Mirta Carpenter of ESCM and Ms. Joanne Cooper of SCDHEC (Tier I/II RBCA, 1/22/97; Figure 3).

On January 7 and 8, and February 18 through 20, 1998, sixteen geoprobe points were punched throughout the site and vicinity (Figure 4). Soil samples and ground-water samples, where possible, were collected from each point and analyzed for BTEX constituents utilizing the services of a mobile laboratory. The results of the in-field soil and ground-water analyses were used as a screening tool to determine the locations for additional monitor wells (Figures 4 and 5, Appendices B and C). The monitor well locations were chosen by EMC personnel then verified by Mr. Read Miner of SCDHEC prior to installation (Figure 5). Monitor wells MW-9 and MW-15 were installed to delineate the lateral extent of the hydrocarbon plume (Figure 5). Monitor wells MW-11 and MW-13 were installed to further delineate the down-gradient portion of the hydrocarbon plume. Monitor well MW-14 was installed further down-gradient of monitor well MW-11 because a hydrocarbon sheen was noted on the ground-water samples collected from monitor well MW-11 (Table 8). Monitor well MW-12 was installed as close to the down-gradient unnamed stream ("stream #2") as possible (Figure 5). Monitor well MW-10 was installed as an up-gradient well. After the drilling of all the soil borings in the UST area and the piping and dispenser island area, the soil boring which exhibited the highest hydrocarbon readings using an organic vapor analyzer-flame ionization detector (OVA-FID) was converted to a monitor well (i.e., MW-8) (Figure 5). Refer to Table 8 and the soil lithologic logs for well construction details (Appendix B). A Well Record Form for each monitor well installed in April of 1998 is included in Appendix E of this report.

In accordance with instructions from Mr. Read Miner of SCDHEC, soil samples collected during the drilling of the monitor wells installed in April of 1998 were not forwarded to a certified laboratory for analyses. However, split spoon samples were collected during the drilling of all the monitoring wells and screened using an OVA-FID, except at monitor well MW-10 which was

only screened at a depth of 2-4 feet from where a soil sample was collected for total organic carbon analysis (Table 5, Appendix B). The split spoon samples were also used to characterize the lithology at each well location including any subsurface quartz veins (Appendix B). Based on the lithologic logs of these and previously installed monitor wells, two lithologic cross-sections were prepared parallel and perpendicular to the predominant ground-water flow direction (Figure 16).

The last ground-water sampling event at this site was conducted on April 1, 2, and 14, 1998 (Table 9, Appendices D and F). The newly installed wells were developed. All the monitor wells were purged. The purged waters were measured for pH, specific conductance, and temperature; the data was recorded on DHEC "Field Data Information Sheet for Ground Water Sampling" forms (Appendix F). Purging was considered complete once the ground-water temperature and pH measurements had equilibrated (Appendix F). Purging was not performed in monitor wells MW-1 and MW-1A since the thickness of free product in these wells exceeded 0.01 foot. After purging was complete, the dissolved oxygen content for each well was measured using a YSI Model 55 Dissolved-Phase Oxygen Meter (Figure 13, Table 9). The ground-water samples were packed on ice in a cooler and driven to Goldie & Associates Laboratory (S.C. Certification # 04108001 and # 84002002) in order to meet the 24-hour turnaround time required for an accurate ferrous iron (Fe^{2+}) analysis.

The water samples were analyzed for BTEX (EPA Method 8260), MTBE (EPA Method 8260), naphthalene (EPA Method 8260), lead (EPA Method 239.1), and PAH (EPA Method 8270) (Figures 14 through 21, Table 9, Appendix D). EDB (1,2-Dibromoethane) (EPA Method 8260) was analyzed in all ground-water samples (Figure 12, Table 9, Appendix D). Electron acceptors and by-products were assessed by analyzing all the ground-water samples for the following: Sulfates (EPA Method 375.4), Nitrates (EPA Method 9200), and Ferrous Iron (Fe^{2+}: EPA Method 8146) (Figure 13, Table 9, Appendix D). Note that EPA Method 200.7 was not used for ferrous iron (Fe^{2+}) as suggested in SCDHEC's "Risk Based Corrective Action for Petroleum Releases" document (June 20, 1997; Table 1). After sending Goldie & Associates a facsimile of the list of EPA Methods required at Crossroads Grocery, the laboratory personnel informed Ms. Mirta Carpenter of EMC that EPA Method 200.7 is used for Ferric Iron (Fe^{3+}) not Ferrous Iron (Fe^{2+}). Therefore, Ms. Carpenter telephoned Mr. Read Miner of SCDHEC for suggestions. Ms. Carpenter was told to use "best judgement" and allow the lab to choose an appropriate method for analyzing ferrous iron. Then the issue of holding times was brought forth. Ms. Carpenter then telephoned members of the University of Georgia Geology faculty including Dr. John Dowd (Hydrogeology) and Dr. Valentine Nzegueg (Geochemistry). Ms. Carpenter was told, after some debate, that a one hour holding time was not necessary and that a 24 hour holding time would suffice. Dr. Dowd forwarded an article to Ms. Carpenter entitled "Improvements to the Quantitative Assay of Nonrefractory Minerals for Fe (II) and Total Fe Using 1,10-Phenanthroline" (Amonette & Templeton, 1998). This article may serve as a good reference to SCDHEC officials when addressing the issue of how best to approach sampling and analysis methodology regarding ferrous iron. A copy of this article has been included as Appendix G.

2. Chemicals of Concern (COC)

Free-product was detected in monitor wells MW-1 and MW-1A therefore ground-water samples were not collected from these wells. Free product is being manually bailed from monitor well MW-1A on a biweekly basis. The bailed free product is being stored in a DOT certified 55 gallon drum on site. Once this drum is filled, it will be transported by an EPA approved transport company to an EPA approved disposal facility.

Free Product Recovery Tests were conducted in monitor well MW-1A and is discussed in section II.F., of this report. The greatest concentration of dissolved-phase hydrocarbons was measured in ground-water samples collected from monitor wells MW-4, MW-6, and MW-8, which are located down-gradient or adjacent to the source (i.e., old UST tankpit); the concentration of BTEX constituents, MTBE, and naphthalene in these wells, as well as in some of the other monitor wells, exceeds the risk-based screening levels (RBSLs) for groundwater (Figures 14 through 21, Tables 4 and 9, Appendix D). The site specific target levels (SSTLs) for benzene, toluene, ethylbenzene, total xylenes, MTBE, and naphthalene were calculated using a solute transport model and is discussed in section I.2., of this report.

E. Aquifer Characteristics

The Bouwer and Rice method (1976) was used to analyze slug test results. The aquifer underlying the site is unconfined and satisfies the assumptions and conditions outlined in Kruseman & de Ridder (1989) for using the Bouwer-Rice method. A computer program based on the Bouwer-Rice method was used to determine the hydraulic conductivity (AQTESOLV™, Duffield & Rumbaugh, 1989). The slug tests results were plotted on semi-log graphs to illustrate how the hydraulic conductivity is determined (Tier I/II RBCA, 1/22/97; Figures 5, 6, 7 and 8). The arithmetic mean of the hydraulic conductivity at the site, based on the slug tests conducted at monitor wells MW-1A and MW-6, is 5.41×10^{-5} ft/min (2.75×10^{-5} cm/sec) (Tier I/II RBCA, 1/22/97; Appendix C). This value is indicative of a silty sand lithology.

The rate at which groundwater actually moves through sediments can be calculated using the equation for seepage velocity or average linear velocity (Fetter, 1988). The average linear velocity or seepage velocity was calculated using the following equation:

$$V_x = \frac{Q}{n_e A} = - \frac{K \, \partial h}{n_e \, \partial l}$$

where

K is the hydraulic conductivity
V_x is the average linear velocity (seepage velocity)
n_e is the effective porosity

The hydraulic conductivity at the site, is 5.41 x 10^{-5} ft/min. This value is indicative of a silty sand lithology which is supported by the laboratory grain size/ hydrometer test results (Appendix D). The porosity has not been calculated for the sediments at this site, but the values generally range from 0.01 to 0.20 for silt and 0.10 to 0.30 for fine sand (Newell et. al., 1996). The effective porosity, n_e, can be calculated, but accurate calculations of this value require determination of the weight of the sample following gravity drainage which may take periods of one year to complete. During gravity drainage the sample must be kept in an atmosphere with 100 percent relative humidity (Fetter, 1980). "Effective porosity is difficult to measure and is typically selected by intuition or experience" (Nielsen, 1991). The Georgia Environmental Protection Division suggests using values calculated for specific yield, S_y, as a substitute for effective porosity (L. Lewis, GAEPD, personal communication, February 13, 1995). An average specific yield of 0.01 was estimated from literature source (Nielsen, 1991). The seepage velocity was calculated for the unconfined aquifer using the estimated value of S_y in place of effective porosity. The hydraulic gradient calculated at the site is 0.025 based on a 14.88 ft drop in water level at the site over a distance of 590 feet (Figure 22). Using the aforementioned equation, the seepage velocity at the site was calculated to be 85.4 ft/yr. Ground-water flow is predominantly to the south (Figures 22 and 23, Table 8).

F. Free Product Recovery Test and Analysis

On April 5, 1998, and on April 14, 1998, a free product recovery test was performed at monitor well MW-1A (i.e., FP Test #1 and FP Test #2). Monitor well MW-1A is the only monitor well with a free product thickness great enough to perform a "field bailout test." Based on the theory and procedures outlined in the article entitled, "Determination of a Realistic Estimate of the Actual Formation Product Thickness Using Monitor Wells: A Field Bailout Test," the actual product thickness in monitor well MW-1A was determined (Gruszczenski, 1987). As discussed in Gruszczenski's article, the free product recovery test is performed much like a slug test except that both the top of product and top of water depth must be measured and recorded over time.

At Crossroads Grocery, the free product was bailed out of monitor well MW-1A; then, using an oil/water electronic interface probe with varying signals, the depths of the top of product and the top of water (i.e., the oil/water interface) were recorded over a one to two hour period (Figure 24, Table 10). The data from these tests were plotted and the "inflection point" was determined. After plotting the data for both free product recovery tests FP Test #1 and FP Test #2, it was determined that the data from FP Test #1 (performed on 4/5/98) was more accurate and complete with a clear "inflection point" evident in the "top of groundwater" curve (Figure 24). As shown on the calculation brief prepared, the actual product thickness in monitor well MW-1A on April 5, 1998, was determined to be 0.21 ft compared with an apparent product thickness of 1.99 ft (Figure 25).

G. Soil Leachability

Since the naphthalene concentration in the soil sample from soil boring SB#8 exceeded the RBSL appropriate for this site, the Soil Leachability Model was applied to determine the site specific target level (SSTL) for naphthalene in soil (Appendix H). Based on the results of the Soil Leachability Model, the concentration of naphthalene in soil pore water directly in contact with contaminated soil or leachate concentration (C_w = 1.51 mg/L) was less than the concentration of naphthalene in the soil pore water necessary to protect groundwater (Cp = 42.36 mg/L). Therefore, the SSTL for naphthalene in soil did not need to be calculated (Appendix H).

H. Tier 3 Assessment

1. Site Conceptual Model

Based on the site conceptual exposure model (Tables 1 and 2) and the results of the Soil Leachability Model, the risk-based screening levels (RBSLs) for the ground water ingestion pathway is the only pathway that needs to be considered at this site. The risk-based screening level for benzene, toluene, ethylbenzene, xylenes, MTBE, and naphthalene in the ground water ingestion pathway are based upon the Maximum Contaminant Levels (MCL) published in the Environmental Protection Agency *Drinking Water Regulations and Health Advisories* as stated in SCDHEC's "Risk-Based Corrective Action for Petroleum Releases" (June, 1997, Table B1). The RBSLs for ground water are listed in Table 4 of this report. The dissolved-phase hydrocarbon concentrations measured in monitor wells MW-2 through MW-4, MW-6 through MW-11, MW-14, and MW-15 exceed the RBSLs established for ground water. The dissolved-phase hydrocarbon concentration of benzene measured in surface water samples collected from several locations along an unnamed stream southeast of the site (i.e., "stream #2"; Figure 4) also exceeded the RBSL established for benzene in ground water.

2. Data Requirements

The site specific target levels (SSTLs) for benzene, toluene, ethylbenzene and total xylenes were previously determined as part of a Tier 2 assessment and evaluation (Tier I/II RBCA, 1/22/97). The data required for a more sophisticated CoC fate and transport analysis was obtained in the field in April of 1998 including current CoC concentrations levels, electron acceptor concentrations, and metabolic by-product concentrations (Figures 12 through 21, Table 9). The application of this data to determine more accurate SSTLs is discussed in section I.2., of this report.

I. Tier 3 Evaluation

1. Exposure Point(s)

Since the COC have already migrated off the property on which the release occurred and the off-site groundwater is a current source of drinking water, an exposure point (i.e., exposure point EP-1) has been established at monitor well MW-5 which is located adjacent to the close residential well down-gradient of the hydrocarbon source (Figure 5).

2. Established SSTL(s)

For the ground-water ingestion pathway, the reduction of CoC in the saturated zone was estimated using empirical data and BIOSCREEN v. 1.3 (Newell et. al., 1996). BIOSCREEN is a screening model used to simulate remediation through natural attenuation (RNA) of dissolved hydrocarbons at sites where a petroleum release(s) has occurred. The model is based on the Domenico analytical solute transport model and, as such, can be used to simulate advection, dispersion, adsorption, aerobic decay, and anaerobic reactions which have been shown to be the primary biodegradation processes at many sites with petroleum releases (Newell et. al., 1996). The Dominico (1987) analytical model used in BIOSCREEN was developed for the multidimensional transport of a decaying contaminant species (Newell et. al., 1996). For a complete description of the governing mathematical equation, boundary conditions, assumptions, and limitations, refer to Appendix A.1 of the BIOSCREEN User's Manual (1996).

Free product has been present at the site for approximately eight years and was considered a continuous source of CoC to the groundwater during all SSTL simulations. In all the SSTL simulations, the x-axis of the plume was chosen to connect monitor wells MW-1, MW-4, MW-13 and MW-5 which is parallel to the predominant direction of ground-water flow. When determining the SSTLs for each CoC, first the CoC plume was simulated using site specific data including a "real time" calculated from the date of the suspected release to the date of the last sampling event. The site specific information was used to calibrate the 1st order decay model and/or the instantaneous reaction model to field data (Figures 27, 32, 36, 40, 44, and 48). Detailed tables and input data sheets of model parameters and assumptions are included in this report (Tables 11 through 16, Figures 26, 31, 35, 39, 43, and 47). The 1st order decay model was the best match with actual field data and the most conservative model when calibrating the MTBE, benzene, toluene, and naphthalene plumes, therefore, the 1st order decay model was used to determine the SSTL for these chemicals of concern (Figures 28, 29, 33, 34, 37, 38, 49, and 50). The instantaneous reaction model was the best match with actual field data and the most conservative model when calibrating the ethylbenzene and total xylenes dissolved-phase plumes, therefore, the instantaneous reaction model was used to determine the SSTLs for these chemicals of concern (Figure 41, 42, 45, and 46). For each CoC, the Dominico fate and transport model in BIOSCREEN was used to model the actual CoC plume using site-specific data and the 1st order decay and/or instantaneous reaction models were calibrated by adjusting certain model parameter such as retardation factor. Tables 11 through 16 were prepared to clearly show all model

parameter values used, assumptions, and data sources. After the individual CoC plumes were modeled and calibrated using "real" time, the time was increased until the CoC plume's down-gradient edge reached zero concentration at the same distance from the source from some point in time to infinity based on the 1st order decay model (Tables 11 through 16). This determined time at which the CoC plume has reached it's maximum dimensions using a continuous source is the time at which the CoC concentration becomes asymptotic (i.e., the time at which the CoC plume has reached it's maximum extent which represents the worse case scenario CoC plume). This determined time, based on the worse case scenario CoC plume, was then used to predict the SSTLs of each CoC by adjusting the CoC concentration at the source until the CoC concentration at the point of compliance did not exceed the RBSL for each CoC (Tables 11 through 16, Figures 29, 34, 38, 42, 46, and 50). When determining the SSTLs, note that for ethylbenzene and total xylenes, the best fit and most conservative model was the instantaneous reaction model; whereas, the 1st order decay model was the best fit and most conservative model with the other CoCs. In most cases, the instantaneous reaction model seemed to simulate the middle section of the plume with greater accuracy while the 1st order decay model simulated the middle to down-gradient end section of the plume with greater accuracy. Predicting SSTLs based on the worse case plume results in the most stringent, thus most conservative, SSTLs. The most conservative SSTLs were predicted so that the down-gradient point of compliance is never impacted.

The results of the modeling simulations indicate that the most conservative site-specific target levels (SSTLs) in the groundwater to be met at the source so that the RBSLs will be met at the point of compliance (i.e., MW-4) are as follows: MBTE SSTL = 2.8 ppm based on the 1st order decay model; benzene SSTL = 0.4 ppm based on the 1st order decay model; toluene SSTL = 38 ppm based on the 1st order decay model; ethylbenzene SSTL = 68.5 ppm based on the instantaneous reaction model; total xylenes SSTL = 263 ppm based on the instantaneous reaction model, and naphthalene SSTL = 15.9 ppm based on the 1st order decay model (Figures 29, 34, 38, 42, 46 and 50, respectively). Since the point of compliance (i.e., MW-4) is located 450 feet up-gradient of the impacted unnamed stream, these SSTLs should be conservative enough to eliminate further discharge into the stream. In comparison to the SSTLs calculated for BTEX constituents using the SOLUTE v.3.01 analytical, solute-transport, one-dimensional model in the Tier I/II RBCA, the SSTLs calculated using BIOSCREEN, which incorporated more site specific data and considered the worse case scenario CoC plume, resulted in less stringent SSTLs for benzene and ethylbenzene, almost the same SSTL for toluene, and a more stringent SSTL for total xylenes (Tier I/II RBCA, 1/22/97).

3. Established Point(s) of Compliance

Monitor well MW-4 is an established point of compliance. Monitor well MW-4 is located hydraulically down-gradient of the source area and hydraulically up-gradient of monitor well MW-5 (exposure point). Monitor well MW-4 is where the dissolved-phase CoCs must be at or below the risk-based screening levels (RBSLs).

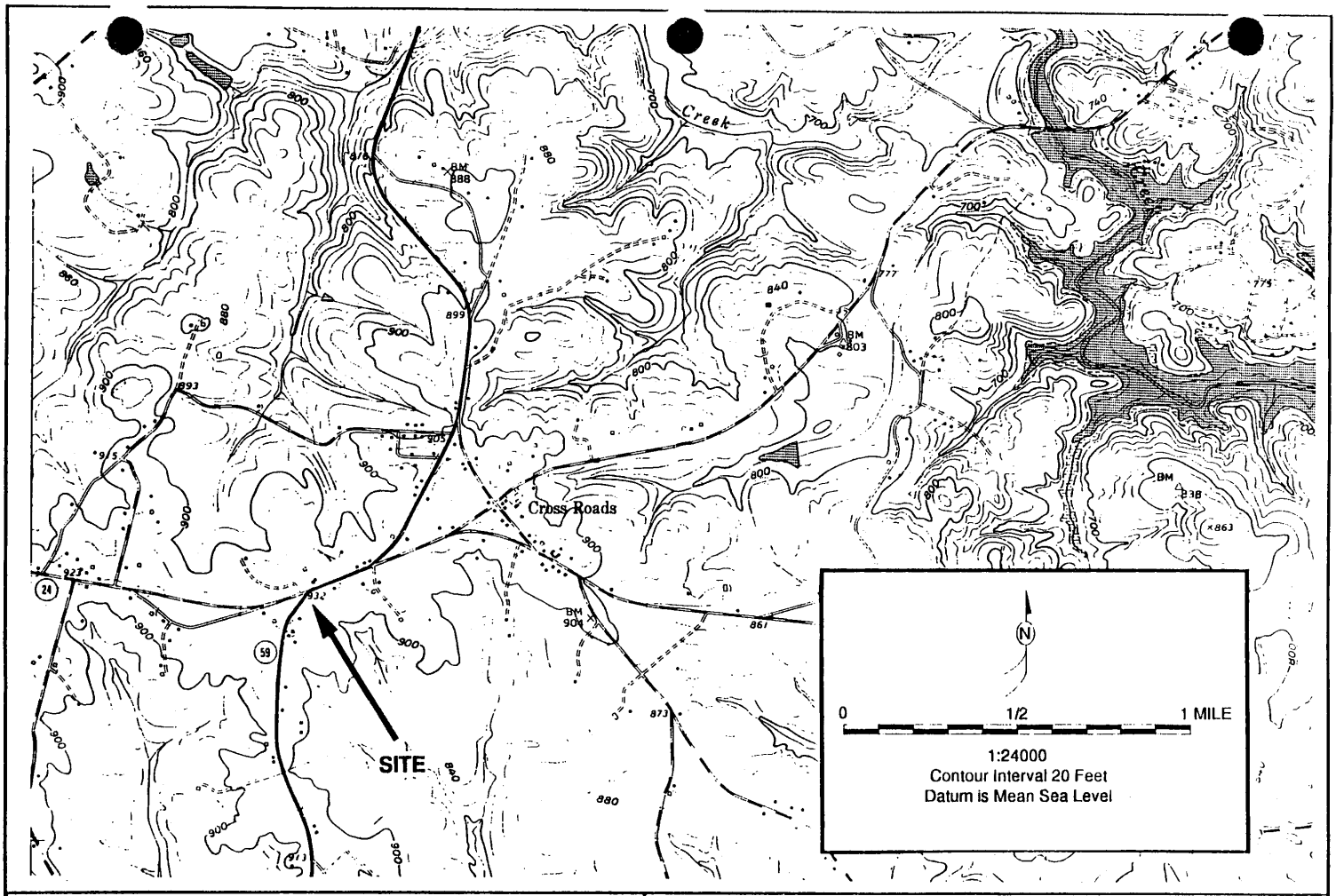
4. BTEX Plume Evaluation

BIOSCREEN was implemented to determine the following: (1) if remediation through natural attenuation will be appropriate for Crossroads Grocery; and (2) the site specific target levels (SSTLs) for benzene, toluene, ethylbenzene, total xylenes, naphthalene, and MTBE. In order to determine if remediation through natural attenuation would be appropriate for this site, the BTEX plume was modeled using the instantaneous reaction model (Table 17, Figures 51 through 55). The movement of the BTEX plume from 1990 (the best guess for when the release occurred) to present was reproduced using BIOSCREEN. The BTEX plume model was calibrated to actual field values by adjusting some of the model parameters such as retardation factor and solute half-life. Both the 1st order decay model and instantaneous reaction model matched the observed plume length; therefore, the longitudinal dispersivity did not need to be adjusted (Figures 51 and 52). The solute half-life used was the half-life of benzene (Table 17, Figure 51). Refer to Table 17 for a complete list of parameters and assumptions used in the final BTEX plume simulation. The values for the electron acceptors (NO_3, SO_4, and O_2) as well as the metabolic by-products (i.e., Fe^{2+} and CH_4) were based on actual laboratory results and, in the case of O_2, on field measurements (Tables 9 and 17). The electron acceptors and metabolic by-products are used by the instantaneous reaction model. As shown on Figure 52, the instantaneous reaction model matches the field data the best (Figures 52 and 53). As shown in Figure 53, the current plume is estimated to contain 25.8 kg of BTEX. BIOSCREEN indicates that the plume under a no-degradation scenario would contain 46.2 kg of BTEX. Therefore, 44% of the BTEX mass that has left the source since 1990 has biodegraded through natural attenuation processes. The current plume contains 0.2 acre-ft of contaminated water, with 0.076 acre-ft/yr of water being contaminated as it flows through the source. Since 44% of the plume is being remediated through natural attenuation and 0.2 acre-ft is the volume of groundwater in the plume, 0.088 acre-ft are being remediated each year through natural attenuation (i.e, 44% of 0.2 acre-feet). Assuming the plume is at steady state, 0.076 acre-ft of groundwater becomes contaminated per year with the same amount (i.e., 0.088 acre-ft) being remediated every year due to in-situ biodegradation and other attenuation processes. Assuming the plume is at steady state, this indicates that a long-term monitoring approach would be appropriate for this site rather than active remediation. However, based on the BTEX plume modeling, the plume is not at steady-state but appears to be growing in size. If the free-product were actively removed then the BTEX plume should reach steady state. At that time, a monitoring program along with updated modeling should be implemented to verify that the BTEX plume has reached steady-state and is no longer growing in size. The results of the 1st order decay model were less conservative than the results of the instantaneous reaction model. In other words, 81% of the plume mass has been removed by biodegradation according to the 1st order decay model versus 44% according to the instantaneous reaction model (Figures 53 and 54). Note that in the instantaneous reaction model a greater "plume mass with no biodegradation" is calculated compared to the 1st order decay and no degradation scenarios (Figures 53, 54, and 55). Therefore, the use of the instantaneous reaction model leads to more conservative decision making.

J. Tier 3 Action

Enhanced free-product recovery is recommended as soon as possible. Two separate cost proposals for enhanced free-product recovery were previously submitted to DHEC (addressed to Ms. Joanne Cooper). Free product is currently being bailed on a biweekly basis. Based on the results of BTEX plume modeling presented in this report, if the free-product were actively removed, then the BTEX plume should reach steady state. At that time, a monitoring program along with updated modeling should be implemented in order to verify the following: (1) that the BTEX plume has reached steady-state and is no longer growing in size; (2) that the site specific target levels (SSTLs) for BTEX constituents, MTBE, and naphthalene have been obtained in the source area (MW-1A, MW-1, and MW-8); (3) and that the RBSLs for the BTEX constituents, MTBE, and naphthalene in the groundwater have been obtained at the point of compliance (MW-4). After enhanced free product recovery has been completed at this site, if CoC concentrations continue to exceed the SSTLs, then active corrective action for the dissolved-phase CoC concentrations is recommended at this site.

Figures



Crossroads Grocery

USGS MAP SHOWING SITE LOCATION

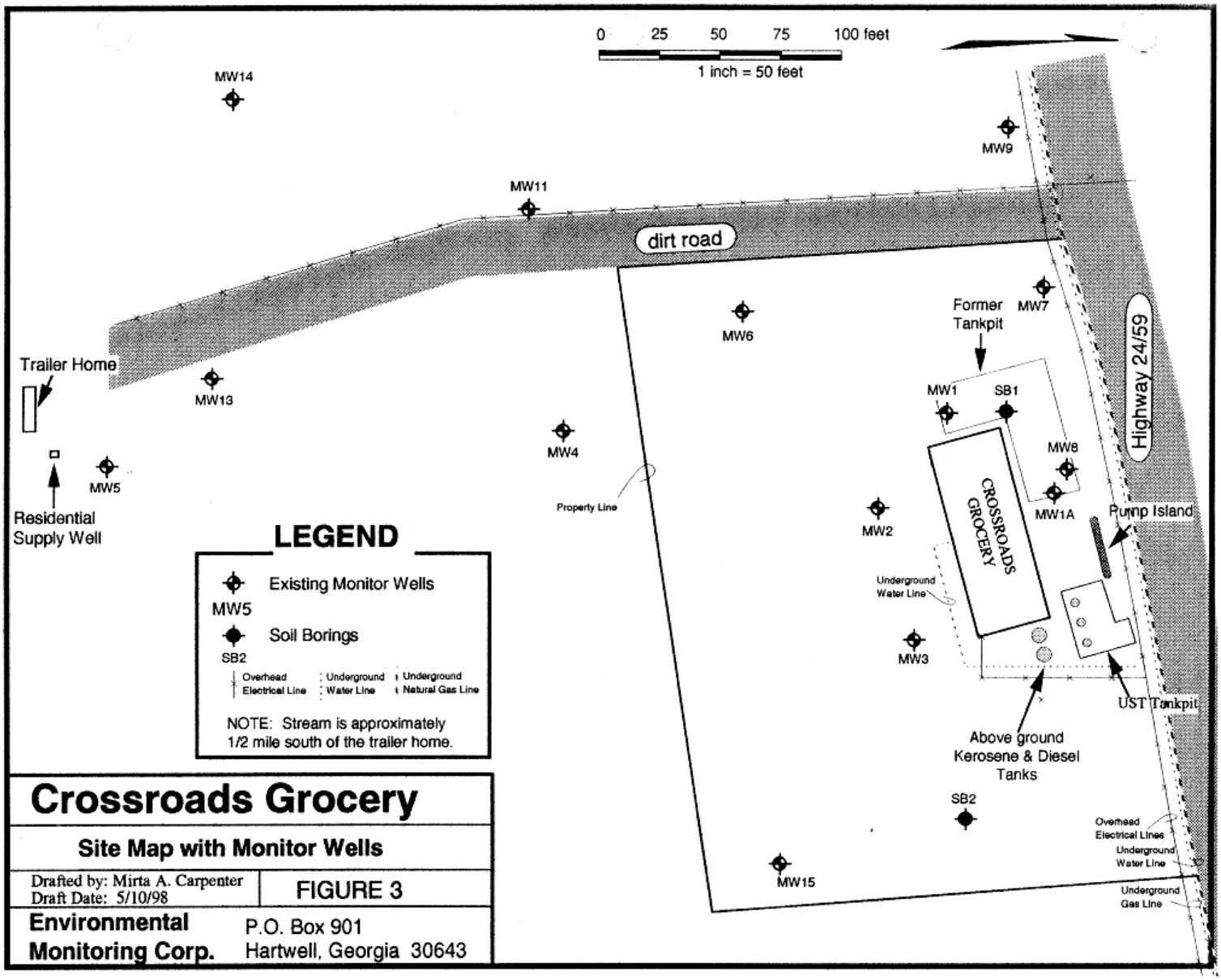
Highway 24/59, Tokeena, Oconee County, South Carolina

(Fair Play, SC, Quad, 1958-Photorevised 1979)

ESCM & Associates, Inc. 394 S. Milledge Avenue Athens, Georgia 30605

Scale: 1:24000

FIGURE 1



Crossroads Grocery

Site Map with Monitor Wells

Drafted by: Mirta A. Carpenter
Draft Date: 5/10/98

FIGURE 3

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia 30643

Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Site & Vicinity Map Based on Taxmap #301
Oconee Co., Tax Assessor's Office

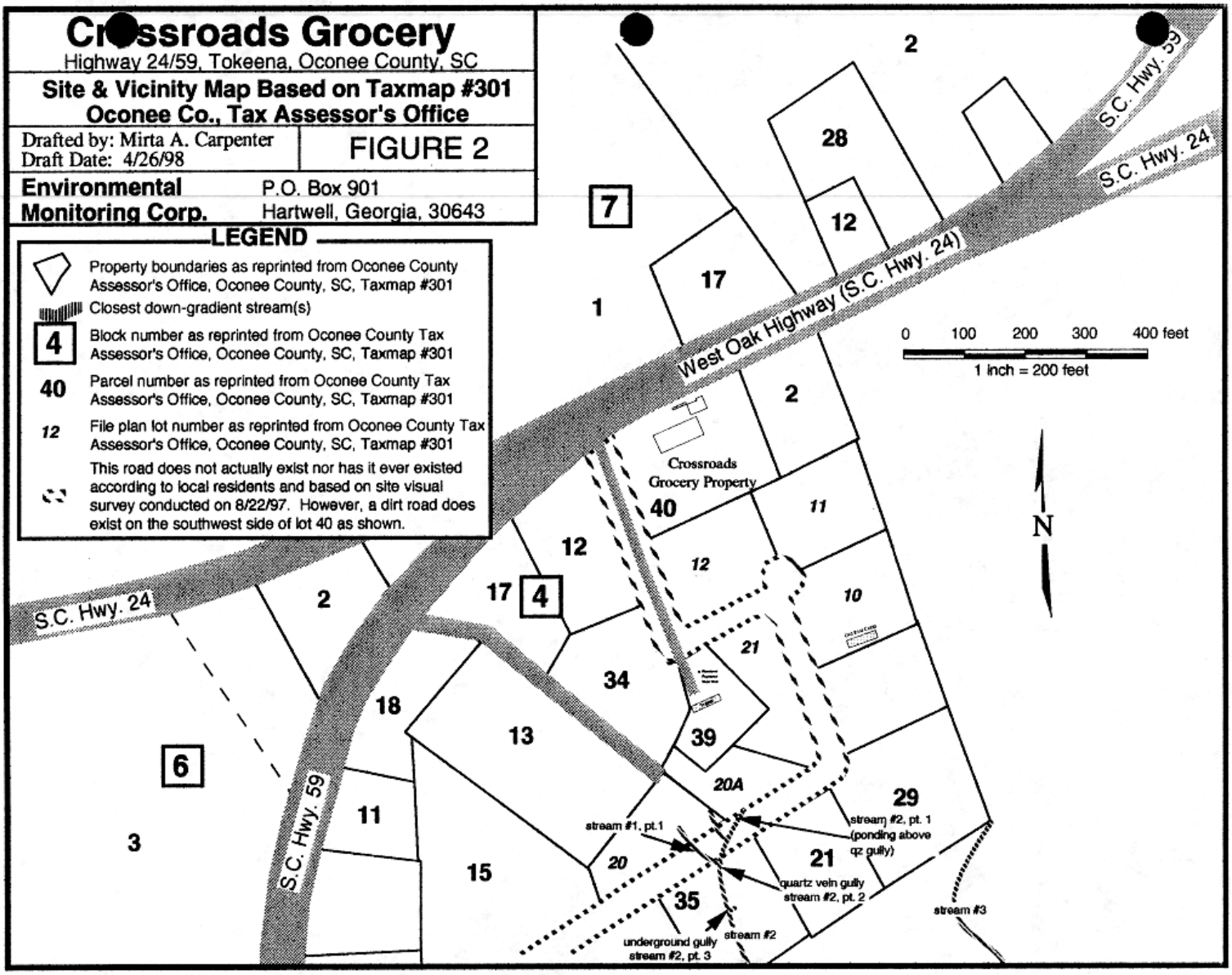
Drafted by: Mirta A. Carpenter
Draft Date: 4/26/98

FIGURE 2

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- 4 — Block number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- 40 — Parcel number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- 12 — File plan lot number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- This road does not actually exist nor has it ever existed according to local residents and based on site visual survey conducted on 8/22/97. However, a dirt road does exist on the southwest side of lot 40 as shown.



Cr(sroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Results of Geoprobe Field Screening (Surface Water, Groundwater & Soil)

Drafted by: Mirta A. Carpenter
Draft Date: 5/1/97

FIGURE 4

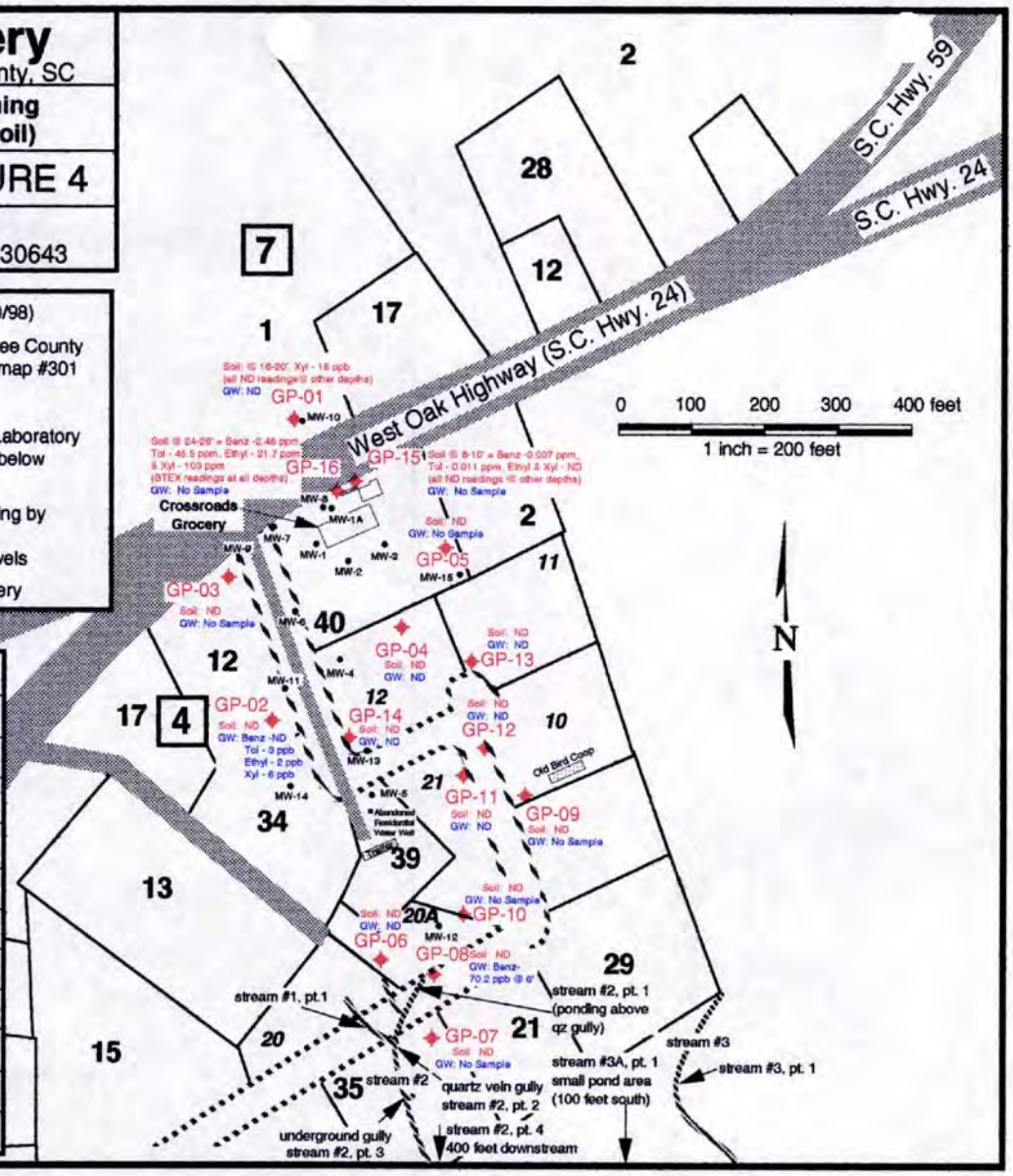
Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia 30643

LEGEND

- GP-01 — Geoprobe Points (drilled 1/7--9/98 & 2/18-20/98)
- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream
- Benz -ND Tol - 3 ppb Ethyl - 2 ppb Xyl - 6 ppb — Results of In-Field Soil Testing by Portable Laboratory measured in ppb; ND = non-detect level or below detectible levels
- @ 16-20' Xyl - 18 ppb — Results of In-Field Ground-water (GW) Testing by Portable Laboratory measured in ppb ND = non-detect level or below detectible levels
- MW-14 — Monitor Wells Installed for Crossroads Grocery

Surface Water Results

Stream(s) Sample Points	Sample Date	Surface Water Results (ppb)	Soil Results (ppb)
stream #1, pt.1	1/8/98	Benz & Ethylben:BDL Tol & Xyl: ND	
	2/18/98	BTEX: ND	
stream #2, pt. 1 (ponding above qz gully)	1/8/98	Benz: 238; Tolu: 2; Ethylben & Xyl: ND	
	2/18/98	Benz: 55.5; Tol, Ethylben & Xyl: ND	
stream #2, pt. 2 quartz vein gully	1/9/98	Benz: 28; Tolu: 1; Ethylben: 3I Xyl: BDL	BTEX: BDL @ 4' depth
	2/18/98	Benz: 33.7; Tol, Ethylben & Xyl: ND	
stream #2, pt. 3 underground gully	2/18/98	Benz: 174; Tol, Ethylben & Xyl: ND	
	2/19/98	Benz: 318; Tol, Ethylben & Xyl: ND	
stream #2, pt. 4 400 feet downstream	2/18/98	Benz: 13.3; Tol, Ethylben & Xyl: ND	
stream #3A, pt. 1 small ponding section	2/18/98	BTEX: ND	
stream #3, pt.1	1/8/98	Ethylben: ND Benz, Tol & Xyl: BDL	



Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Monitor Wells Location Map

Drafted by: Mirta A. Carpenter
Draft Date: 5/7/98

FIGURE 5

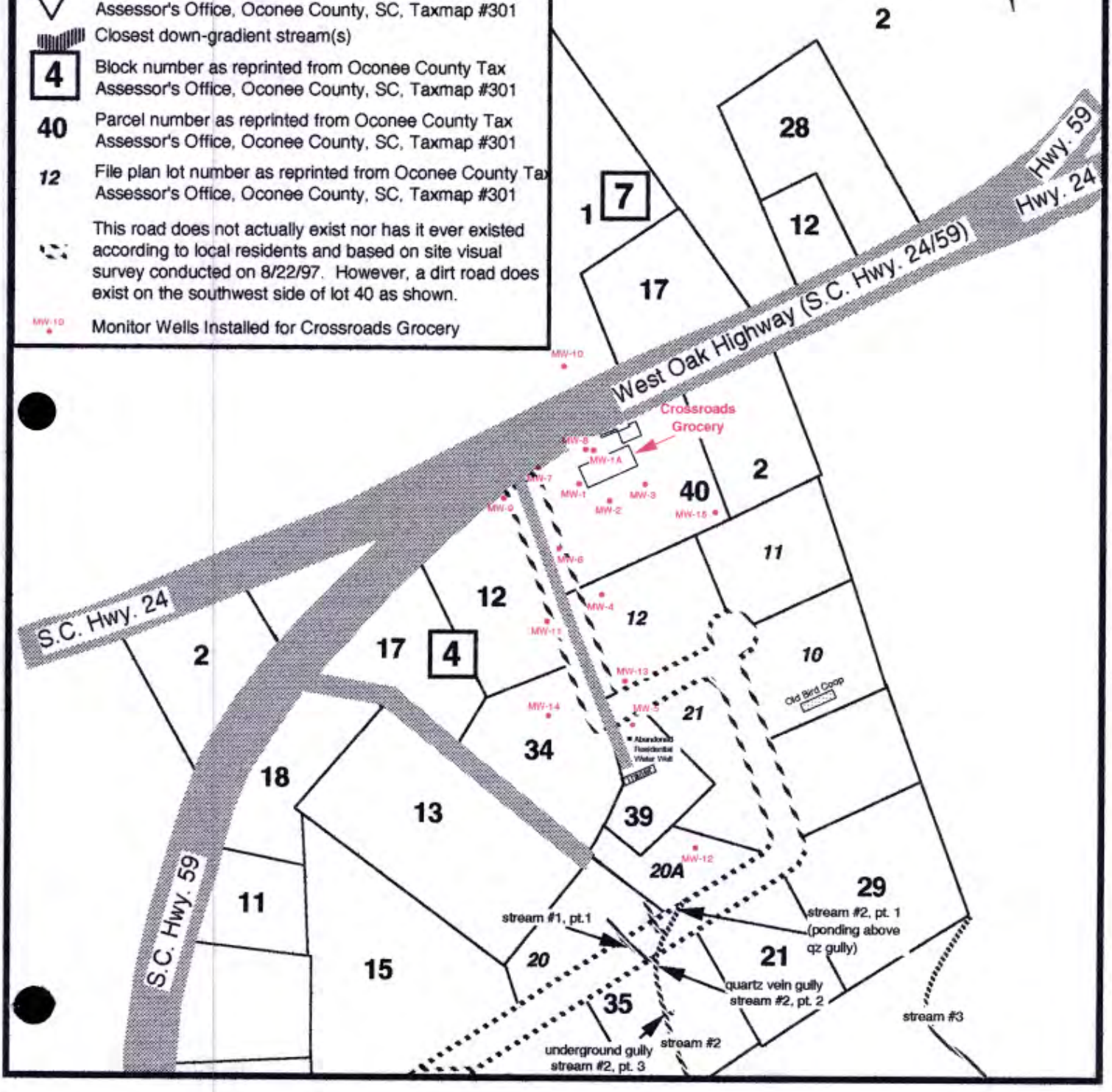
Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

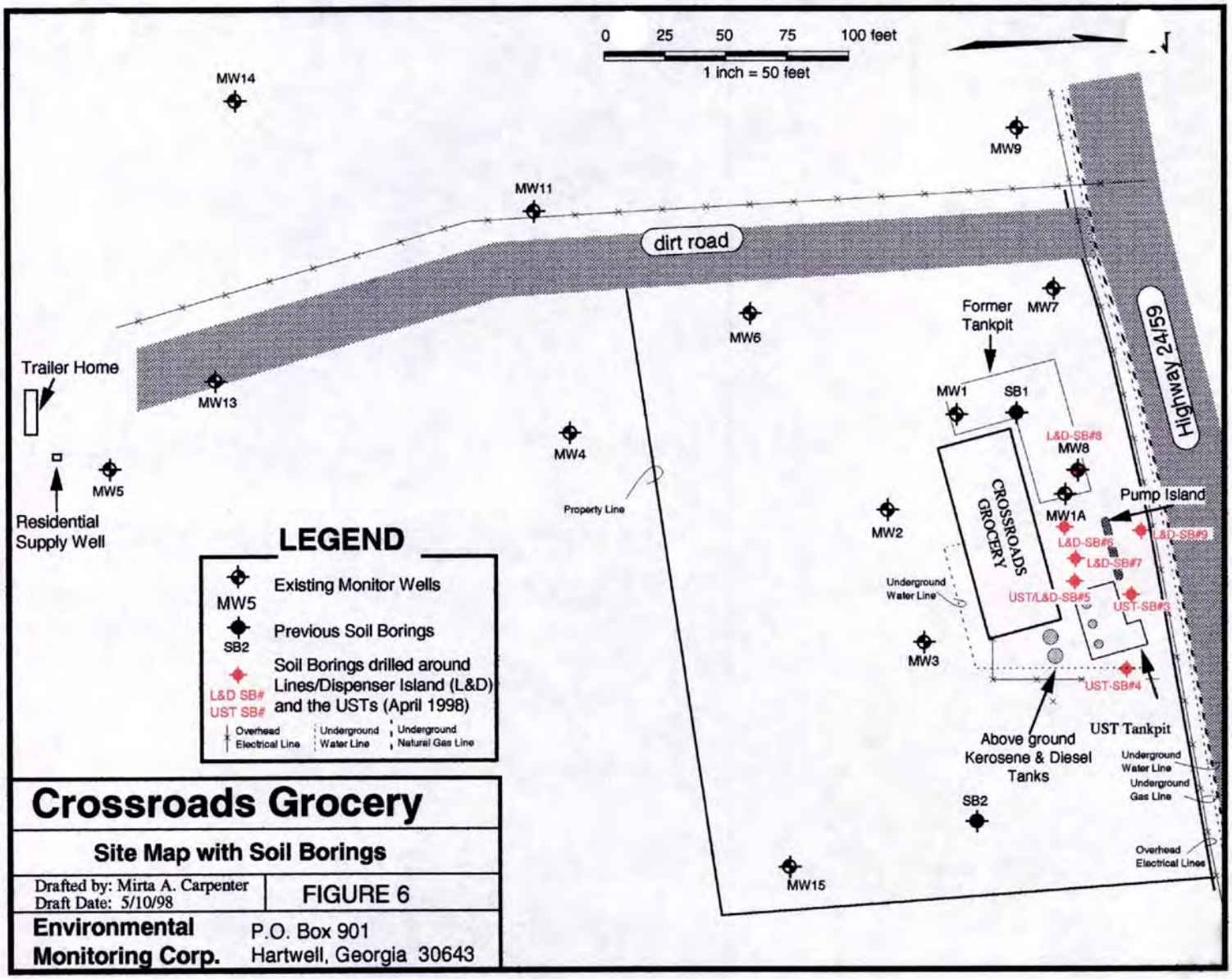
0 100 200 300 400 feet
1 inch = 200 feet

N

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- 4 — Block number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- 40 — Parcel number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- 12 — File plan lot number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- This road does not actually exist nor has it ever existed according to local residents and based on site visual survey conducted on 8/22/97. However, a dirt road does exist on the southwest side of lot 40 as shown.
- MW-10 — Monitor Wells Installed for Crossroads Grocery





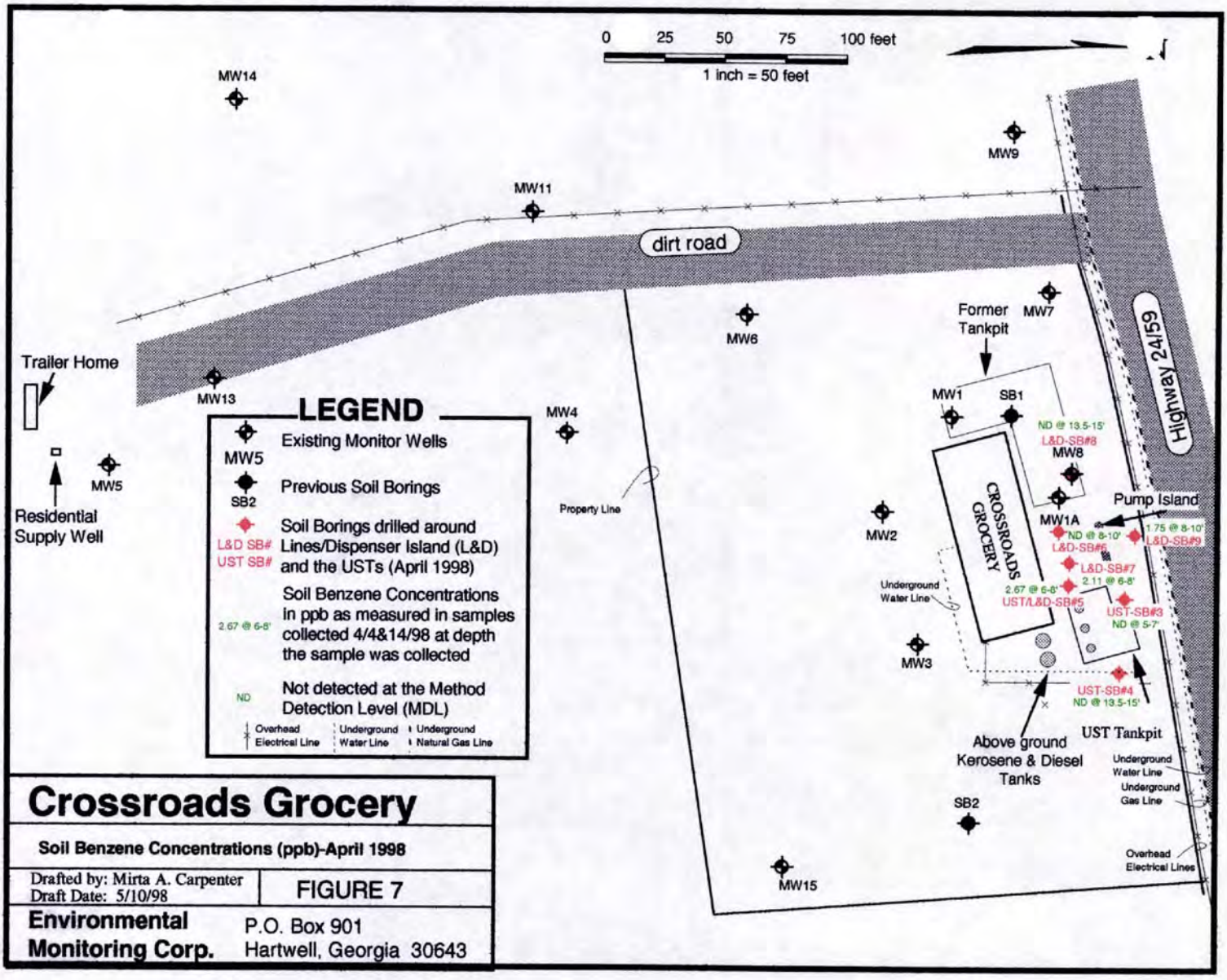
Crossroads Grocery

Site Map with Soil Borings

Drafted by: Mirta A. Carpenter
Draft Date: 5/10/98

FIGURE 6

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia 30643



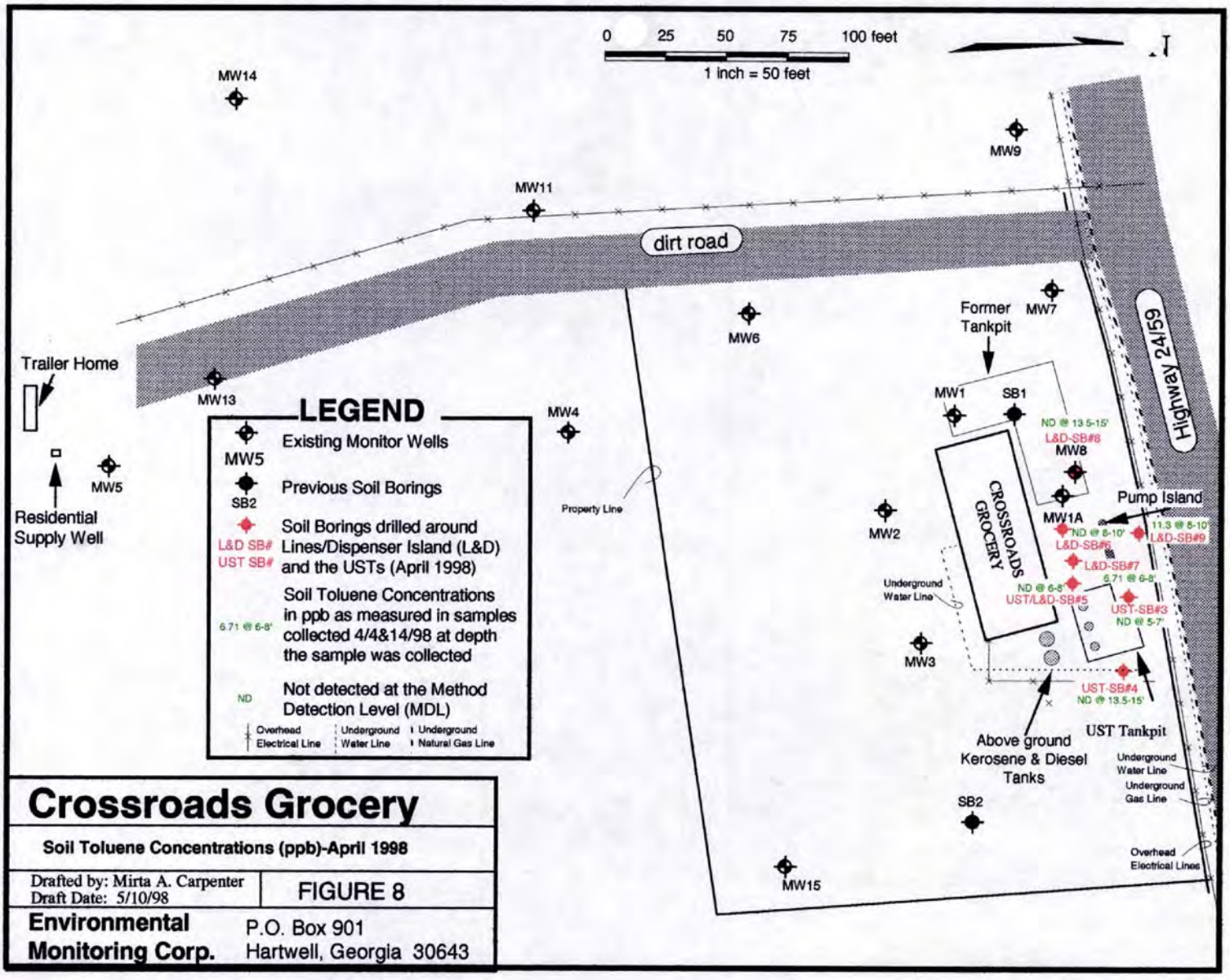
Crossroads Grocery

Soil Benzene Concentrations (ppb)-April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/10/98

FIGURE 7

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia 30643

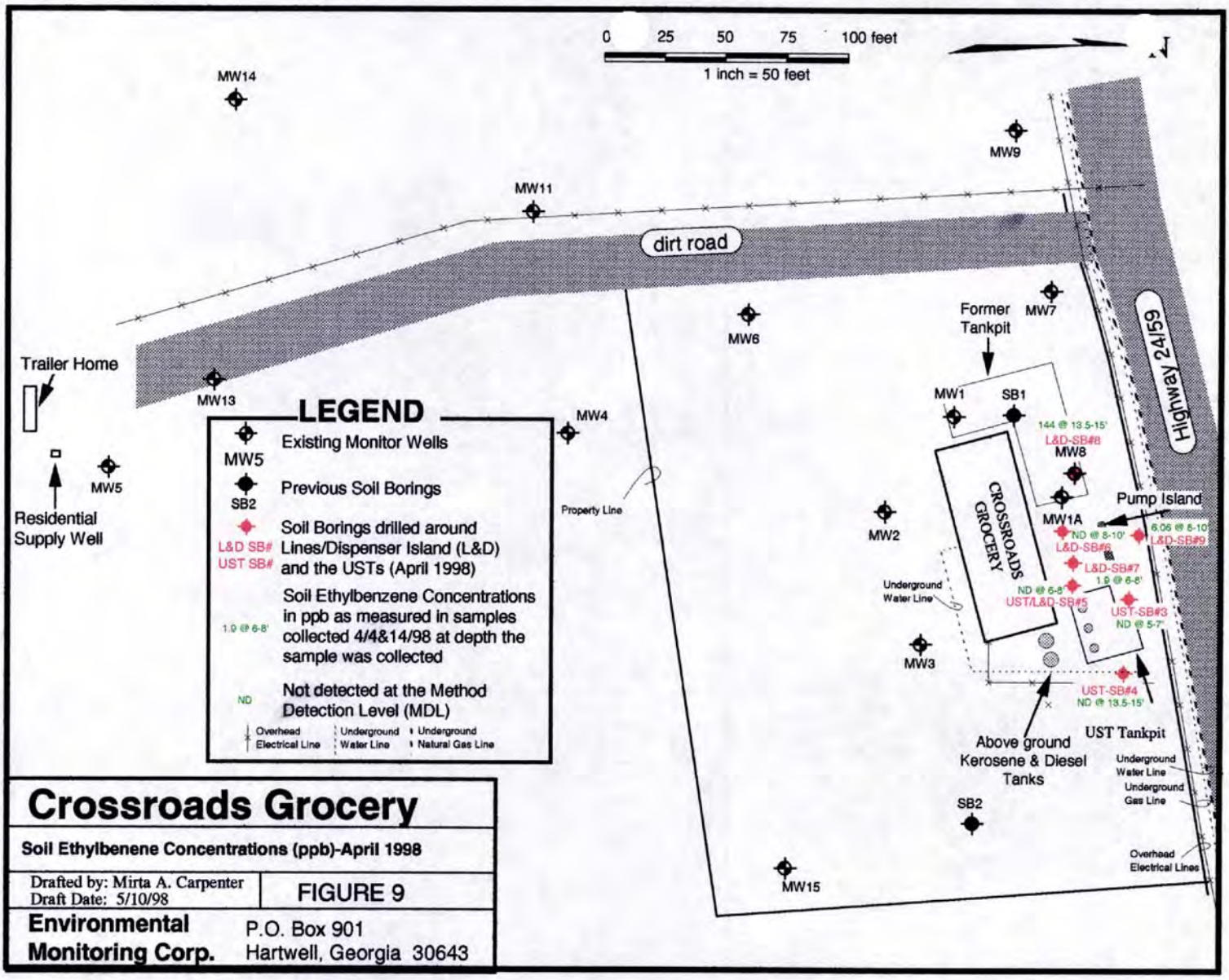


Crossroads Grocery

Soil Toluene Concentrations (ppb)-April 1998

Drafted by: Mirta A. Carpenter Draft Date: 5/10/98	FIGURE 8

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia 30643



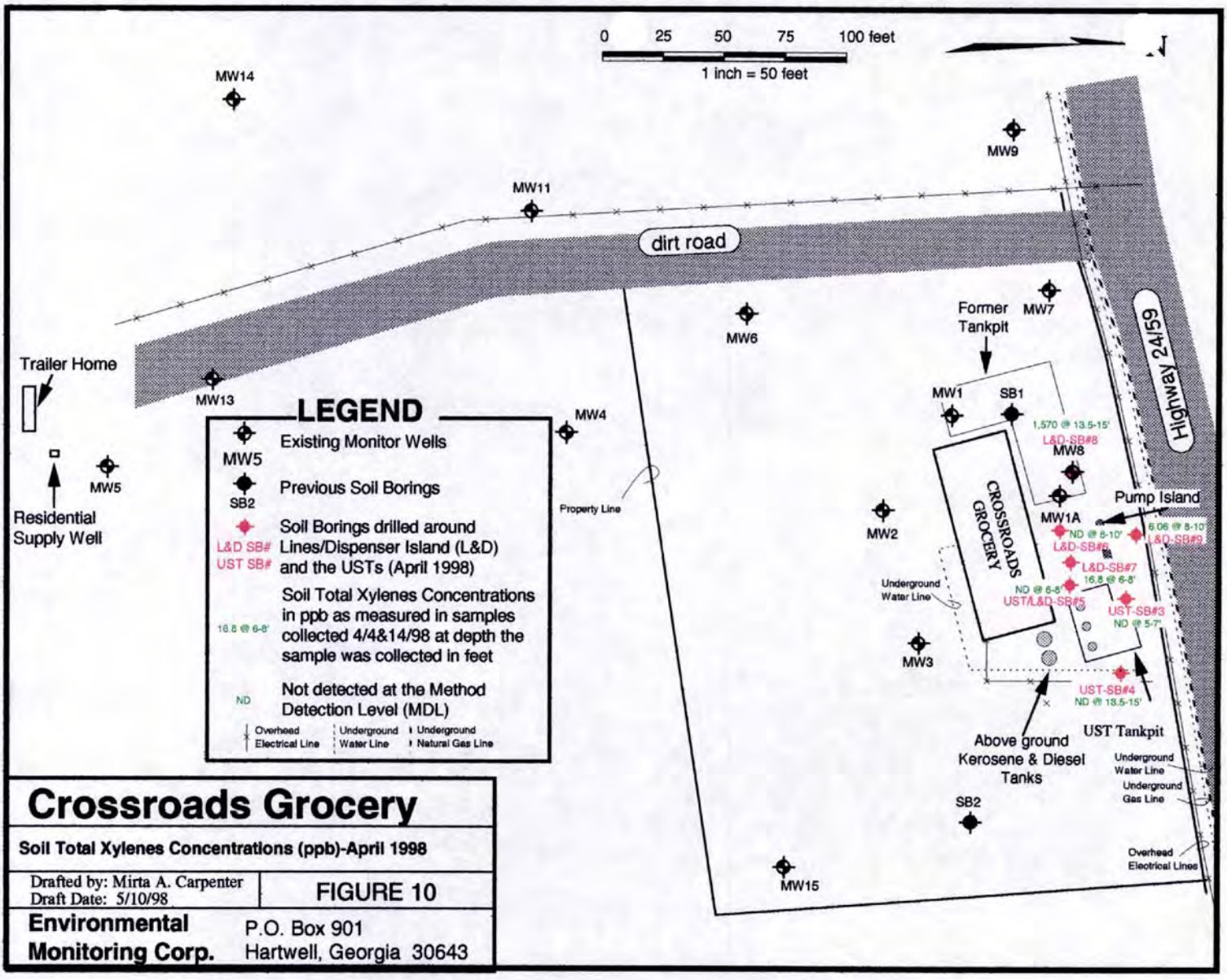
Crossroads Grocery

Soil Ethylbenene Concentrations (ppb)-April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/10/98

FIGURE 9

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia 30643



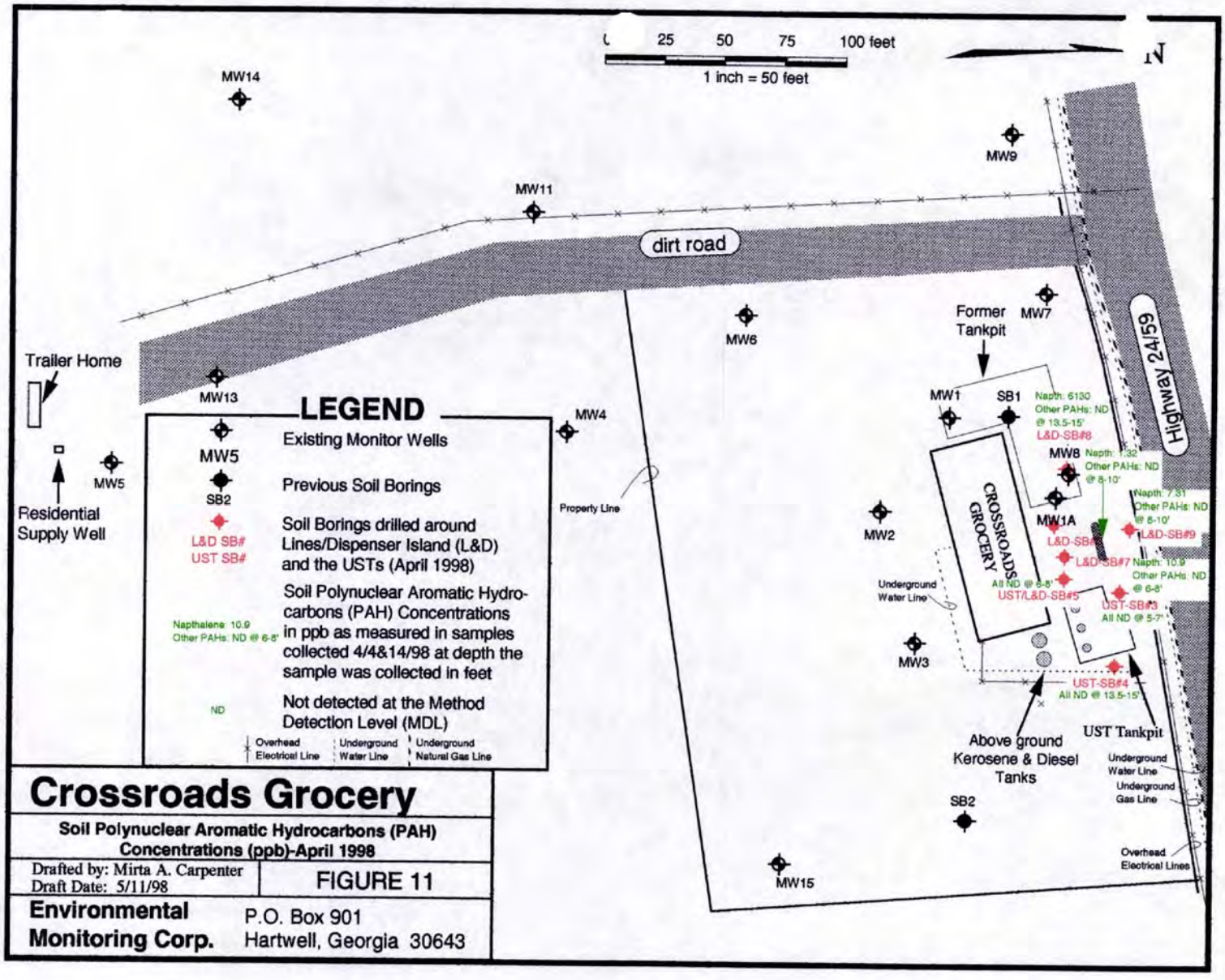
Crossroads Grocery

Soil Total Xylenes Concentrations (ppb)-April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/10/98

FIGURE 10

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia 30643



Crossroads Grocery

Soil Polynuclear Aromatic Hydrocarbons (PAH) Concentrations (ppb)-April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/11/98

FIGURE 11

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia 30643

Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Groundwater 1,2,4-Trimethylbenzene, 1,2-Dibromoethane (EDB) & 1,3,5-Trimethylbenzene Concentrations (ppb) - April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/11/98

FIGURE 12

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

0 100 200 300 400 feet

1 inch = 200 feet

N

LEGEND

Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301

Closest down-gradient stream(s)

This road does not actually exist nor has it ever existed according to local residents and based on site visual survey conducted on 8/22/97. However, a dirt road does exist on the southwest side of lot 40 as shown.

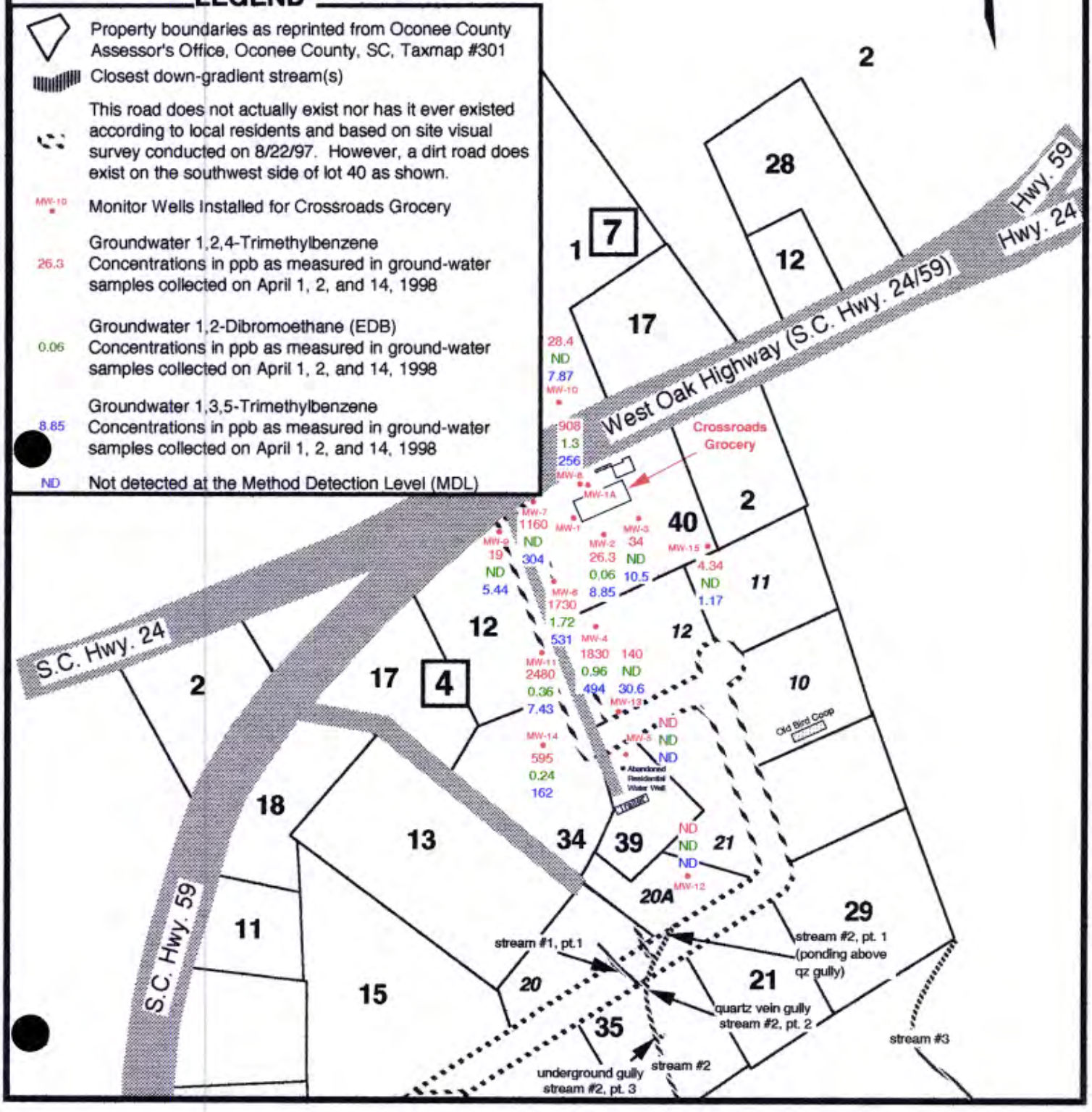
MW-10 Monitor Wells Installed for Crossroads Grocery

26.3 Groundwater 1,2,4-Trimethylbenzene Concentrations in ppb as measured in ground-water samples collected on April 1, 2, and 14, 1998

0.06 Groundwater 1,2-Dibromoethane (EDB) Concentrations in ppb as measured in ground-water samples collected on April 1, 2, and 14, 1998

8.85 Groundwater 1,3,5-Trimethylbenzene Concentrations in ppb as measured in ground-water samples collected on April 1, 2, and 14, 1998

ND Not detected at the Method Detection Level (MDL)



Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Dissolved-Phase Nitrate, Sulfate, Ferrous Iron, and Oxygen Concentrations (ppm) - April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/11/98

FIGURE 13

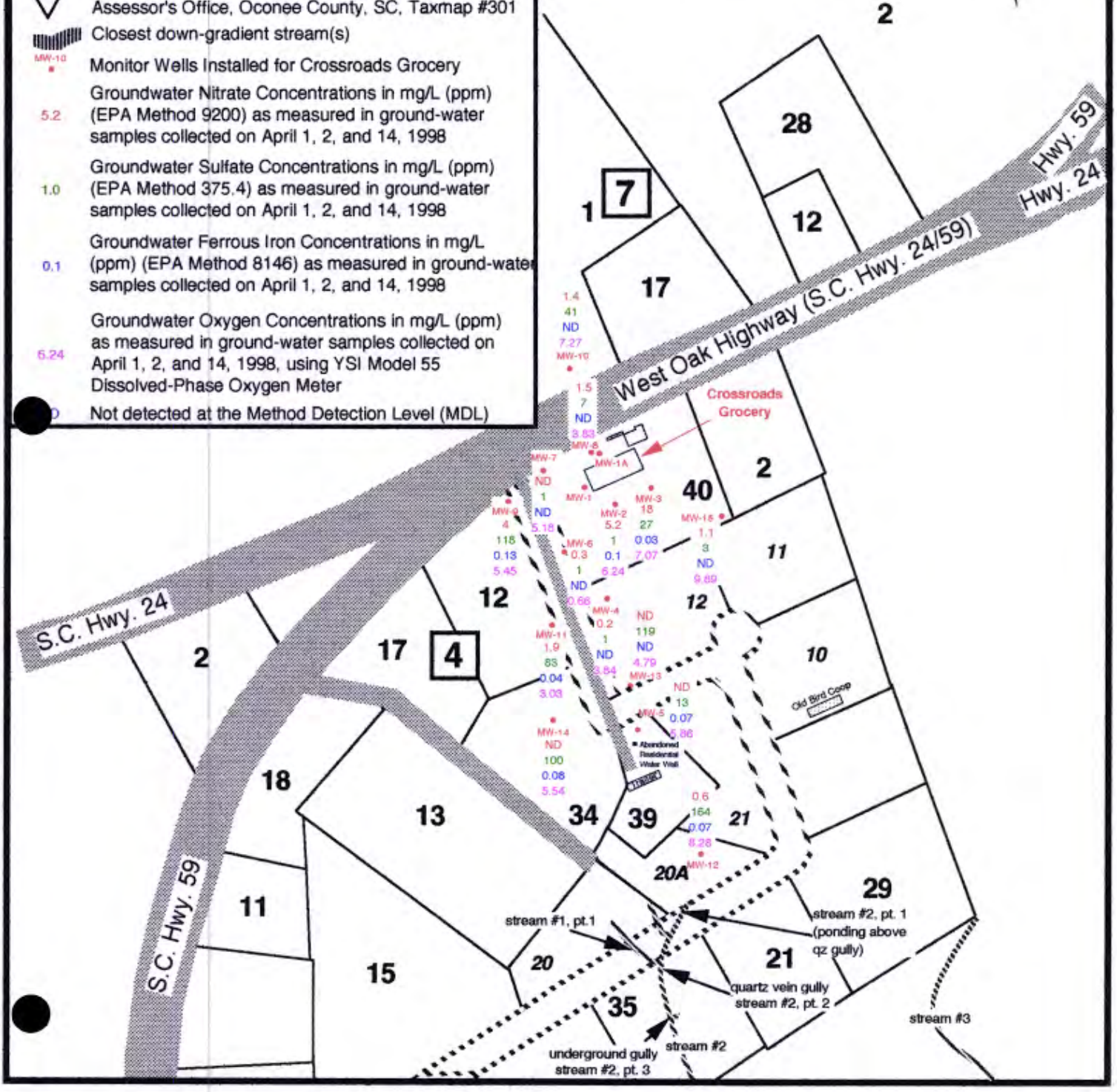
Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

0 100 200 300 400 feet
1 inch = 200 feet

N

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- MW-10 — Monitor Wells Installed for Crossroads Grocery
- 5.2 — Groundwater Nitrate Concentrations in mg/L (ppm) (EPA Method 9200) as measured in ground-water samples collected on April 1, 2, and 14, 1998
- 1.0 — Groundwater Sulfate Concentrations in mg/L (ppm) (EPA Method 375.4) as measured in ground-water samples collected on April 1, 2, and 14, 1998
- 0.1 — Groundwater Ferrous Iron Concentrations in mg/L (ppm) (EPA Method 8146) as measured in ground-water samples collected on April 1, 2, and 14, 1998
- 6.24 — Groundwater Oxygen Concentrations in mg/L (ppm) as measured in ground-water samples collected on April 1, 2, and 14, 1998, using YSI Model 55 Dissolved-Phase Oxygen Meter
- D — Not detected at the Method Detection Level (MDL)



Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

MTBE Dissolved-Phase Hydrocarbon Plume
April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/11/98

FIGURE 14

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

0 100 200 300 400 feet
1 inch = 200 feet

N

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- MW-10 — Monitor Wells Installed for Crossroads Grocery
- 35,500 — Groundwater Methyl Tertiary Butyl Ether (MTBE) Concentrations in ppb as measured in ground-water samples collected on April 1, 2, and 14, 1998
- ND — Not detected at the Method Detection Level (MDL)
- FP — Free Product which measured 0.01' or greater in apparent thickness on April 2 & 14, 1998
- Free Product
- > 10,000 ppb
- > BDL
- −10,000− MTBE Isochem
- BDL — Below Detection Limit

West Oak Highway (S.C. Hwy. 24/59)
Hwy. 59
Hwy. 24
S.C. Hwy. 24
S.C. Hwy. 59
Crossroads Grocery
Old Bird Coop
Abandoned Residential Water Well
stream #1, pt.1
stream #2, pt. 1 (ponding above qz gully)
quartz vein gully stream #2, pt. 2
stream #2
stream #3
underground gully stream #2, pt. 3

Crossroads Grocery

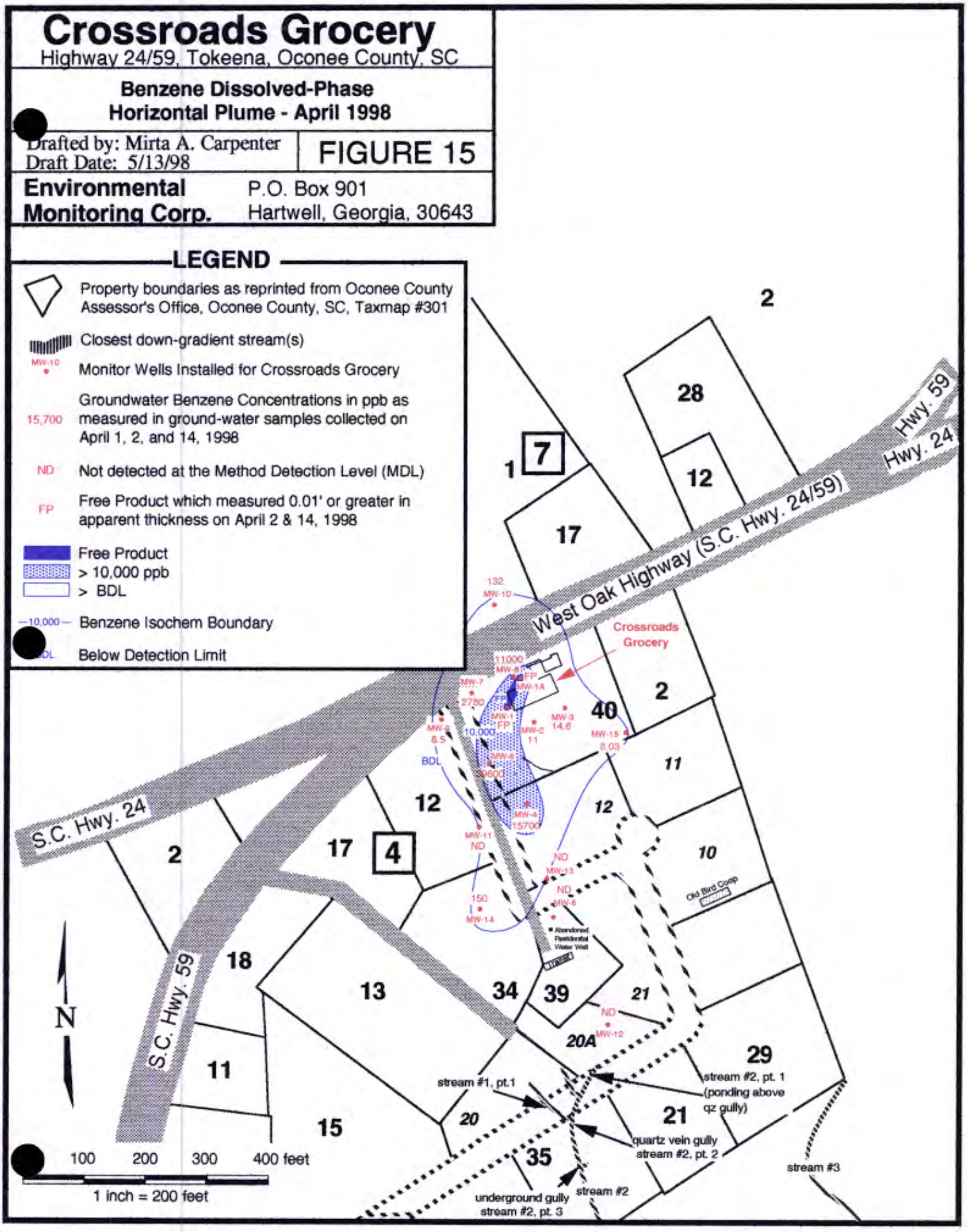
Highway 24/59, Tokeena, Oconee County, SC

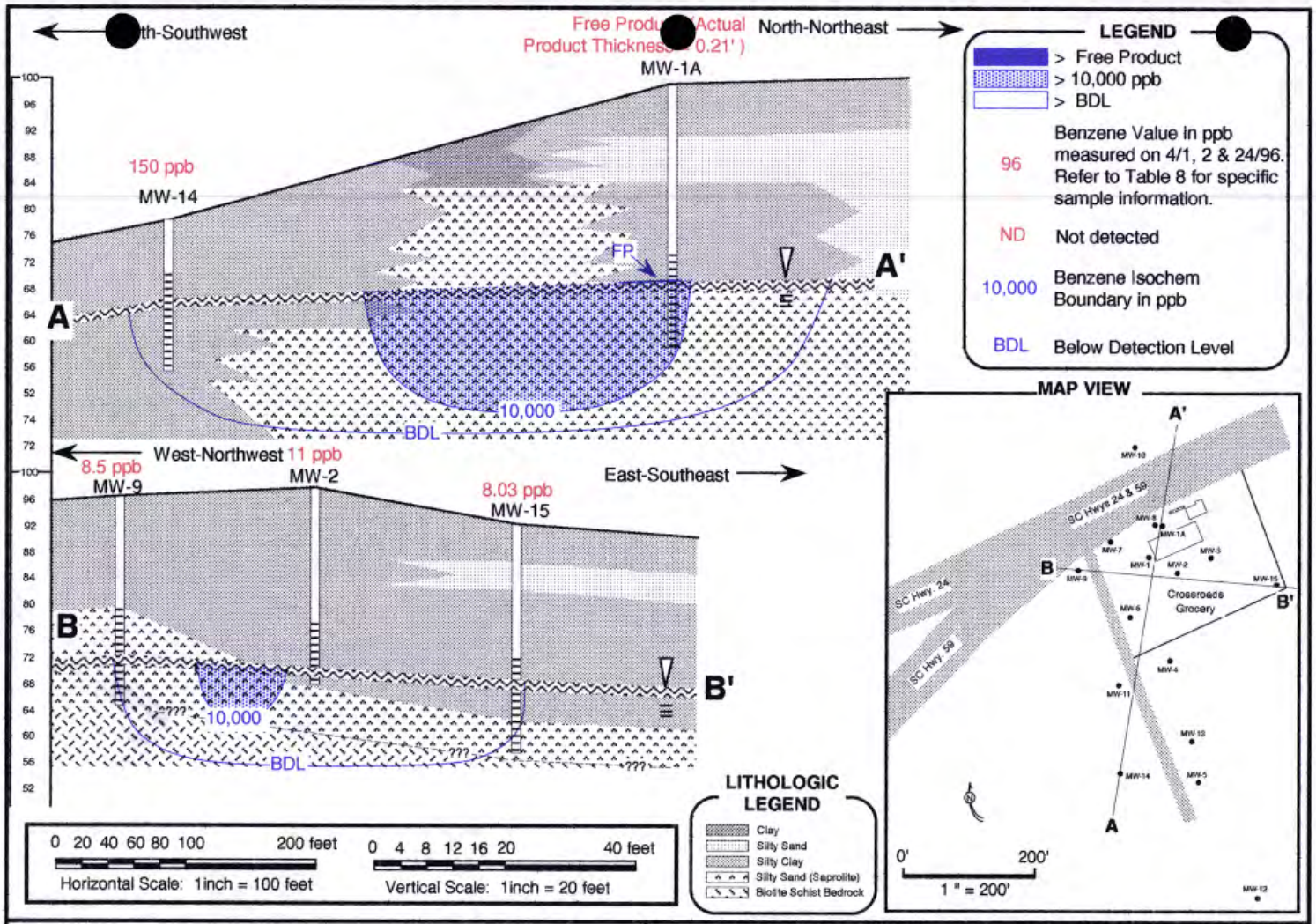
Benzene Dissolved-Phase Horizontal Plume - April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/13/98

FIGURE 15

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643





Crossroads Grocery

Ground-Water Benzene Concentrations in ppb
(A-A' & B-B' Cross-Sections) April 1,2 & 14, 1998

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia

Drafted by: Mirta A. Carpenter 5/13/98
Scale: 1"=100' Horizontal 1"= 20' Vertical

FIGURE 16

Crossroads Grocery

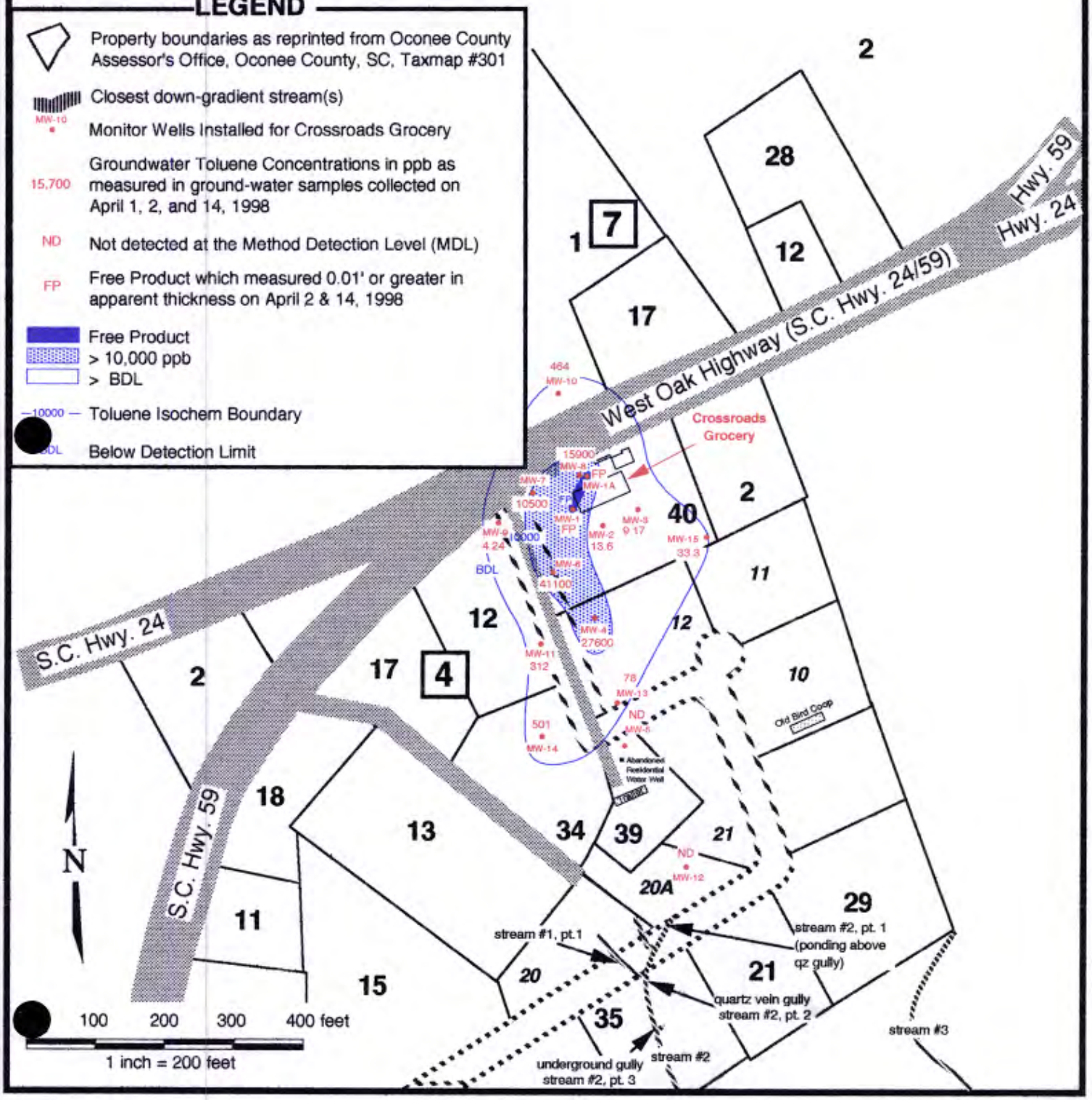
Highway 24/59, Tokeena, Oconee County, SC

Toluene Dissolved-Phase Horizontal Plume - April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/13/98

FIGURE 17

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643



Crossroads Grocery

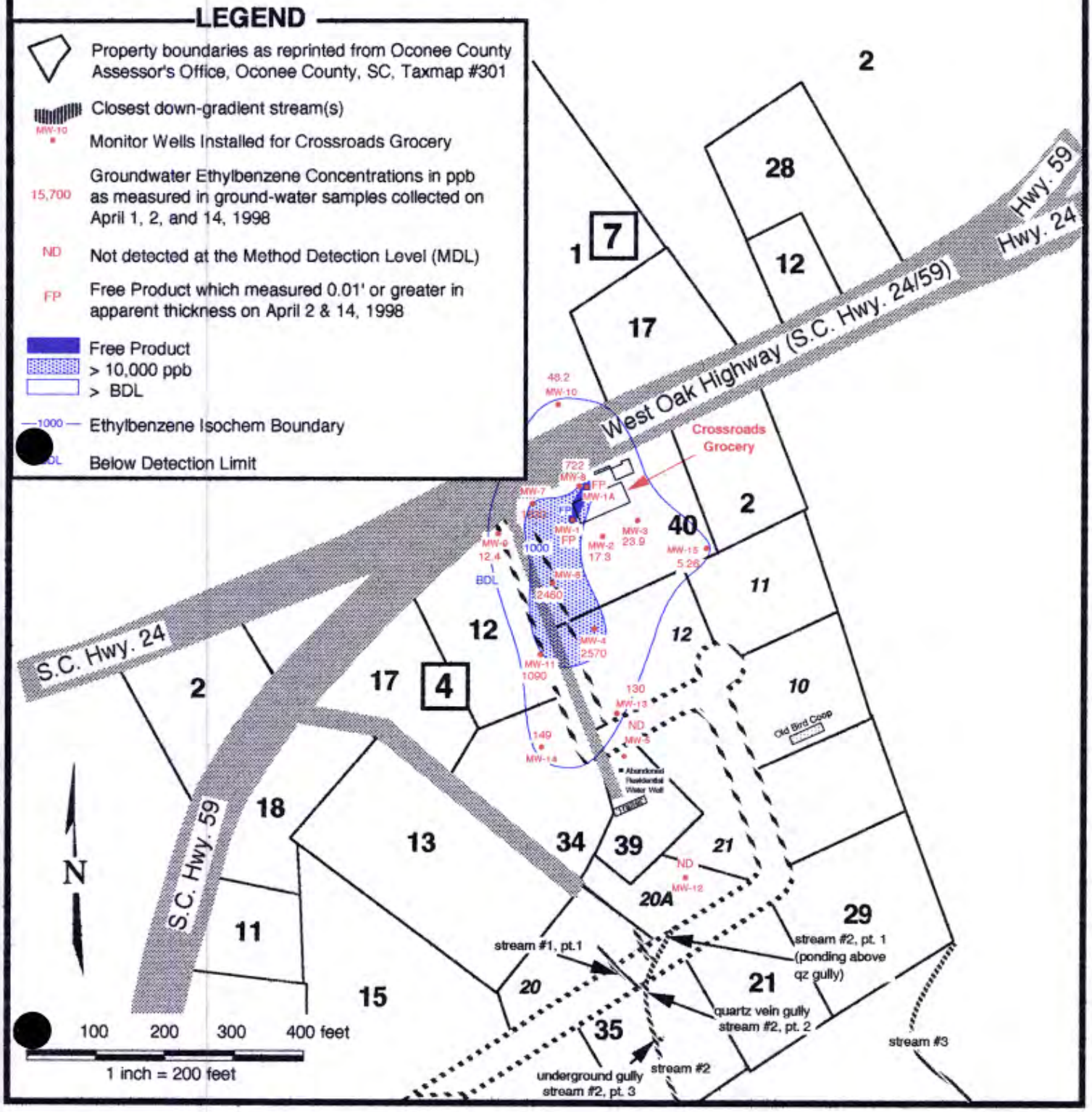
Highway 24/59, Tokeena, Oconee County, SC

Ethylbenzene Dissolved-Phase Horizontal Plume - April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/13/98

FIGURE 18

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643



Crossroads Grocery

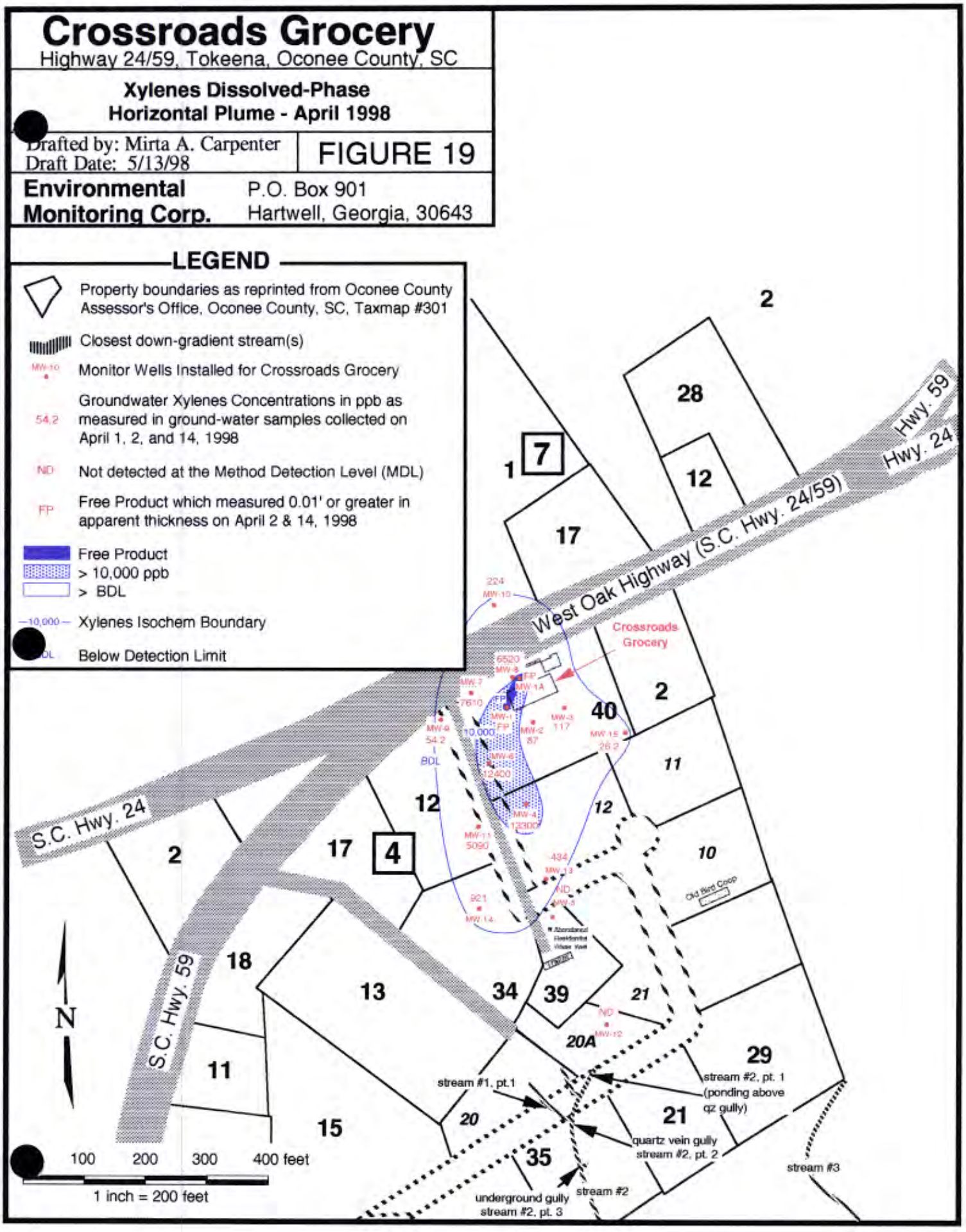
Highway 24/59, Tokeena, Oconee County, SC

Xylenes Dissolved-Phase Horizontal Plume - April 1998

Drafted by: Mirta A. Carpenter
Draft Date: 5/13/98

FIGURE 19

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643



Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

BTEX Dissolved-Phase Plume (BIOSCREEN Data Used with Instantaneous Reaction Model)
April 1998

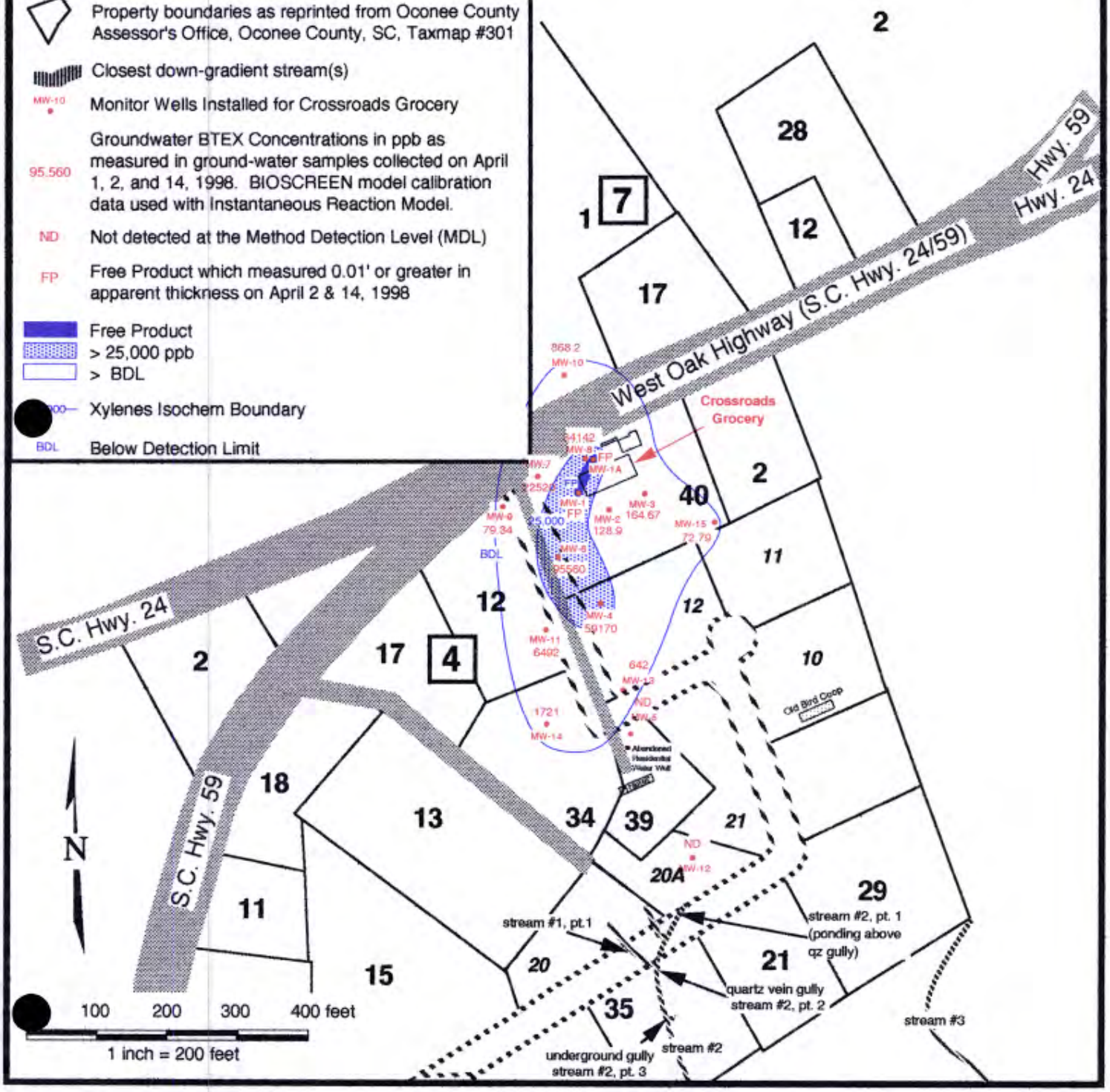
Drafted by: Mirta A. Carpenter
Draft Date: 5/16/98

FIGURE 20

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- MW-10 — Monitor Wells Installed for Crossroads Grocery
- 95,560 — Groundwater BTEX Concentrations in ppb as measured in ground-water samples collected on April 1, 2, and 14, 1998. BIOSCREEN model calibration data used with Instantaneous Reaction Model.
- ND — Not detected at the Method Detection Level (MDL)
- FP — Free Product which measured 0.01' or greater in apparent thickness on April 2 & 14, 1998
- Free Product
- > 25,000 ppb
- > BDL
- Xylenes Isochem Boundary
- BDL — Below Detection Limit



Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Naphthalene Dissolved-Phase Plume - April 1998
Polynuclear Aromatic Hydrocarbons (PAH)
Concentrations in ppb

Drafted by: Mirta A. Carpenter
Draft Date: 5/11/98

FIGURE 21

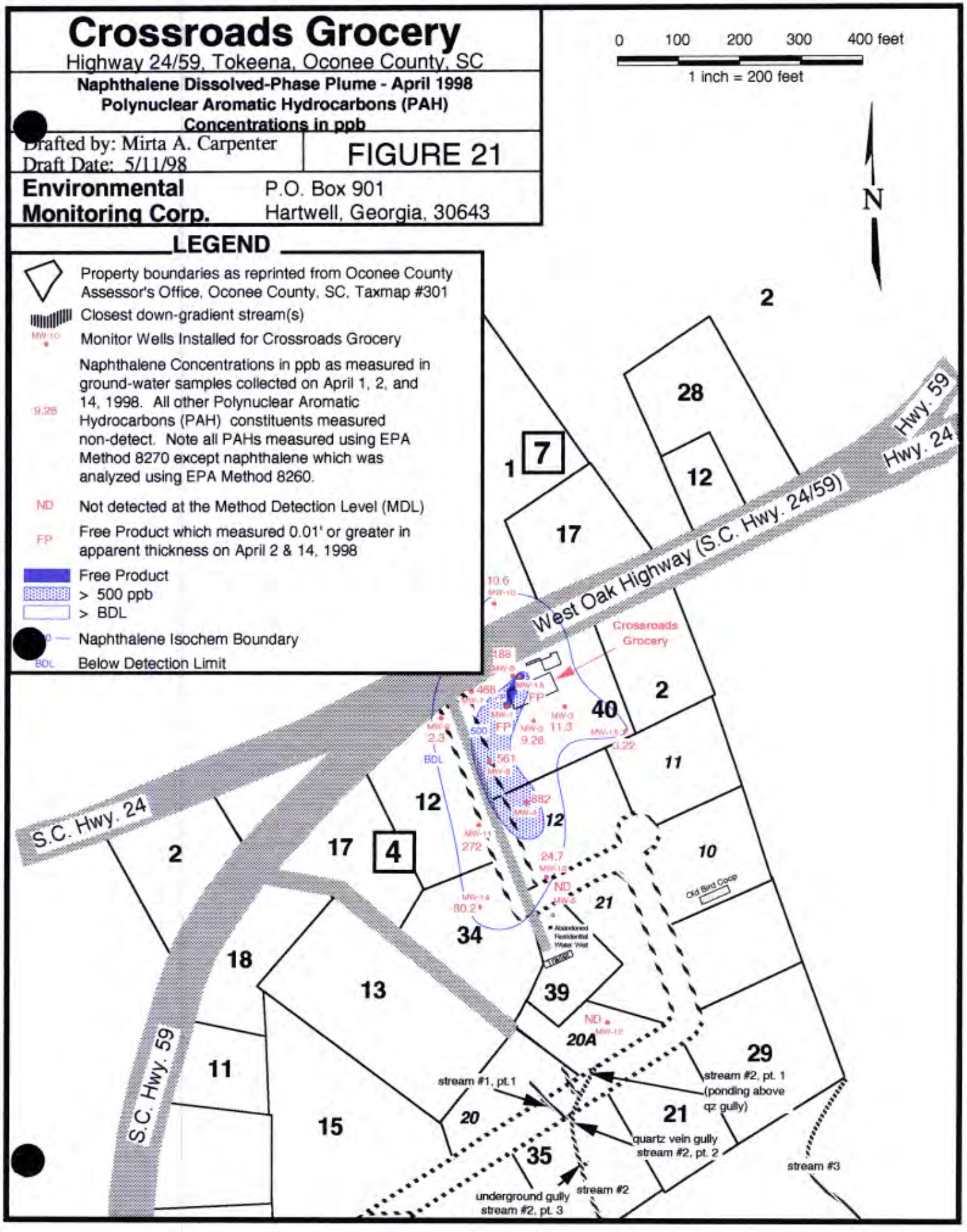
Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

0 100 200 300 400 feet
1 inch = 200 feet

N

LEGEND

- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- MW-10 — Monitor Wells Installed for Crossroads Grocery
- 9.28 — Naphthalene Concentrations in ppb as measured in ground-water samples collected on April 1, 2, and 14, 1998. All other Polynuclear Aromatic Hydrocarbons (PAH) constituents measured non-detect. Note all PAHs measured using EPA Method 8270 except naphthalene which was analyzed using EPA Method 8260.
- ND — Not detected at the Method Detection Level (MDL)
- FP — Free Product which measured 0.01' or greater in apparent thickness on April 2 & 14, 1998
- Free Product
- > 500 ppb
- > BDL
- Naphthalene Isochem Boundary
- BDL — Below Detection Limit



Crossroads Grocery

Highway 24/59, Tokeena, Oconee County, SC

Equipotential Map of the Watertable on 4/1&2/98 - Site and Vicinity

Drafted by: Mirta A. Carpenter
Draft Date: 5/10/98

FIGURE 22

Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia, 30643

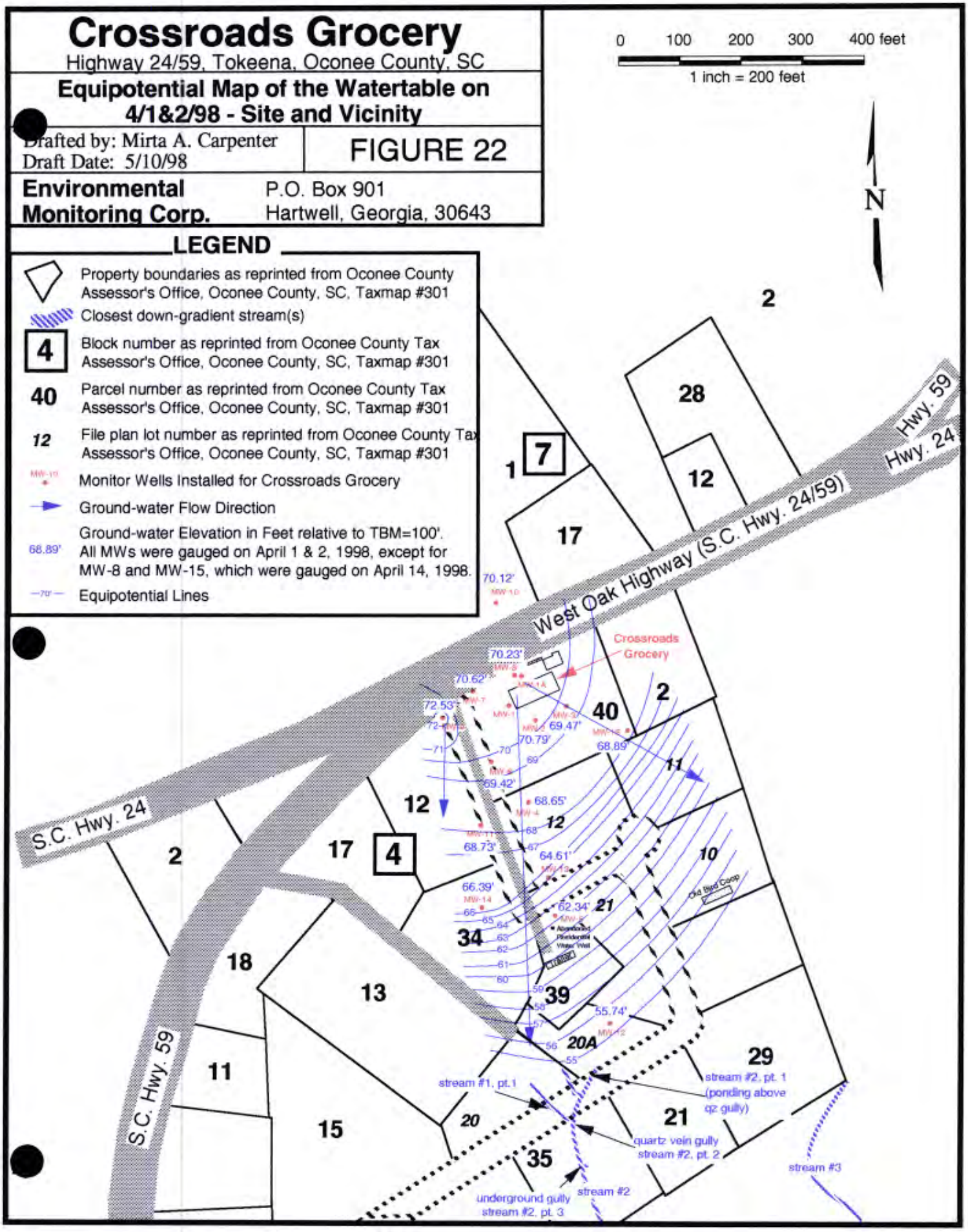
0 100 200 300 400 feet

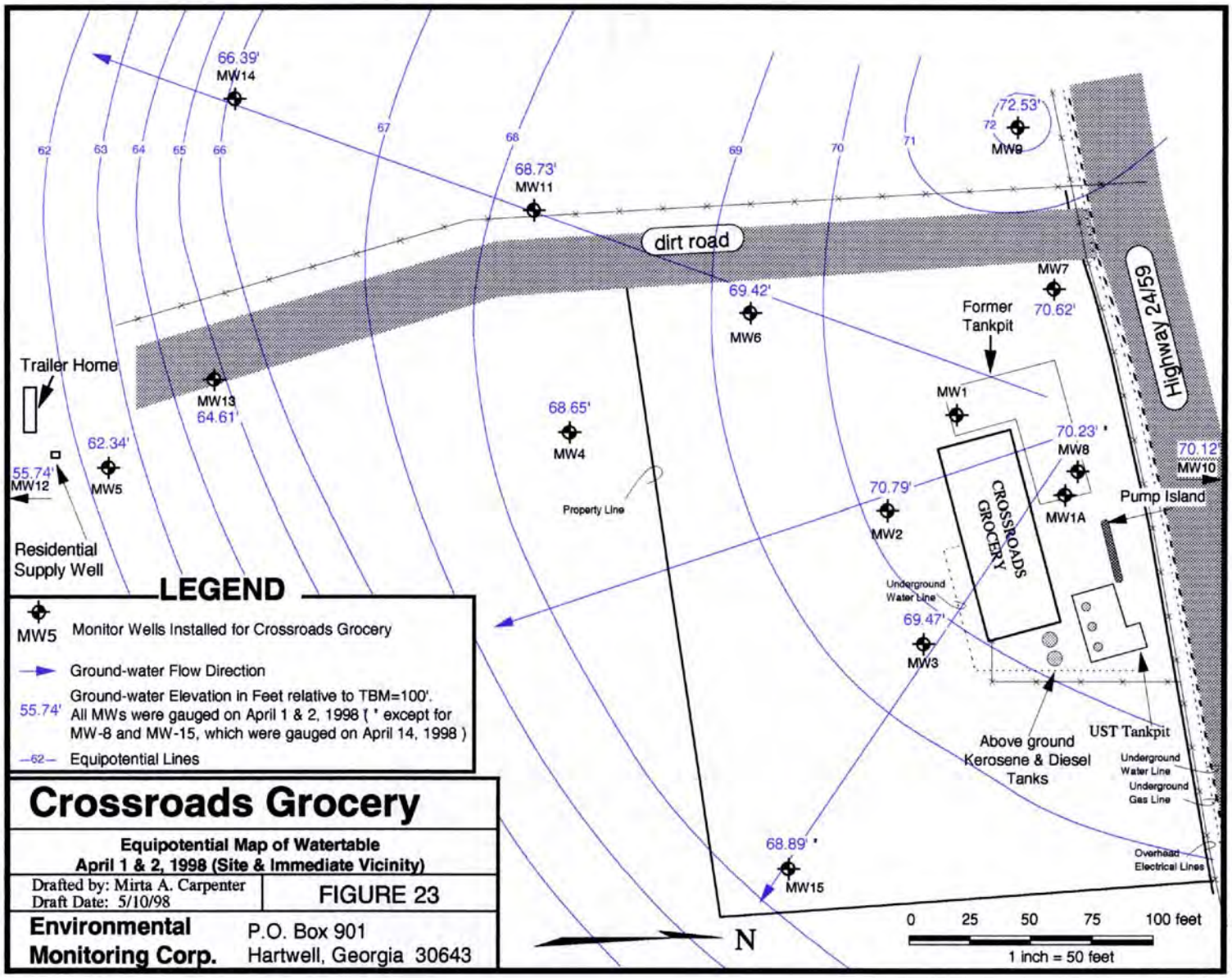
1 inch = 200 feet

N

LEGEND

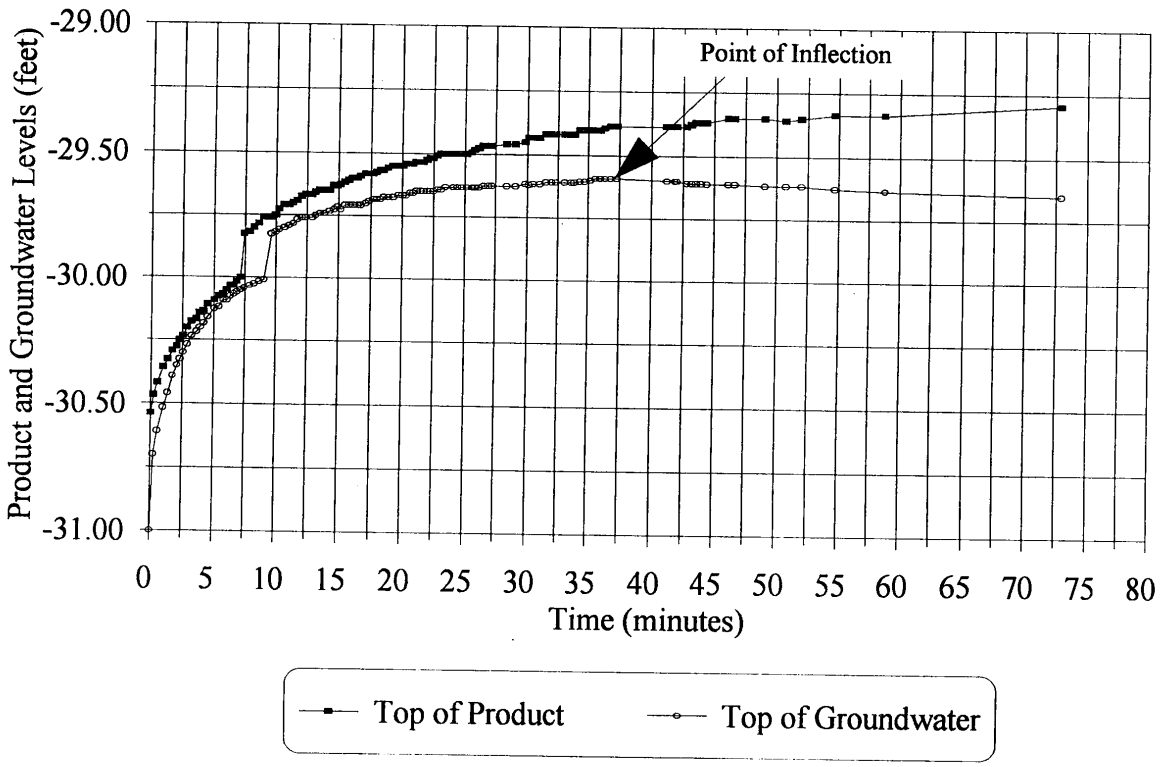
- Property boundaries as reprinted from Oconee County Assessor's Office, Oconee County, SC, Taxmap #301
- Closest down-gradient stream(s)
- 4 — Block number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- 40 — Parcel number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- 12 — File plan lot number as reprinted from Oconee County Tax Assessor's Office, Oconee County, SC, Taxmap #301
- MW-10 — Monitor Wells Installed for Crossroads Grocery
- Ground-water Flow Direction
- 68.89' — Ground-water Elevation in Feet relative to TBM=100'. All MWs were gauged on April 1 & 2, 1998, except for MW-8 and MW-15, which were gauged on April 14, 1998.
- —70'— Equipotential Lines




66.39'
MW14
72.53'
MW9
68.73'
MW11
dirt road
69.42'
MW6
MW7
70.62'
Former
Tankpit
Highway 24/59
Trailer Home
MW13
64.61'
MW1
68.65'
MW4
70.23' *
MW8
70.12'
MW10
62.34'
55.74'
MW12
MW5
70.79'
MW2
MW1A
Pump Island
Property Line
CROSSROADS
GROCERY
Underground
Water Line
69.47'
MW3
Residential
Supply Well
UST Tankpit
Above ground
Kerosene & Diesel
Tanks
Underground
Water Line
Underground
Gas Line
68.89' *
MW15
Overhead
Electrical Lines
N
0 25 50 75 100 feet
1 inch = 50 feet
LEGEND
MW5 Monitor Wells Installed for Crossroads Grocery
Ground-water Flow Direction
55.74' Ground-water Elevation in Feet relative to TBM=100'. All MWs were gauged on April 1 & 2, 1998 (* except for MW-8 and MW-15, which were gauged on April 14, 1998)
62 Equipotential Lines
Crossroads Grocery
Equipotential Map of Watertable
April 1 & 2, 1998 (Site & Immediate Vicinity)
Drafted by: Mirta A. Carpenter
Draft Date: 5/10/98
FIGURE 23
Environmental Monitoring Corp.
P.O. Box 901
Hartwell, Georgia 30643

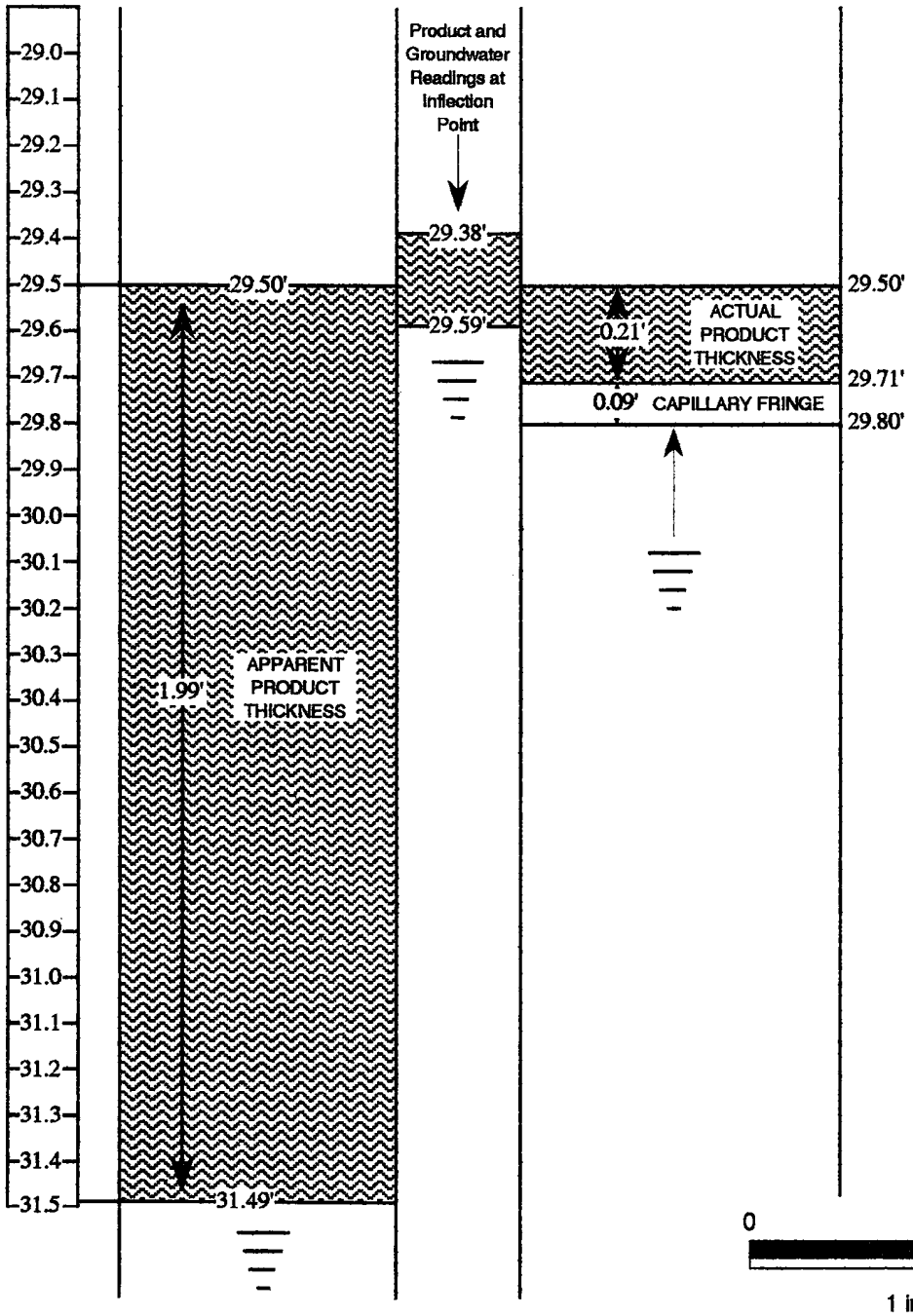
Free Product Recovery Test #1

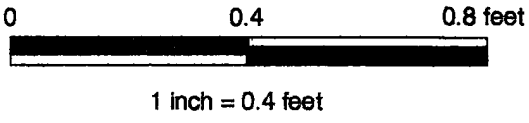
April 5, 1998 (MW-1A)



Site: Crossroads Grocery **Facility I.D. #06742**	**Free Product Recovery Test#1: Top of Product and Top of Groundwater Depths versus Time Plot - April 5, 1998**	
Environmental Monitoring Corporation P.O. Box 901, Hartwell, GA 30643	Recorded By: Mirta A. Carpenter Record Date: April 5, 1998	**FIGURE 24**

	PRODUCT	WATER	W-P
INFLECTION POINT DEPTH	29.38	29.59	0.21
STATIC DEPTH	29.50	31.49	1.99
CORRECTED DEPTH	29.29 (Stabilized Product)	29.80 (GW Depth based on Cap Fringe)	





Site: Crossroads Grocery **Facility I.D. #06742**	**Free Product Recovery Test#1** **April 5, 1998** **Calculation Brief**
Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC	**FIGURE 25**
Environmental Monitoring Corporation P.O. Box 901, Hartwell, GA 30643	Recorded By: Mirta A. Carpenter Record Date: April 5, 1998

MTBE FINAL CALIBRATION SIMULATION: BIOSCREEN INPUT DATA

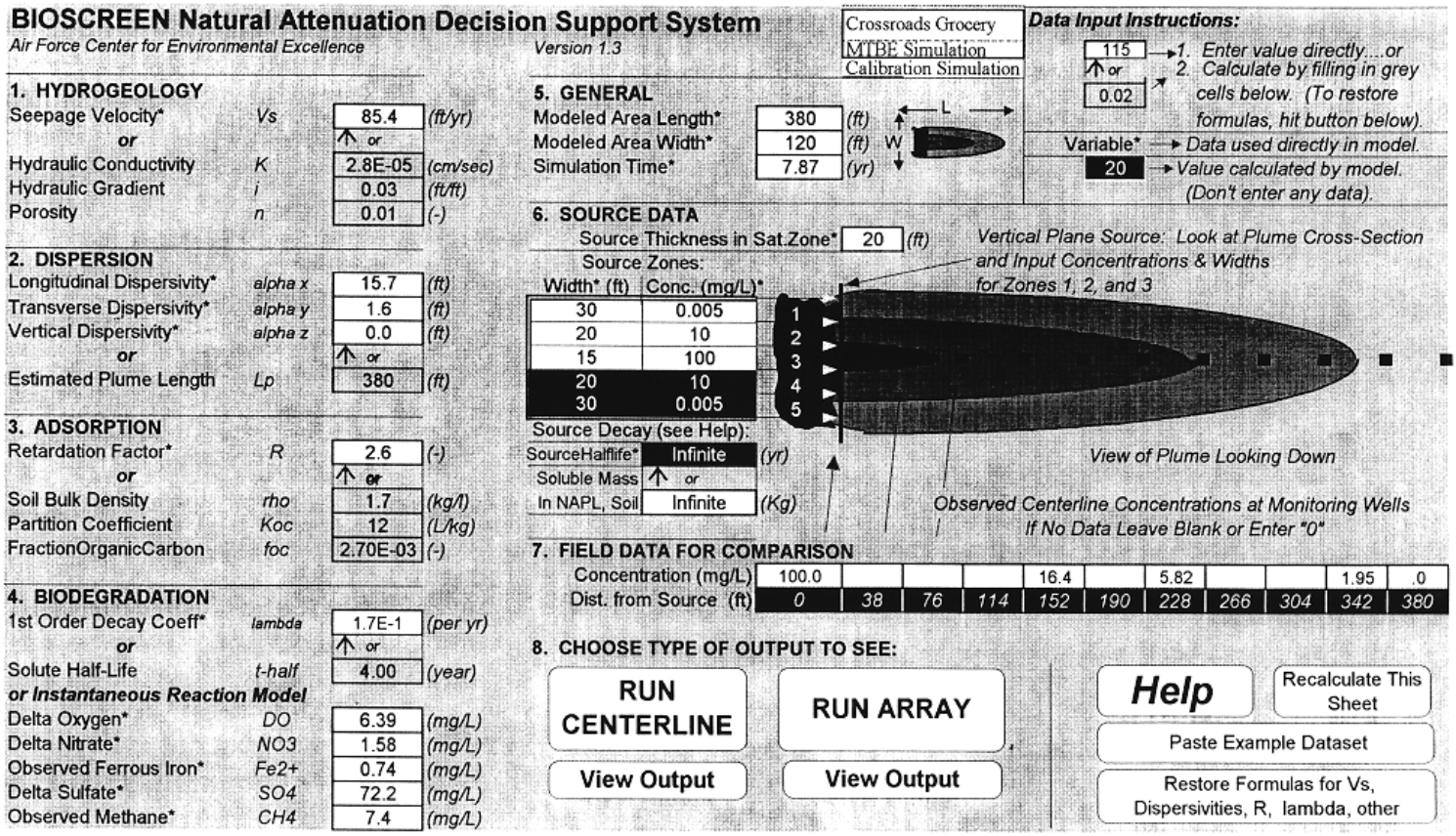
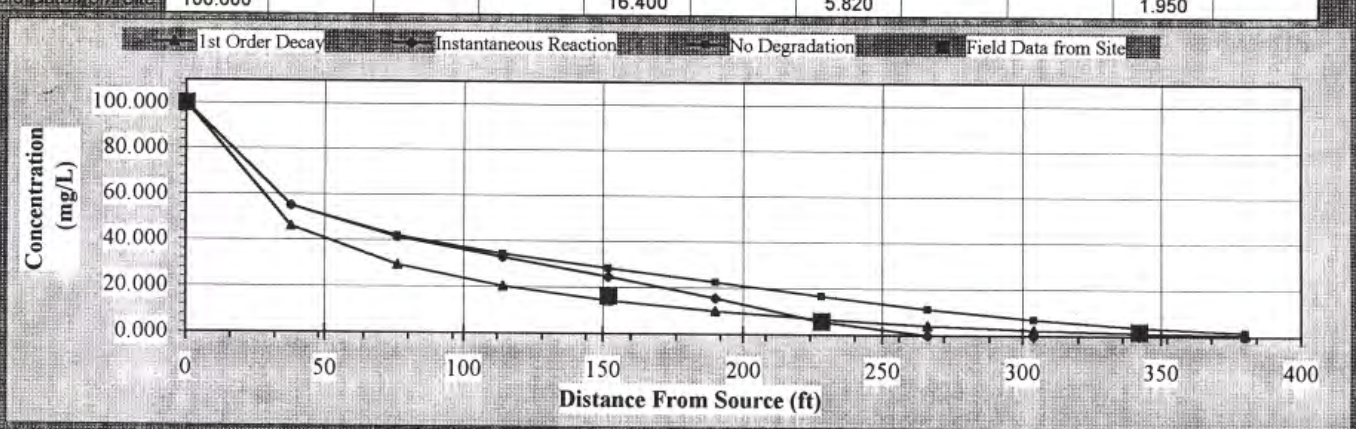


Figure 26. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Final MTBE Calibration Simulation)

MTBE FINAL CALIBRATION SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)

DISSOLVED MTBE HYDROCARBON CONCENTRATION ALONG PLUME CENTERLINE (mg/L or g/m^3)

TYPE OF MODEL	Distance from Source (ft)										
	0	38	76	114	152	190	228	266	304	342	380
No Degradation	100.000	55.209	41.873	34.240	28.133	22.336	16.616	11.291	6.867	3.679	1.716
1st Order Decay	100.000	45.976	29.169	20.182	14.279	9.979	6.688	4.184	2.386	1.217	0.546
Inst. Reaction	100.000	55.002	41.253	32.618	24.538	15.587	5.695	0.000	0.000	0.000	0.000
Field Data from Site	100.000				16.400		5.820			1.950	



Replay Animation | Next Timestep | Prev Timestep | Time: 8 Years | Return to Input | Recalculate This Sheet

Figure 27. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Final MTBE Calibration Simulation)

MTBE SITE SPECIFIC TARGET LEVEL (SSTL) FINAL SIMULATION: BIOSCREEN INPUT DATA

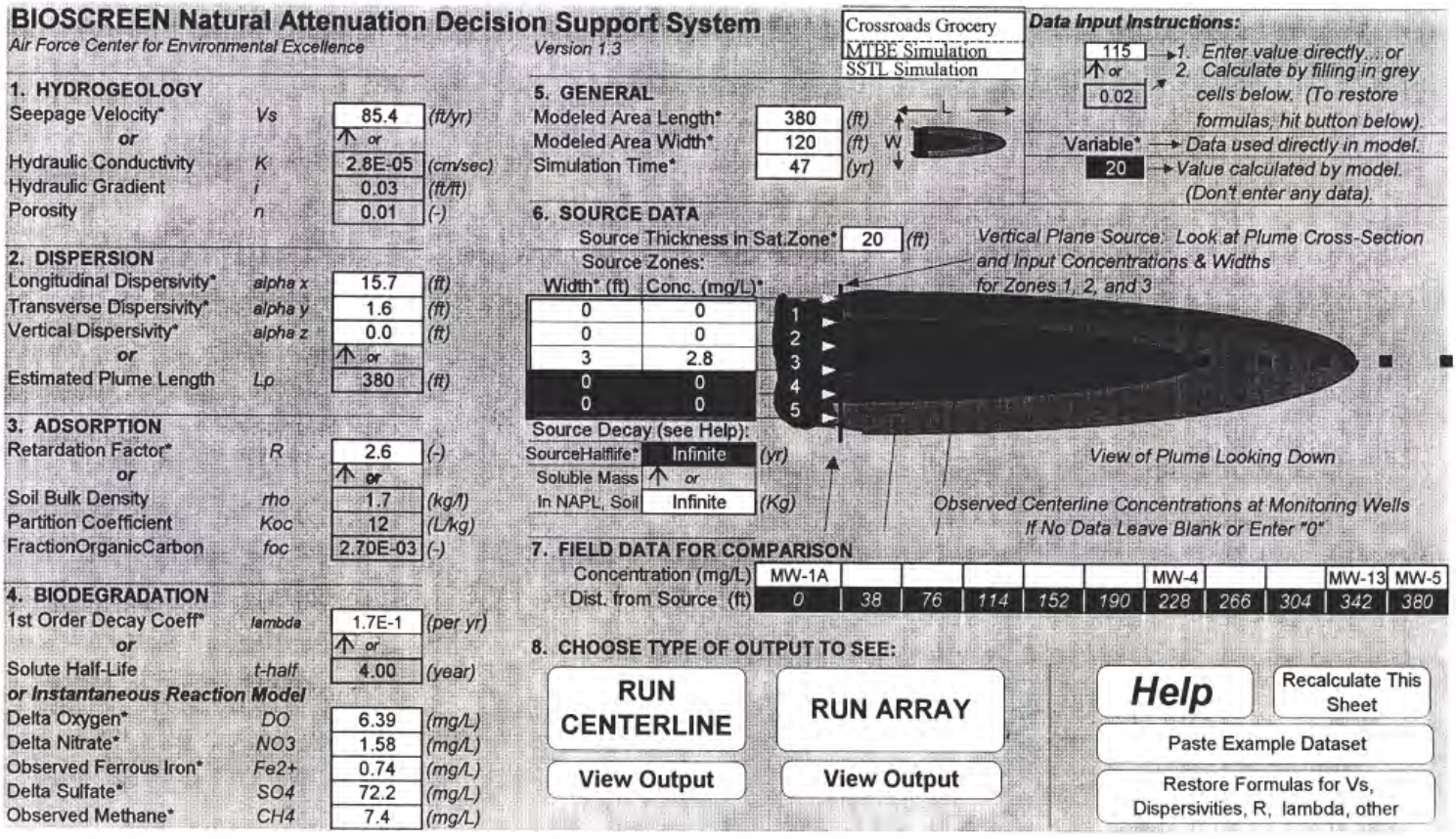


Figure 28. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Final MTBE SSTL Simulation)

MTBE SITE SPECIFIC TARGET LEVEL (SSTL) FINAL SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)

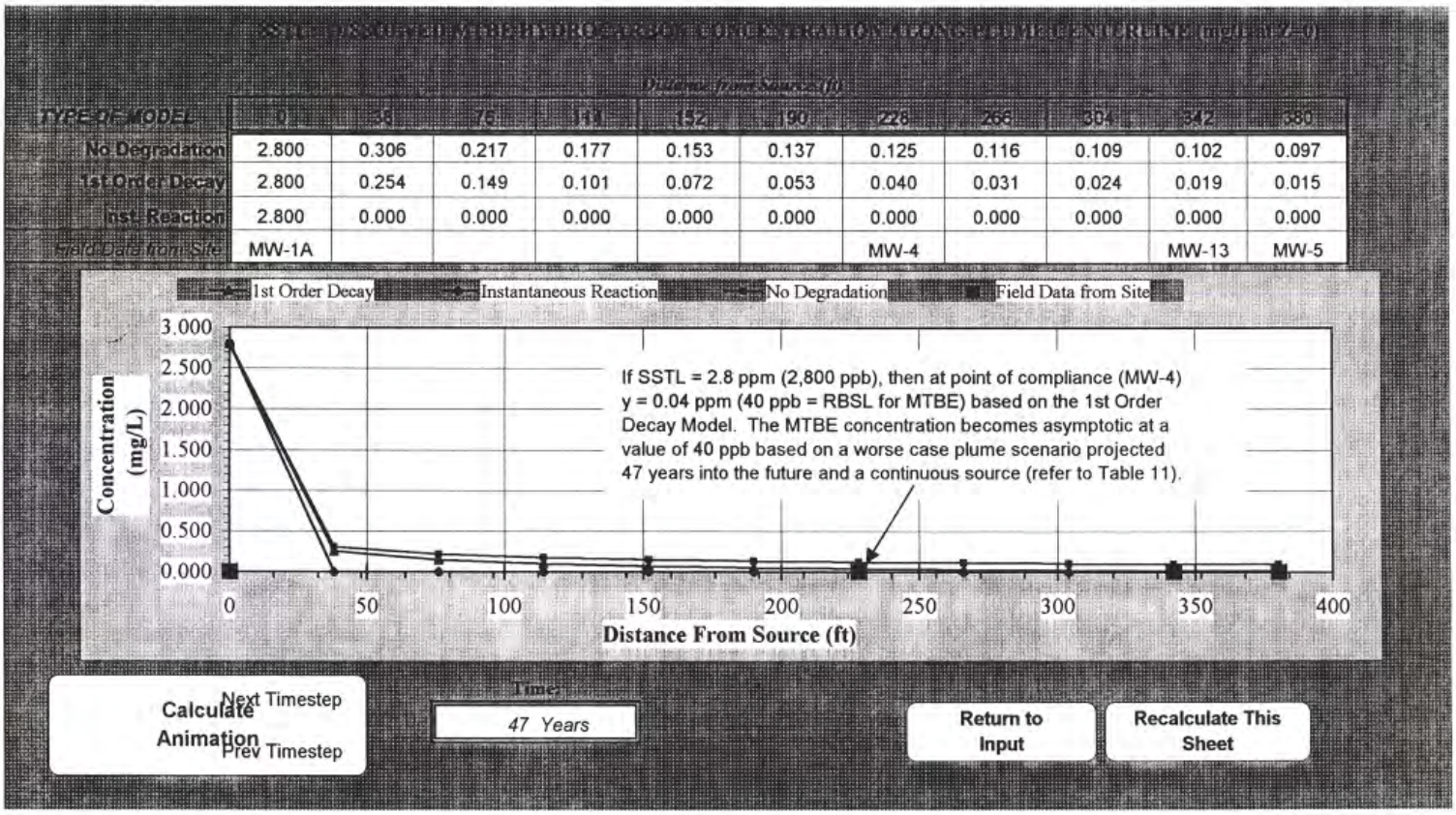


Figure 29. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Final MTBE SSTL Simulation)

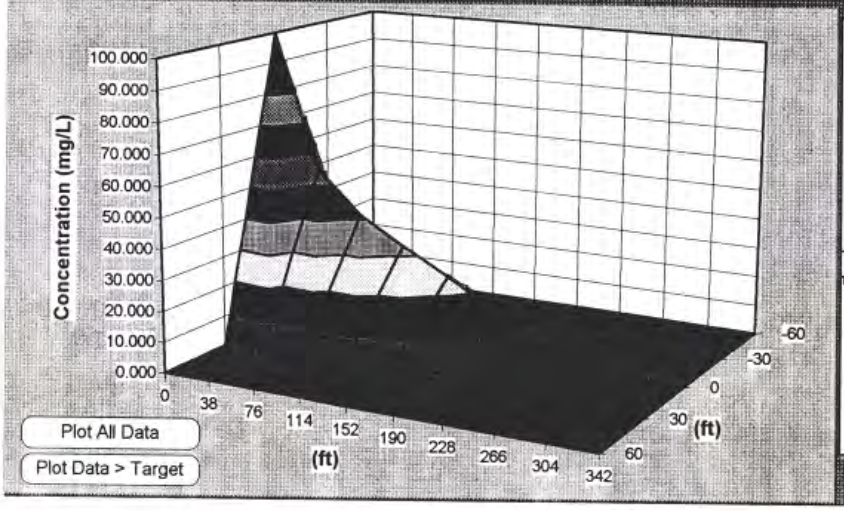
MTBE FINAL PLUME SIMULATION: INSTANTANEOUS REACTION MODEL
(3-D AND PLUME AND SOURCE MASSES RESULTS)

DISSOLVED PHASE CONCENTRATIONS IN PLUME (mg/L at Z=0)

Transverse Distances (ft)	Distance from Source (ft)										
Y	0	38	76	114	152	190	228	266	304	342	380
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.005	5.422	8.351	8.691	6.612	2.377	0.000	0.000	0.000	0.000	0.000
0	100.000	55.002	41.253	32.618	24.538	15.587	5.695	0.000	0.000	0.000	0.000
-30	0.005	5.422	8.351	8.691	6.612	2.377	0.000	0.000	0.000	0.000	0.000
-60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Model to Display:
- No Degradation Model
- 1st Order Decay Model
- Instantaneous Reaction Model

Time: 7.87 Years Target Level: 0.040 mg/L Displayed Model: Inst. Reaction



Plot All Data
Plot Data > Target

Plume and Source Masses (Order-of-Magnitude Accuracy)

Plume Mass if No Biodegradation	19.1	(Kg)
- Actual Plume Mass	5.0	(Kg)
= Plume Mass Removed by Biodeg	14.1	(Kg) (74 %)

Change in Electron Acceptor/Byproduct Masses:

Oxygen	Nitrate	Iron II	Sulfate	Methane	
-3.3	-0.8	+0.4	-37.5	+3.8	(Kg)

Original Mass In Source (Time = 0 Years)	Infinite	(Kg)
Mass in Source Now (Time = 7.87Years)	Infinite	(Kg)
Current Volume of Groundwater in Plume	0.1	(ac-ft)
Flowrate of Water Through Source Zone	0.045	(ac-ft/yr)

Mass HELP Recalculate

Figure 30a. BIOSCREEN 3-D Output and Plume and Source Masses Information (Instantaneous Reaction Model). Crossroads Grocery (Final MTBE Plume Simulation).

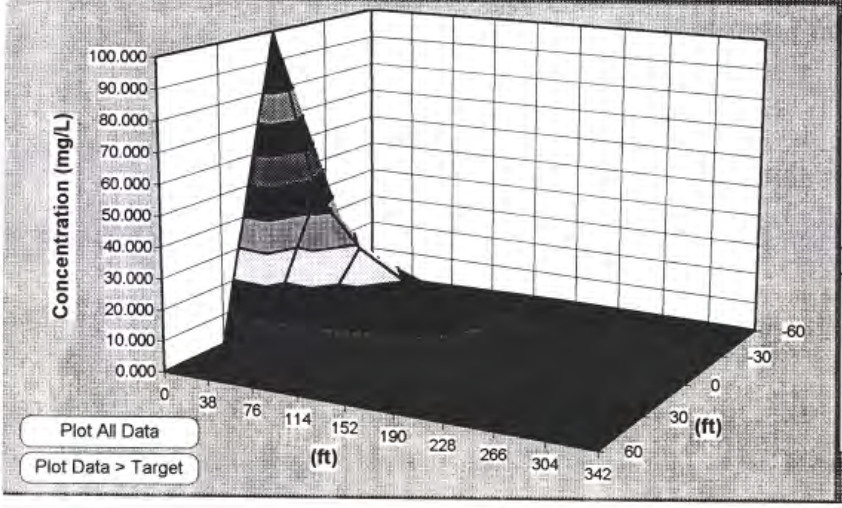
MTBE FINAL PLUME SIMULATION: 1st ORDER DECAY MODEL
(3-D AND PLUME AND SOURCE MASSES RESULTS)

DISSOLVED MTBE CONCENTRATIONS IN PLUME (mg/L at Z=0)

Transverse Distance (ft) ↓ / Distance from Source (ft) →	0	38	76	114	152	190	228	266	304	342	380
60	0.000	0.014	0.141	0.366	0.586	0.709	0.702	0.588	0.420	0.256	0.133
30	0.005	4.819	6.938	7.144	6.335	5.117	3.794	2.557	1.544	0.823	0.383
0	100.000	45.976	29.169	20.182	14.279	9.979	6.688	4.184	2.386	1.217	0.546
-30	0.005	4.819	6.938	7.144	6.335	5.117	3.794	2.557	1.544	0.823	0.383
-60	0.000	0.014	0.141	0.366	0.586	0.709	0.702	0.588	0.420	0.256	0.133

Time: 7.87 Years Target Level: 0.040 mg/L Displayed Model: 1st Order Decay

Model to Display:
- No Degradation Model
- 1st Order Decay Model
- Instantaneous Reaction Model



Plume and Source Masses (Order-of-Magnitude Accuracy):

Plume Mass if No Biodegradation	7.2	(Kg)
- Actual Plume Mass	1.7	(Kg)
= Plume Mass Removed by Biodeg	5.5	(Kg) (77 %)

Change in Electron Acceptor/Byproduct Masses:

Oxygen	Nitrate	Iron II	Sulfate	Methane	
na	na	na	na	na	(Kg)

Original Mass In Source (Time = 0 Years)	Infinite	(Kg)
Mass in Source Now (Time = 7.87Years)	Infinite	(Kg)
Current Volume of Groundwater in Plume	0.3	(ac-ft)
Flowrate of Water Through Source Zone	0.045	(ac-ft/yr)

Mass HELP Recalculate

Figure 30b. BIOSCREEN 3-D Output and Plume and Source Masses Information (1st Order Decay Model). Crossroads Grocery (Final MTBE Plume Simulation).

MTBE FINAL PLUME SIMULATION: NO DEGRADATION MODEL
(3-D AND PLUME AND SOURCE MASSES RESULTS)

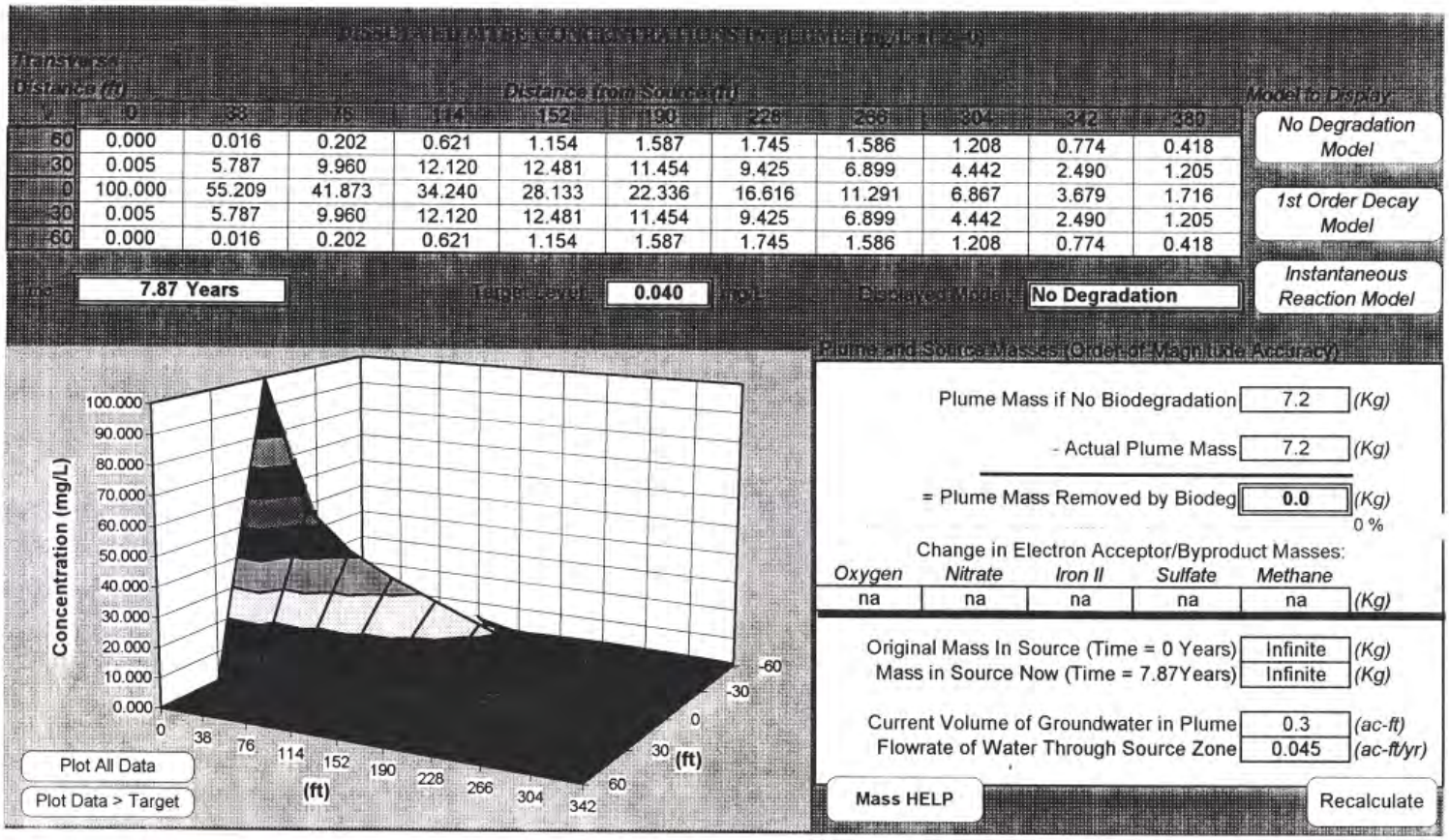


Figure 30c. BIOSCREEN 3-D Output and Plume and Source Masses Information (No Degradation Model). Crossroads Grocery (Final MTBE Plume Simulation).

BENZENE FINAL CALIBRATION SIMULATION: BIOSCREEN INPUT DATA

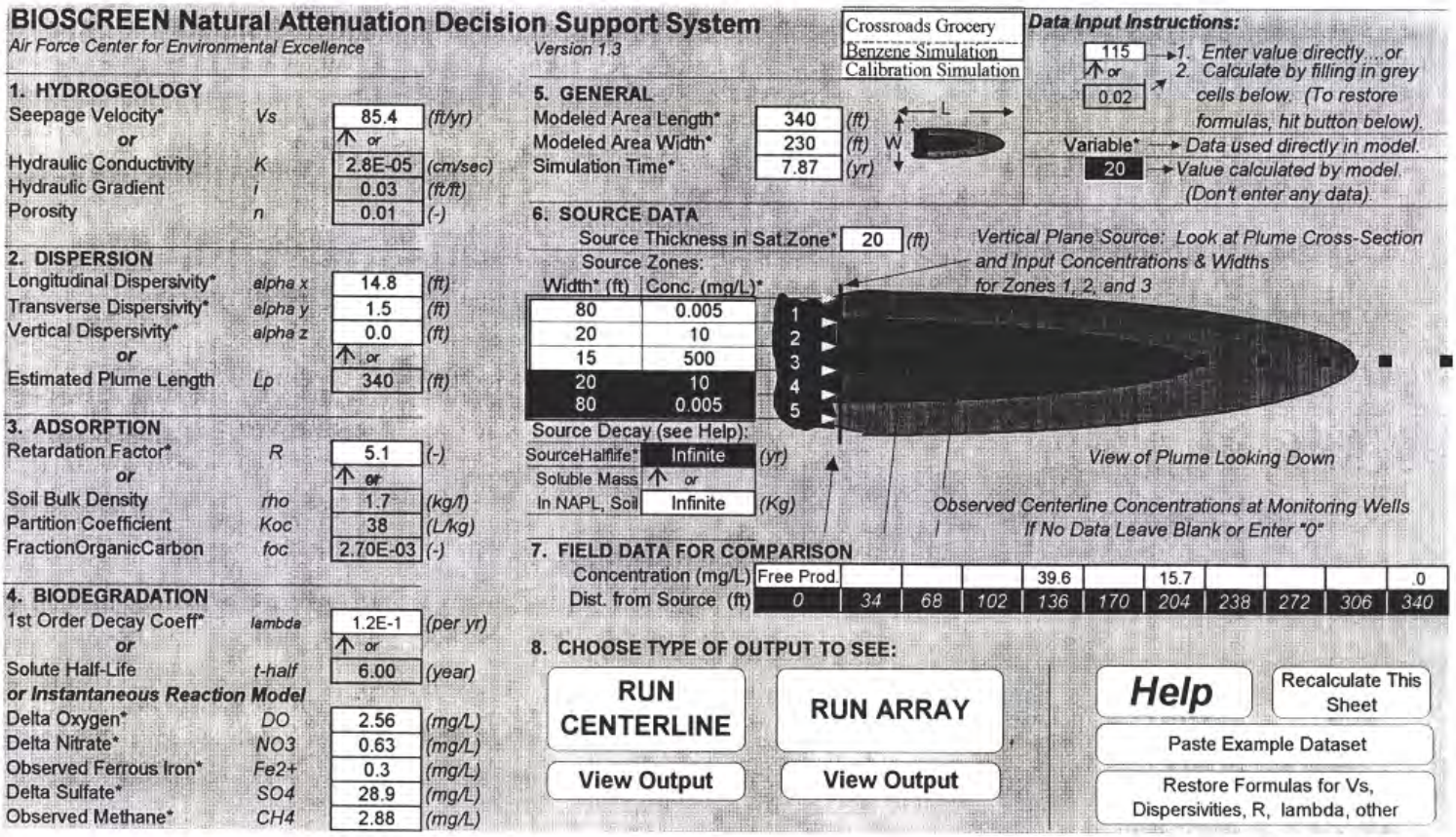


Figure 31. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Final Benzene Calibration Simulation)

BENZENE FINAL CALIBRATION SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)

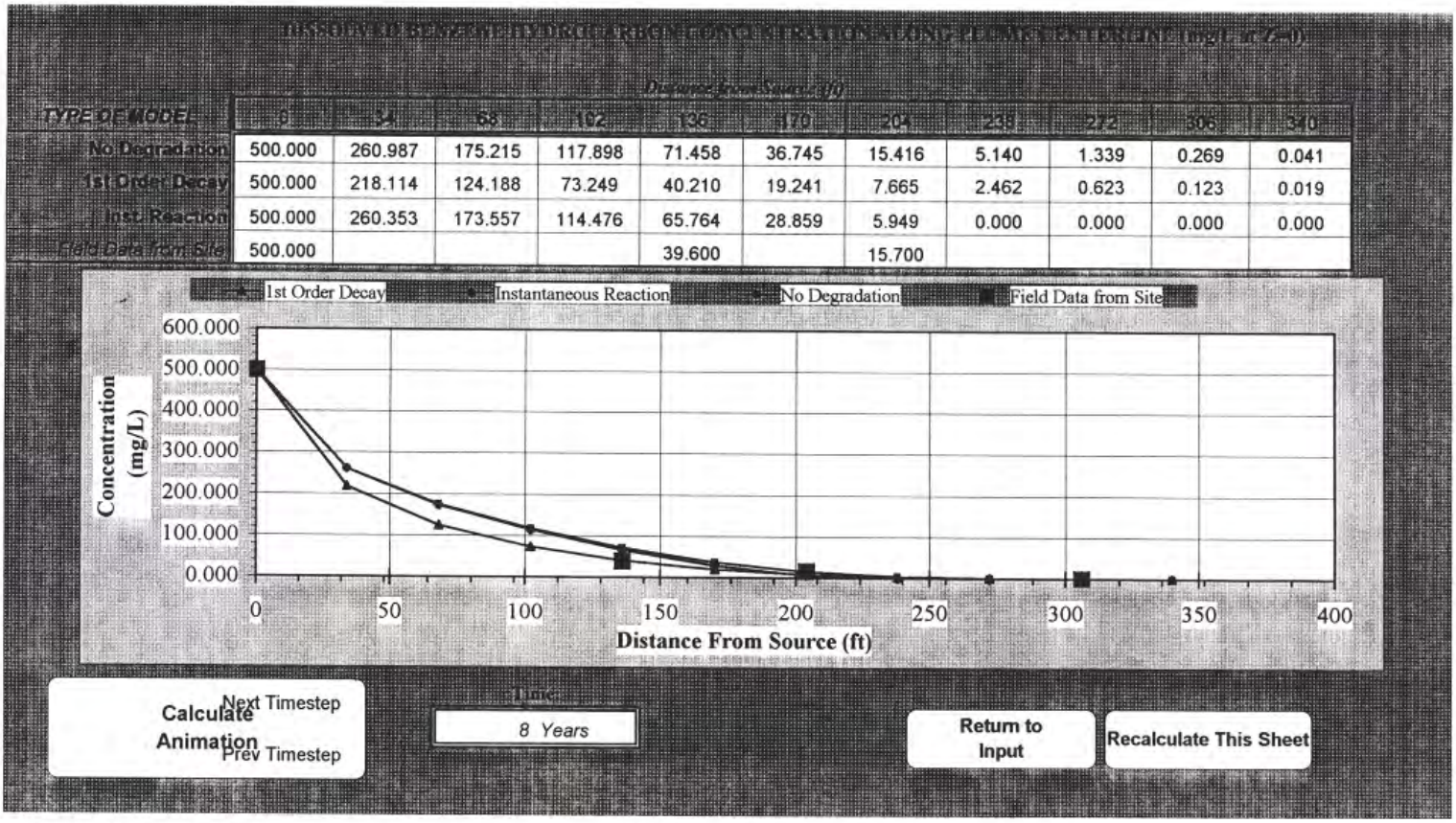


Figure 32. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Final Benzene Calibration Simulation)

BENZENE SITE SPECIFIC TARGET LEVEL (SSTL) FINAL SIMULATION: BIOSCREEN INPUT DATA

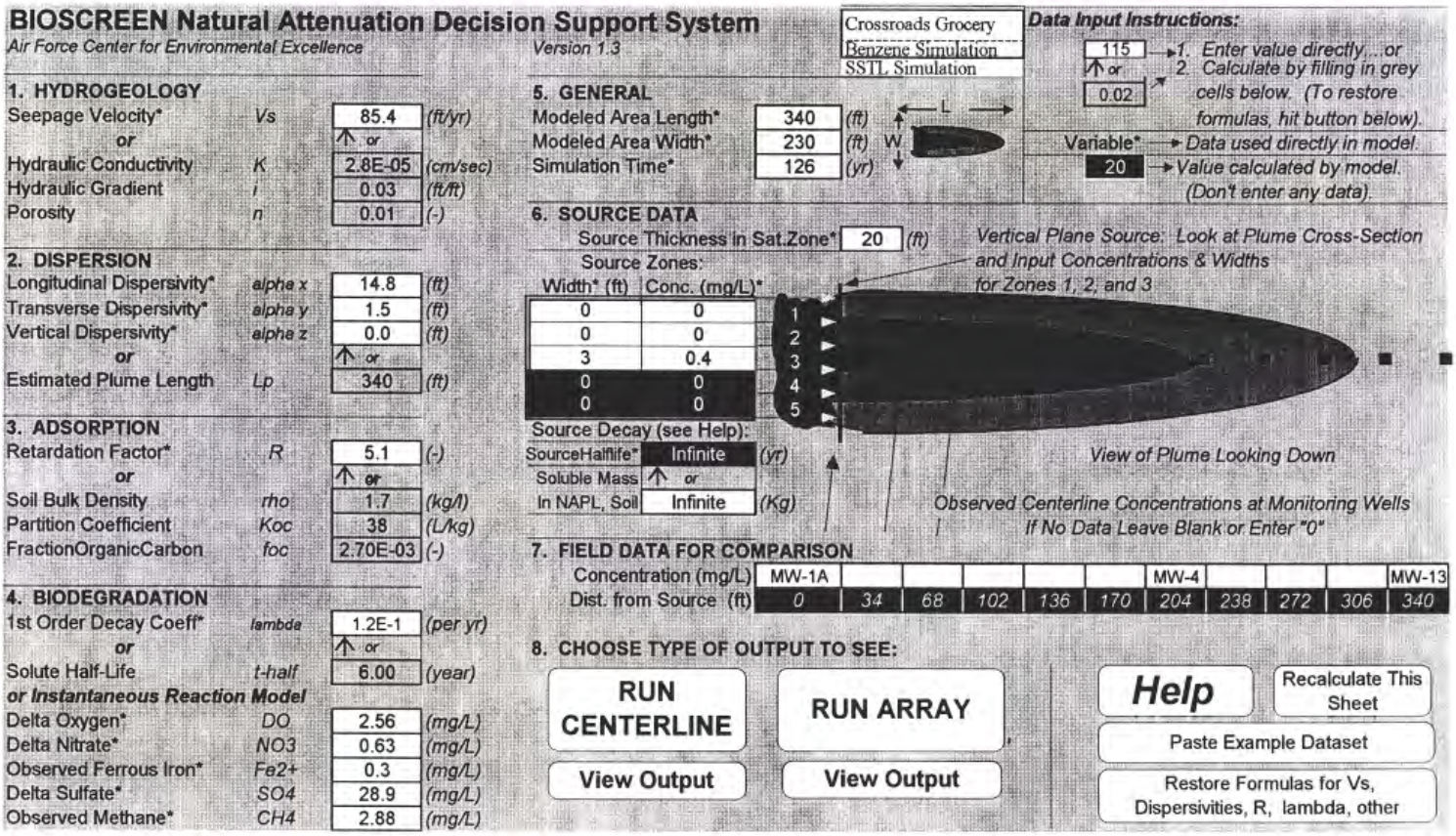
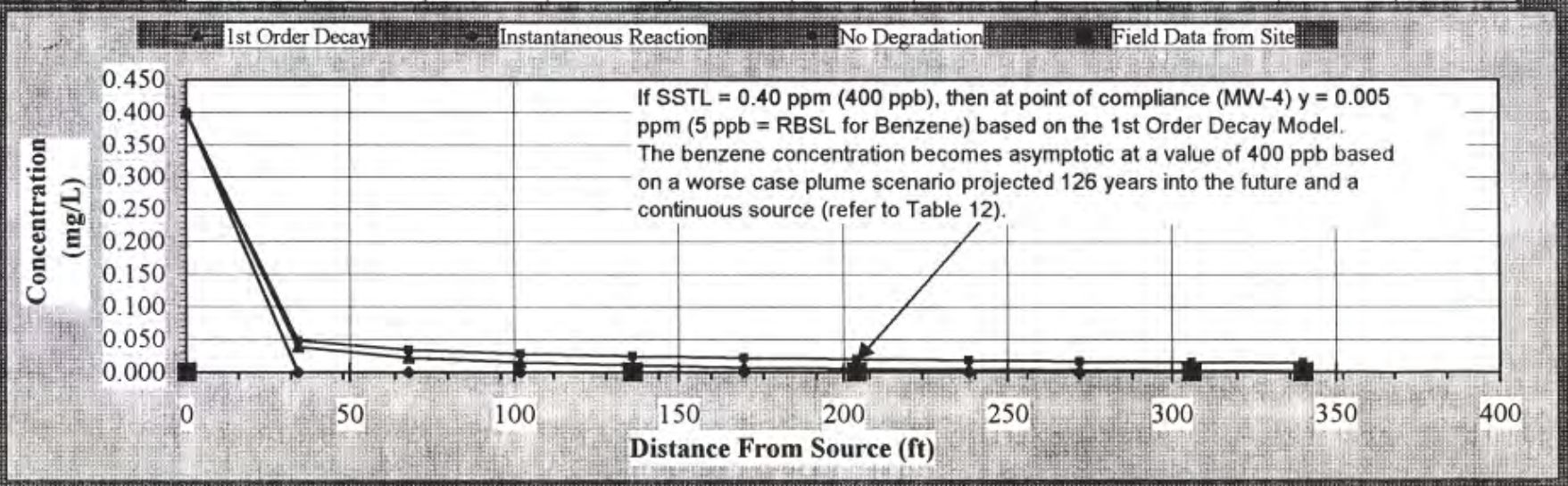


Figure 33. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Final Benzene SSTL Simulation)

BENZENE SITE SPECIFIC TARGET LEVEL (SSTL) FINAL SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)

FINAL SSTL - RESIDENTIAL HYDROCARBON CONCENTRATION ALONG CENTERLINE (mg/L at Z=0)

TYPE OF MODEL	Distance from Source (ft) 0	34	68	102	136	170	204	238	272	306	340
No Degradation	0.400	0.048	0.034	0.028	0.024	0.021	0.019	0.018	0.017	0.016	0.015
1st Order Decay	0.400	0.038	0.022	0.014	0.010	0.007	0.005	0.004	0.003	0.002	0.002
Inst. Reaction	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Field Data from Site	MW-1A						MW-4				MW-13



Calculate Animation
Next Timestep
Prev Timestep
Time:
126 Years
Return to Input
Recalculate This Sheet

Figure 34. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Final Benzene SSTL Simulation)

TOLUENE FINAL CALIBRATION SIMULATION: BIOSCREEN INPUT DATA

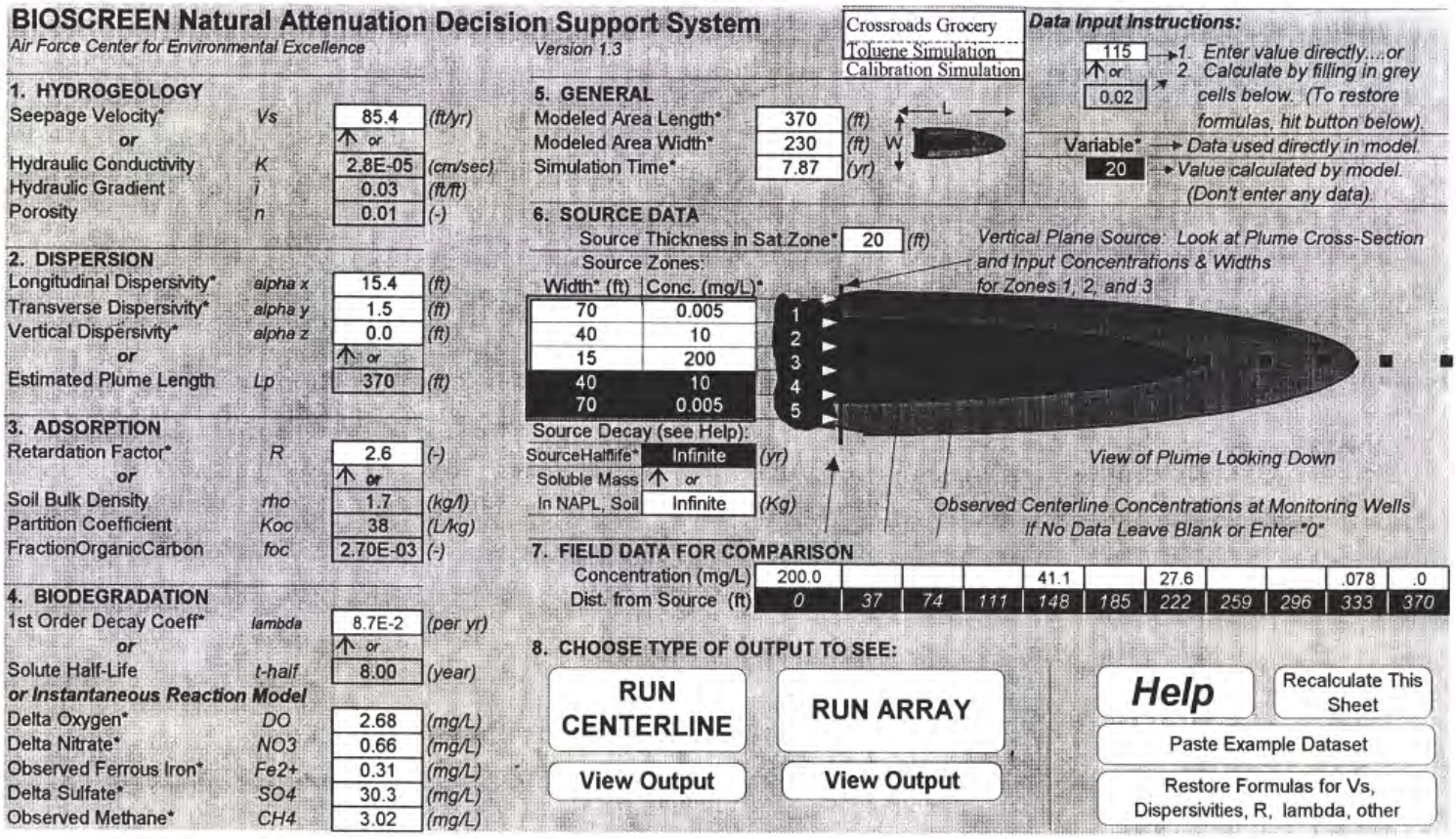


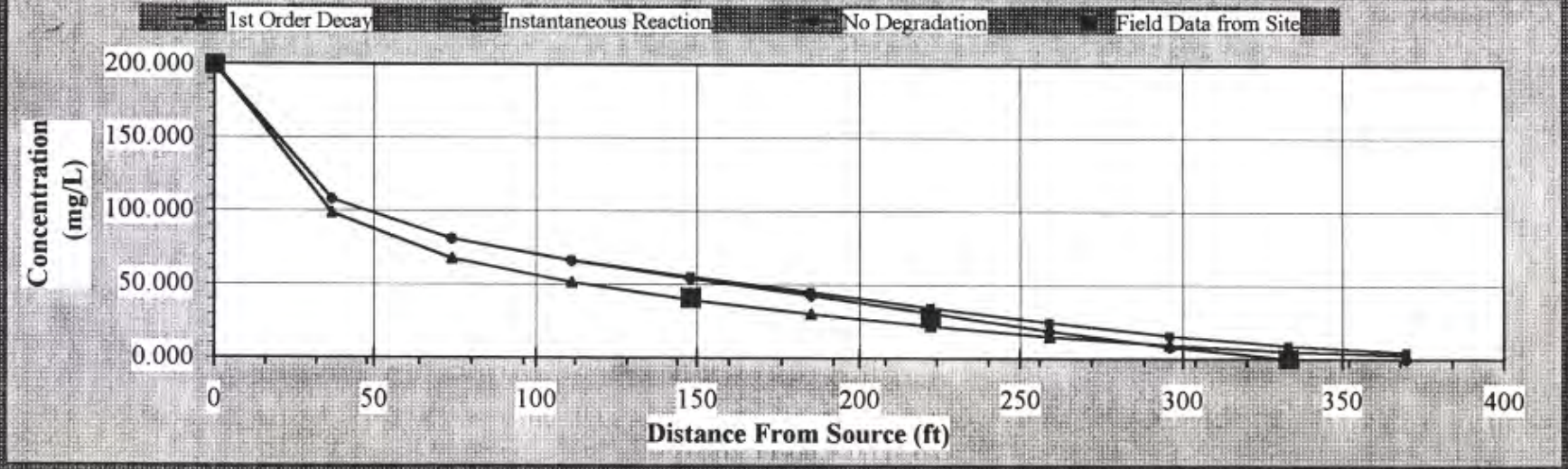
Figure 35. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Final Toluene Calibration Simulation)

TOLUENE FINAL CALIBRATION SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)

DISSOLVED TOLUENE HYDROCARBON CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L at z=0)

Distance from Source (ft)

TYPE OF MODEL	0	37	74	111	148	185	222	259	296	333	370
No Degradation	200.000	107.546	80.652	66.296	55.288	44.954	34.588	24.570	15.796	9.047	4.562
1st Order Decay	200.000	98.257	67.470	51.076	39.568	30.206	22.067	15.041	9.362	5.229	2.585
Inst. Reaction	200.000	107.473	80.436	65.749	54.088	42.668	30.777	18.948	8.357	0.067	0.000
Field Data from Site	200.000				41.100		27.600			0.078	



Replay Animation | Next Timestep | Prev Timestep | Time: 8 Years | Return to Input | Recalculate This Sheet

Figure 36. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Final Toluene Calibration Simulation)

TOLUENE SITE SPECIFIC TARGET LEVEL (SSTL) FINAL SIMULATION: BIOSCREEN INPUT DATA

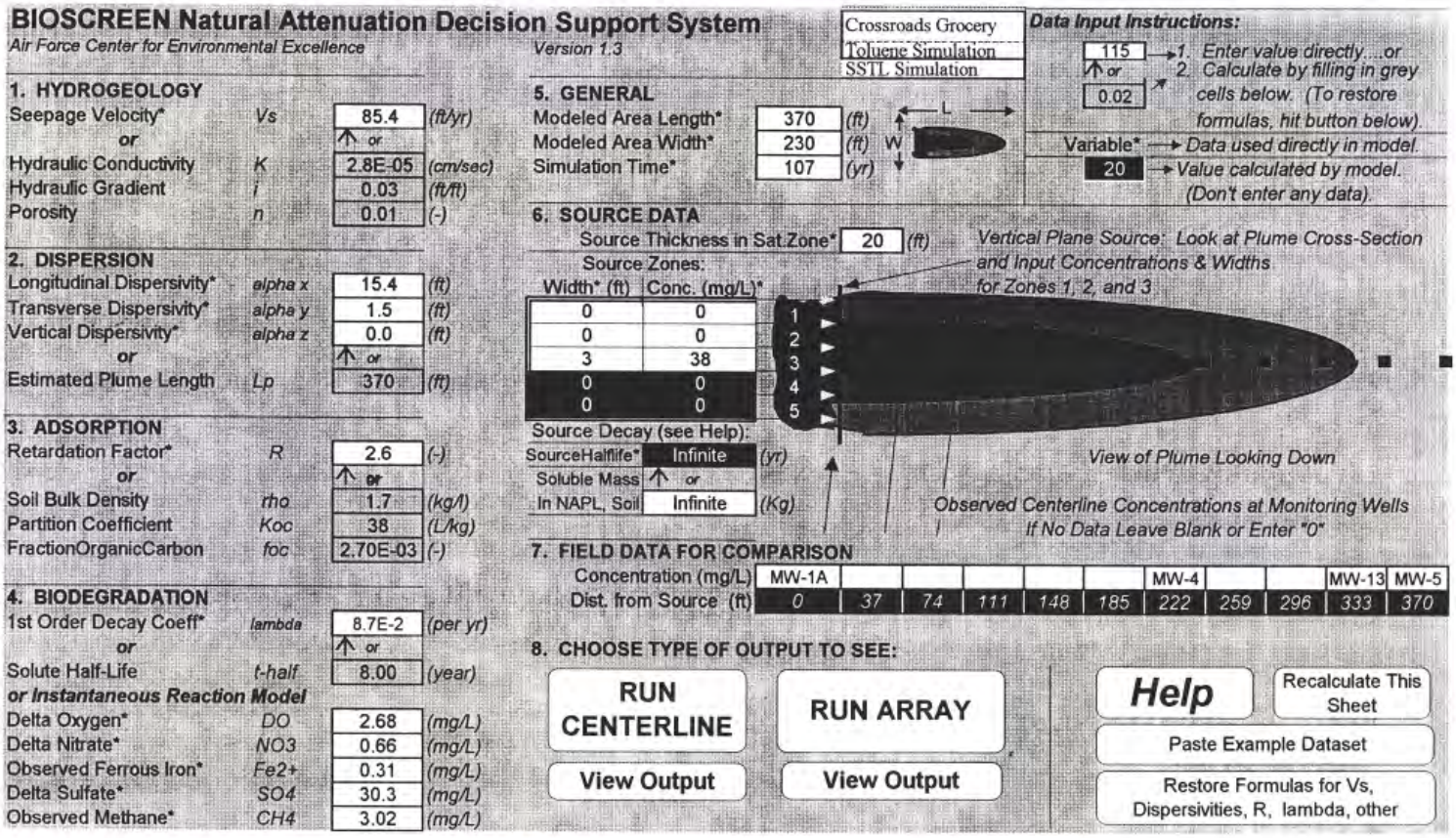


Figure 37. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Final Toluene SSTL Simulation)

TOLUENE SITE SPECIFIC TARGET LEVEL (SSTL) FINAL SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)

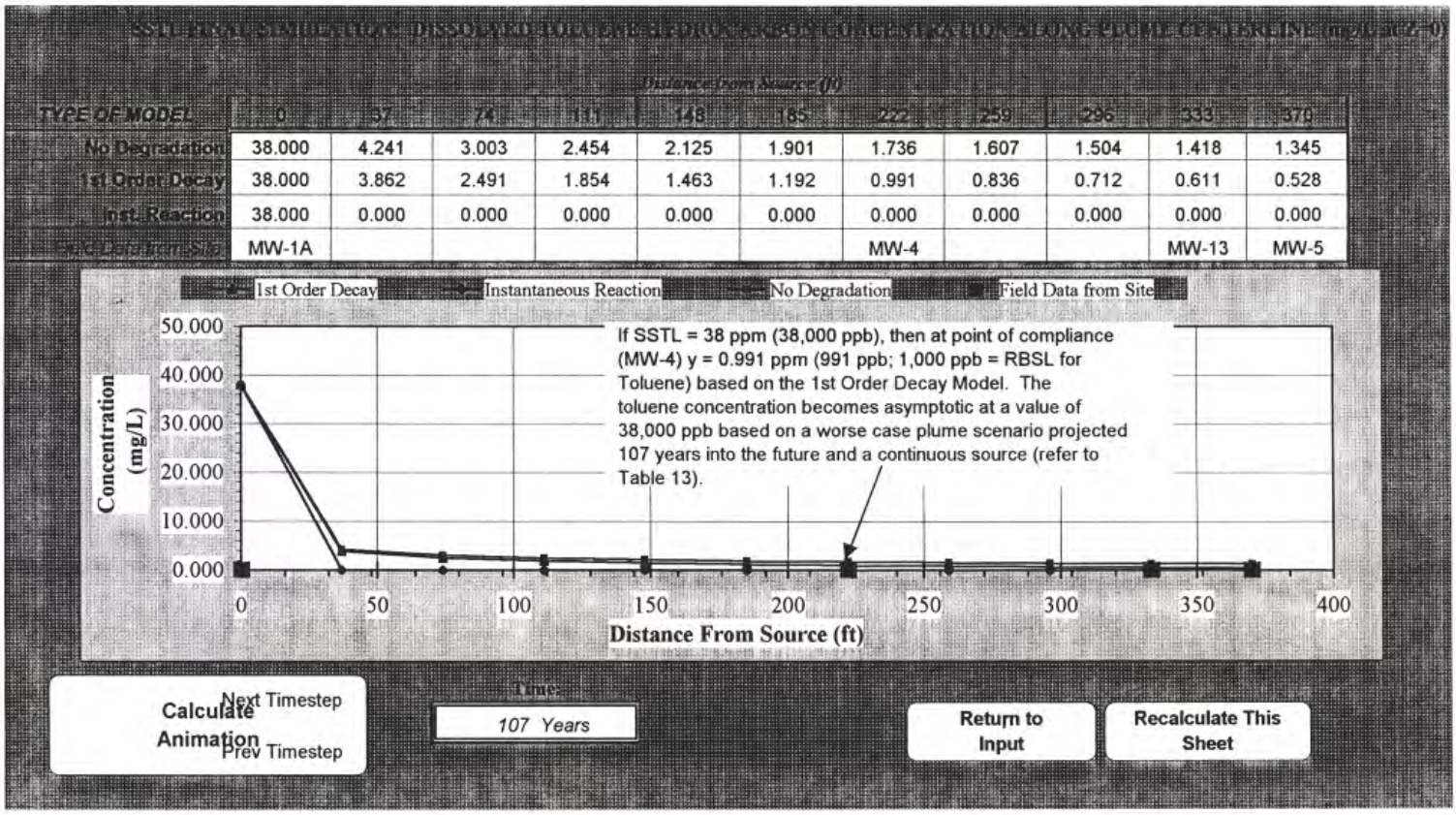


Figure 38. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Final Toluene SSTL Simulation)

ETHYLBENZENE FINAL CALIBRATION SIMULATION: BIOSCREEN INPUT DATA

BIOSCREEN Natural Attenuation Decision Support System

Air Force Center for Environmental Excellence — *Version 1.3*

Crossroads Grocery
Ethylbenzene Simulation
Calibration Simulation

Data Input Instructions:

115 (or 0.02) → 1. Enter value directly....or 2. Calculate by filling in grey cells below. (To restore formulas, hit button below).

Variable* → Data used directly in model.

20 → Value calculated by model. (Don't enter any data).

1. HYDROGEOLOGY

Seepage Velocity*	Vs	85.4	(ft/yr)
or		↑ or	
Hydraulic Conductivity	K	2.8E-05	(cm/sec)
Hydraulic Gradient	i	0.03	(ft/ft)
Porosity	n	0.01	(-)

2. DISPERSION

Longitudinal Dispersivity*	alpha x	15.0	(ft)
Transverse Dispersivity*	alpha y	1.5	(ft)
Vertical Dispersivity*	alpha z	0.0	(ft)
or		↑ or	
Estimated Plume Length	Lp	350	(ft)

3. ADSORPTION

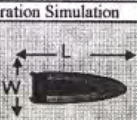
Retardation Factor*	R	4.0	(-)
or		↑ or	
Soil Bulk Density	rho	1.7	(kg/l)
Partition Coefficient	Koc	38	(L/kg)
FractionOrganicCarbon	foc	2.70E-03	(-)

4. BIODEGRADATION

1st Order Decay Coeff*	lambda	3.5E-1	(per yr)
or		↑ or	
Solute Half-Life	t-half	2.00	(year)
or Instantaneous Reaction Model			
Delta Oxygen*	DO	0.639	(mg/L)
Delta Nitrate*	NO3	0.158	(mg/L)
Observed Ferrous Iron*	Fe2+	0.074	(mg/L)
Delta Sulfate*	SO4	7.22	(mg/L)
Observed Methane*	CH4	0.72	(mg/L)

5. GENERAL

Modeled Area Length*	350	(ft)
Modeled Area Width*	220	(ft)
Simulation Time*	7.87	(yr)



6. SOURCE DATA

Source Thickness in Sat.Zone* 20 (ft)

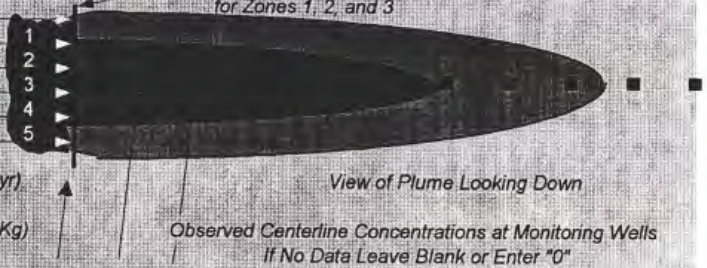
Source Zones:

Width* (ft)	Conc. (mg/L)*
75	0.005
40	1
15	300
40	1
75	0.005

Source Decay (see Help):

SourceHalflife*	Infinite	(yr)
Soluble Mass	↑ or	
In NAPL, Soil	Infinite	(Kg)

Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3



View of Plume Looking Down

Observed Centerline Concentrations at Monitoring Wells
If No Data Leave Blank or Enter "0"

7. FIELD DATA FOR COMPARISON

Concentration (mg/L)	300.0						2.57			.13	.0
Dist. from Source (ft)	0	35	70	105	140	175	210	245	280	315	350

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE — **View Output**

RUN ARRAY — **View Output**

Help

Recalculate This Sheet

Paste Example Dataset

Restore Formulas for Vs, Dispersivities, R, lambda, other

Figure 39. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Ethylbenzene Final Calibration Simulation)

ETHYLBENZENE FINAL CALIBRATION SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)

TYPE OF MODEL	0	35	70	105	140	175	210	245	280	315	350
No Degradation	300.000	156.238	109.151	80.307	56.394	35.755	19.698	9.176	3.546	1.121	0.287
1st Order Decay	300.000	100.239	45.855	23.173	11.893	5.886	2.686	1.087	0.378	0.111	0.027
Inst. Reaction	300.000	156.156	108.925	79.801	55.458	34.299	17.747	6.853	1.002	0.000	0.000
Field Data from Site	300.000						2.570			0.130	

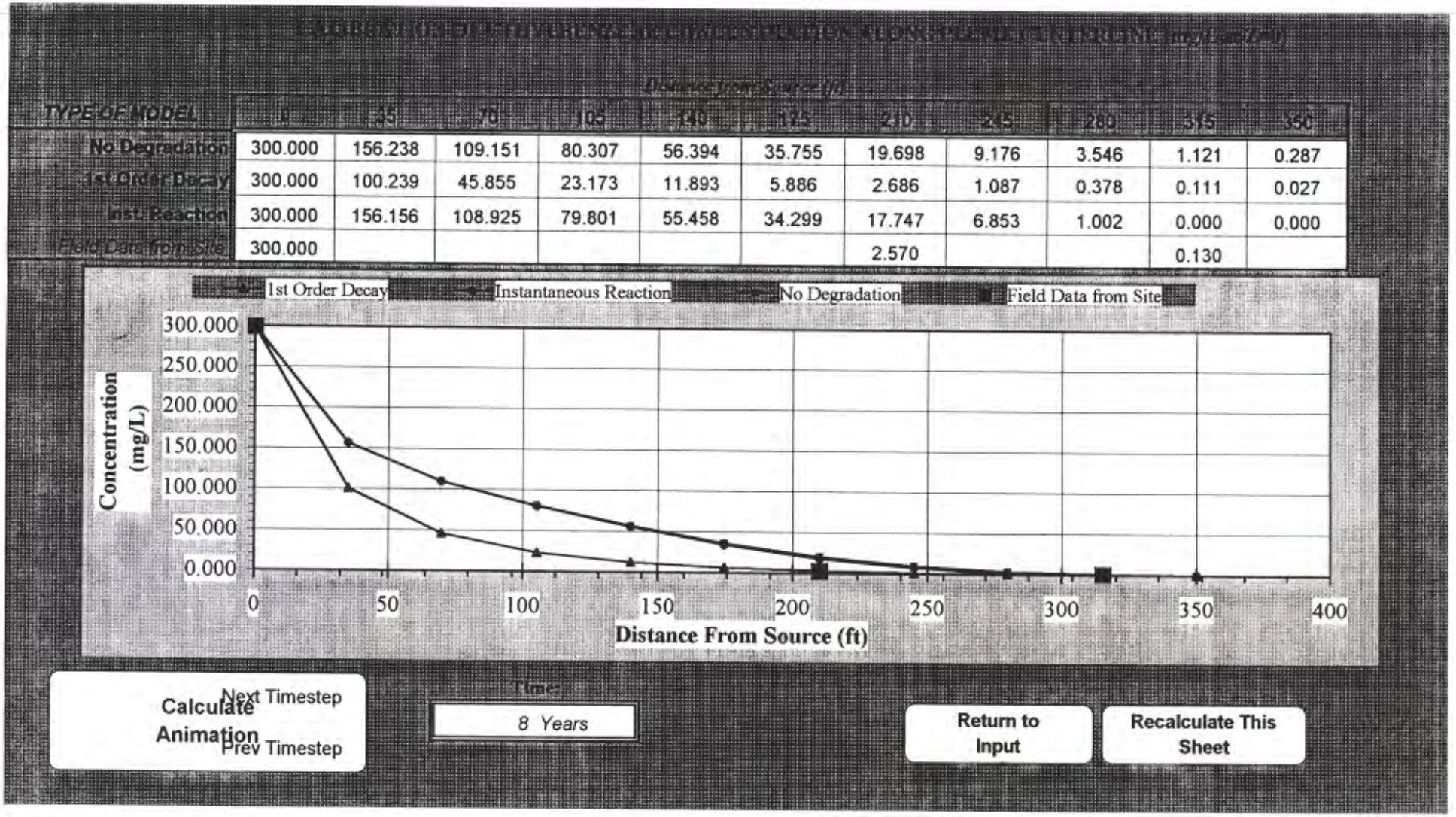


Figure 40. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Ethylbenzene Final Calibration Simulation)

ETHYLBENZENE SITE SPECIFIC TARGET LEVEL (SSTL) FINAL SIMULATION: BIOSCREEN INPUT DATA

BIOSCREEN Natural Attenuation Decision Support System

Air Force Center for Environmental Excellence — *Version 1.3*

Crossroads Grocery
Ethylbenzene Simulation
SSTL Simulation

Data Input Instructions:

115 (or ↑) 0.02 → 1. Enter value directly,...or 2. Calculate by filling in grey cells below. (To restore formulas, hit button below).

Variable* → Data used directly in model.

20 → Value calculated by model. (Don't enter any data).

1. HYDROGEOLOGY

Seepage Velocity*	Vs	85.4	(ft/yr)
or		↑ or	
Hydraulic Conductivity	K	2.8E-05	(cm/sec)
Hydraulic Gradient	i	0.03	(ft/ft)
Porosity	n	0.01	(-)

2. DISPERSION

Longitudinal Dispersivity*	alpha x	15.0	(ft)
Transverse Dispersivity*	alpha y	1.5	(ft)
Vertical Dispersivity*	alpha z	0.0	(ft)
or		↑ or	
Estimated Plume Length	Lp	350	(ft)

3. ADSORPTION

Retardation Factor*	R	4.0	(-)
or		↑ or	
Soil Bulk Density	rho	1.7	(kg/l)
Partition Coefficient	Koc	38	(L/kg)
FractionOrganicCarbon	foc	2.70E-03	(-)

4. BIODEGRADATION

1st Order Decay Coeff*	lambda	3.5E-1	(per yr)
or		↑ or	
Solute Half-Life	t-half	2.00	(year)
or Instantaneous Reaction Model			
Delta Oxygen*	DO	0.639	(mg/L)
Delta Nitrate*	NO3	0.158	(mg/L)
Observed Ferrous Iron*	Fe2+	0.074	(mg/L)
Delta Sulfate*	SO4	7.22	(mg/L)
Observed Methane*	CH4	0.72	(mg/L)

5. GENERAL

Modeled Area Length*	350	(ft)
Modeled Area Width*	220	(ft)
Simulation Time*	30	(yr)

6. SOURCE DATA

Source Thickness in Sat.Zone* 20 (ft)

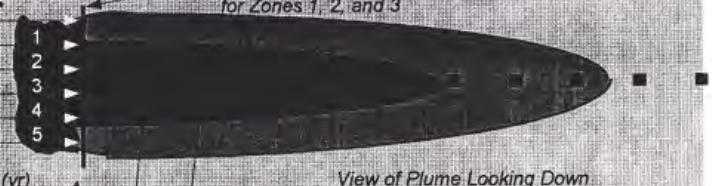
Source Zones:

Width* (ft)	Conc. (mg/L)*
0	0
0	0
3	68.5
0	0
0	0

Source Decay (see Help):

SourceHalflife*	Infinite	(yr)
Soluble Mass	↑ or	
In NAPL, Soil	Infinite	(Kg)

Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3



View of Plume Looking Down

Observed Centerline Concentrations at Monitoring Wells If No Data Leave Blank or Enter "0"

7. FIELD DATA FOR COMPARISON

Concentration (mg/L)	MW-1A						MW-4			MW-13	MW-5
Dist. from Source (ft)	0	35	70	105	140	175	210	245	280	315	350

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE — View Output

RUN ARRAY — View Output

Help — Recalculate This Sheet

Paste Example Dataset

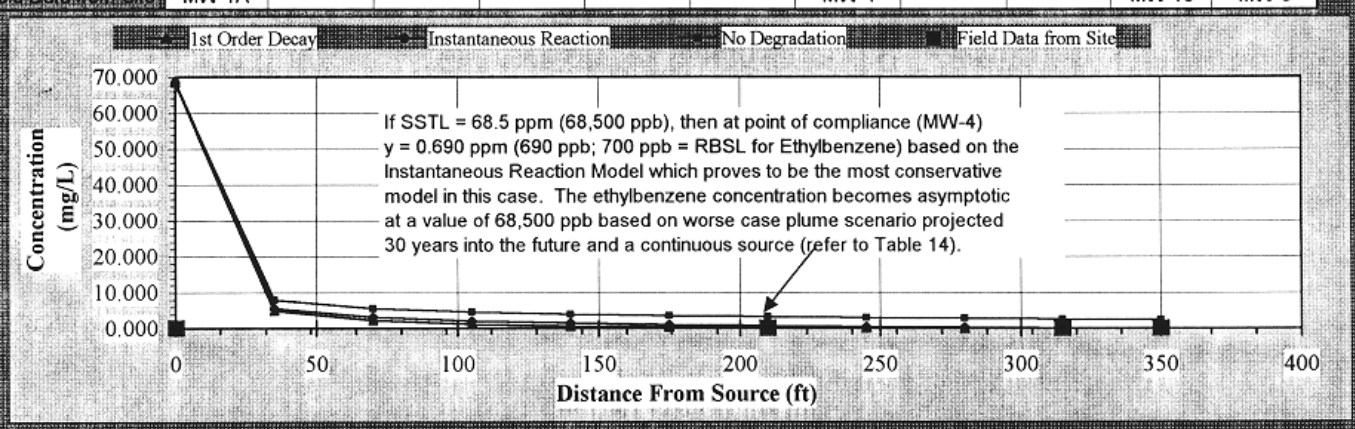
Restore Formulas for Vs, Dispersivities, R, lambda, other

Figure 41. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Ethylbenzene Final SSTL Simulation)

ETHYLBENZENE SITE SPECIFIC TARGET LEVEL (SSTL) FINAL SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)

SSTL DISSOLVED ETHYLBENZENE HYDROCARBON CONCENTRATION ALONG PLUME CENTERLINE (mg/L at Z=0)

TYPE OF MODEL	Distance from Source (ft) 0	35	70	105	140	175	210	245	280	315	350
No Degradation	68.500	7.970	5.646	4.612	3.995	3.573	3.260	3.015	2.813	2.640	2.483
1st Order Decay	68.500	4.969	2.194	1.118	0.604	0.337	0.192	0.111	0.064	0.038	0.022
Inst. Reaction	68.500	5.586	3.170	2.096	1.454	1.016	0.690	0.435	0.226	0.045	0.000
Field Data from Site	MW-1A						MW-4			MW-13	MW-5



Calculate Animation
Next Timestep
Prev Timestep
Time:
30 Years
Return to Input
Recalculate This Sheet

Figure 42. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Ethylbenzene Final SSTL Simulation)

XYLENES FINAL CALIBRATION SIMULATION: BIOSCREEN INPUT DATA

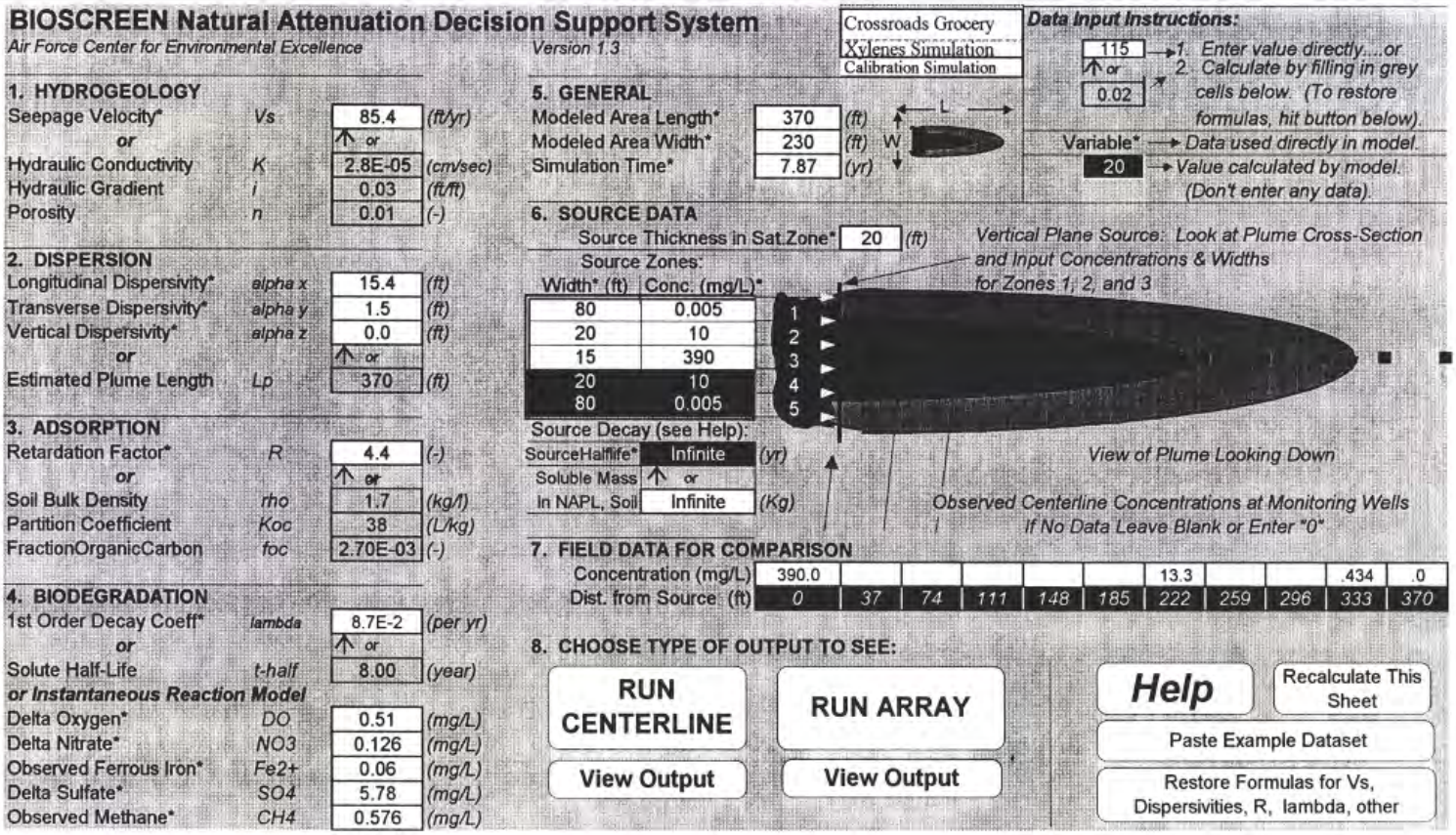
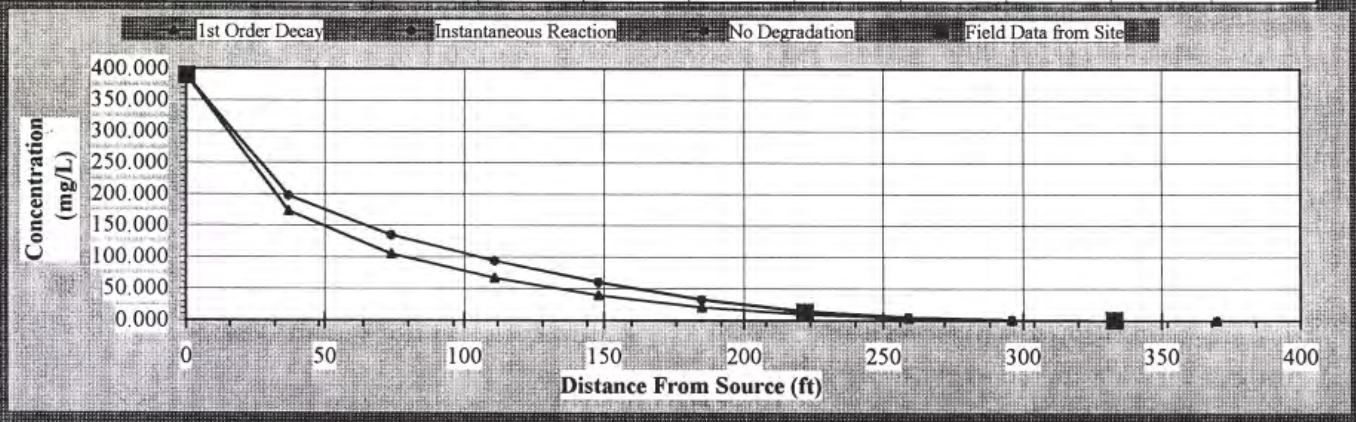


Figure 43. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Xylenes Final Calibration Simulation)

XYLENES FINAL CALIBRATION SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)

TYPE OF MODEL	0	37	74	111	148	185	222	259	296	333	370
No Degradation	390.000	197.195	135.004	94.236	60.281	33.261	15.203	5.600	1.631	0.371	0.065
1st Order Decay	390.000	172.862	104.827	66.310	39.352	20.551	9.027	3.230	0.921	0.206	0.036
Inst. Reaction	390.000	197.099	134.741	93.664	59.281	31.813	13.398	3.581	0.000	0.000	0.000
Field Data from Site	390.000						13.300			0.434	



Calculate Animation
Next Timestep
Prev Timestep
Time:
8 Years
Return to Input
Recalculate This Sheet

Figure 44. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Xylenes Final Calibration Simulation)

XYLENES SITE SPECIFIC TARGET LEVEL (SSTL) FINAL SIMULATION: BIOSCREEN INPUT DATA

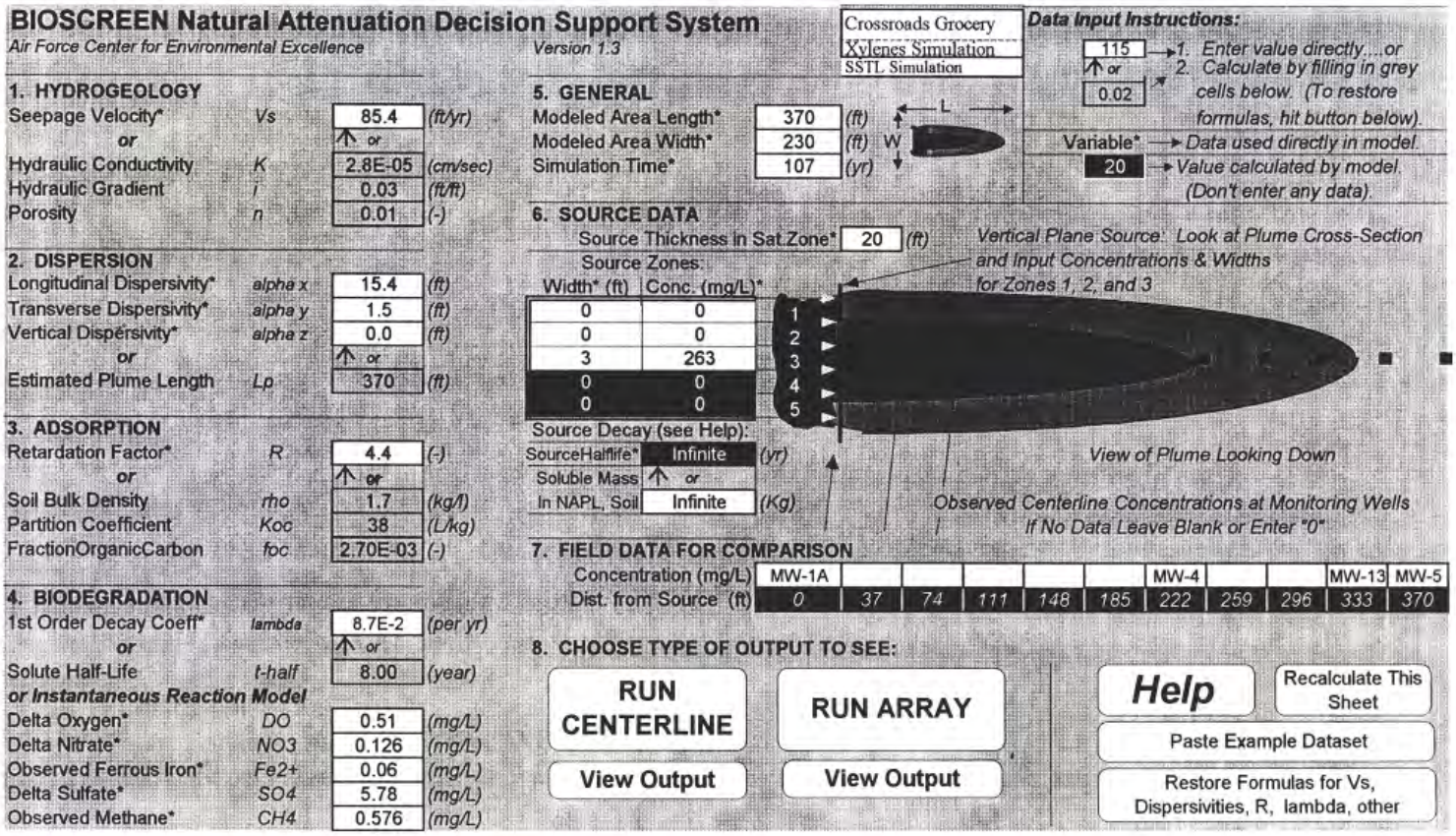


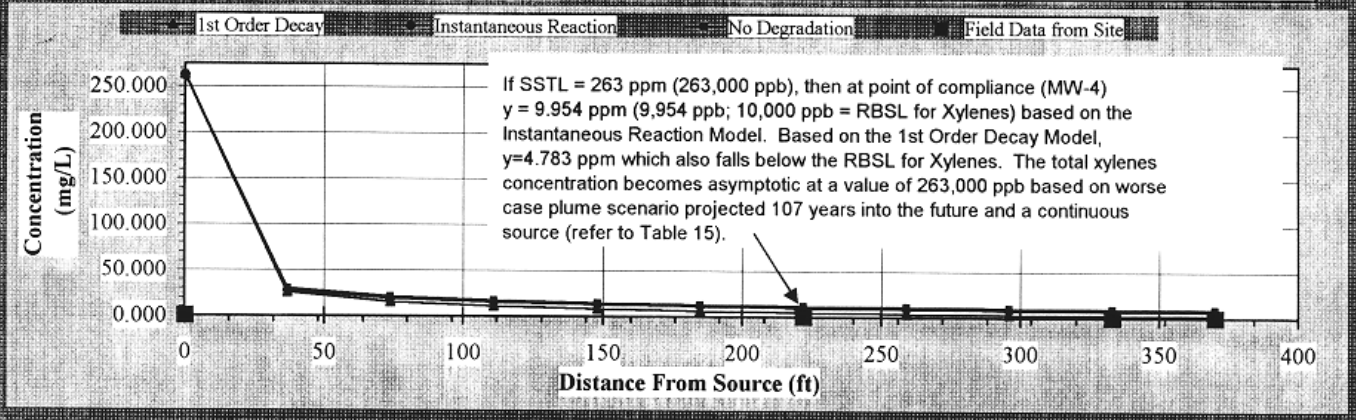
Figure 45. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Xylenes Final SSTL Simulation)

XYLENES SITE SPECIFIC TARGET LEVEL (SSTL) FINAL SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)

SSTL DISSOLVED XYLENES CONCENTRATION ALONG PLUME CENTERLINE (mg/L at Z=0)

Distance from Source (ft)

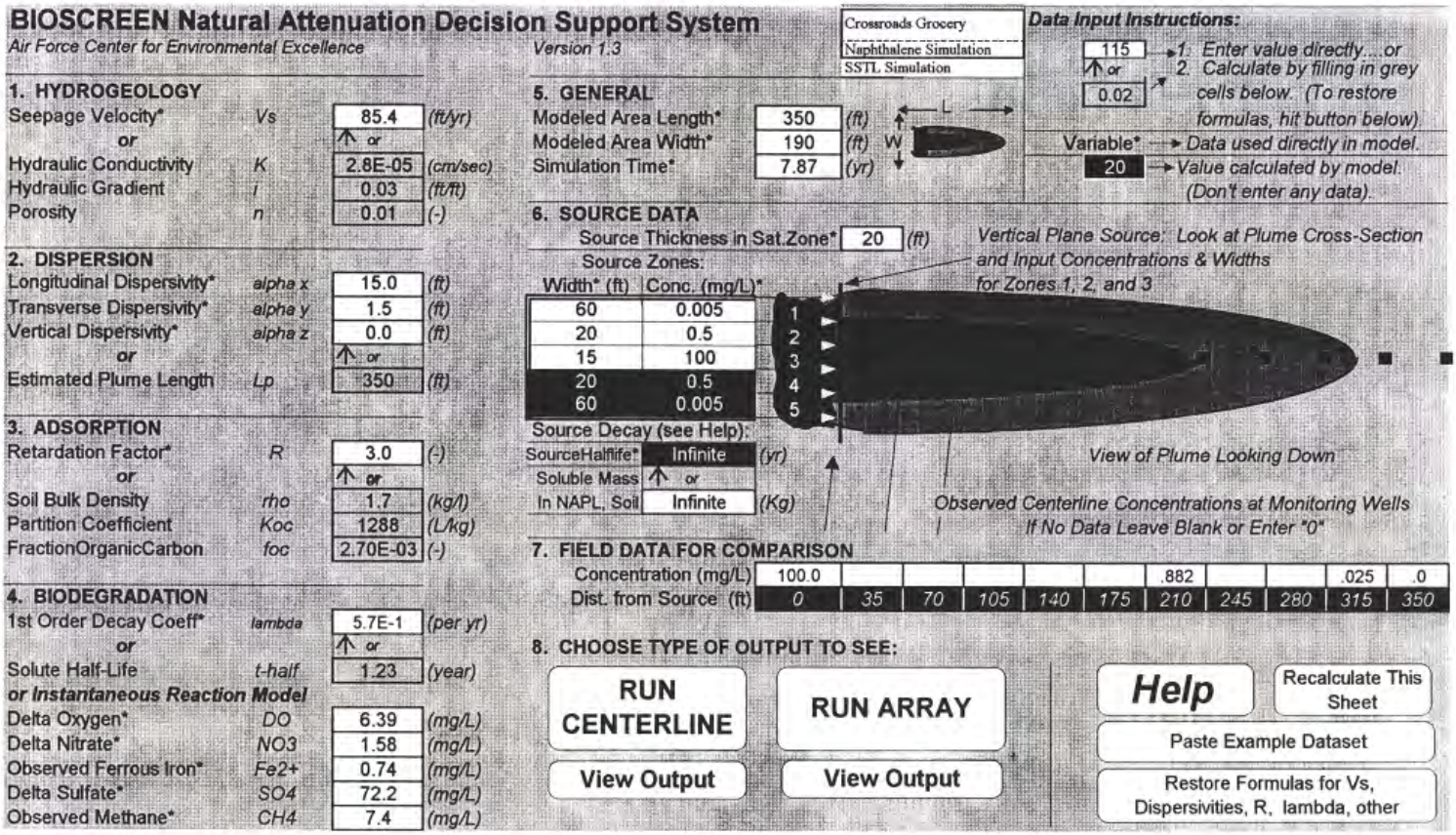
TYPE OF MODEL	0	37	74	111	148	185	222	259	296	333	370
No Degradation	263.000	29.349	20.787	16.982	14.711	13.160	12.014	11.124	10.406	9.811	9.308
1st Order Decay	263.000	25.172	15.292	10.715	7.961	6.108	4.783	3.798	3.048	2.465	2.005
Inst. Reaction	263.000	27.431	18.798	14.962	12.672	11.109	9.954	9.056	8.332	7.733	7.226
Field Data from Site	MW-1A						MW-4			MW-13	MW-5



Calculate Animation
Next Timestep
Prev Timestep
Time:
107 Years
Return to Input
Recalculate This Sheet

Figure 46. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Xylenes Final SSTL Simulation)

FINAL NAPHTHALENE CALIBRATION SIMULATION: BIOSCREEN INPUT DATA



BIOSCREEN Natural Attenuation Decision Support System

Air Force Center for Environmental Excellence — *Version 1.3*

Crossroads Grocery
Naphthalene Simulation
SSTL Simulation

Data Input Instructions:

115 (or 0.02) → 1. Enter value directly....or 2. Calculate by filling in grey cells below. (To restore formulas, hit button below)

Variable* → Data used directly in model.

20 → Value calculated by model. (Don't enter any data).

1. HYDROGEOLOGY

Seepage Velocity*	Vs	85.4	(ft/yr)
or		↑ or	
Hydraulic Conductivity	K	2.8E-05	(cm/sec)
Hydraulic Gradient	i	0.03	(ft/ft)
Porosity	n	0.01	(-)

2. DISPERSION

Longitudinal Dispersivity*	alpha x	15.0	(ft)
Transverse Dispersivity*	alpha y	1.5	(ft)
Vertical Dispersivity*	alpha z	0.0	(ft)
or		↑ or	
Estimated Plume Length	Lp	350	(ft)

3. ADSORPTION

Retardation Factor*	R	3.0	(-)
or		↑ or	
Soil Bulk Density	rho	1.7	(kg/l)
Partition Coefficient	Koc	1288	(L/kg)
FractionOrganicCarbon	foc	2.70E-03	(-)

4. BIODEGRADATION

1st Order Decay Coeff*	lambda	5.7E-1	(per yr)
or		↑ or	
Solute Half-Life	t-half	1.23	(year)
or Instantaneous Reaction Model			
Delta Oxygen*	DO	6.39	(mg/L)
Delta Nitrate*	NO3	1.58	(mg/L)
Observed Ferrous Iron*	Fe2+	0.74	(mg/L)
Delta Sulfate*	SO4	72.2	(mg/L)
Observed Methane*	CH4	7.4	(mg/L)

5. GENERAL

Modeled Area Length*		350	(ft)
Modeled Area Width*		190	(ft)
Simulation Time*		7.87	(yr)

6. SOURCE DATA

Source Thickness in Sat.Zone* 20 (ft)

Source Zones:

Width* (ft)	Conc. (mg/L)*
60	0.005
20	0.5
15	100
20	0.5
60	0.005

Source Decay (see Help):

SourceHalflife*	Infinite	(yr)
Soluble Mass	↑ or	
In NAPL, Soil	Infinite	(Kg)

Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3

View of Plume Looking Down

Observed Centerline Concentrations at Monitoring Wells If No Data Leave Blank or Enter "0"

7. FIELD DATA FOR COMPARISON

Dist. from Source (ft)	Concentration (mg/L)
0	100.0
35	
70	
105	
140	
175	
210	.882
245	
280	
315	.025
350	.0

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE — View Output

RUN ARRAY — View Output

Help

Recalculate This Sheet

Paste Example Dataset

Restore Formulas for Vs, Dispersivities, R, lambda, other

Figure 47. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Final Naphthalene Calibration Simulation)

NAPHTHALENE FINAL CALIBRATION SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)

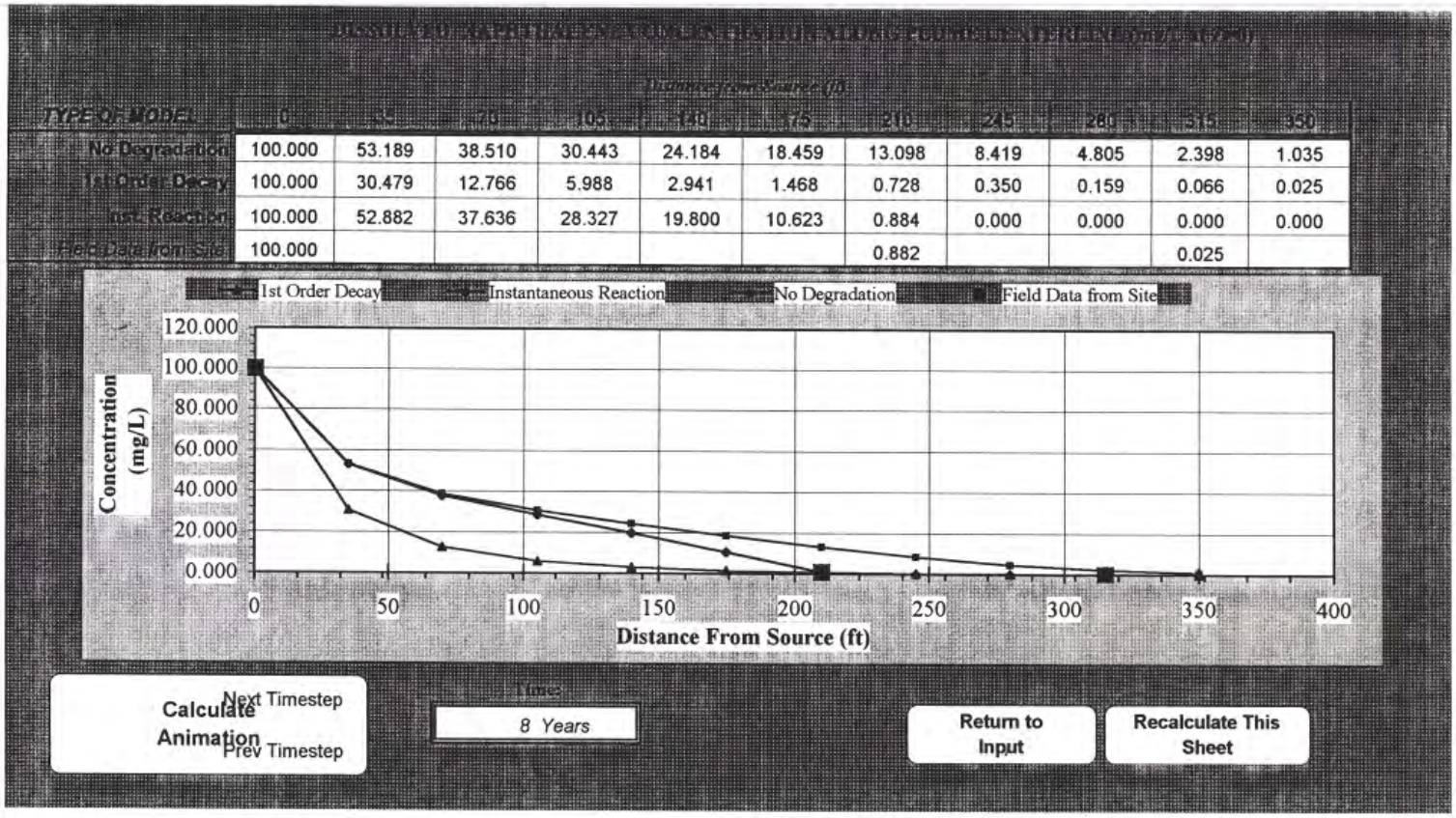


Figure 48. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Final Naphthalene Calibration Simulation)

NAPHTHALENE SITE SPECIFIC TARGET LEVEL (SSTL) FINAL SIMULATION: BIOSCREEN INPUT DATA

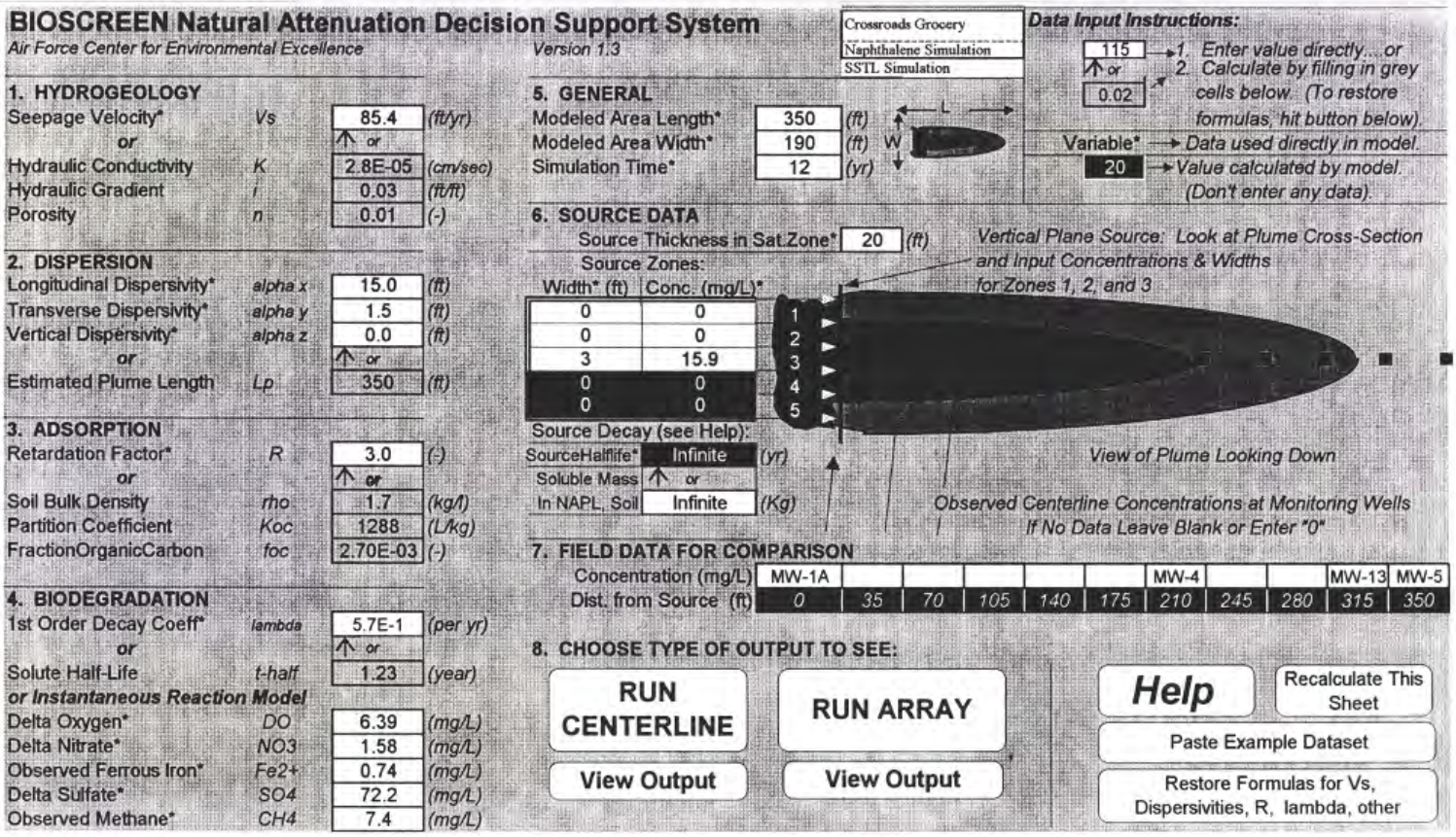
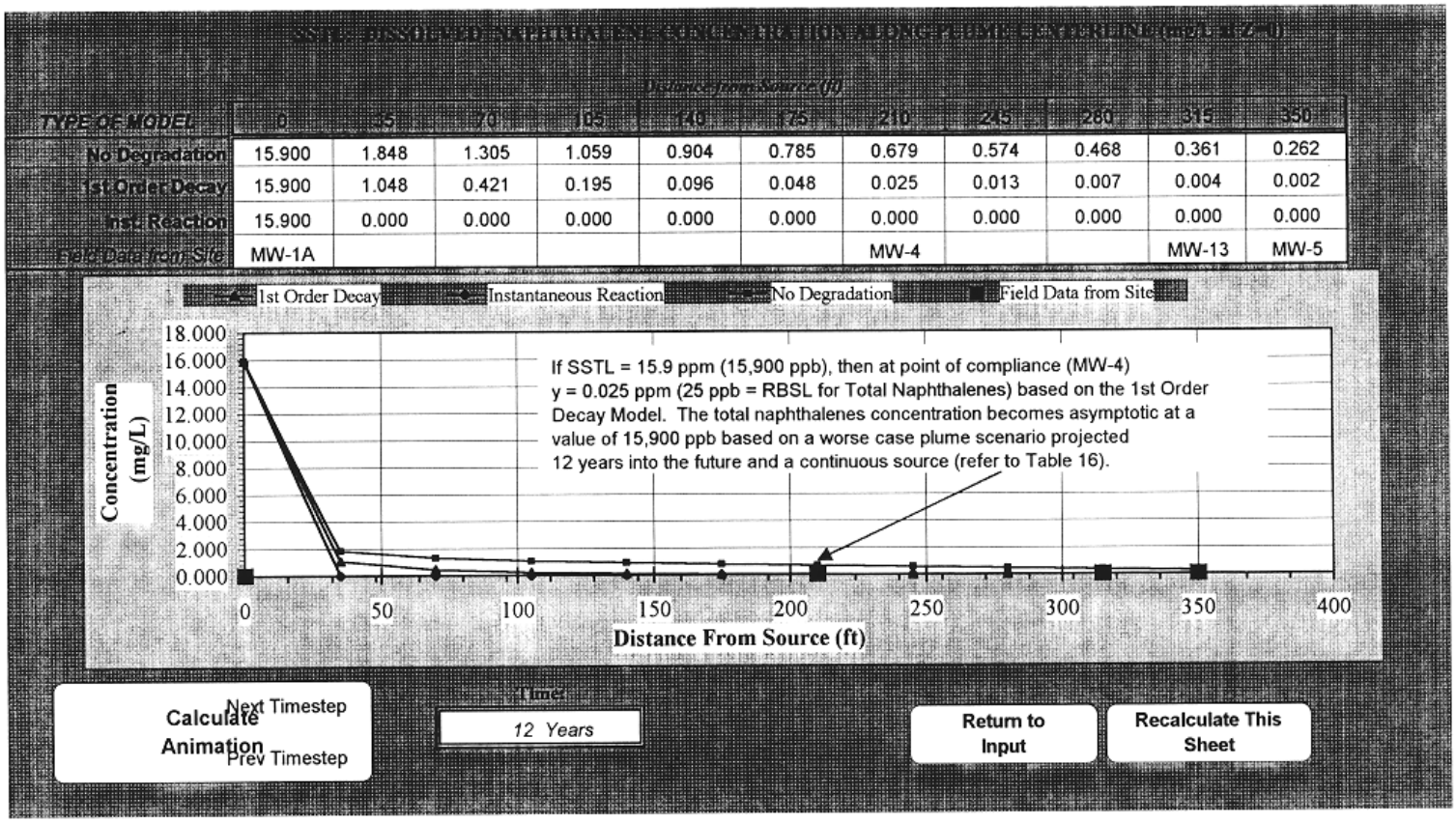


Figure 49. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Final Naphthalene SSTL Simulation)

NAPHTHALENE SITE SPECIFIC TARGET LEVEL (SSTL) FINAL SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)



TYPE OF MODEL	0	35	70	105	140	175	210	245	280	315	350
No Degradation	15.900	1.848	1.305	1.059	0.904	0.785	0.679	0.574	0.468	0.361	0.262
1st Order Decay	15.900	1.048	0.421	0.195	0.096	0.048	0.025	0.013	0.007	0.004	0.002
Inst. Reaction	15.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Field Data from Site	MW-1A						MW-4			MW-13	MW-5

Figure 50. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Final Naphthalene SSTL Simulation)

FINAL BTEX PLUME MOVEMENT AND VOLUME SIMULATION: BIOSCREEN INPUT DATA FOR CROSSROADS GROCERY

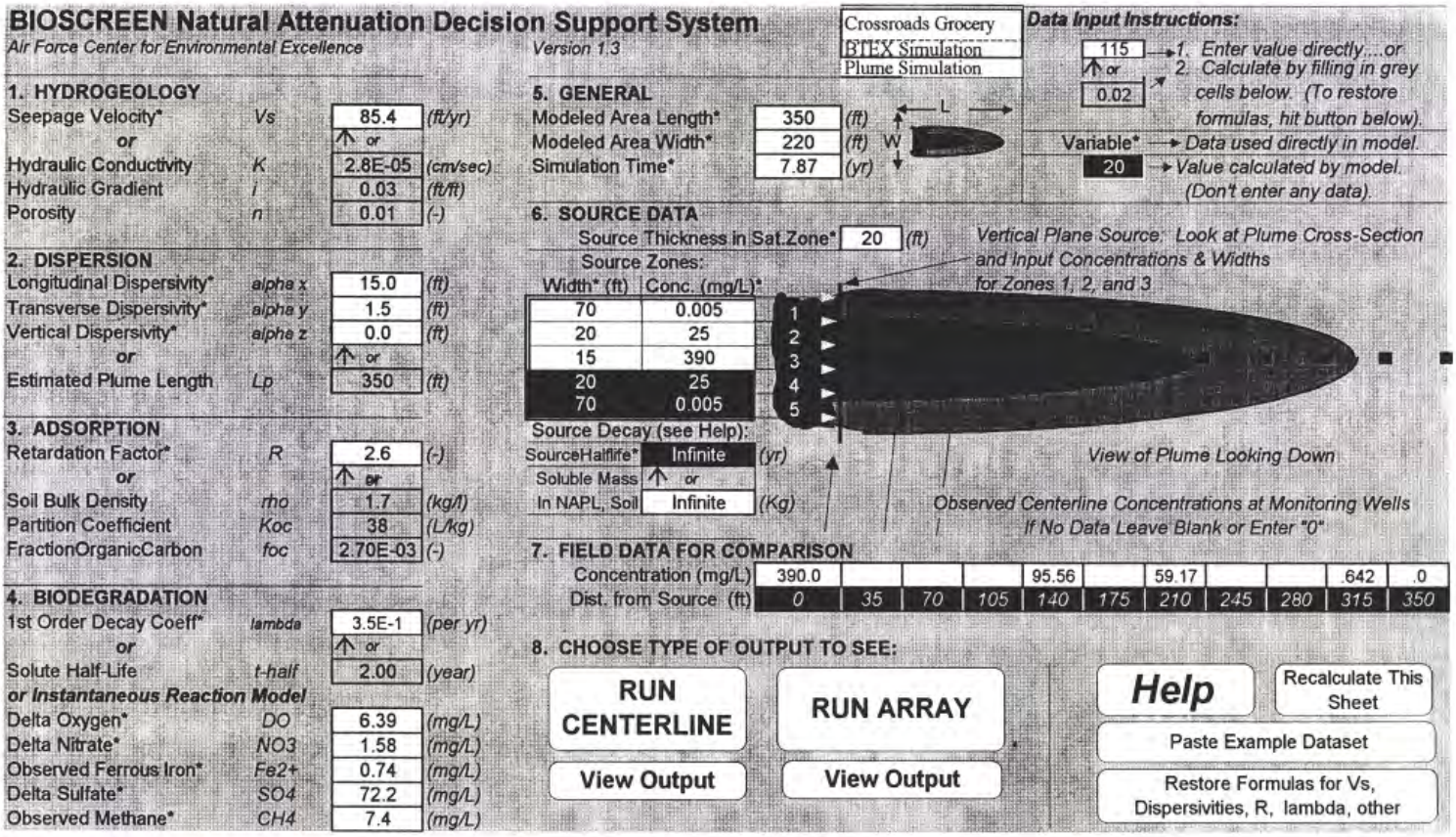
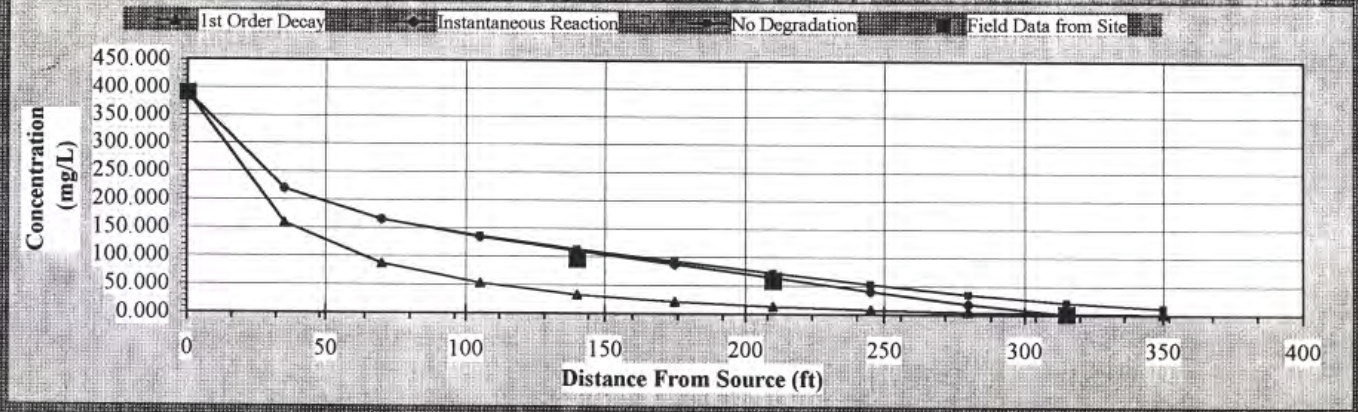


Figure 51. BIOSCREEN Input Screen. UST Site Crossroads Grocery (Final BTEX Plume Movement and Volume Simulation)

BTEX PLUME MOVEMENT AND VOLUME FINAL SIMULATION: CENTERLINE OUTPUT (INCLUDING DATA POINTS CHART)

DISSOLVED BENZENE CONCENTRATION ALONG PLUME CENTERLINE (mg/L or ppm)

TYPE OF MODEL	Distance from Source (ft) 0	35	70	105	140	175	210	245	280	315	350
No Degradation	390.000	219.024	164.885	135.319	112.950	92.513	72.336	52.762	35.218	21.186	11.349
1st Order Decay	390.000	158.625	86.886	52.543	33.011	20.968	13.179	8.024	4.631	2.482	1.215
Inst. Reaction	390.000	218.861	164.415	134.140	110.378	87.598	64.061	40.369	18.519	0.641	0.000
Field Data from Site	390.000				95.560		59.170			0.642	



Calculate Animation
Next Timestep
Prev Timestep
Time:
8 Years
Return to Input
Recalculate This Sheet

Figure 52. BIOSCREEN Centerline Output (including values). Crossroads Grocery (Final BTEX Plume Movement and Volume Simulation)

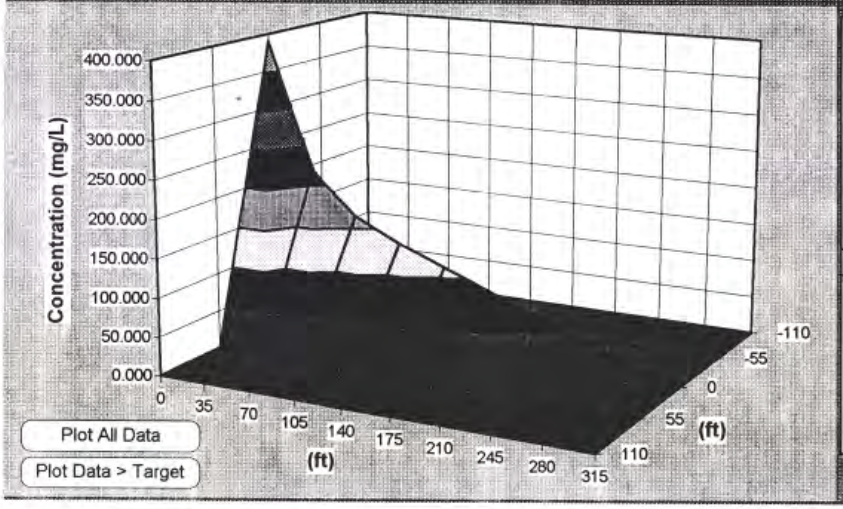
BTEX PLUME MOVEMENT AND VOLUME FINAL SIMULATION: INSTANTANEOUS REACTION MODEL
(3-D AND PLUME AND SOURCE MASSES RESULTS)

DISSOLVED BTEX HYDROCARBON CONCENTRATIONS IN GROUNDWATER (mg/L at Z=0)

Transverse Distance (ft) ↓ / Distance from Source (ft) →	0	35	70	105	140	175	210	245	280	315	350
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55	0.005	0.000	0.385	1.288	2.003	1.494	0.000	0.000	0.000	0.000	0.000
0	390.000	218.861	164.415	134.140	110.378	87.598	64.061	40.369	18.519	0.641	0.000
-55	0.005	0.000	0.385	1.288	2.003	1.494	0.000	0.000	0.000	0.000	0.000
-110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Model to Display:
- No Degradation Model
- 1st Order Decay Model
- Instantaneous Reaction Model

Time: 7.87 Years Target Level: 0.005 mg/L Displayed Model: Inst. Reaction



Plume and Source Masses (Order-of-Magnitude Accuracy)

Plume Mass if No Biodegradation	46.2	(Kg)
- Actual Plume Mass	25.8	(Kg)
= Plume Mass Removed by Biodeg	20.5	(Kg) (44 %)

Change in Electron Acceptor/Byproduct Masses:

Oxygen	Nitrate	Iron II	Sulfate	Methane	
-4.8	-1.2	+0.6	-54.2	+5.6	(Kg)

Original Mass In Source (Time = 0 Years)	Infinite	(Kg)
Mass in Source Now (Time = 7.87Years)	Infinite	(Kg)
Current Volume of Groundwater in Plume	0.2	(ac-ft)
Flowrate of Water Through Source Zone	0.076	(ac-ft/yr)

Mass HELP Recalculate

Figure 53. BIOSCREEN 3-D Output and Plume and Source Masses Information (Instantaneous Reaction Model). Crossroads Grocery (Final BTEX Plume Simulation).

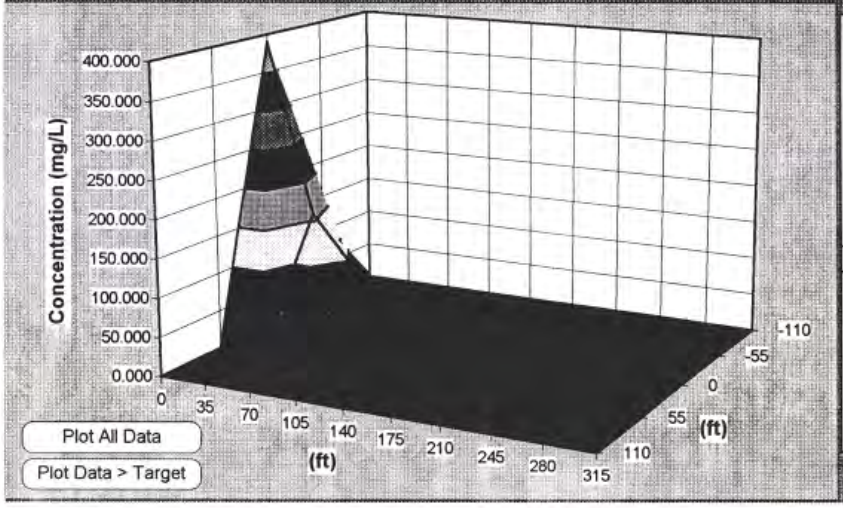
BTEX PLUME MOVEMENT AND VOLUME FINAL SIMULATION: 1st ORDER DECAY MODEL
(3-D AND PLUME AND SOURCE MASSES RESULTS)

DISSOLVED BTEX/HYDROCARBON CONCENTRATIONS IN PLUME (at Z=0)

Transverse Distance (ft)	Distance from Source (ft)										
Y	0	35	70	105	140	175	210	245	280	315	350
110	0.000	0.000	0.001	0.000	0.001	0.001	0.003	0.005	0.006	0.006	0.005
55	0.005	0.070	0.474	1.042	1.475	1.613	1.490	1.207	0.868	0.554	0.312
0	390.000	158.625	86.886	52.543	33.011	20.968	13.179	8.024	4.631	2.482	1.215
-55	0.005	0.070	0.474	1.042	1.475	1.613	1.490	1.207	0.868	0.554	0.312
-110	0.000	0.000	0.001	0.000	0.001	0.001	0.003	0.005	0.006	0.006	0.005

Model to Display:
- No Degradation Model
- 1st Order Decay Model
- Instantaneous Reaction Model

Time: 7.87 Years | Target Level: 0.005 mg/L | Displayed Model: 1st Order Decay



Plume and Source Masses (Order-of-Magnitude Accuracy):

Plume Mass if No Biodegradation	26.0	(Kg)
- Actual Plume Mass	4.9	(Kg)
= Plume Mass Removed by Biodeg	21.2	(Kg) (81 %)

Change in Electron Acceptor/Byproduct Masses:

Oxygen	Nitrate	Iron II	Sulfate	Methane	
na	na	na	na	na	(Kg)

Original Mass In Source (Time = 0 Years)	Infinite	(Kg)
Mass in Source Now (Time = 7.87Years)	Infinite	(Kg)
Current Volume of Groundwater in Plume	0.3	(ac-ft)
Flowrate of Water Through Source Zone	0.076	(ac-ft/yr)

Mass HELP | Recalculate

Figure 54. BIOSCREEN 3-D Output and Plume and Source Masses Information (1st Order Decay Model). Crossroads Grocery (Final BTEX Plume Simulation).

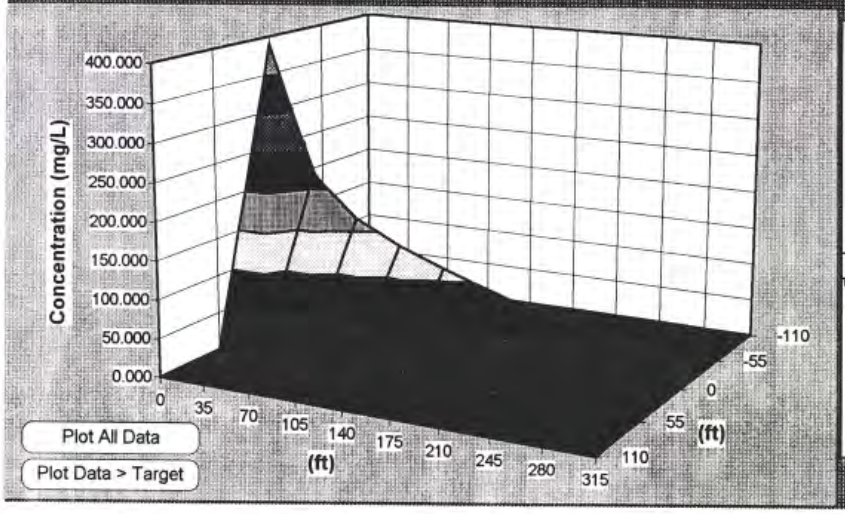
BTEX PLUME MOVEMENT AND VOLUME FINAL SIMULATION: NO DEGRADATION MODEL
(3-D AND PLUME AND SOURCE MASSES RESULTS)

DISSOLVED BTEX HYDROCARBON CONCENTRATIONS IN PLUME (mg/L, Z=0)

Transverse Distance (ft)	Distance from Source (ft) 0	35	70	105	140	75	210	245	280	315	350
110	0.000	0.001	0.001	0.001	0.002	0.006	0.015	0.031	0.047	0.055	0.051
55	0.005	0.096	0.900	2.683	5.046	7.119	8.181	7.940	6.603	4.728	2.918
0	390.000	219.024	164.885	135.319	112.950	92.513	72.336	52.762	35.218	21.186	11.349
-55	0.005	0.096	0.900	2.683	5.046	7.119	8.181	7.940	6.603	4.728	2.918
-110	0.000	0.001	0.001	0.001	0.002	0.006	0.015	0.031	0.047	0.055	0.051

Model to Display:
- No Degradation Model
- 1st Order Decay Model
- Instantaneous Reaction Model

Time: 7.87 Years Target Level: 0.005 mg/L Displayed Model: No Degradation



Plume and Source Masses (Order-of-Magnitude Accuracy)

Plume Mass if No Biodegradation	26.0	(Kg)
- Actual Plume Mass	26.0	(Kg)
= Plume Mass Removed by Biodeg	0.0	(Kg)
	0 %	

Change in Electron Acceptor/Byproduct Masses:

Oxygen	Nitrate	Iron II	Sulfate	Methane	
na	na	na	na	na	(Kg)

Original Mass In Source (Time = 0 Years)	Infinite	(Kg)
Mass in Source Now (Time = 7.87Years)	Infinite	(Kg)
Current Volume of Groundwater in Plume	0.4	(ac-ft)
Flowrate of Water Through Source Zone	0.076	(ac-ft/yr)

Mass HELP Recalculate

Figure 55. BIOSCREEN 3-D Output and Plume and Source Masses Information (No Degradation Model). Crossroads Grocery (Final BTEX Plume Simulation).

Tables

TABLE 1
Complete Exposure Pathways at Crossroads Grocery
(Current Land Use)

Potentially Exposed Population	Exposure Route, Medium, and Exposure Point	Pathway Selected for Evaluation?	Reason for Selection or Non-selection
Off-site resident	Ingestion of ground water from impacted water well	Yes	No drinking water wells in area, **but surface water receptor approximately 650 feet down-grad of site could be affected**
	Direct contact with surface soil	No	For soils collected in April of 1998, on-site soil hydrocarbon readings measured below the soil RBSLs except for naphthalene. Based on the Soil Leachability Model, naphthalene in the soil does not pose a threat.
	Inhalation while showering	No	Residents do not use ground water for showering
	Dermal contact while showering	No	Residents do not use ground water for showering
	Inhalation of volatiles	No	0 ppm with FID-PID except inside on-site monitor wells
On-site resident	Ingestion of ground water	No	No residents on-site
	Direct contact with surface soil	No	
	Inhalation while showering	No	
	Dermal contact while showering	No	
	Inhalation of volatiles	No	

Potentially Exposed Population	Exposure Route, Medium, and Exposure Point	Pathway Selected for Evaluation?	Reason for Selection or Non-selection
Worker	Ingestion of ground water	No	No water well on site
	Direct contact with surface soil	No	For soils collected in April of 1998, on-site soil hydrocarbon readings measured below the soil RBSLs except for naphthalene. Based on the Soil Leachability Model, naphthalene in the soil does not pose a threat.
	Inhalation while showering	No	N/A
	Dermal contact while showering	No	N/A
	Inhalation of volatiles	No	0 ppm with FID-PID except inside on-site monitor wells
Visitor	Ingestion of ground water	No	No water well on site
	Direct contact with surface soil	No	For soils collected in April of 1998, on-site soil hydrocarbon readings measured below the soil RBSLs except for naphthalene. Based on the Soil Leachability Model, naphthalene in the soil does not pose a threat.
	Inhalation while showering	No	N/A
	Dermal contact while showering	No	N/A
	Inhalation of volatiles	No	0 ppm with FID-PID except inside on-site monitor wells

TABLE 2
Complete Exposure Pathways at Crossroads Grocery
(Future Land Use)

Potentially Exposed Population	Exposure Route, Medium, and Exposure Point	Pathway Selected for Evaluation?	Reason for Selection or Non-selection
Off-site resident	Ingestion of ground water from impacted water well	Yes	No drinking water wells in area, **but possible future installation and surface water receptor approximately 650 feet down-grad of site could be affected**
	Direct contact with surface soil	No	For soils collected in April of 1998, on-site soil hydrocarbon readings measured below the soil RBSLs except for naphthalene. Based on the Soil Leachability Model, naphthalene in the soil does not pose a threat.
	Inhalation while showering	Yes	Residents may use ground water for showering
	Dermal contact while showering	Yes	Residents may use ground water for showering
	Inhalation of volatiles	No	0 ppm with FID-PID except inside on-site monitor wells
On-site resident	Ingestion of ground water	No	No residents on-site, property is zoned commercial and is reasonably anticipated to remain commercial
	Direct contact with surface soil	No	
	Inhalation while showering	No	
	Dermal contact while showering	No	
	Inhalation of volatiles	No	

Potentially Exposed Population	Exposure Route, Medium, and Exposure Point	Pathway Selected for Evaluation?	Reason for Selection or Non-selection
Worker	Ingestion of ground water	No	No water well on site
	Direct contact with surface soil	No	For soils collected in April of 1998, on-site soil hydrocarbon readings measured below the soil RBSLs except for naphthalene. Based on the Soil Leachability Model, naphthalene in the soil does not pose a threat.
	Inhalation while showering	No	N/A
	Dermal contact while showering	No	N/A
	Inhalation of volatiles	No	0 ppm with FID-PID except inside on-site monitor wells
Visitor	Ingestion of ground water	No	No water well on site
	Direct contact with surface soil	No	For soils collected in April of 1998, on-site soil hydrocarbon readings measured below the soil RBSLs except for naphthalene. Based on the Soil Leachability Model, naphthalene in the soil does not pose a threat.
	Inhalation while showering	No	N/A
	Dermal contact while showering	No	N/A
	Inhalation of volatiles	No	0 ppm with FID-PID except inside on-site monitor wells

TABLE 3

Risk-Based Screening Levels for Soil
RBSLs for Clay-rich Soil (mg/kg) (K≤ 10^{-4} cm/sec)

Chemical of Concern	Concentration (mg/kg) (ppm)	Worst Case Sample Location and Depth to GW (ft) at Sample Location	Measured Concentration in mg/kg (ppm) (Refer to Tables 6 & 7)
Benzene	0.843	UST/L&D-SB#5 (20.87')	0.00267
Toluene	12.5	L&D-SB#9 (18.87')	0.0113
Ethylbenzene	98.6	L&D-SB#8/MW-8 (13.87')	0.144
Xylenes	114.9	L&D-SB#8/MW-8 (13.87')	1.570
Naphthalene	0.34	L&D-SB#8/MW-8 (13.87')	6.130
Benzo(a)anthracene	-		ND in all soil samples
Benzo(b)fluoranthene	-		ND in all soil samples
Benzo(k)fluoranthene	-		ND in all soil samples
Chrysene	-		ND in all soil samples
Dibenzo(a,h)anthracene	-		ND in all soil samples

Notes: The depth to groundwater was measured from the depth of the worst case soil sample to the water table.

TABLE 4
Risk-Based Screening Levels for Ground Water

Chemical of Concern	Concentration (µg/l)
Benzene	5
Toluene	1000
Ethylbenzene	700
Xylenes	10,000
MTBE	40
Naphthalene	25
Benzo(a)anthracene	10
Benzo(b)fluoranthene	10
Benzo(k)fluoranthene	10
Chrysene	10
Dibenzo(a,h)anthracene	10

TABLE 5
Soil Field Screening OVA Data

Borehole Number	Sampling Date	Split-Spoon Interval (ft)	Field Screening OVA-FID (ppm) Results
Soil Boring SB-1	9/10/96	4-6 9-11 14-16	4.2 14.0 5.0
Soil Boring SB-2	9/10/96	4-6 9-11 14-16	0.0 0.0 0.0
Soil Boring MW-6	9/10/96	4-6 9-11 14-16 19-21 24-26 29-31 34-36	1.0 2.4 28.0 28.0 200.0 80.0 20.0
Soil Boring MW-7	9/10/96	4-6 9-11 14-16 19-21 24-26 29-31 34-36 39-41	0.0 0.0 3.2 19.4 42.0 50.0 68.0 60.0
Soil Boring L&D-SB#8 (converted to MW-8)	4/14/98	2-4 4-6 6-8 8-10 13.5-15 18.5-20 23.5-25 28.5-30 33.5-35 38.5-40	300 180 800 1,000 1,200 240 160 330 400 80

Borehole Number	Sampling Date	Split-Spoon Interval (ft)	Field Screening OVA-FID (ppm) Results
Soil Boring MW-9	4/1/98	Surface Sample 4-6 10-12 14-16 18-20 24-25 30-32	10 10 12 18 14 10 12
Soil Boring MW-10	4/2/98	2-4	22
Soil Boring MW-11	4/1/98	Surface Sample 4-6 10-12 14-16 18-20	10 20 24 32 18
Soil Boring MW-12	3/31/98	Surface Sample 4-6 10-12	0 5 0
Soil Boring MW-13	3/31/98	Surface Sample 4-6 10-12 14-16	0 12 28 38
Soil Boring MW-14	4/2/98	Surface Sample 5-7 10-12 15-17	16 19 19 10
Soil Boring MW-15	4/5/98	Surface Sample 4-6 10-12 14-16 18-20 24-26 30-32	20 0 0 0 10 12 0

Borehole Number	Sampling Date	Split-Spoon Interval (ft)	Field Screening OVA-FID (ppm) Results
Soil Boring UST-SB#3	4/4/98	Surface Sample 5-7 10-12 14-16 18-20 24-26 30-32 34-36 38-40	18 53 12 48 46 26 41 51 120
Soil Boring UST-SB#4	4/14/98	Surface Sample 4.5-6 8.5-10 13.5-15	0 0 0 0
Soil Boring UST/L&D SB#5	4/4/98	Surface Sample 2-4 4-6 6-8 8-10 10-12 14-16 18-20 24-26 30-32 34-36	62 54 58 120 68 62 58 84 58 92 150
Soil Boring L&D SB#6	4/4/98	Surface Sample 2-4 4-6 6-8 8-10 10-12	58 200 180 180 220 540
Soil Boring L&D SB#7	4/14/98	2-4 4-6 6-8 8-10	100 54 180 64
Soil Boring L&D SB#9	4/14/98	2-4 4-6 6-8 8-10	38 36 34 66

Detection Limits
BTEX < 1ug/kg
+ Naphth.

TABLE 6

BTEX and TPH Concentrations in Soil Samples, in µg/Kg (ppb) and TOC Concentrations in Soil Samples, in mg/Kg (ppm)

SAMPLE NUMBER	Depth (feet)	SAMPLE DATE	BENZENE (ppb)	TOLUENE (ppb)	ETHYL-BENZENE (ppb)	XYLENES (ppb)	TPH (ppb)	TOC (ppm)
MW-6	24-26'	9/9/96	ND	ND	ND	ND		
MW-7	24-26'	9/9/96	ND	ND	ND	ND		
SB-1	9-11'	9/9/96	ND	ND	ND	ND	ND	
SB-2	9-11'	9/9/96						2,700
UST-SB#3	5-7'	4/4/98	ND	ND	ND	ND		
UST-SB#4	13.5-15.0'	4/14/98	ND	ND	ND	ND		
UST/L&D-SB#5	6-8'	4/4/98	2.67	ND	ND	ND		
L&D-SB#6	8-10'	4/4/98	ND	ND	ND	ND		
L&D-SB#7	6-8'	4/14/98	2.11	6.71	1.9	16.8		
L&D SB#8 (MW-8)	8-10'	4/14/98					280	
L&D SB#8 (MW-8)	13.5-15.0	4/14/98	ND	ND	144	1,570		
L&D SB#9	8-10'	4/14/98	1.75	11.3	6.06	49.8		
MW-10	2-4'	4/2/98						7,320

Note: ND = was not detected at the method detection limit; NA = not applicable

Detection Limit for Purgeable Aromatics < 170 ug/Kg

TABLE 7

PAH Concentrations in Soil Samples, in µg/kg (ppb)

Analysis	Sample Date	Concentrations, in µg/kg (ppb) (Depth Soil Sample Collected in Feet)									
Polynuclear Aromatic Hydrocarbons:		MW-6 (24-26')	MW-7 (24-26')	SB-1 (9-11')	UST-SB#3 (5-7')	UST-SB#4 (13.5-15')	UST/L&D-SB#5 (6-8')	L&D-SB#6 (8-10')	L&D-SB#7 (6-8')	L&D-SB#8 (13.5-15')	L&D-SB#9 (8-10')
Naphthalene	9/9/96 4/4/98 4/14/98	ND	ND	ND	ND	ND	ND	1.32	10.9	6,130	7.31
2-Methylnaphthalene	9/9/96 4/4/98 4/14/98	ND	ND								
Acenaphthylene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Acenaphthene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Fluorene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Phenanthrene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Anthracene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Fluoranthene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Pyrene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND

Analysis Polynuclear Aromatic Hydrocarbons:	Sample Date	Concentrations, in µg/kg (ppb) (Depth Soil Sample Collected in Feet)									
		MW-6 (24-26')	MW-7 (24-26')	SB-1 (9-11')	UST-SB#3 (5-7')	UST-SB#4 (13.5-15')	UST/L&D-SB#5 (6-8')	L&D-SB#6 (8-10')	L&D-SB#7 (6-8')	L&D-SB#8 (13.5-15')	L&D-SB#9 (8-10')
Benzo(a)anthracene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Chrysene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	9/9/96 4/4/98 4/14/98	ND	ND		ND	ND	ND	ND	ND	ND	ND

Note: ND = was not detected at the method detection limit

TABLE 8
Monitor Well Data and
Ground-Water Depth and Elevation Data

MW#	Date Level Measured	Rim Elevation (ft)	Screened Interval Depth (ft)	Depth to Water (ft)	Depth to Free Product (ft)	Water Table Elevation (ft)	Apparent Free-Phase Hydrocarbon Thickness (ft)
MW-1	4/2/98	99.04	20-30	28.47	28.45	70.57	0.02
MW-1A	4/2/98	99.01	25-40	31.50	28.66	67.51	2.84
	4/5/98			31.49 (29.80' based on FP Rec Test - 4/5/98)	29.50	69.21 (based on FP Rec Test - 4/5/98)	1.99 (0.21' = Actual Thickness based on FP Rec Test - 4/5/98)
	4/14/98			29.26	28.71	---	0.55 (represents thickness after FP bailed)
MW-2	9/9/96	97.77	20-30	28.00	--	69.77	--
	4/2/98			26.98	--	70.79	--
MW-3	9/9/96	96.77	20-30	28.57	--	68.20	--
	4/2/98			27.30	--	69.47	--
MW-4	9/9-10/96	90.10	15-25	23.49	--	66.61	--
	4/2/98			21.45	--	68.65	sheen
MW-5	9/10/96	74.74	10-20	15.44	--	59.30	--
	4/1/98			12.40	--	62.34	--
MW-6	9/10/96	92.67	20-35	24.80	--	67.87	--
	4/2/98			23.25	--	69.42	sheen
MW-7	9/10/96	97.68	24-39	28.04	--	69.64	--
	4/2/98			27.06	--	70.62	--
MW-8	4/14/98	99.10	25-45	28.87	--	70.23	sheen
MW-9	4/1/98	96.47	17-32	23.94	--	72.53	--
MW-10	4/2/98	99.89	27-42	29.77	--	70.12	--
MW-11	4/1/98	86.57	10-25	17.84	--	68.73	--
MW-12	4/1/98	62.71	7-12	6.97	--	55.74	--
MW-13	4/1/98	75.50	10-20	10.89	--	64.61	--
MW-14	4/2/98	78.38	8-23	11.99	--	66.39	sheen
MW-15	4/14/98	92.54	20-35	23.65	--	68.89	--

Detection limit

ND < 5 ug/L

TABLE 9

COC Concentrations in Ground-Water Samples, in µg/L* (ppb)

Analysis	Sample Date	Concentrations, in µg/L (ppb) *														
Polynuclear Aromatic Hydrocarbons:		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	Up-stream	Down-stream
Nitrate (Method 9200) Units: mg/L (ppm) (BIOSCREEN parameter)	4/1/98 4/2/98 4/14/98	5.2	18	0.2	ND	0.3	ND	1.5	4	1.4	1.9	0.6	ND	ND	1.1		
Sulfate (Method 375.4) Units: mg/L (ppm) (BIOSCREEN parameter)	4/1/98 4/2/98 4/14/98	1	27	1	13	1	1	7	118	41	83	164	119	100	3		
Ferrous Iron (Method 8146) Units: mg/L (ppm) (BIOSCREEN parameter)	4/1/98 4/2/98 4/14/98	0.1	0.03	ND	0.07	ND	ND	ND	0.13	ND	0.04	0.07	ND	0.08	ND		
Dissolved Oxygen (Measured with YSI Model 55 Field Meter) Units: mg/L (ppm) Temperature in degrees Celsius (BIOSCREEN parameter)	4/1/98 4/2/98 4/14/98	6.24 @ 23.7°C	7.07 22.7°C	3.84 22.9°C	5.86 14.1°C	0.66 17.6°C	5.18 21.7°C	3.83 19.7°C	5.45 18.7°C	7.27 20.7°C	3.03 17.3°C	8.28 20.4°C	4.79 14.7°C	5.54 18.5°C	9.89 18.0°C		
Lead (Method 239.1) Units: mg/L (ppm)	4/1/98 4/2/98 4/14/98	ND	ND	ND	ND	ND	ND	ND	0.22	ND	0.33	0.1	0.17	0.3	ND		
Methyl Tertiary Butyl Ether (Method 8260) (Method 8020 on 9/9/96)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	470 ND	ND ND	19,000 5,820	12 ND	6,100 16,400	160 62.8	35,500	ND	1.43	ND	ND	1,950	1.31	ND	110	ND
Naphthalene (Method 8260)	4/1/98 4/2/98 4/14/98	9.28	11.3	882	ND	561	468	188	2.3	10.6	272	ND	24.7	80.2	3.22		
1,2,4-Trimethylbenzene (Method 8260)	4/1/98 4/2/98 4/14/98	26.3	34	1,830	ND	1,730	1,160	908	19	28.4	2,480	ND	140	595	4.34		

Analysis **Polynuclear Aromatic Hydrocarbons:**	Sample Date	Concentrations, in µg/L (ppb) *														
		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	Up-stream	Down-stream
1,2-Dibromoethane (EDB) (Method 8260)	4/1/98 4/2/98 4/14/98	0.06	ND	0.96	ND	1.72	ND	1.3	ND	ND	0.36	ND	ND	0.24	ND		
1,3,5-Trimethylbenzene (Method 8260)	4/1/98 4/2/98 4/14/98	8.85	10.5	494	ND	531	304	256	5.44	7.87	743	ND	30.6	162	1.17		
Benzene (Method 8260)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	33 11	ND 14.6	22,000 15,700	44 ND	26,000 39,600	960 2,780	11,000	8.5	132	ND	ND	ND	150	8.03	75	ND
Ethylbenzene (Method 8260)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND 17.3	ND 23.9	4,200 2,570	1.7 ND	2,700 2,460	740 1,630	722	12.4	48.2	1,090	ND	130	149	5.26	ND	ND
Toluene (Method 8260)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	20 13.6	ND 9.17	44,000 27,600	11 ND	33,000 41,100	4,800 10,500	15,900	4.24	464	312	ND	78	501	33.3	0.73	1.1
Xylenes (Method 8260)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	15 87	ND 117	23,000 13,300	27 ND	14,000 12,400	4,100 7,610	6,520	54.2	224	5,090	ND	434	921	26.2	1.9	ND
Total BTEX (BIOSCREEN Modeling Tool used with Instantaneous Reaction Model)	4/1/98 4/2/98 4/14/98	128.9	164.67	59,170	ND	95,560	22,520	34,142	79.34	868.2	6,492	ND	642	1,721	72.79		
Naphthalene (Method 8270)	9/9/96 9/10/96	ND	ND	539	ND	528	329									ND	ND
2-Methylnaphthalene (Method 8270)	9/9/96 9/10/96	ND		171	ND	240	132									ND	ND

Analysis **Polynuclear Aromatic Hydrocarbons:**	Sample Date	Concentrations, in µg/L (ppb) *														
		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	Up-stream	Down-stream
Acenaphthylene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analysis	Sample Date	Concentrations, in µg/L (ppb) *														
Polynuclear Aromatic Hydrocarbons:		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	Up-stream	Down-stream
Benzo(a)anthracene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analysis **Polynuclear Aromatic Hydrocarbons:**	Sample Date	Concentrations, in µg/L (ppb) *														
		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	Up-stream	Down-stream
Benzo(g,h,i)perylene (Method 8270)	9/9/96 9/10/96 4/1/98 4/2/98 4/14/98	ND		ND ND	ND ND	ND ND	ND ND	 ND	ND	 ND	ND	ND	ND	 ND	 ND	ND	ND

Note: ND = was not detected at the method detection limit
* = concentrations measured in ppb unless otherwise specified
ND[1] = Analyzed by EPA Method 8240; performed by Trace Analysis Laboratory

TABLE 1●

FREE PR●DUCT REC●VERY TEST #1 MEASURED ●N 4/5/98 IN M●NIT●R WELL MW-1A

Time (minutes)	Product Depth (feet)	Groundwater Depth (feet)	Notes
●	-3●.54	-31.00	
●	-3●.47	-30.70	
1	-30.42	-30.61	
1	-30.36	-30.52	
1	-30.33	-30.46	
2	-30.29	-30.39	
2	-30.28	-30.35	
2	-30.25	-30.33	
3	-30.23	-30.30	
3	-30.20	-30.27	
3	-30.18	-30.23	
4	-30.17	-30.22	
4	-30.14	-30.20	
4	-30.13	-30.18	
4	-30.11	-30.16	
5	-30.09	-30.13	
5	-30.08	-30.12	
6	-30.07	-30.09	
6	-30.05	-30.09	
6	-30.03	-30.08	
7	-30.03	-30.07	
7	-3●.02	-30.06	
7	-3●.●●	-30.05	
7	-29.83	-30.04	
8	-29.82	-30.03	
8	-29.8●	-30.03	
9	-29.78	-30.02	
9	-29.76	-30.01	
10	-29.76	-29.83	
10	-29.75	-29.82	
10	-29.73	-29.81	
11	-29.71	-29.80	
11	-29.71	-29.79	
11	-29.70	-29.78	
12	-29.69	-29.77	
12	-29.68	-29.76	
12	-29.67	-29.76	
13	-29.67	-29.76	

Time (minutes)	Product Depth (feet)	Groundwater Depth (feet)	Notes
13	-29.66	-29.75	
14	-29.65	-29.74	
14	-29.65	-29.74	
14	-29.65	-29.73	
15	-29.63	-29.73	
15	-29.63	-29.72	
15	-29.63	-29.73	
16	-29.62	-29.71	
16	-29.61	-29.71	
16	-29.60	-29.71	
16	-29.60	-29.71	
17	-29.59	-29.71	
17	-29.58	-29.70	
17	-29.58	-29.69	
18	-29.58	-29.68	
18	-29.58	-29.68	
18	-29.57	-29.68	
19	-29.57	-29.68	
19	-29.56	-29.68	
19	-29.55	-29.68	
20	-29.55	-29.67	
20	-29.55	-29.67	
20	-29.54	-29.67	
21	-29.54	-29.66	
21	-29.54	-29.66	
21	-29.53	-29.65	
21	-29.53	-29.65	
22	-29.53	-29.65	
22	-29.53	-29.65	
22	-29.52	-29.65	
23	-29.52	-29.65	
23	-29.51	-29.64	
23	-29.50	-29.64	
23	-29.50	-29.63	
24	-29.50	-29.63	
24	-29.50	-29.63	
25	-29.50	-29.63	
25	-29.50	-29.63	
25	-29.50	-29.63	
26	-29.49	-29.63	
26	-29.48	-29.63	

Time (minutes)	Product Depth (feet)	Groundwater Depth (feet)	Notes
26	-29.48	-29.63	
26	-29.47	-29.63	
27	-29.47	-29.63	
27	-29.47	-29.63	
28	-29.46	-29.63	
29	-29.46	-29.63	
30	-29.45	-29.62	
30	-29.43	-29.62	
31	-29.43	-29.62	
31	-29.43	-29.62	
32	-29.42	-29.61	
32	-29.42	-29.61	
32	-29.42	-29.61	
33	-29.42	-29.61	
34	-29.42	-29.61	
34	-29.42	-29.61	
34	-29.40	-29.60	
35	-29.40	-29.60	
35	-29.40	-29.60	
36	-29.40	-29.59	
36	-29.40	-29.59	
36	-29.39	-29.59	
37	-29.38	-29.59	
37	-29.38	-29.59	Point of Inflection
41	-29.38	-29.60	
42	-29.38	-29.60	
42	-29.38	-29.60	
43	-29.38	-29.61	
43	-29.38	-29.61	
44	-29.37	-29.61	
44	-29.37	-29.61	
44	-29.37	-29.61	
46	-29.35	-29.61	
47	-29.35	-29.61	
49	-29.35	-29.62	
51	-29.36	-29.62	
52	-29.35	-29.62	
55	-29.33	-29.63	
59	-29.33	-29.63	
73	-29.29	-29.65	

TABLE 11

MTBE Site Specific Target Level (SSTL = 2.8 ppm)
Based on the 1st Order Decay Model
Modeling Data Using BIOSCREEN (1996)

Data Type	Parameter	Value	Source
Hydrogeology	• Hydraulic Conductivity: • Hydraulic Gradient: • Porosity:	2.75 x 10^{-5} (cm/sec) 0.03 0.01	• Slug-tests results • Static water level measurements • Estimated (BIOSCREEN, 1996)
Dispersion	Original • Longitudinal Dispersivity: • Transverse Dispersivity: • Vertical Dispersivity:	 15.7 (ft) 1.6 (ft) 0.0 (ft)	• Based on estimated plume length of 380 ft (Figure 14) • Note: No calibration was necessary to match the observed plume length.
Adsorption	• Retardation Factor: • Soil Bulk Density ρb: • Organic Carbon Partition Coefficient (K_{oc}): • Fraction Organic Carbon (f_{oc}):	2.635 1.7 Kg/L 12 (L/kg) 0.0027%	• Can calculated from $R = 1 + \rho b/n \times f_{oc} \times K_{oc}$, however R was changed to calibrate models • Soil Clay % & Sand % from lab grain-size analysis 4/14/98; (SCDHEC, 1997; Figure C3) • Literature (ASTM, 1995; Tables X1.2 & X2.6) converted using log (K_{oc}) x 10^{x} = K_{oc} • Lab Analysis of Total Organic Carbon using (1 x 10^{-6}) to convert from mg/kg to decimal % (SCDHEC, 1997; p.C8)
Biodegradation	Electron Acceptor: Background Conc. (mg/L): Minimum Conc. (mg/L): Change in Conc. (mg/L): Metabolic By-Product: Max. Conc. (mg/L): Avg. Conc. (mg/L): Value used in BIOSCREEN Model: Solute Half-Life:	O_2 NO_3 SO_4 7.05 1.78 73.2 - 0.66 - 0.2 - 1 **6.39** **1.58** **72.2** Fe^{2+} CH_4 0.13 0.074 **0.74** **7.2** Note: The **bolded** values are BIOSCREEN input values. 4 yrs	• Based on April 1998 groundwater sampling program conducted by Environmental Monitoring Corporation. • "The observed Fe^{2+} is only 10 % of actual Fe^{2+} that has been generated due to the sorption of Fe^{2+} onto the aquifer matrix" (BIOSCREEN, 1996; p.24) Therefore, the actual Fe^{2+} value used in the simulation is the averaged measured value x 0.10. • The median value for CH_4 was used (BIOSCREEN, 1996; p.24) • The solute half-life used was based on literature values (ASTM, 1995) then changed to calibrate 1st order decay model.

Data Type	Parameter	Value	Source
General	• Modeled Area Length: • Modeled Area Width: • Simulation Time (Calibration Simulations): • Simulation Time (SSTL Simulations):	380 (ft) 120 (ft) 7.87 (years) 47 (years) based on following results: @ 47, 48, 50, 100, 200 years, MTBE concentration = 0 ppm @ 2,000 feet from source	• Based on area of affected groundwater plume • Steady-state flow • Time was calculated from suspected time of release to present • Time was determined by running simulations with increasing times until the down-gradient edge of CoC plume was 0 ppm at the same distance over time
Source Data	• Source Thickness: • Source Concentration:	20 (ft) (See Figures 14 and 16)	• Based on geologic logs and MTBE monitoring data
Actual Data	• Distance from Source (ft): • MTBE Conc. (mg/L):	0' 140' 210' 335' 380' 100 16.4 5.82 1.95 0 (FP)	• Based on observed concentration contour at site (see Figure 14)
OUTPUT	Refer to Figure 26 for: Refer to Figure 27 for: Refer to Figure 28 for: Refer to Figure 29 for: Refer to Figure 30a for: Refer to Figure 30b for: Refer to Figure 30c for:	• MTBE: Calibration Final Simulation (BIOSCREEN Input Data) • MTBE: Calibration Final Simulation (Centerline Concentrations) • MTBE: SSTL Final Simulation (BIOSCREEN Input Data) • MTBE: SSTL Final Simulation (Centerline Concentrations) • MTBE: 3D Plume and Plume & Source Masses (Instantaneous Reaction Model) • MTBE: 3D Plume and Plume & Source Masses (1st Order Decay Model) • MTBE: 3D Plume and Plume & Source Masses (No Degradation Model)	

TABLE 12

Benzene Site Specific Target Level (SSTL = 0.4 ppm)
Based on the 1st Order Decay Model
Modeling Data Using BIOSCREEN (1996)

Data Type	Parameter	Value	Source
Hydrogeology	• Hydraulic Conductivity: • Hydraulic Gradient: • Porosity:	2.75×10^{-5} (cm/sec) 0.03 0.01	• Slug-tests results • Static water level measurements • Estimated (BIOSCREEN, 1996)
Dispersion	Original • Longitudinal Dispersivity: • Transverse Dispersivity: • Vertical Dispersivity:	 14.8 (ft) 1.5 (ft) 0.0 (ft)	• Based on estimated plume length of 340 ft (Figure 15) • Note: No calibration was necessary to match the observed plume length.
Adsorption	• Retardation Factor: • Soil Bulk Density ρb: • Organic Carbon Partition Coefficient (K_{oc}): • Fraction Organic Carbon (f_{oc}):	5.1 1.7 Kg/L 38 - 83 (L/kg) 0.0027%	• Can be calculated from $R = 1 + \rho b/n \times f_{oc} \times K_{oc}$, however R was change to calibrate models • Soil Clay % & Sand % from lab grain-size analysis 4/14/98; (SCDHEC, 1997; Figure C3) • Literature (ASTM, 1995; Tables X1.2 & X2.6) converted using log (K_{oc}) x 10^x = K_{oc} • Lab Analysis of Total Organic Carbon using (1×10^{-6}) to convert from mg/kg to decimal % (SCDHEC, 1997; p.C8)

Data Type	Parameter	Value	Source
Biodegradation	Electron Acceptor: Background Conc. (mg/L): Minimum Conc. (mg/L): Change in Conc. (mg/L): (Percentage used by Benzene based on field data = 40%:) Metabolic By-Product: Max. Conc. (mg/L): Avg. Conc. (mg/L): Adjusted Value: (Percentage used by Benzene based on field data = 40%:) Solute Half-Life:	O_2 NO_3 SO_4 7.05 1.78 73.2 - 0.66 - 0.2 - 1 6.39 1.58 72.2 **2.56** **0.63** **28.9** Fe^{2+} CH_4 0.13 0.074 7.2 0.74 **0.30** **2.88** Note: The **bolded** values are BIOSCREEN input values. 6 yrs	• Based on April 1998 groundwater sampling program conducted by Environmental Monitoring Corporation. Note that for individual constituents, the total biodegradation capacity must be reduced to account for electron acceptor utilization by other constituents present in the plume (BIOSCREEN, 1996; p.29) • "The observed Fe^{2+} is only 10 % of actual Fe^{2+} that has been generated due to the sorption of Fe^{2+} onto the aquifer matrix" (BIOSCREEN, 1996; p.24) Therefore, the actual Fe^{2+} value used in the simulation is the averaged measured value x 0.10. • The median value for CH_4 was used (BIOSCREEN, 1996; p.24) • The solute half-life used was based on literature values (ASTM, 1995) then changed to calibrate 1st order decay model.
General	• Modeled Area Length: • Modeled Area Width: • Simulation Time (Calibration Simulations): • Simulation Time (SSTL Simulations):	340 (ft) 230 (ft) 7.87 (years) 126 (years) based on following results: @ 100, 120 and 125 years, benzene concentration = 0 ppm @ 1,800 feet from source; @ 126, 127, 130, 150 and 200 years, benzene concentration = 0 ppm @ 2,000 feet from source	• Based on area of affected groundwater plume • Steady-state flow • Time was calculated from suspected time of release to present • Time was determined by running simulations with increasing times until the down-gradient edge of CoC plume was 0 ppm at the same distance over time
Source Data	• Source Thickness: • Source Concentration:	20 (ft) (See Figures 15 and 16)	• Based on geologic logs and Benzene monitoring data
Actual Data	• Distance from Source (ft): • Benzene Conc. (mg/L):	0' 140' 210' 340' 500 39.6 15.7 0 (FP)	• Based on observed concentration contour at site (see Figure 15)
OUTPUT	Refer to Figure 31 for: Refer to Figure 32 for: Refer to Figure 33 for: Refer to Figure 34 for:	• Benzene: Calibration Final Simulation (BIOSCREEN Input Data) • Benzene: Calibration Final Simulation (Centerline Concentrations) • Benzene: SSTL Final Simulation (BIOSCREEN Input Data) • Benzene: SSTL Final Simulation (Centerline Concentrations)	

TABLE 13

Toluene Site Specific Target Level (SSTL = 38 ppm) Based on the 1st Order Decay Model Modeling Data Using BIOSCREEN (1996)

Data Type	Parameter	Value	Source
Hydrogeology	• Hydraulic Conductivity: • Hydraulic Gradient: • Porosity:	2.75×10^{-5} (cm/sec) 0.03 0.01	• Slug-tests results • Static water level measurements • Estimated (BIOSCREEN, 1996)
Dispersion	Original • Longitudinal Dispersivity: • Transverse Dispersivity: • Vertical Dispersivity:	 15.4 (ft) 1.5 (ft) 0.0 (ft)	• Based on estimated plume length of 370 ft (Figure 17) • Note: No calibration was necessary to match the observed plume length.
Adsorption	• Retardation Factor: • Soil Bulk Density ρb: • Organic Carbon Partition Coefficient (K_{oc}): • Fraction Organic Carbon (f_{oc}):	2.586 1.7 Kg/L 135 - 302 (L/kg) 0.0027%	• Can be calculated from $R = 1 + \rho b/n \times f_{oc} \times K_{oc}$, however R was changed to calibrate models • Soil Clay % & Sand % from lab grain-size analysis 4/14/98; (SCDHEC, 1997; Figure C3) • Literature (ASTM, 1995; Tables X1.2 & X2.6) converted using $\log (K_{oc}) \times 10^{x} = K_{oc}$ • Lab Analysis of Total Organic Carbon using (1×10^{-6}) to convert from mg/kg to decimal % (SCDHEC, 1997; p.C8)

Data Type	Parameter	Value	Source
Biodegradation	Electron Acceptor: Background Conc. (mg/L): Minimum Conc. (mg/L): Change in Conc. (mg/L): (Percentage used by Toluene based on field data = 42%:) Metabolic By-Product: Max. Conc. (mg/L): Avg. Conc. (mg/L): Adjusted Value: (Percentage used by Toluene based on field data = 42%:) Solute Half-Life:	O_2 NO_3 SO_4 7.05 1.78 73.2 - 0.66 - 0.2 - 1 6.39 1.58 72.2 **2.68** **0.66** **30.3** Fe^{2+} CH_4 0.13 0.074 7.2 0.74 **0.31** **3.02** Note: The **bolded** values are BIOSCREEN input values. 8 yrs	• Based on April 1998 groundwater sampling program conducted by Environmental Monitoring Corporation. Note that for individual constituents, the total biodegradation capacity must be reduced to account for electron acceptor utilization by other constituents present in the plume (BIOSCREEN, 1996; p.29) • "The observed Fe^{2+} is only 10 % of actual Fe^{2+} that has been generated due to the sorption of Fe^{2+} onto the aquifer matrix" (BIOSCREEN, 1996; p.24) Therefore, the actual Fe^{2+} value used in the simulation is the averaged measured value x 0.10. • The median value for CH_4 was used (BIOSCREEN, 1996; p.24) • The solute half-life used was based on literature values (ASTM, 1995) then changed to calibrate 1st order decay model.
General	• Modeled Area Length: • Modeled Area Width: • Simulation Time (Calibration Simulations): • Simulation Time (SSTL Simulations):	370 (ft) 230 (ft) 7.87 (years) 107 (years) based on following results: @ 100, 105, and 106 years, toluene concentration = 0 ppm @ 3,780 feet from source; @ 107, 108, 110, 120, 130, 150, 200 and 300 years, toluene concentration = 0 ppm @ 4,200 feet from source	• Based on area of affected groundwater plume • Steady-state flow • Time was calculated from suspected time of release to present • Time was determined by running simulations with increasing times until the down-gradient edge of CoC plume was 0 ppm at the same distance over time
Source Data	• Source Thickness: • Source Concentration:	20 (ft) (See Figure 17 and 16)	• Based on geologic logs and Toluene monitoring data
Actual Data	• Distance from Source (ft): • Toluene Conc. (mg/L):	0' 140' 210' 335' 370' 200 41.1 27.6 0.078 0 (FP)	• Based on observed concentration contour at site (see Figure 17)
OUTPUT	Refer to Figure 35 for: Refer to Figure 36 for: Refer to Figure 37 for: Refer to Figure 38 for:	• Toluene: Calibration Final Simulation (BIOSCREEN Input Data) • Toluene: Calibration Final Simulation (Centerline Concentrations) • Toluene: SSTL Final Simulation (BIOSCREEN Input Data) • Toluene: SSTL Final Simulation (Centerline Concentrations)	

TABLE 14

Ethylbenzene Site Specific Target Level (SSTL = 68.5 ppm) Based on the Instantaneous Reaction Model Modeling Data Using BIOSCREEN (1996)

Data Type	Parameter	Value	Source
Hydrogeology	• Hydraulic Conductivity: • Hydraulic Gradient: • Porosity:	2.75×10^{-5} (cm/sec) 0.03 0.01	• Slug-tests results • Static water level measurements • Estimated (BIOSCREEN, 1996)
Dispersion	Original • Longitudinal Dispersivity: • Transverse Dispersivity: • Vertical Dispersivity:	 15.0 (ft) 1.5 (ft) 0.0 (ft)	• Based on estimated plume length of 350 ft (Figure 18) • Note: No calibration was necessary to match the observed plume length.
Adsorption	• Retardation Factor: • Soil Bulk Density ρb: • Organic Carbon Partition Coefficient (K_{oc}): • Fraction Organic Carbon (f_{oc}):	4.0 1.7 Kg/L 95 - 1,096 (L/kg) 0.0027%	• Can be calculated from $R = 1 + \rho b/n \times f_{oc} \times K_{oc}$, however R was change to calibrate models • Soil Clay % & Sand % from lab grain-size analysis 4/14/98; (SCDHEC, 1997; Figure C3) • Literature (ASTM, 1995; Tables X1.2 & X2.6) converted using $\log (K_{oc}) \times 10^{x} = K_{oc}$ • Lab Analysis of Total Organic Carbon using (1×10^{-6}) to convert from mg/kg to decimal % (SCDHEC, 1997; p.C8)

Data Type	Parameter	Value	Source
Biodegradation	Electron Acceptor: Background Conc. (mg/L): Minimum Conc. (mg/L): Change in Conc. (mg/L): (Percentage used by Ethylbenzene based on field data = 10%:) Metabolic By-Product: Max. Conc. (mg/L): Avg. Conc. (mg/L): Adjusted Value: (Percentage used by Ethylbenzene based on field data = 10%:) Solute Half-Life:	O_2 NO_3 SO_4 7.05 1.78 73.2 - 0.66 - 0.2 - 1 6.39 1.58 72.2 **0.639 0.158 7.22** Fe^{2+} CH_4 0.13 0.074 7.2 0.74 **0.074 0.72** Note: The **bolded** values are BIOSCREEN input values. 2 yrs	• Based on April 1998 groundwater sampling program conducted by Environmental Monitoring Corporation. Note that for individual constituents, the total biodegradation capacity must be reduced to account for electron acceptor utilization by other constituents present in the plume (BIOSCREEN, 1996; p.29) • "The observed Fe^{2+} is only 10 % of actual Fe^{2+} that has been generated due to the sorption of Fe^{2+} onto the aquifer matrix" (BIOSCREEN, 1996; p.24) Therefore, the actual Fe^{2+} value used in the simulation is the averaged measured value x 0.10. • The median value for CH_4 was used (BIOSCREEN, 1996; p.24) • The solute half-life used was based on literature values (ASTM, 1995) then changed to calibrate 1st order decay model.
General	• Modeled Area Length: • Modeled Area Width: • Simulation Time (Calibration Simulations): • Simulation Time (SSTL Simulations):	350 (ft) 220 (ft) 7.87 (years) 30 (years) based on following results: @ 25 and 29 years, ethylbenzene concentration = 0 ppm @ 810 feet from source; @ 30, 31, 34, 35, 40, 50, 65, 75, 100 and 200 years, ethylbenzene concentration = 0 ppm @ 900 feet from source	• Based on area of affected groundwater plume • Steady-state flow • Time was calculated from suspected time of release to present • Time was determined by running simulations with increasing times until the down-gradient edge of CoC plume was 0 ppm at the same distance over time
Source Data	• Source Thickness: • Source Concentration:	20 (ft) (See Figures 18 and 16)	• Based on geologic logs and Ethylbenzene monitoring data
Actual Data	• Distance from Source (ft): • Ethylbenzene Conc. (mg/L):	0' 210' 335' 350' 300 2.57 0.130 0 (FP)	• Based on observed concentration contour at site (see Figure 18)
OUTPUT	Refer to Figure 39 for: Refer to Figure 40 for: Refer to Figure 41 for: Refer to Figure 42 for:	• Ethylbenzene: Calibration Final Simulation (BIOSCREEN Input Data) • Ethylbenzene: Calibration Final Simulation (Centerline Concentrations) • Ethylbenzene: SSTL Final Simulation (BIOSCREEN Input Data) • Ethylbenzene: SSTL Final Simulation (Centerline Concentrations)	

TABLE 15

Xylenes Site Specific Target Level (SSTL = 263 ppm) Based on the Instantaneous Reaction Model Modeling Data Using BIOSCREEN (1996)

Data Type	Parameter	Value	Source
Hydrogeology	• Hydraulic Conductivity: • Hydraulic Gradient: • Porosity:	2.75×10^{-5} (cm/sec) 0.03 0.01	• Slug-tests results • Static water level measurements • Estimated (BIOSCREEN, 1996)
Dispersion	Original • Longitudinal Dispersivity: • Transverse Dispersivity: • Vertical Dispersivity:	 15.4 (ft) 1.5 (ft) 0.0 (ft)	• Based on estimated plume length of 370 ft (Figure 19) • Note: No calibration was necessary to match the observed plume length.
Adsorption	• Retardation Factor: • Soil Bulk Density ρb: • Organic Carbon Partition Coefficient (K_{oc}): • Fraction Organic Carbon (f_{oc}):	4.35 1.7 Kg/L 240 (L/kg) 0.0027%	• Can be calculated from $R = 1 + \rho b/n \times f_{oc} \times K_{oc}$, however R was changed to calibrate model • Soil Clay % & Sand % from lab grain-size analysis 4/14/98; (SCDHEC, 1997; Figure C3) • Literature (ASTM, 1995; Tables X1.2 & X2.6) converted using $\log (K_{oc}) \times 10^{x} = K_{oc}$ • Lab Analysis of Total Organic Carbon using (1×10^{-6}) to convert from mg/kg to decimal % (SCDHEC, 1997; p.C8)

Data Type	Parameter	Value	Source
Biodegradation	Electron Acceptor: Background Conc. (mg/L): Minimum Conc. (mg/L): Change in Conc. (mg/L): (Percentage used by Total Xylenes based on field data = 8%:) Metabolic By-Product: Max. Conc. (mg/L): Avg. Conc. (mg/L): Adjusted Value: (Percentage used by Total Xylenes based on field data = 8%:) Solute Half-Life:	O_2 NO_3 SO_4 7.05 1.78 73.2 - 0.66 - 0.2 - 1 6.39 1.58 72.2 **0.51 0.126 5.78** Fe^{2+} CH_4 0.13 0.074 7.2 0.74 **0.06 0.576** Note: The **bolded** values are BIOSCREEN input values. 20 yrs	• Based on April 1998 groundwater sampling program conducted by Environmental Monitoring Corporation. Note that for individual constituents, the total biodegradation capacity must be reduced to account for electron acceptor utilization by other constituents present in the plume (BIOSCREEN, 1996; p.29) • "The observed Fe^{2+} is only 10 % of actual Fe^{2+} that has been generated due to the sorption of Fe^{2+} onto the aquifer matrix" (BIOSCREEN, 1996; p.24) Therefore, the actual Fe^{2+} value used in the simulation is the averaged measured value x 0.10. • The median value for CH_4 was used (BIOSCREEN, 1996; p.24) • The solute half-life used was based on literature values (ASTM, 1995) then changed to calibrate 1st order decay model.
General	• Modeled Area Length: • Modeled Area Width: • Simulation Time (Calibration Simulations): • Simulation Time (SSTL Simulations):	370 (ft) 230 (ft) 7.87 (years) 107 (years) based on following results: @ 100 years, total xylenes concentration = 0 ppm @ 2,430 feet from source; @ 107, 108, 109, 110, 120, 180, 190, 200 and 250 years, total xylenes concentration = 0 ppm @ 2,700 feet from source	• Based on area of affected groundwater plume • Steady-state flow • Time was calculated from suspected time of release to present • Time was determined by running simulations with increasing times until the down-gradient edge of CoC plume was 0 ppm at the same distance over time
Source Data	• Source Thickness: • Source Concentration:	20 (ft) (See Figure 19 and 16)	• Based on geologic logs and Total Xylenes monitoring data
Actual Data	• Distance from Source (ft): • Total Xylenes Conc. (mg/L):	0' 210' 335' 370' 390 13.3 0.434 0 (FP)	• Based on observed concentration contour at site (see Figure 19)
OUTPUT	Refer to Figure 43 for: Refer to Figure 44 for: Refer to Figure 45 for: Refer to Figure 46 for:	• Xylenes: Calibration Final Simulation (BIOSCREEN Input Data) • Xylenes: Calibration Final Simulation (Centerline Concentrations) • Xylenes: SSTL Final Simulation (BIOSCREEN Input Data) • Xylenes: SSTL Final Simulation (Centerline Concentrations)	

TABLE 16

Naphthalene Site Specific Target Level (SSTL = 15.9 ppm) Based on the 1st Order Decay Model Modeling Data Using BIOSCREEN (1996)

Data Type	Parameter	Value	Source
Hydrogeology	• Hydraulic Conductivity: • Hydraulic Gradient: • Porosity:	2.75 x 10^{-5} (cm/sec) 0.03 0.01	• Slug-tests results • Static water level measurements • Estimated (BIOSCREEN, 1996)
Dispersion	Original • Longitudinal Dispersivity: • Transverse Dispersivity: • Vertical Dispersivity:	 15.0 (ft) 1.5 (ft) 0.0 (ft)	• Based on estimated plume length of 350 ft (Figure 21) • Note: No calibration was necessary to match the observed plume length.
Adsorption	• Retardation Factor: • Soil Bulk Density ρb: • Organic Carbon Partition Coefficient (K_{oc}): • Fraction Organic Carbon (f_{oc}):	3.045 1.7 Kg/L 1,288 (L/kg) 0.0027%	• Can be calculated from $R = 1 + \rho b/n \times f_{oc} \times K_{oc}$, however R was changed to calibrate model • Soil Clay % & Sand % from lab grain-size analysis 4/14/98; (SCDHEC, 1997; Figure C3) • Literature (ASTM, 1995; Tables X1.2 & X2.6) converted using $\log(K_{oc}) \times 10^{x} = K_{oc}$ • Lab Analysis of Total Organic Carbon using (1 x 10^{-6}) to convert from mg/kg to decimal % (SCDHEC, 1997; p.C8)
Biodegradation	Electron Acceptor: Background Conc. (mg/L): Minimum Conc. (mg/L): Change in Conc. (mg/L): Metabolic By-Product: Max. Conc. (mg/L): Avg. Conc. (mg/L): Value used in BIOSCREEN Model: Solute Half-Life:	O_2 NO_3 SO_4 7.05 1.78 73.2 - 0.66 - 0.2 - 1 **6.39** **1.58** **72.2** Fe^{2+} CH_4 0.13 0.074 **0.74** **7.2** Note: The **bolded** values are BIOSCREEN input values. 1.23 yrs	• Based on April 1998 groundwater sampling program conducted by Environmental Monitoring Corporation. • "The observed Fe^{2+} is only 10 % of actual Fe^{2+} that has been generated due to the sorption of Fe^{2+} onto the aquifer matrix" (BIOSCREEN, 1996; p.24) Therefore, the actual Fe^{2+} value used in the simulation is the averaged measured value x 0.10. • The median value for CH_4 was used (BIOSCREEN, 1996; p.24) • The solute half-life used was based on literature values (ASTM, 1995) then changed to calibrate 1st order decay model.

Data Type	Parameter	Value	Source
General	• Modeled Area Length: • Modeled Area Width: • Simulation Time (Calibration Simulations): • Simulation Time (SSTL Simulations):	350 (ft) 190 (ft) 7.87 (years) 12 (years) based on following results: @ 10 and 11 years, total naphthalenes concentration = 0 ppm @ 560 feet from source; @ 12, 13, 14, 15, 20, 30, 40, 50, 100 and 200 years, total naphthalenes concentration = 0 ppm @ 640 feet from source	• Based on area of affected groundwater plume • Steady-state flow • Time was calculated from suspected time of release to present • Time was determined by running simulations with increasing times until the down-gradient edge of CoC plume was 0 ppm at the same distance over time
Source Data	• Source Thickness: • Source Concentration:	20 (ft) (See Figures 21 and 16)	• Based on geologic logs and Naphthalene monitoring data
Actual Data	• Distance from Source (ft): • Naphthalene Conc. (mg/L):	0' 210' 335' 350' 100 0.882 0.0247 0 (FP)	• Based on observed concentration contour at site (see Figure 21)
OUTPUT	Refer to Figure 47 for: Refer to Figure 48 for: Refer to Figure 49 for: Refer to Figure 50 for:	• Naphthalene: Calibration Final Simulation (BIOSCREEN Input Data) • Naphthalene: Calibration Final Simulation (Centerline Concentrations) • Naphthalene: SSTL Final Simulation (BIOSCREEN Input Data) • Naphthalene: SSTL Final Simulation (Centerline Concentrations)	

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Appendix A

Tank and Line Testing Results Sheet

TANK AND LINE TESTING RESULTS SHEET

CUSTOMER: Crossroads Grocery
3050 West Oak Hwy.
Westminster, S.C. 29693

LOCATION: Crossroads Grocery
Hwy. 39
Westminster, S.C.

P.O. #

DATE OF TEST: 1/21/97

PRODUCT	TANK CAP.	TANK DIAM.	PRODUCT LEVEL	UNDERFILL/WET TEST < ±.05 GPH PASS/FAIL	ULLAGE
Reg. UL	8000 gl.	96"	47"	Pass	Pass
Plus UL	6000 gl.	96"	41"	Pass	Pass
Prem UL	6000 gl.	96"	57"	Pass	Pass

LINE TEST

PRODUCT	<±.01 GPH PASS/FAIL
Reg. UL	*
Plus UL	*
Prem UL	*

* European Suction Product Lines

CURRENT EPA STANDARDS DICTATE THAT FOR UNDERGROUND FUEL TANKS THE MAXIMUM ALLOWABLE LEAK/GAIN RATE OVER THE PERIOD OF (1) HOUR IS ± .05 GALLONS.
CURRENT EPA PASS/FAIL CRITERIA IS ESTABLISHED FOR PRODUCT LINES AT ± .010 GALLONS PER HOUR (GPH)

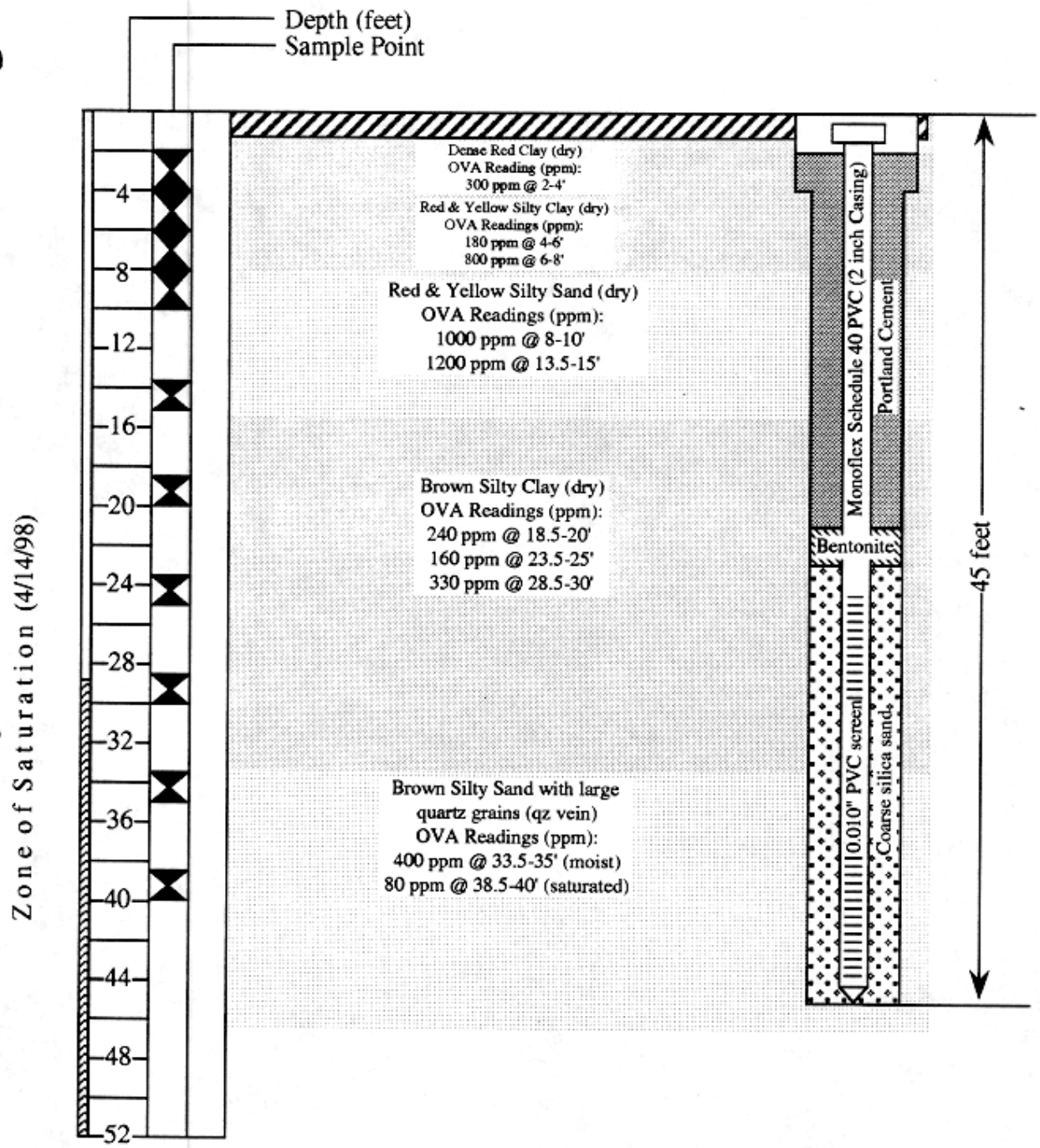
Tom Hunt
TOM HUNT dc

USTEST CERTIFICATION # 10101-222
PETROTITE CERTIFICATION # 100893 B 0188
TRACER TIGHT CERTIFICATION # 38001

ENVIRONMENTAL LABORATORIES, INC.
850-C WADE HAMPTON BLVD., GREENVILLE, S. C. 29609
TELEPHONE/FAX: 864-483-3193

Appendix B

Monitor Wells, Soil Borings, and Geoprobe Points Lithologic Logs and Construction Details



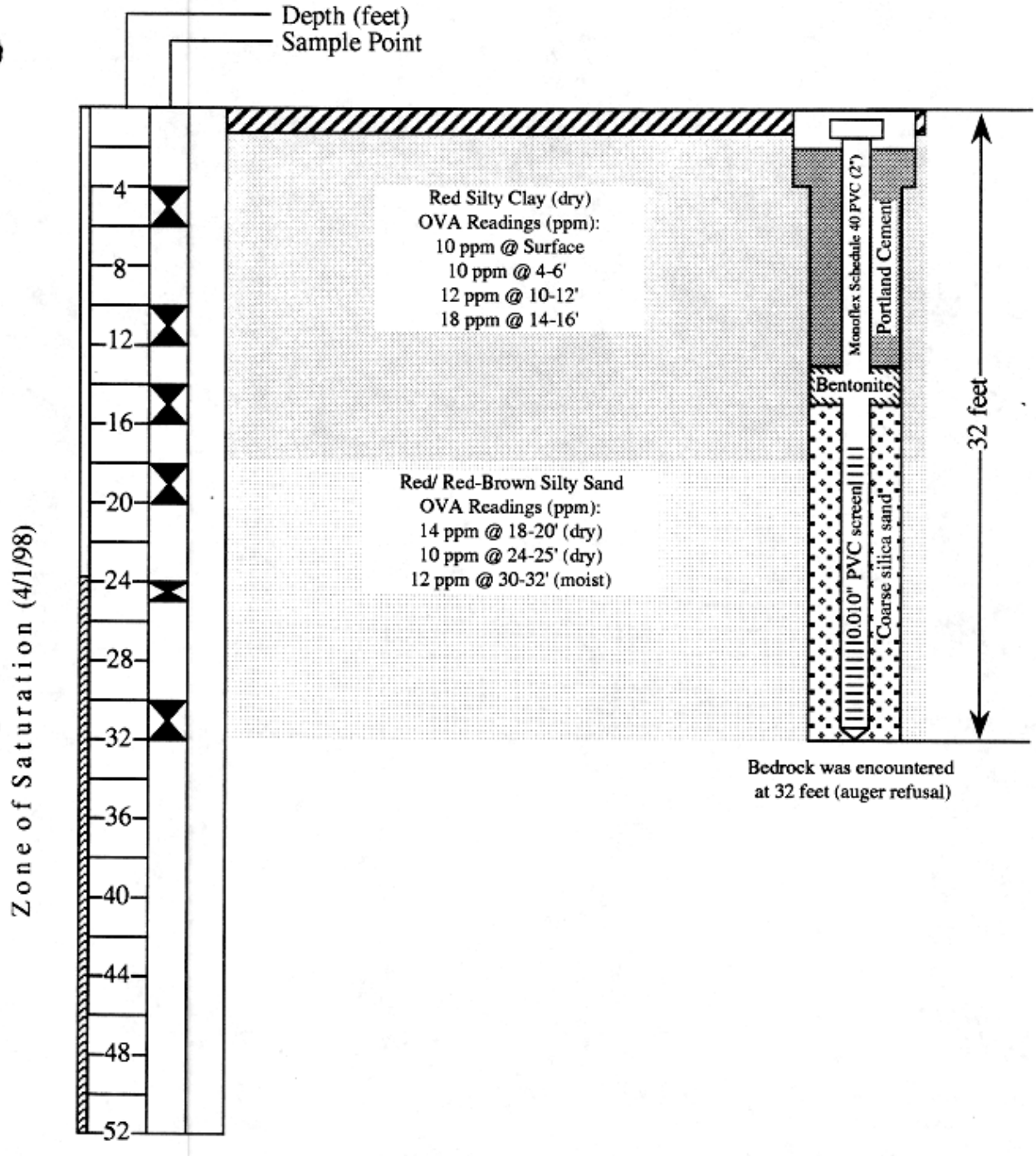
Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

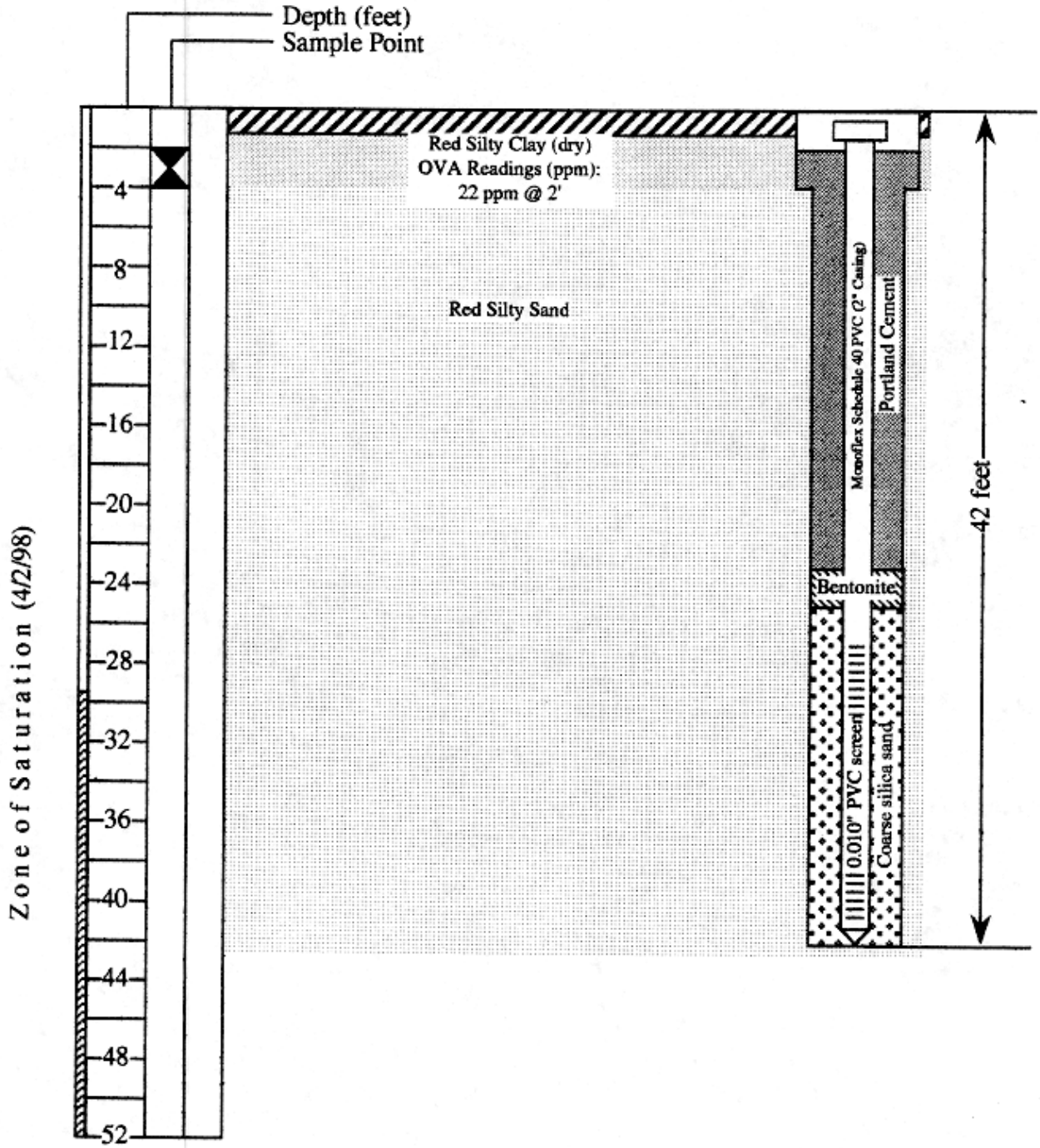
Monitor Well MW-8
(Line & Dispenser SB#8)

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 14, 1998



Site: Crossroads Grocery **Facility I.D. #06742**	**Monitor Well MW-9**
Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC	
Environmental Monitoring Corporation P.O. Box 901, Hartwell, Georgia 30643	Recorded By: Mirta A. Carpenter Record Date: April 1, 1998



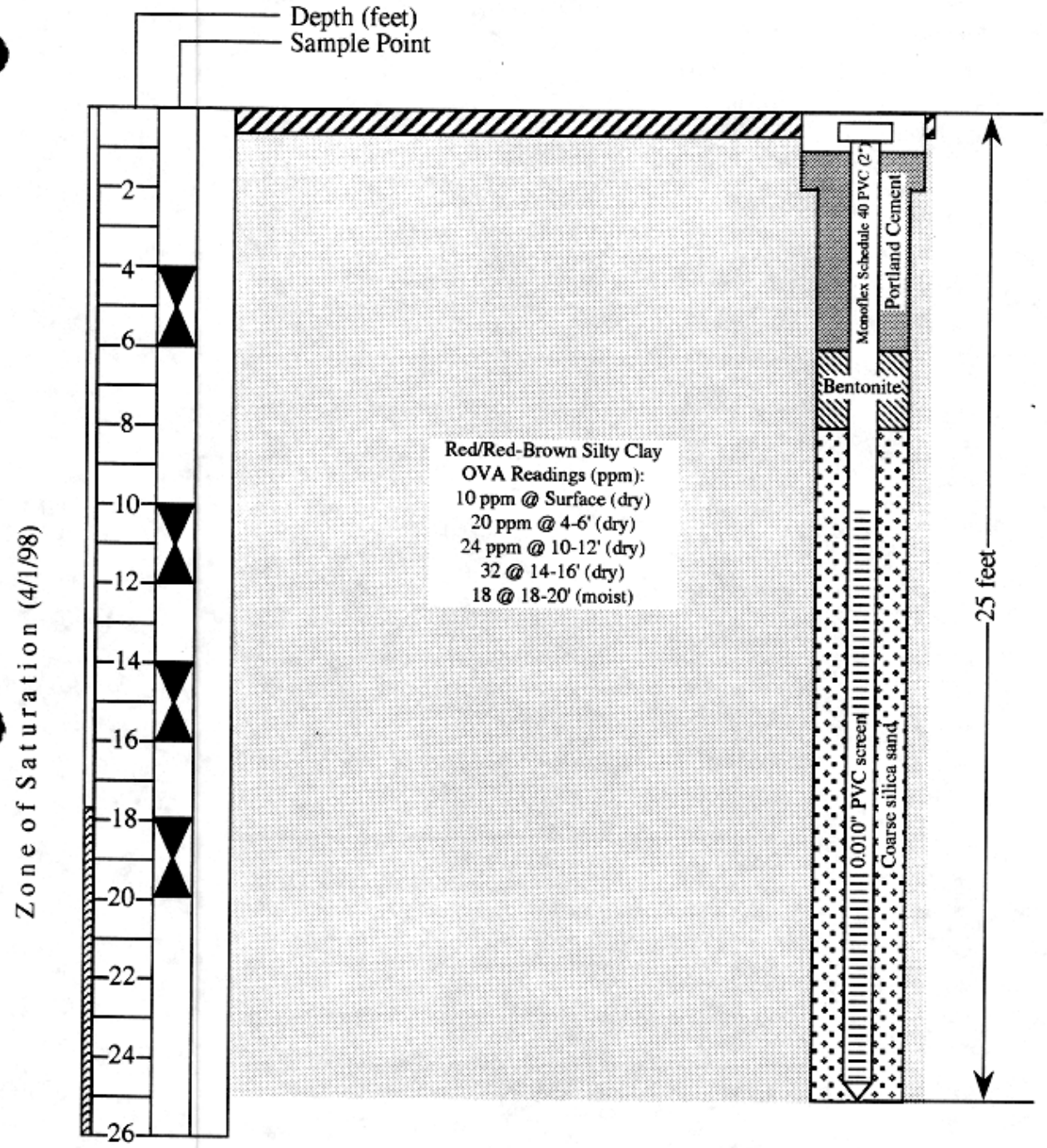
Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Monitor Well MW-10

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 2, 1998



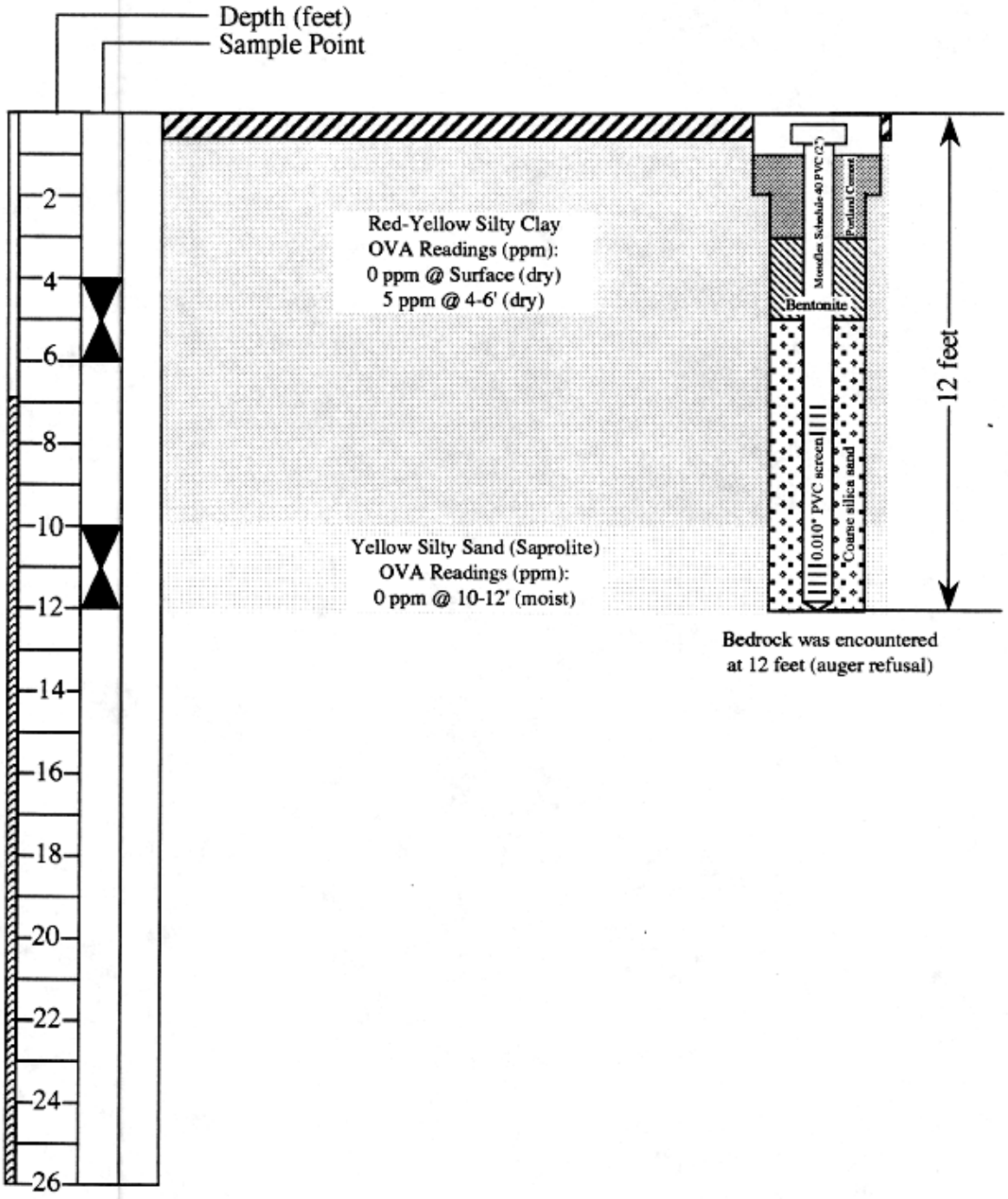
Site: Crossroads Grocery
Facility I.D. #06742

Monitor Well MW-11

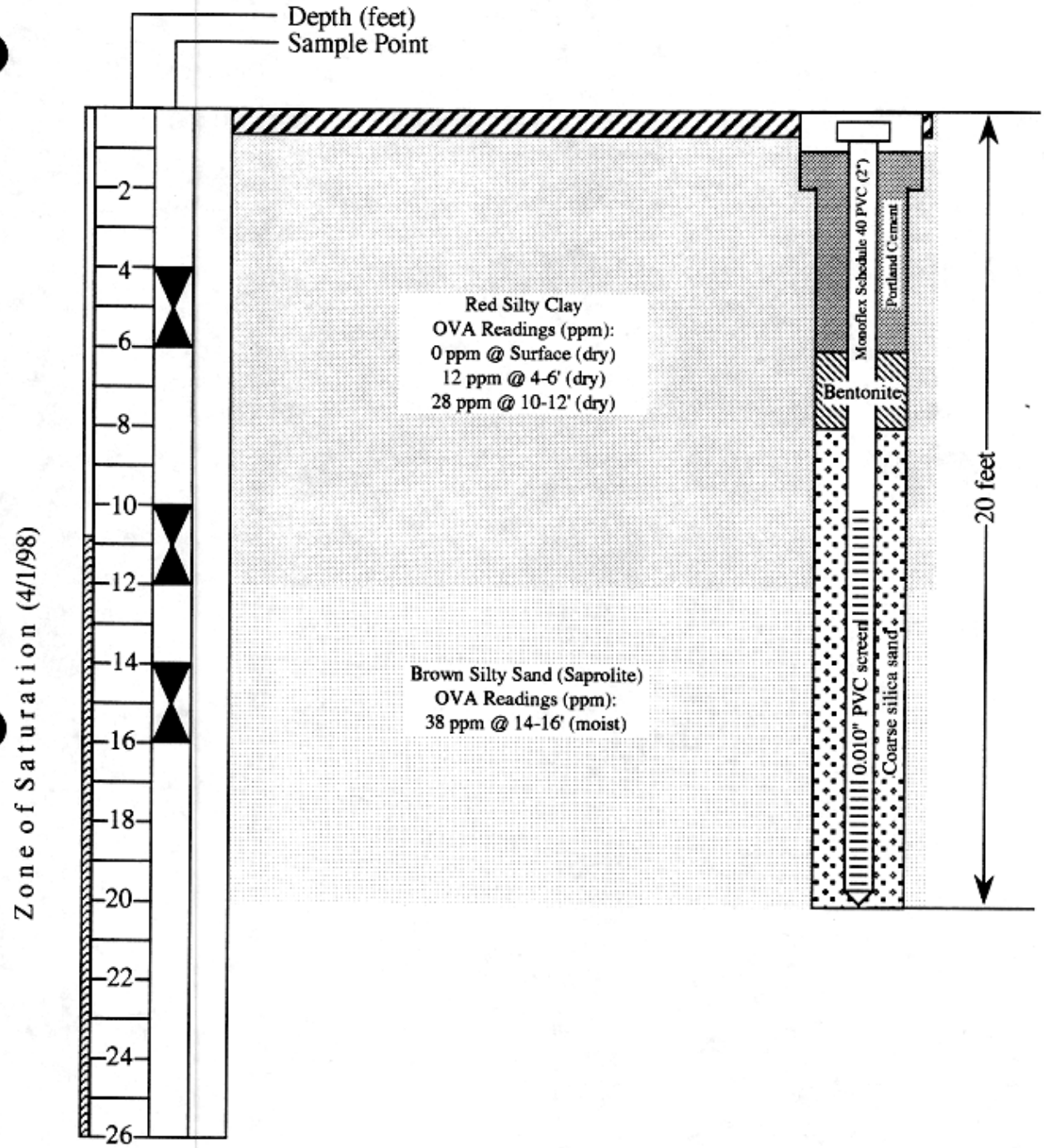
Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 1, 1998



Site: Crossroads Grocery **Facility I.D. #06742**	**Monitor Well MW-12**
Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC	
Environmental Monitoring Corporation P.O. Box 901, Hartwell, Georgia 30643	Recorded By: Mirta A. Carpenter Record Date: March 31, 1998



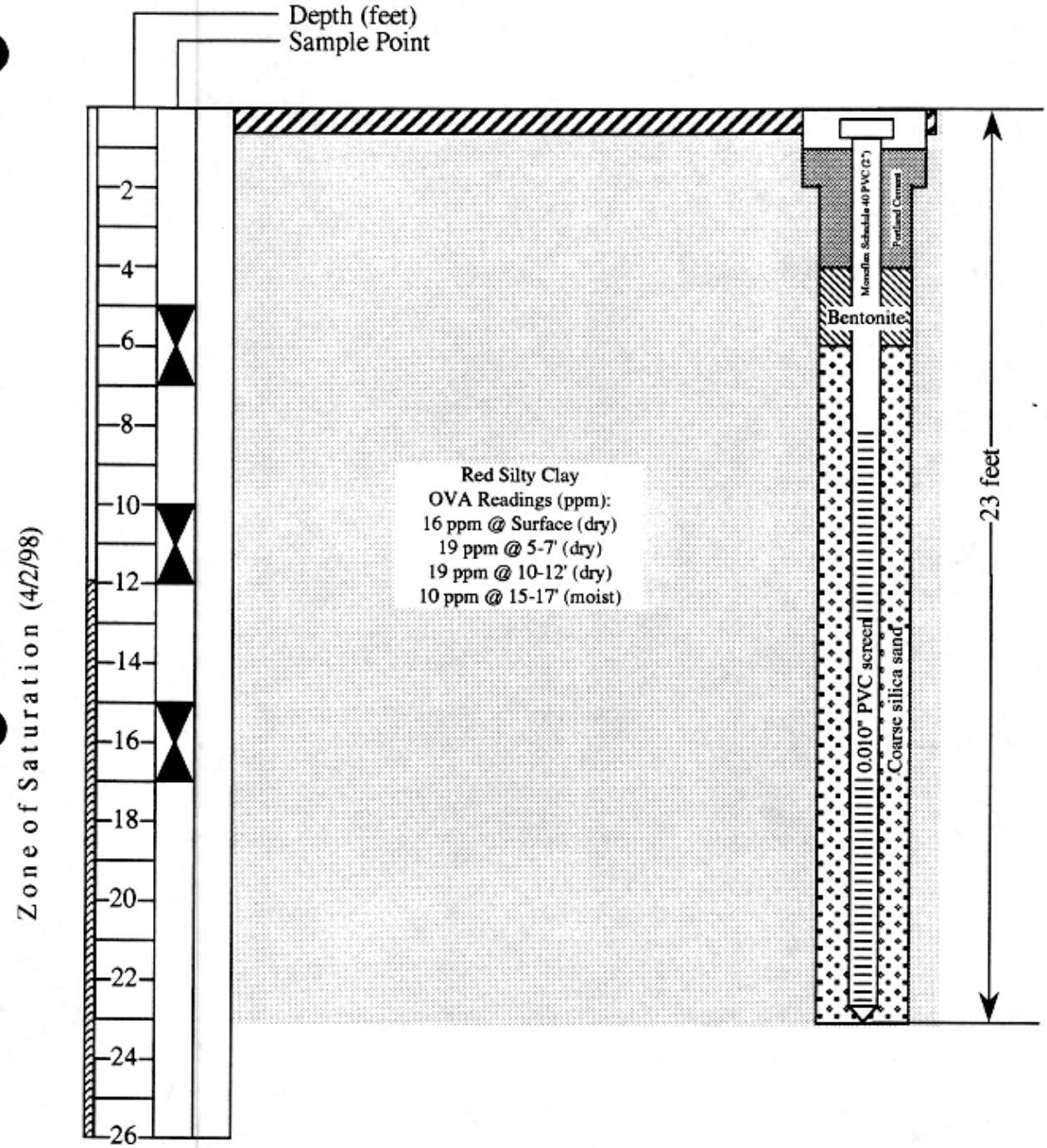
Site: Crossroads Grocery
Facility I.D. #06742

Monitor Well MW-13

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: March 31, 1998



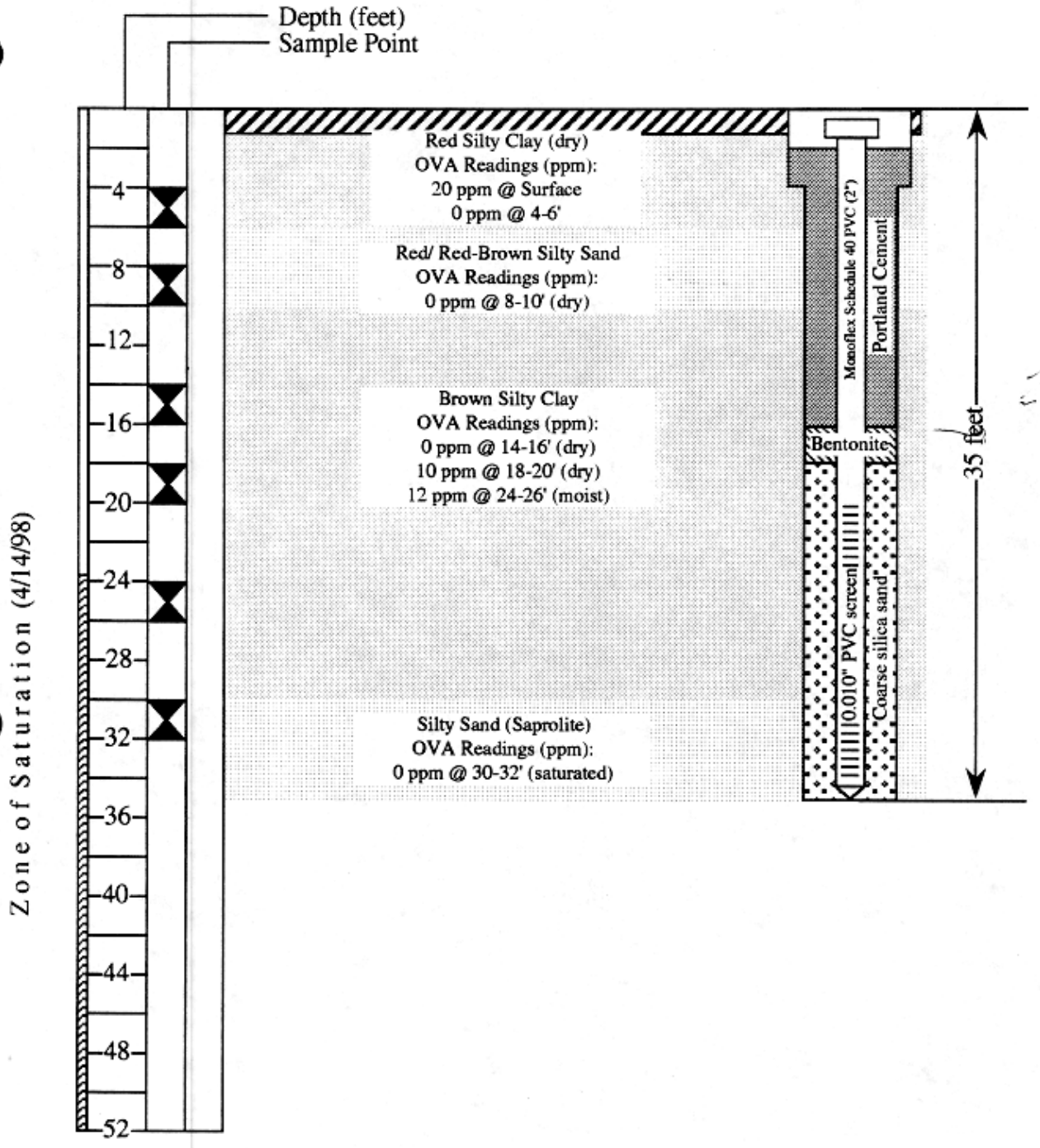
Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Monitor Well MW-14

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 2, 1998



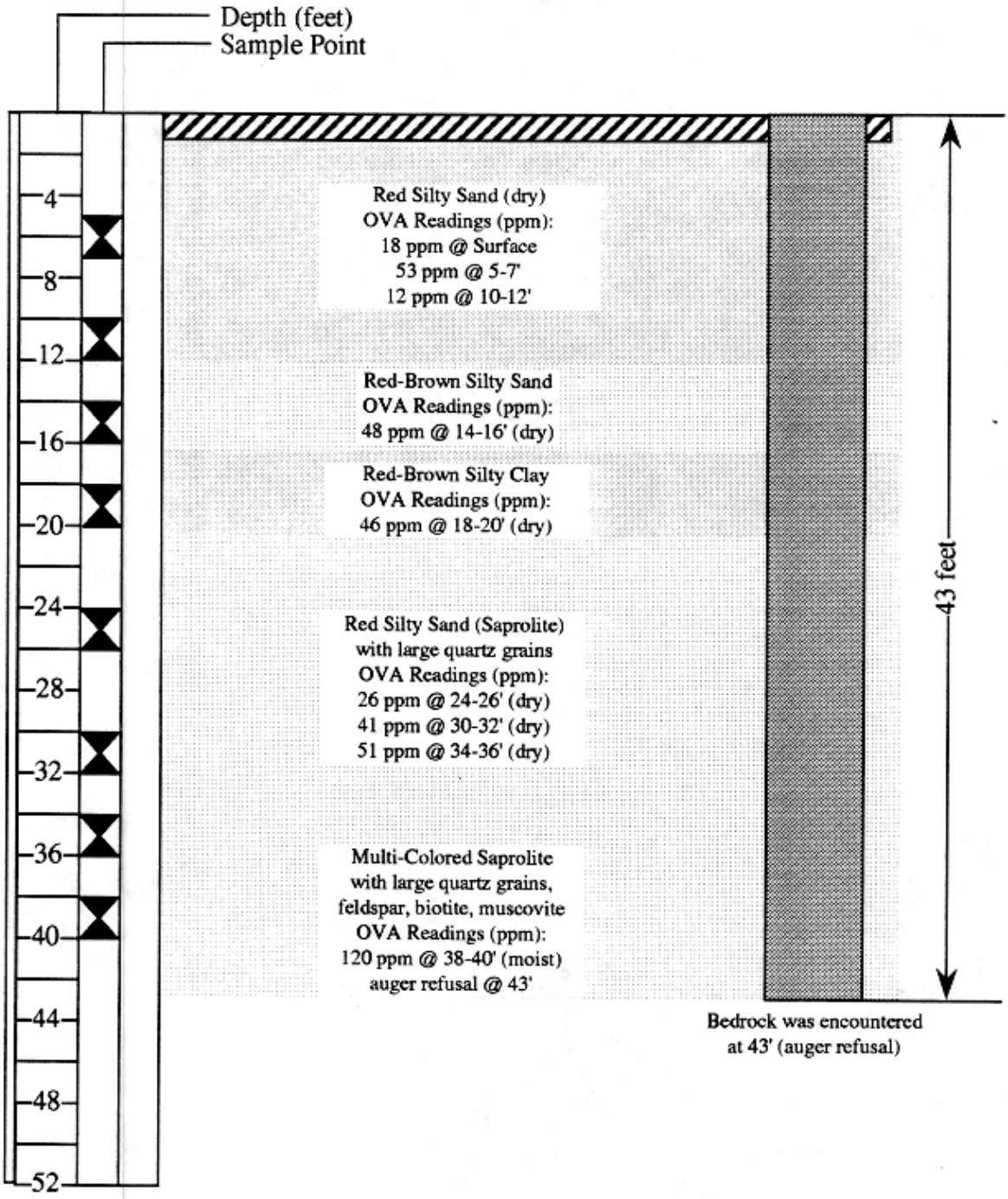
Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Monitor Well MW-15

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 5, 1998



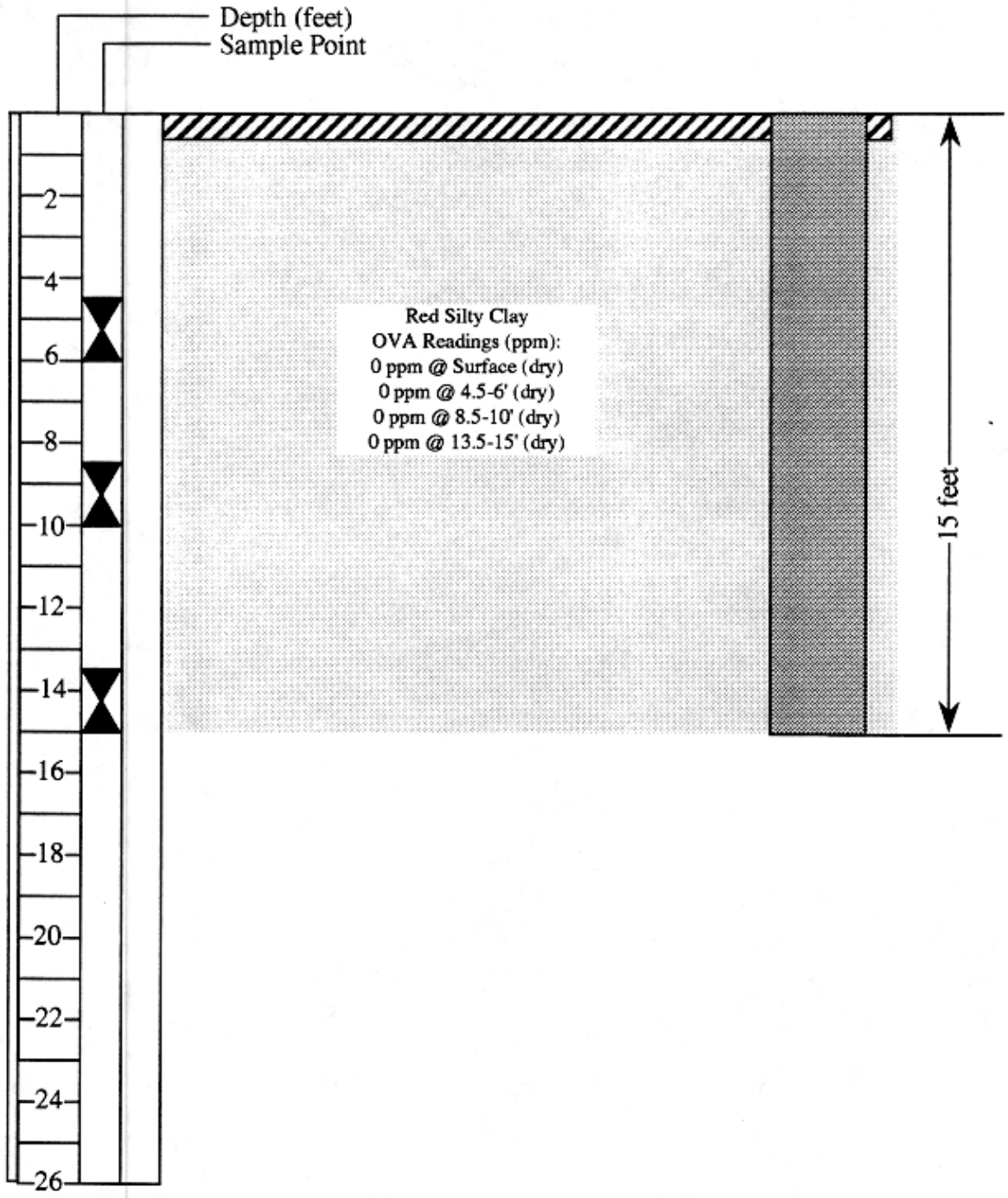
Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

UST SB#3

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 4, 1998



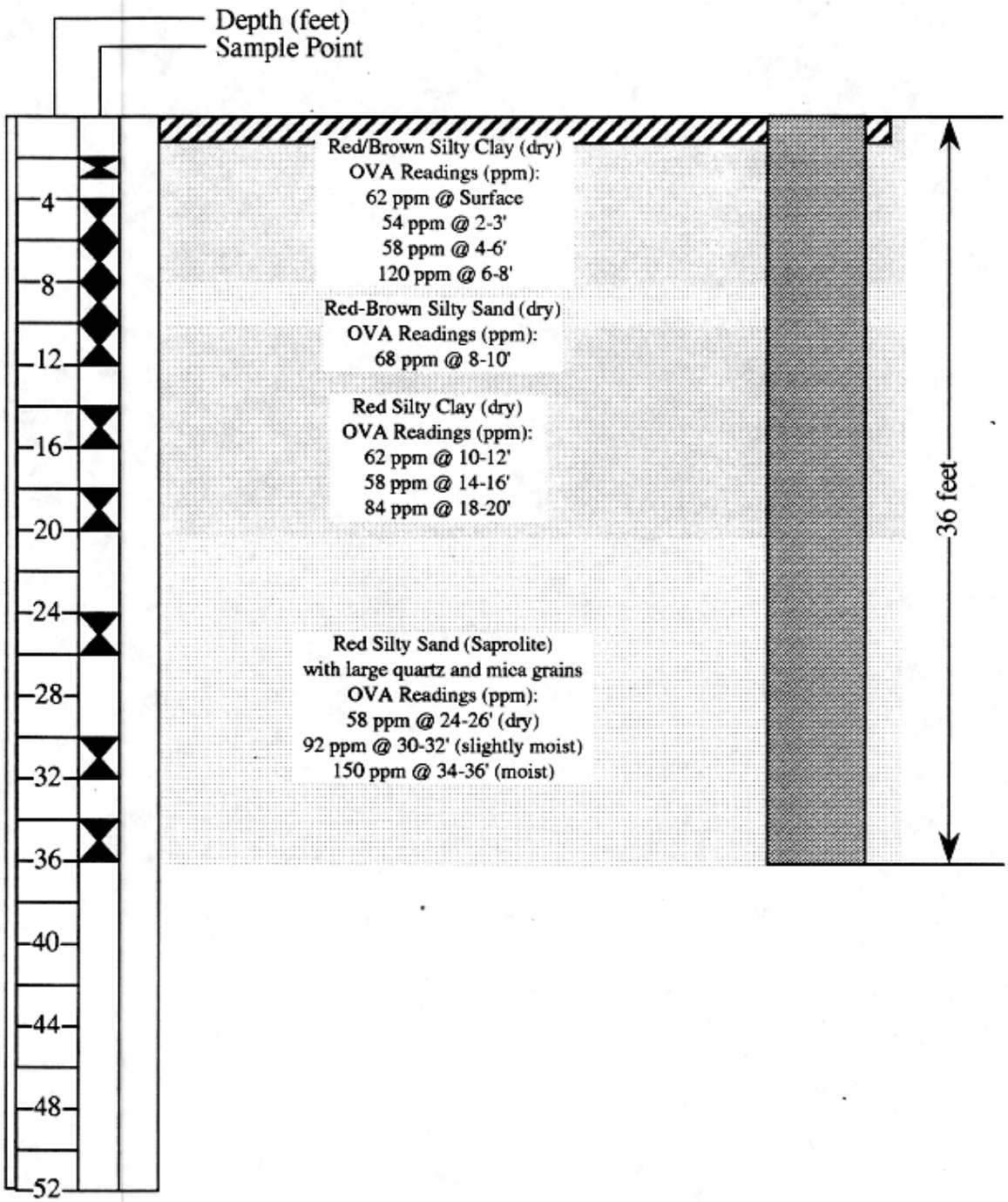
Site: Crossroads Grocery
Facility I.D. #06742

UST SB#4

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 14, 1998



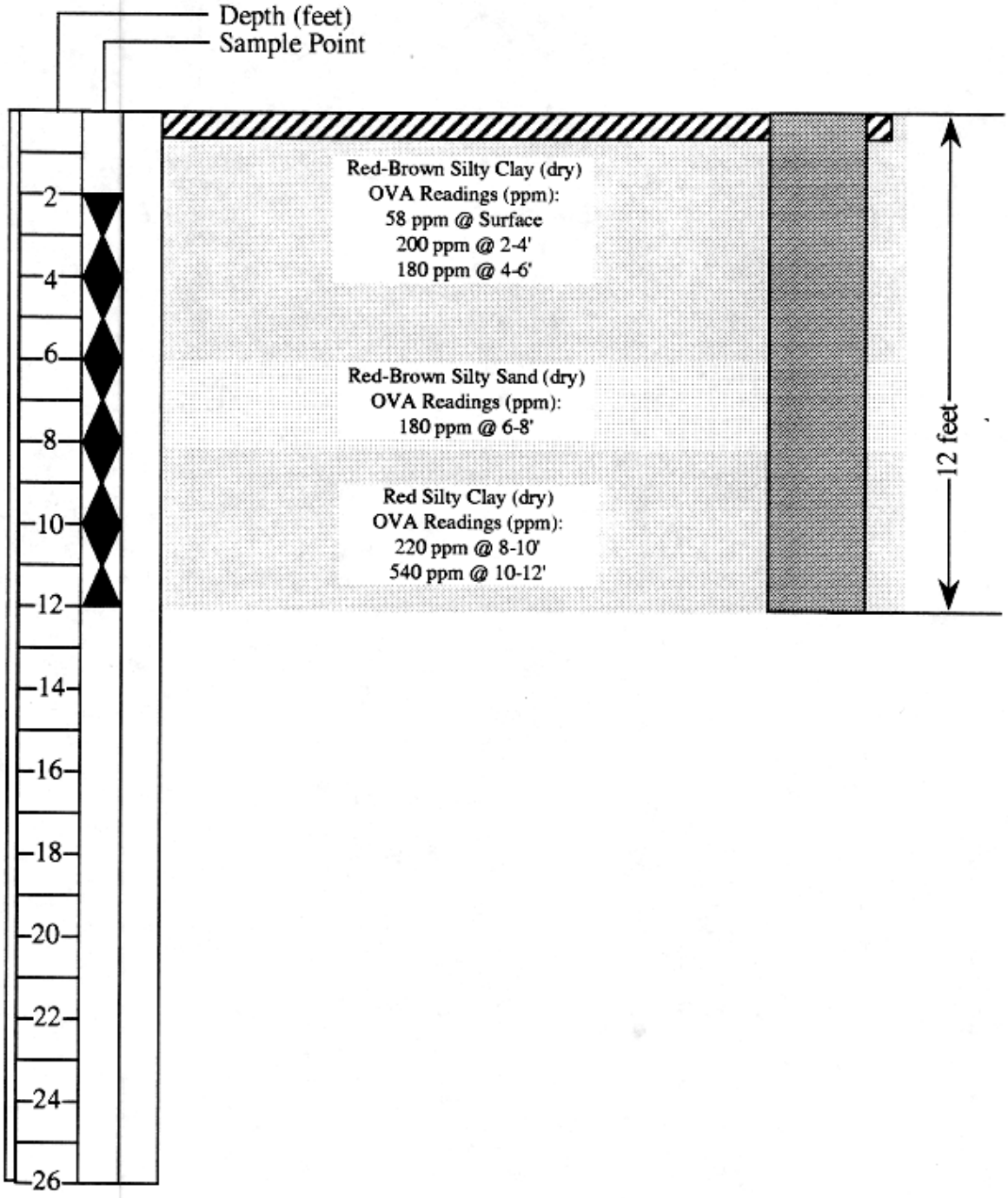
Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Line & Dispenser-UST SB#5

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 4, 1998



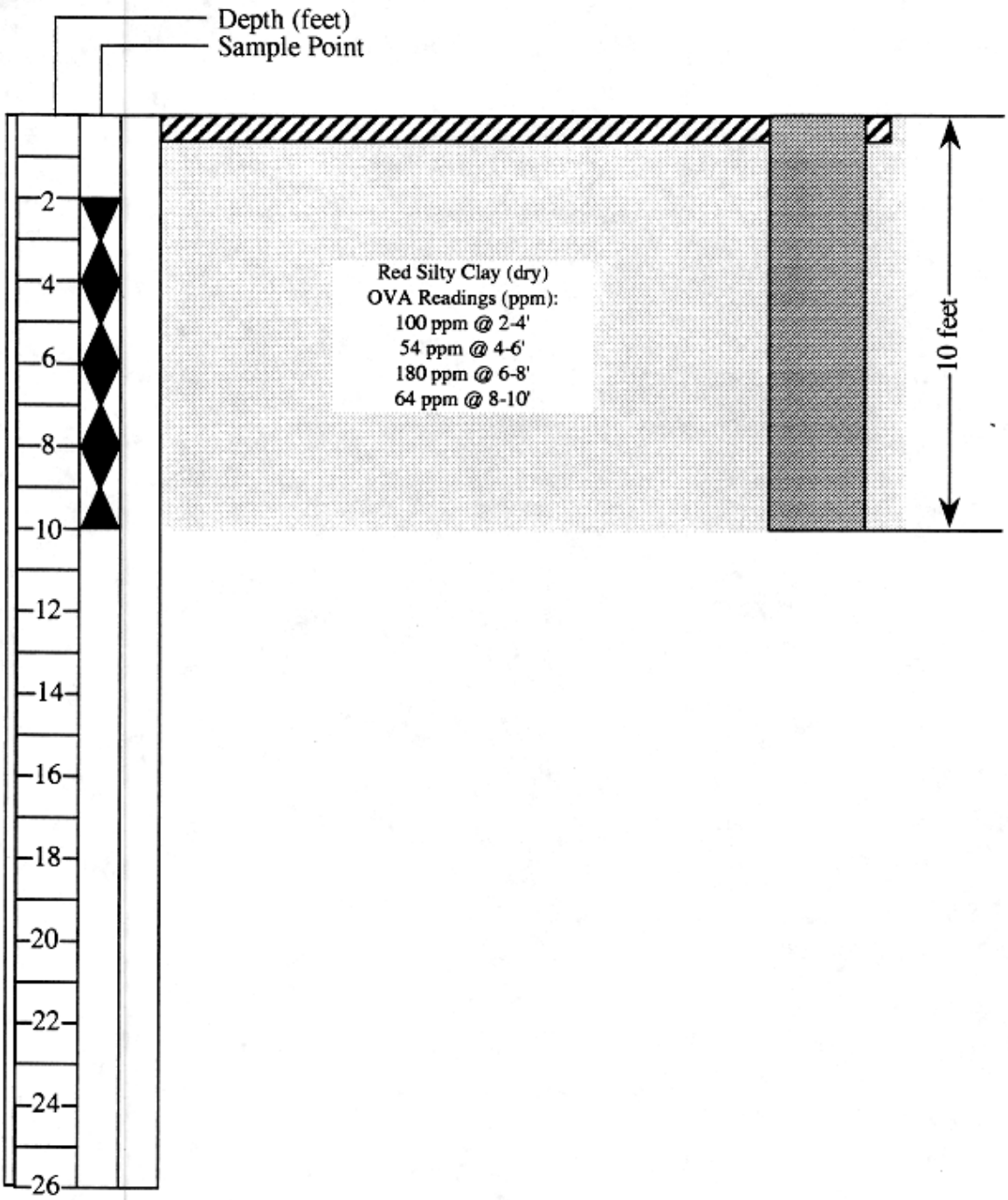
Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Line & Dispenser SB#6

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 4, 1998



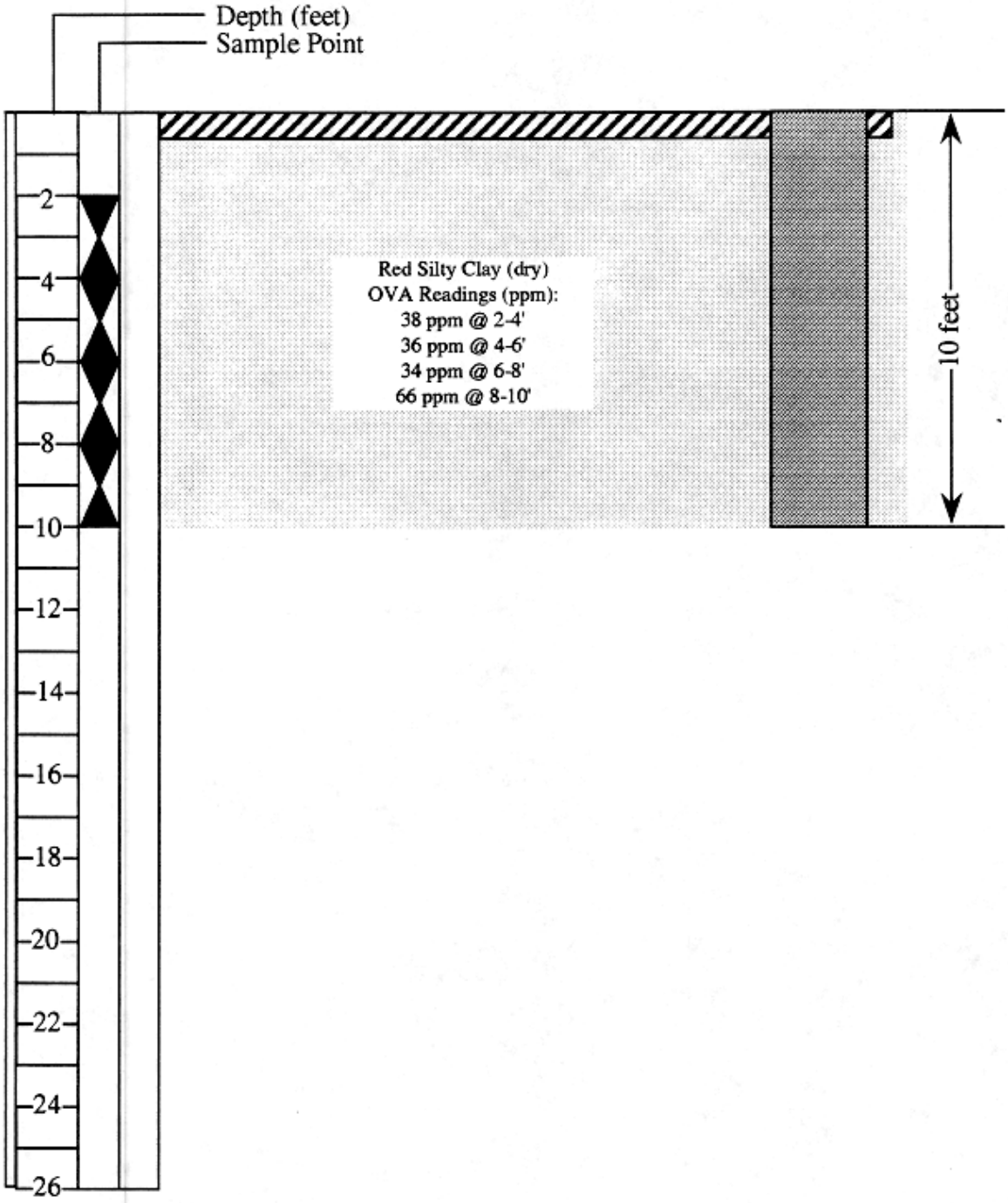
Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Line & Dispenser SB#7

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

Recorded By: Mirta A. Carpenter
Record Date: April 14, 1998



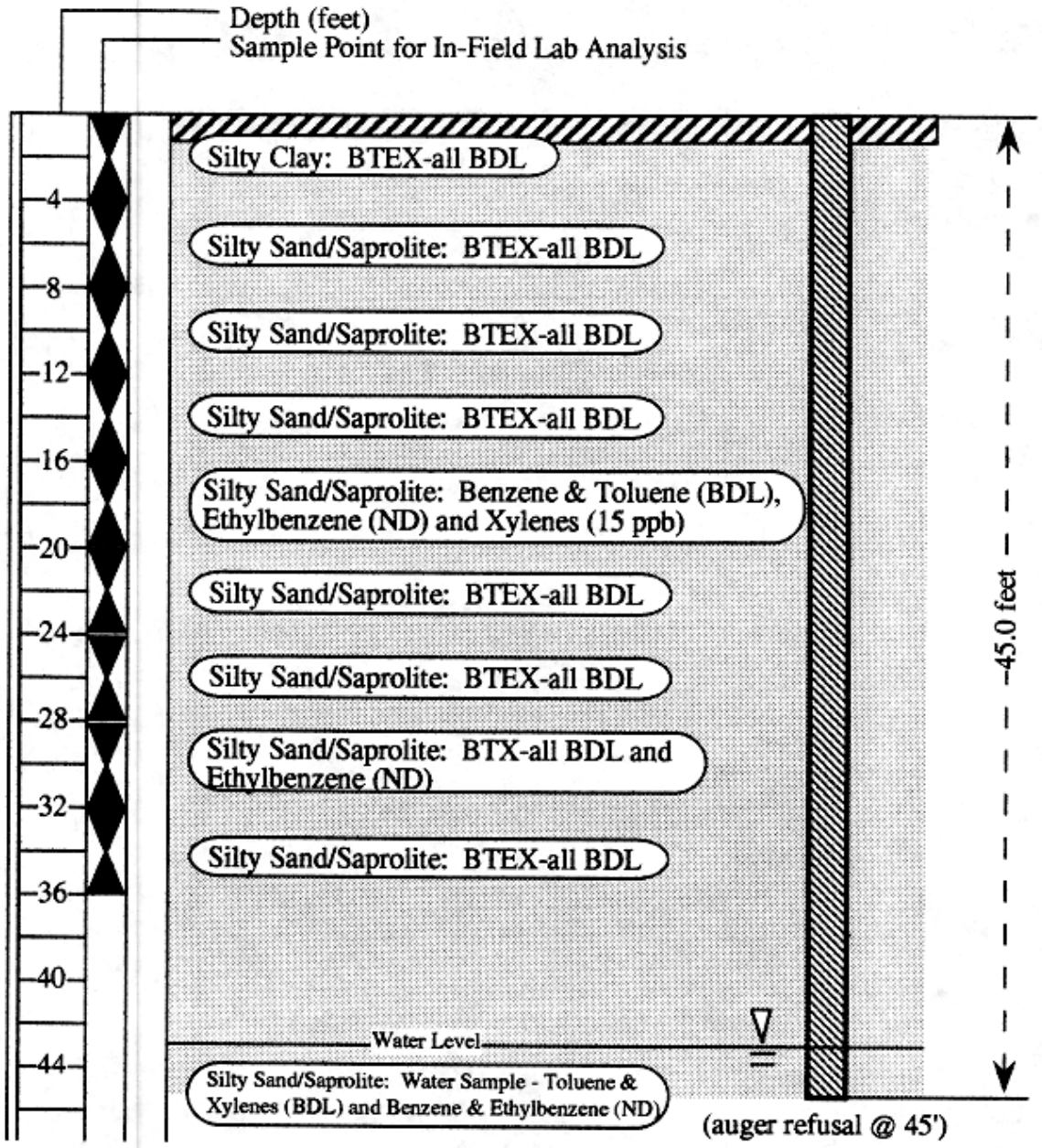
Site: Crossroads Grocery
Facility I.D. #06742

Location: Highways 24 and 59; Route 2, Box 149, Westminster, Oconee Co., SC

Line & Dispenser SB#9

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia 30643

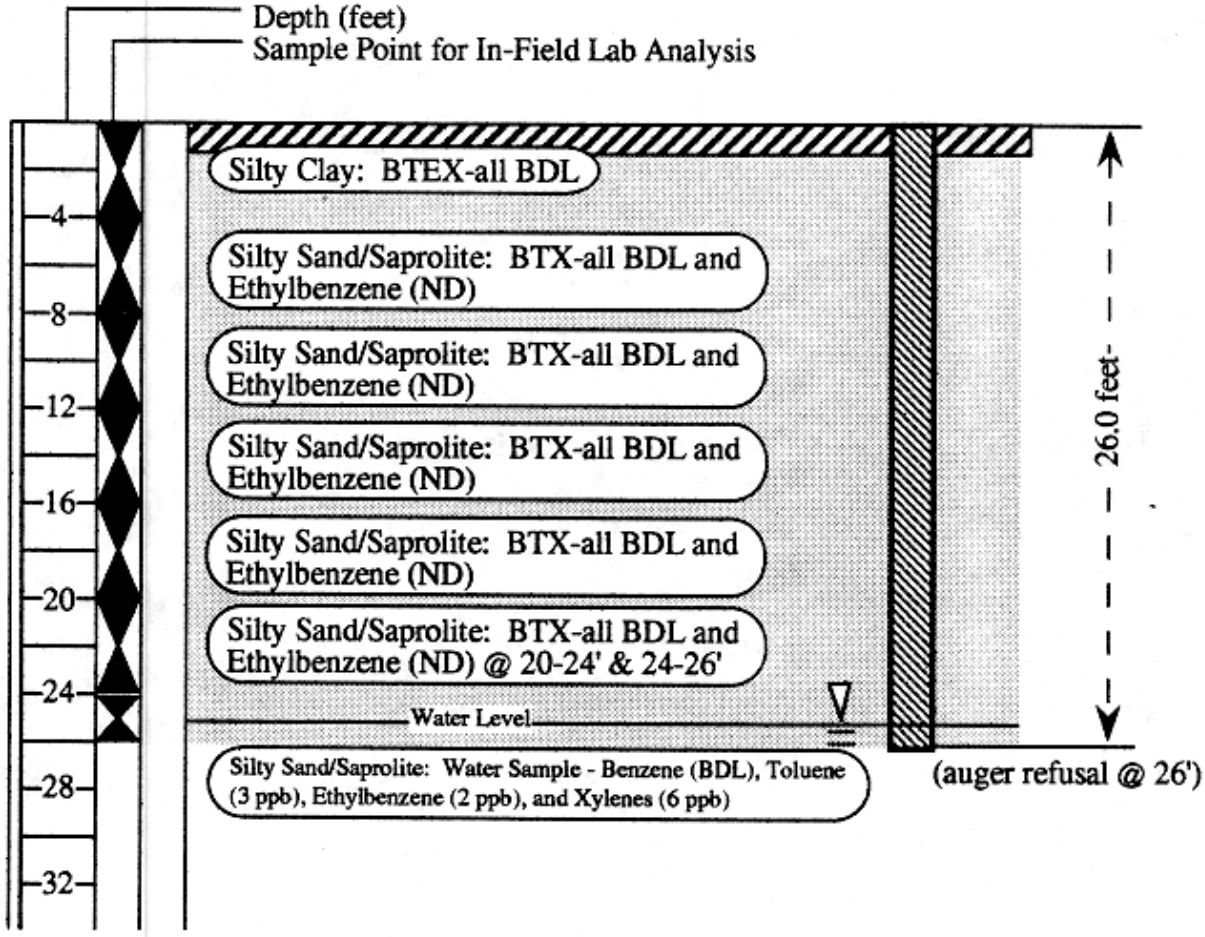
Recorded By: Mirta A. Carpenter
Record Date: April 14, 1998



Geoprobe Point GP-01
(drilled 1/7/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

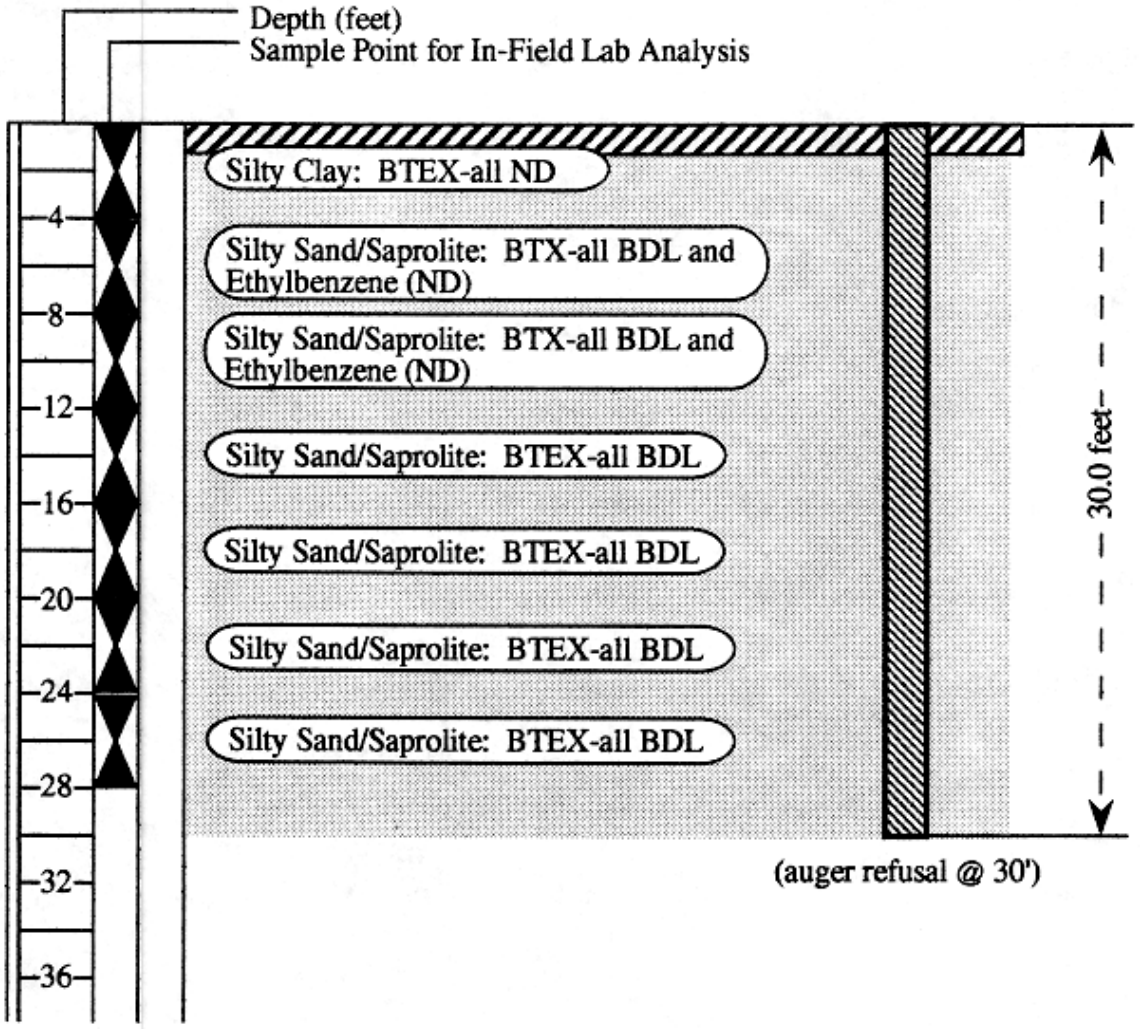
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-01**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: ESI, Inc., John Towns & Dan Hordley Date Drilled: January 7, 1998	Drafted By: Mirta A. Carpenter Date Drafted: February 23, 1998



Geoprobe Point GP-02
(drilled 1/8/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

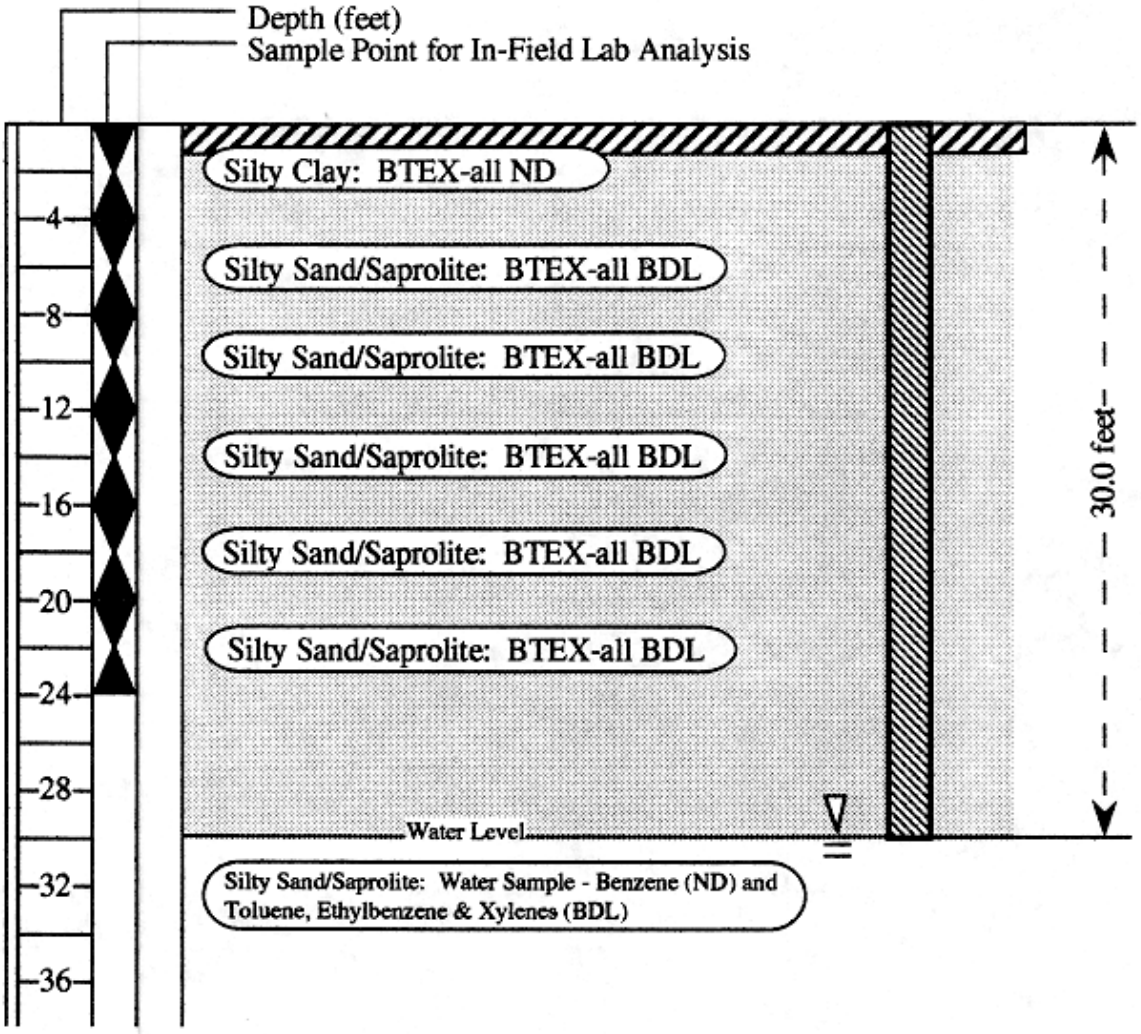
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-02**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: ESI, Inc., John Towns & Dan Hordley Date Drilled: January 8, 1998	Drafted By: Mirta A. Carpenter Date Drafted: February 23, 1998



Geoprobe Point GP-03
(drilled 1/8-9/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

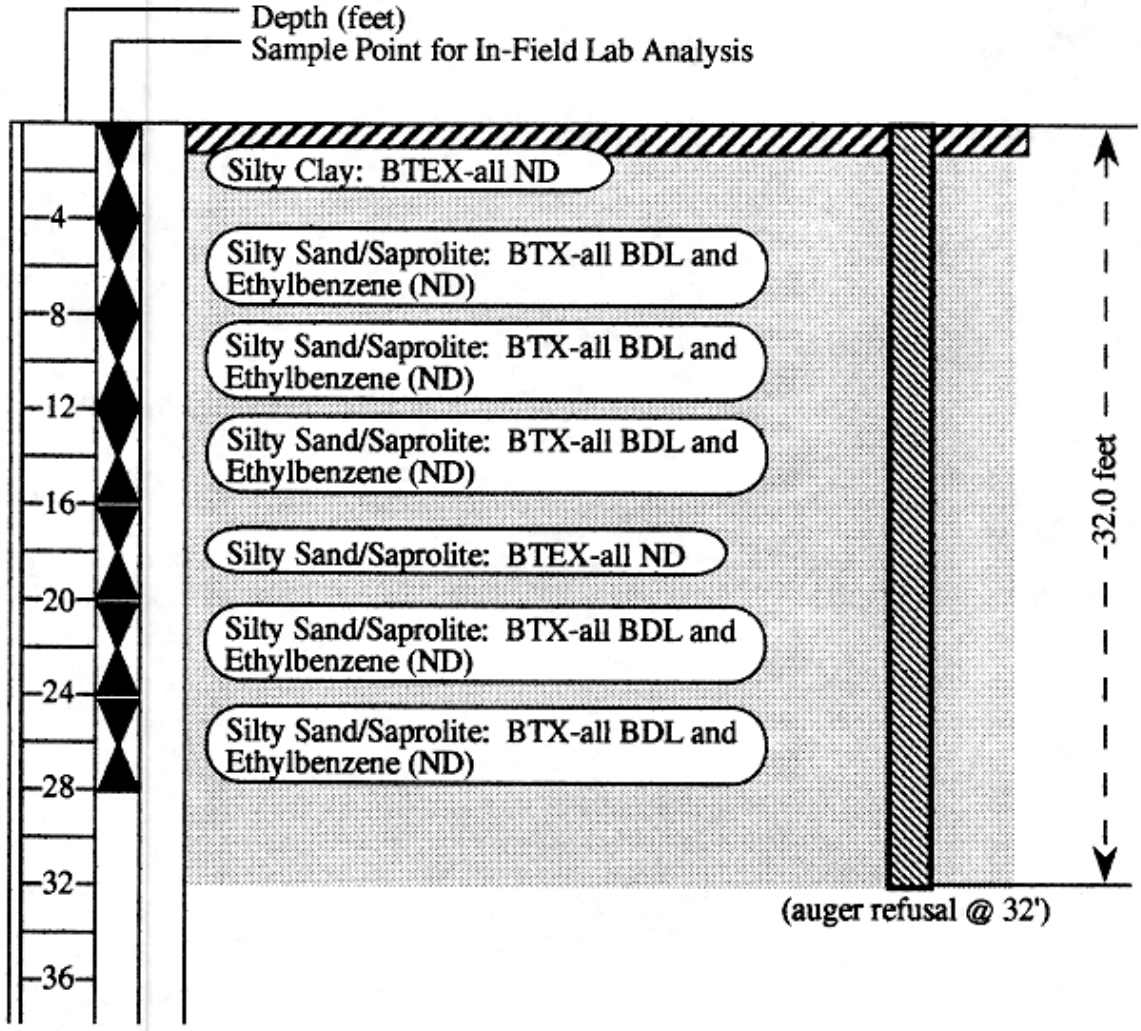
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-03**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: ESI, Inc., John Towns & Dan Hordley Date Drilled: January 8 and 9, 1998	Drafted By: Mirta A. Carpenter Date Drafted: February 23, 1998



Geoprobe Point GP-04
(drilled 1/9/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

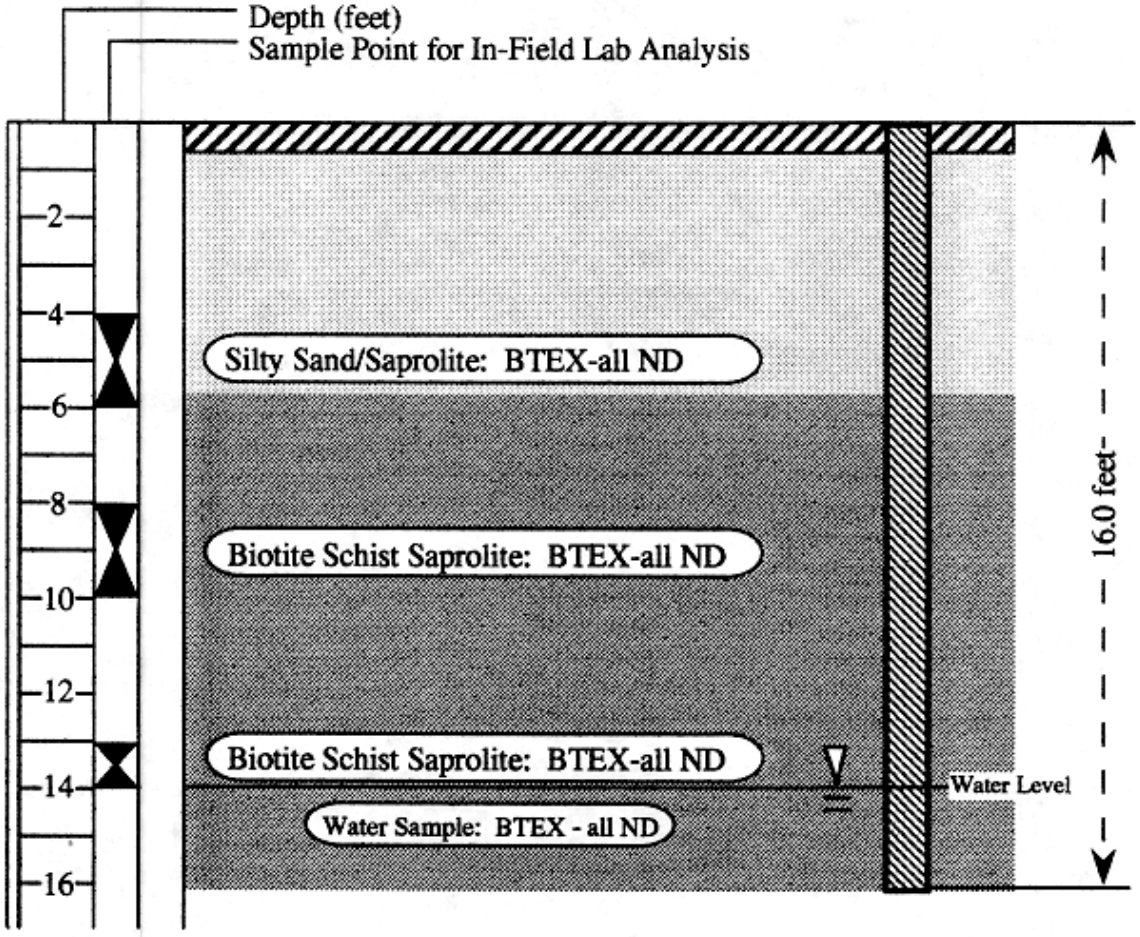
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-04**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: ESI, Inc., John Towns & Dan Hordley Date Drilled: January 9, 1998	Drafted By: Mirta A. Carpenter Date Drafted: February 23, 1998



Geoprobe Point GP-05
(drilled 1/9/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

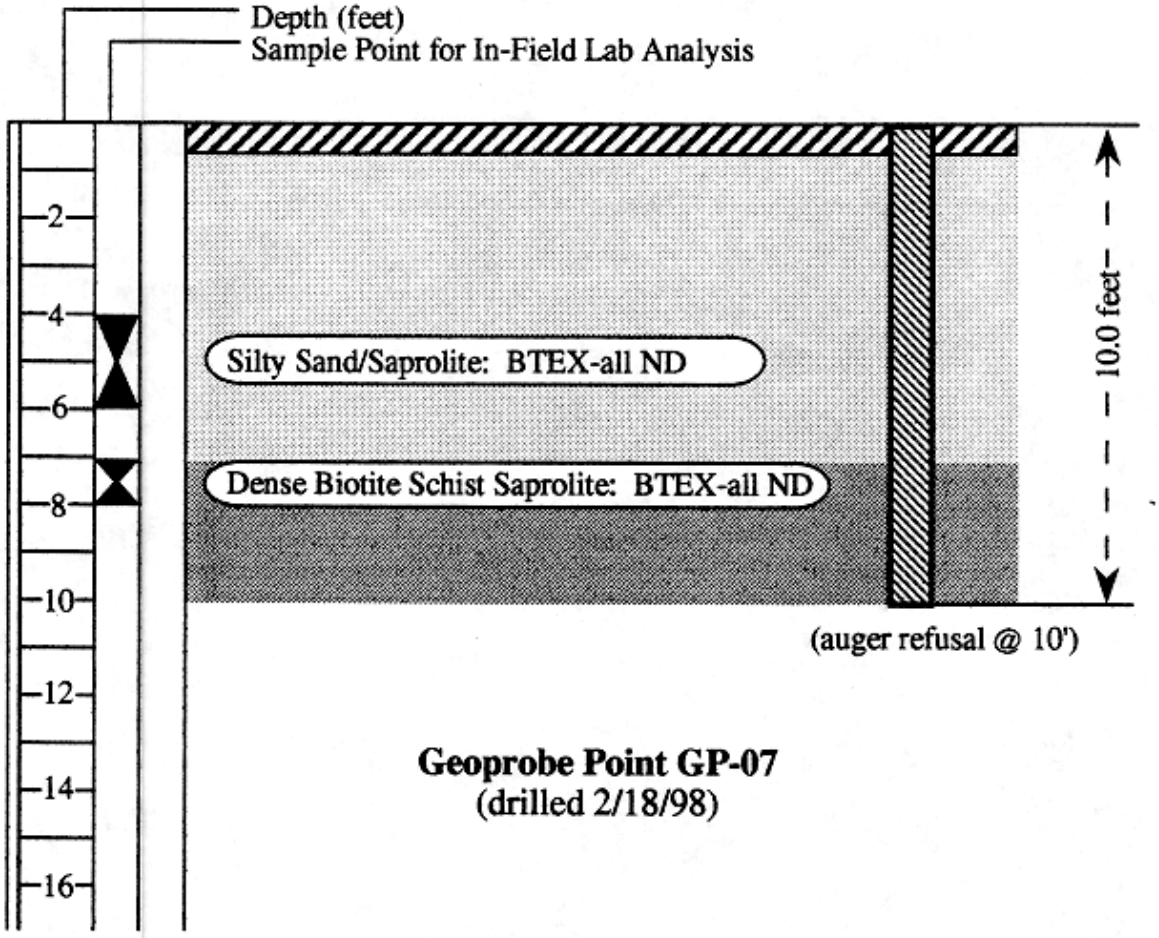
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-05**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: ESI, Inc., John Towns & Dan Hordley Date Drilled: January 9, 1998	Drafted By: Mirta A. Carpenter Date Drafted: February 23, 1998



Geoprobe Point GP-06
(drilled 2/18/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

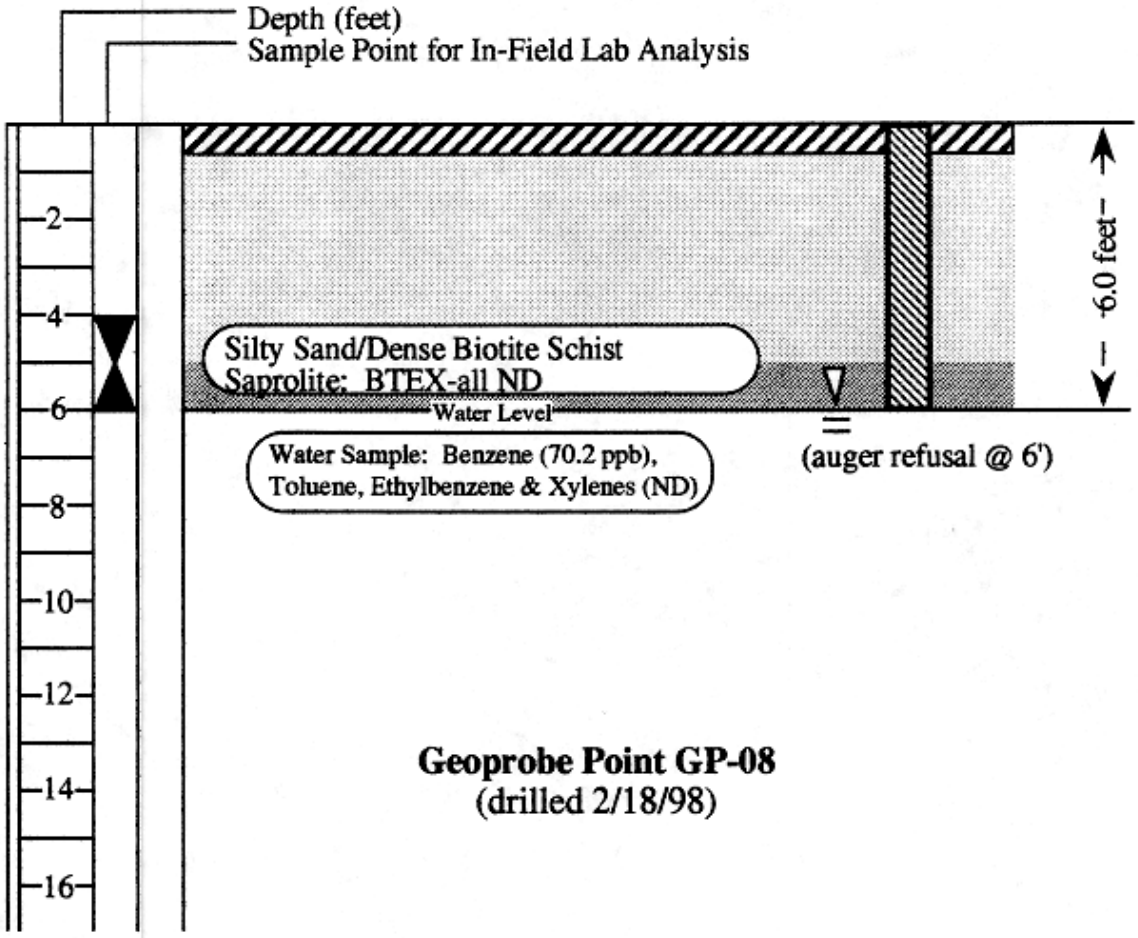
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-06**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: TEG Southeast, Danny Patterson Date Drilled: February 18, 1998	Drafted By: Mirta A. Carpenter Date Drafted: March 5, 1998



Geoprobe Point GP-07
(drilled 2/18/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

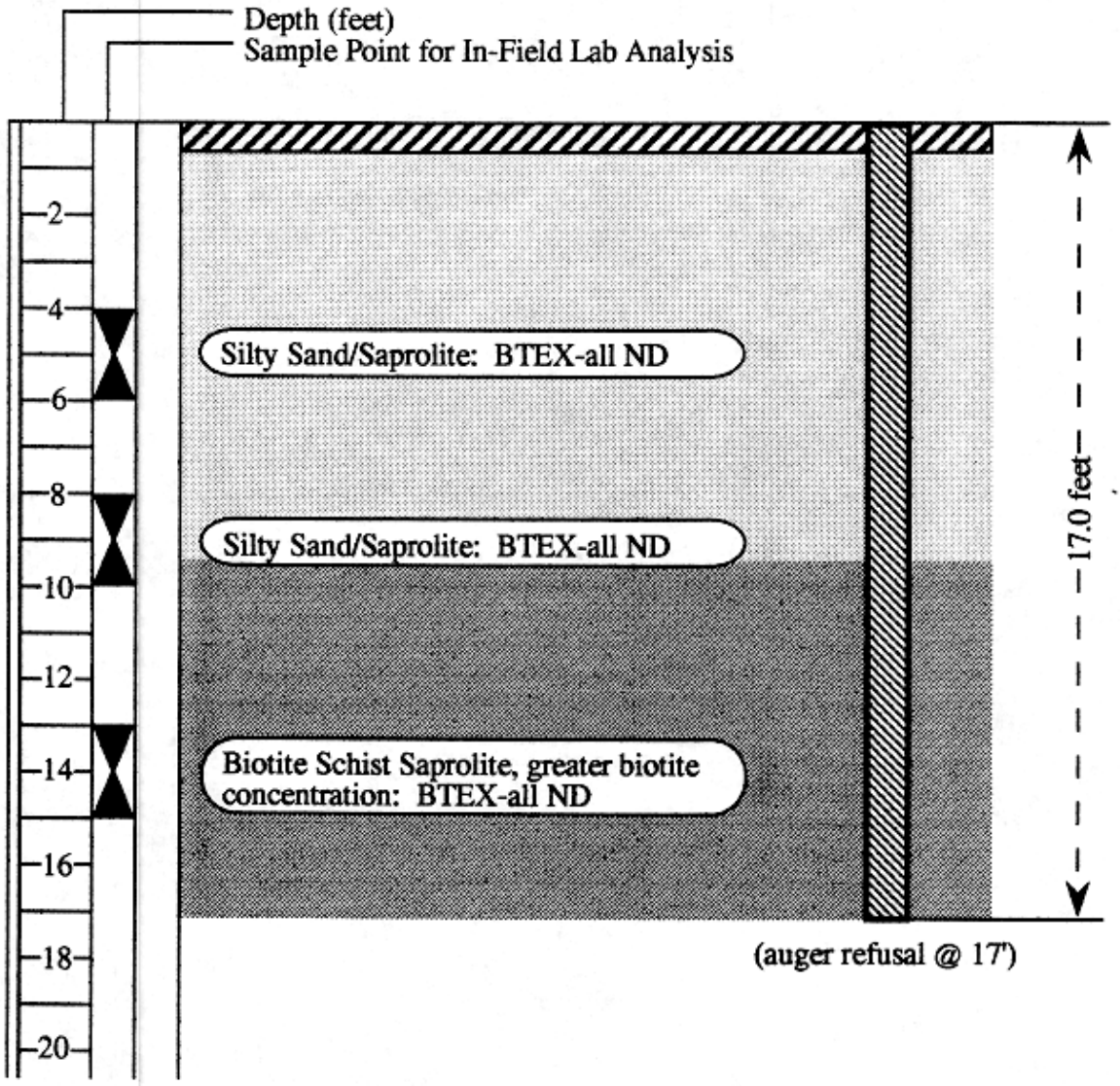
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-07**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: TEG Southeast, Danny Patterson Date Drilled: February 18, 1998	Drafted By: Mirta A. Carpenter Date Drafted: March 5, 1998



Geoprobe Point GP-08
(drilled 2/18/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

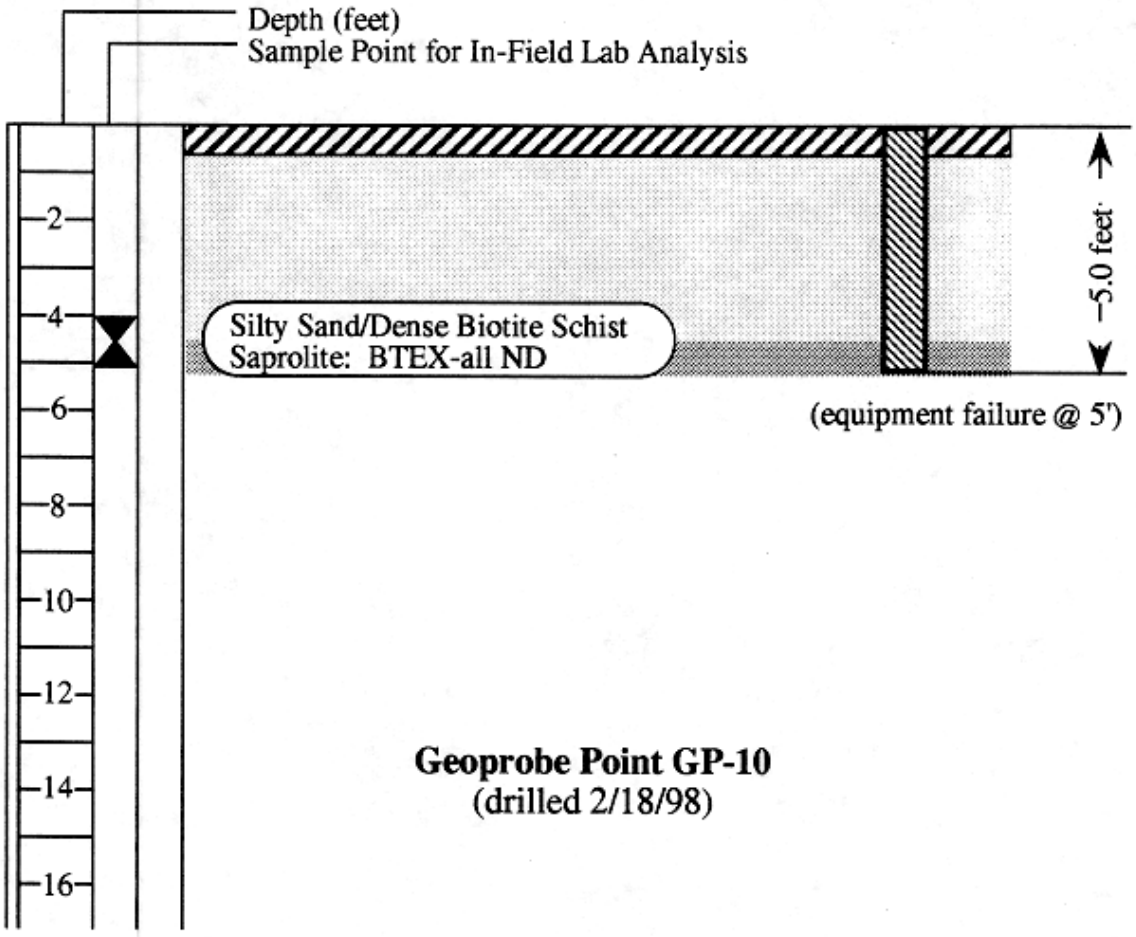
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-08**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: TEG Southeast, Danny Patterson Date Drilled: February 18, 1998	Drafted By: Mirta A. Carpenter Date Drafted: March 5, 1998



Geoprobe Point GP-09
(drilled 2/18/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

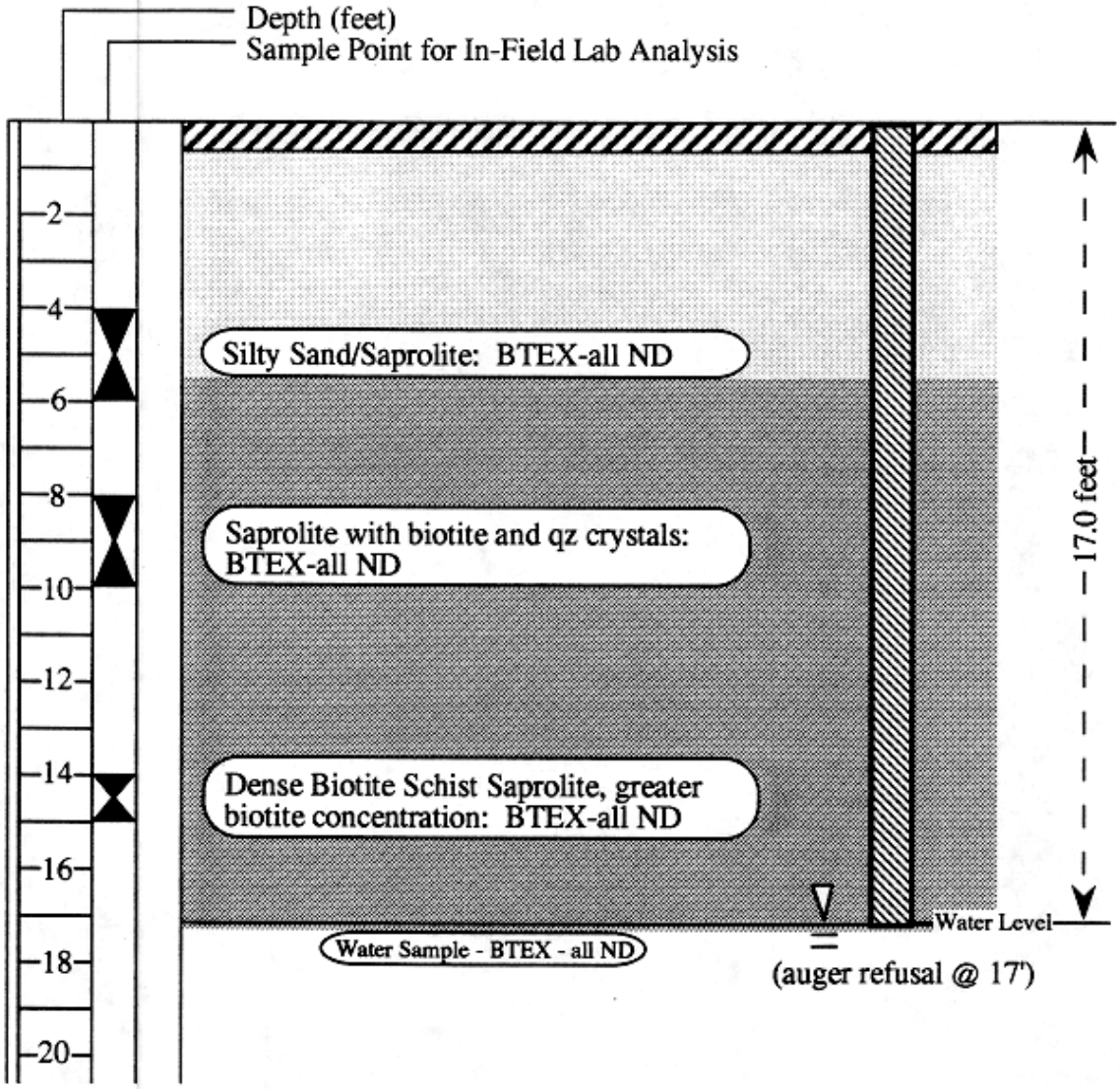
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-09**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: TEG Southeast, Danny Patterson Date Drilled: February 18, 1998	Drafted By: Mirta A. Carpenter Date Drafted: March 5, 1998



Geoprobe Point GP-10
(drilled 2/18/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

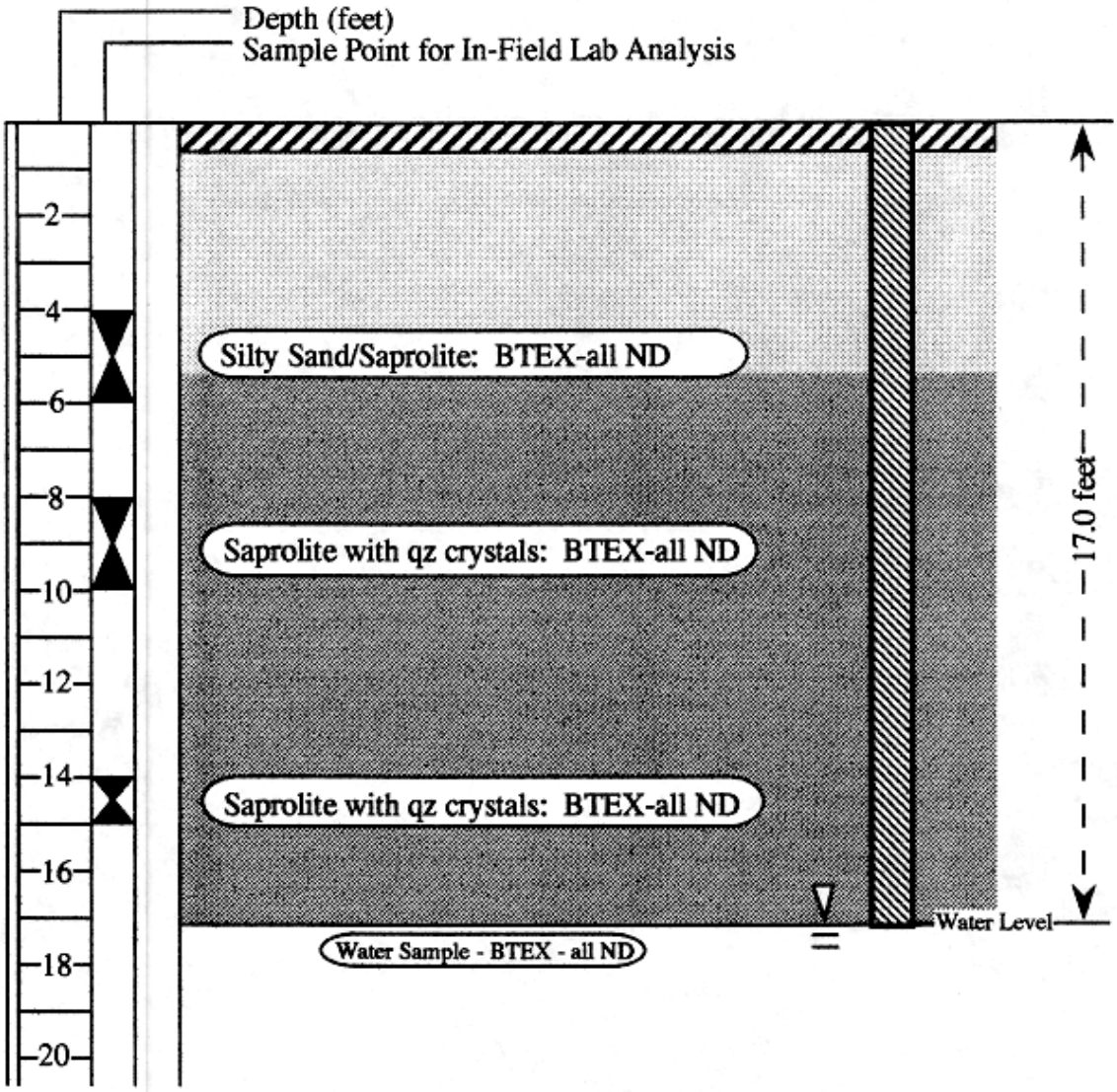
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-10**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: TEG Southeast, Danny Patterson Date Drilled: February 18, 1998	Drafted By: Mirta A. Carpenter Date Drafted: March 5, 1998



Geoprobe Point GP-11
(drilled 2/19/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

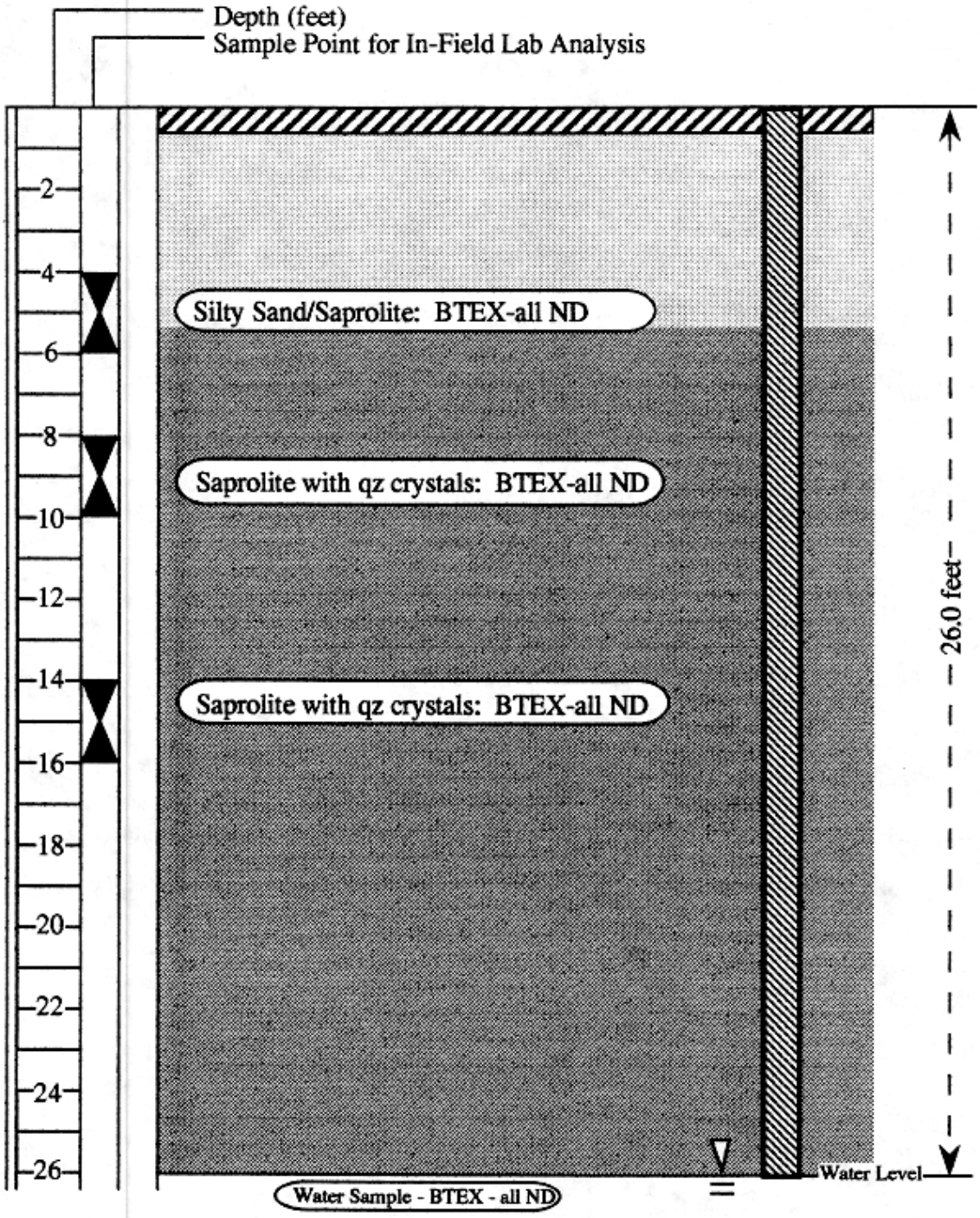
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-11**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: TEG Southeast, Danny Patterson Date Drilled: February 19, 1998	Drafted By: Mirta A. Carpenter Date Drafted: March 5, 1998



Geoprobe Point GP-12
(drilled 2/19/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

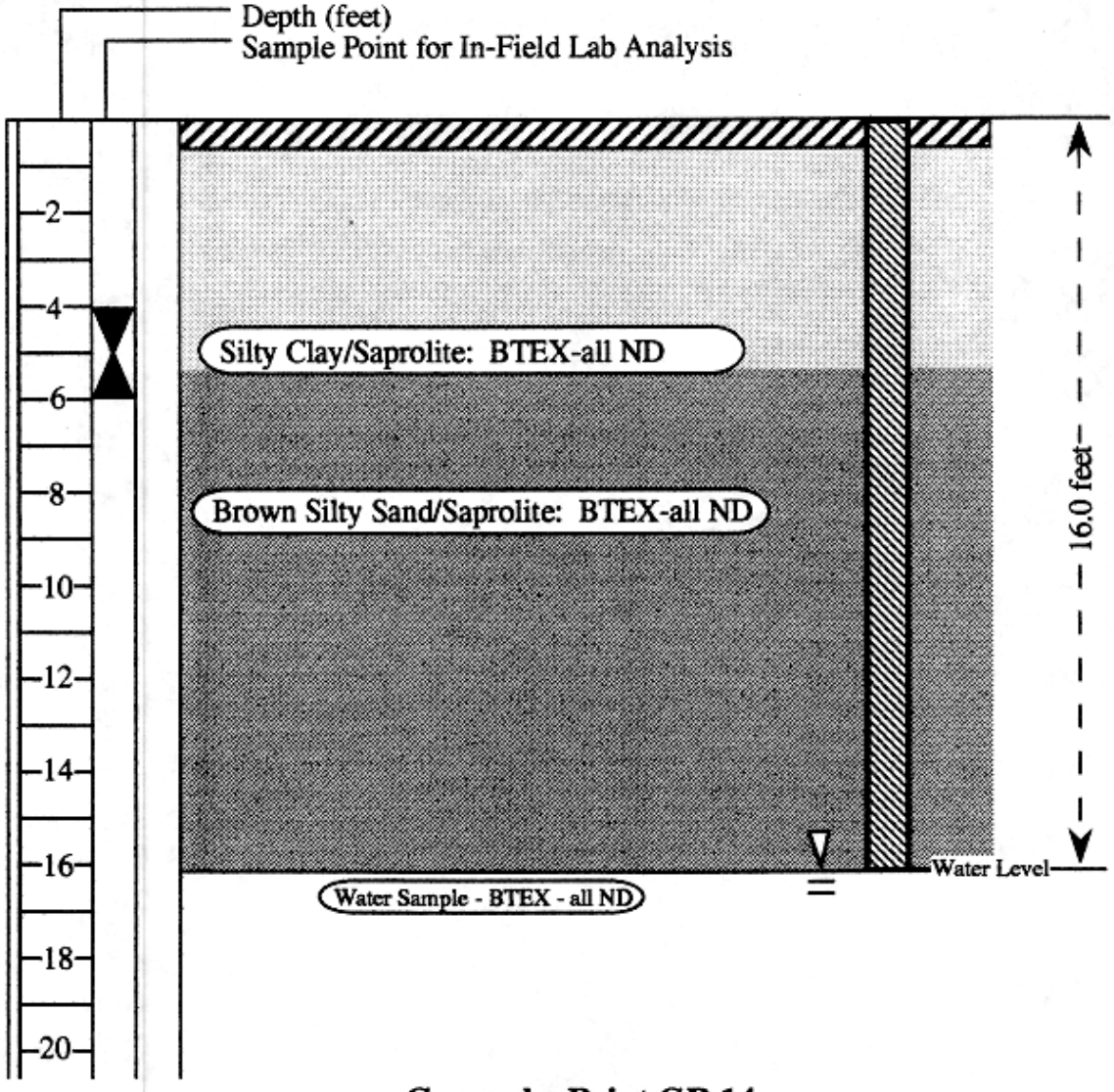
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-12**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: TEG Southeast, Danny Patterson Date Drilled: February 19, 1998	Drafted By: Mirta A. Carpenter Date Drafted: March 5, 1998



Geoprobe Point GP-13
(drilled 2/19/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

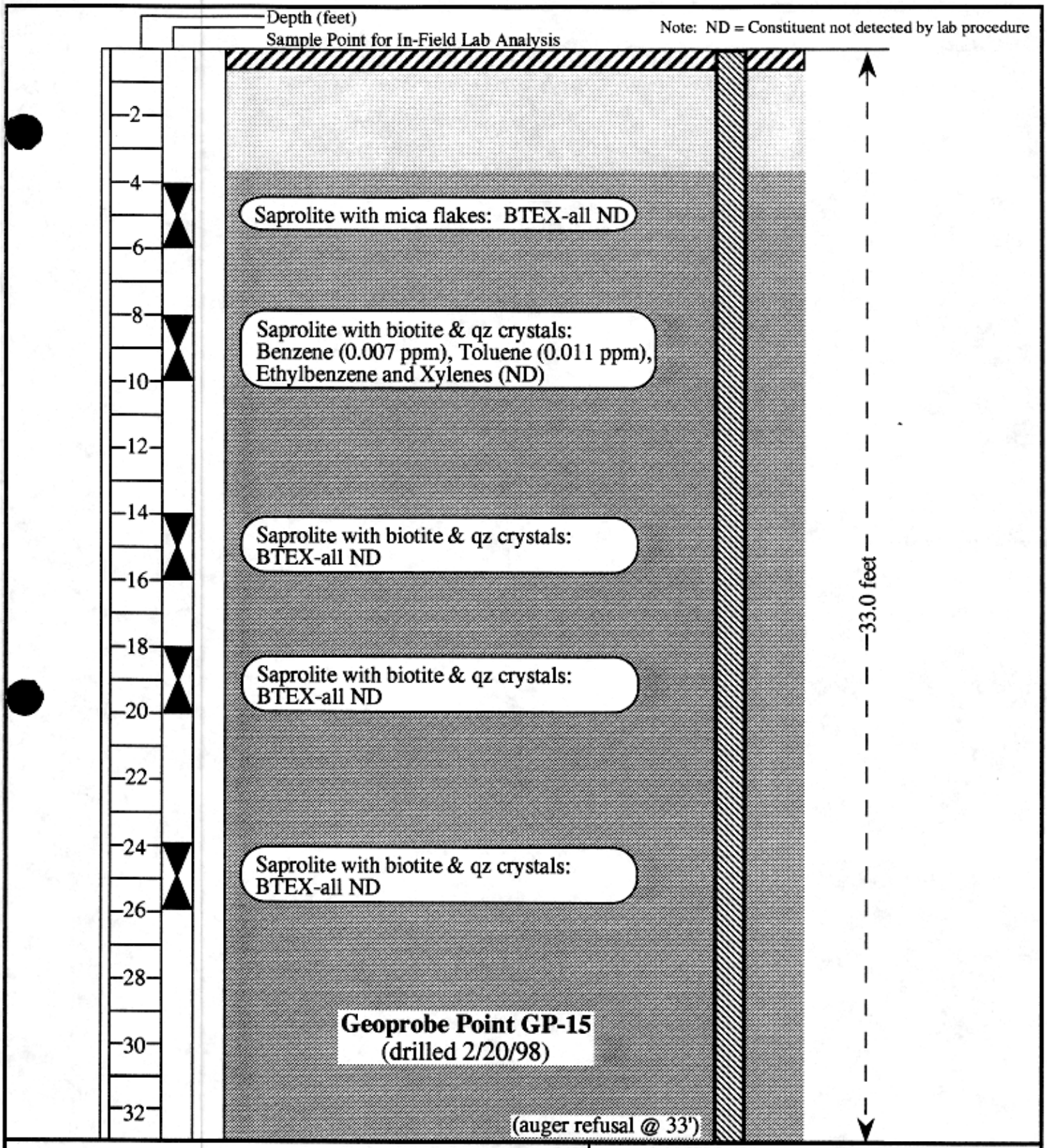
CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-13**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: TEG Southeast, Danny Patterson Date Drilled: February 19, 1998	Drafted By: Mirta A. Carpenter Date Drafted: March 5, 1998



Geoprobe Point GP-14
(drilled 2/19/98)

Note: ND = Constituent not detected by lab procedure
BDL = Constituent below detection level

CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-14**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: TEG Southeast, Danny Patterson Date Drilled: February 19, 1998	Drafted By: Mirta A. Carpenter Date Drafted: March 5, 1998



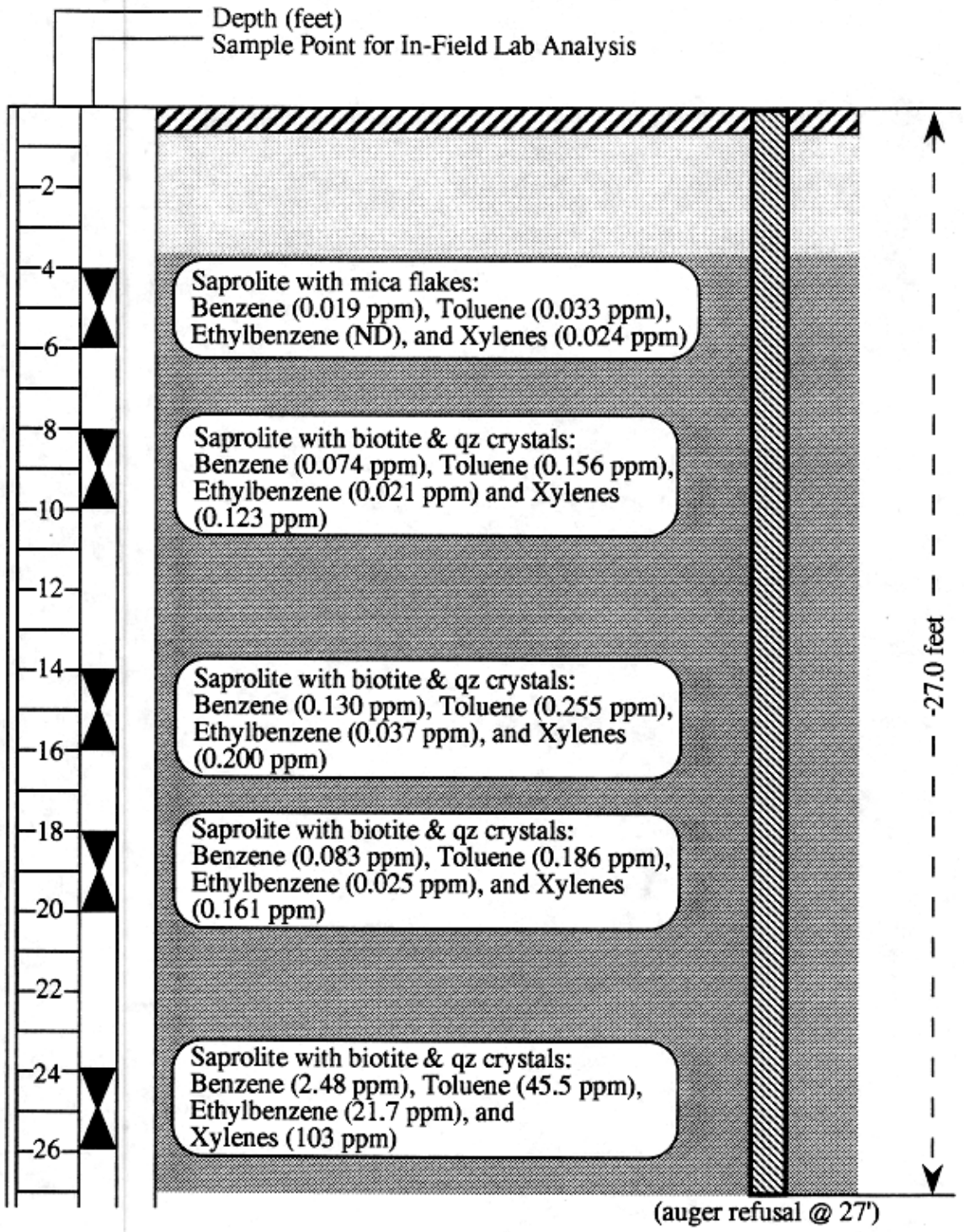
CROSSROADS GROCERY
SCDHEC Facility I.D. #06742

Location: Highway 24/59, Westminster, Oconee Co., SC

Drilled By: TEG Southeast, Danny Patterson
Date Drilled: February 20, 1998

Geoprobe Point Log
GP-15

Drafted By: Mirta A. Carpenter
Date Drafted: March 5, 1998



Geoprobe Point GP-16
(drilled 2/20/98)

Note: ND = Constituent not detected by lab procedure

CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Geoprobe Point Log** **GP-16**
Location: Highway 24/59, Westminster, Oconee Co., SC	
Drilled By: TEG Southeast, Danny Patterson Date Drilled: February 20, 1998	Drafted By: Mirta A. Carpenter Date Drafted: March 5, 1998

Appendix C

Geoprobe Results and Laboratory Documentation

MOBILE LABORATORY SERVICES: PHOTOVAC 10S PLUS GAS CHROMATOGRAPH

FIELD SCREENING OF SOIL AND GROUNDWATER SAMPLES FOR BTEX
SITE: TOKEENA CROSSROADS, SOUTH CAROLINA 1-7-987 THROUGH 1-9-98
CLIENT: ESCM, CARPENTER ENVIRONMENTAL CONSULTING, INC., POWDER SPRINGS, GA
ANALYTE CONCENTRATIONS IN PPB

ANALYSIS DATE	SAMPLE ID	MATRIX/ DEPTH (FT)	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES (TOTAL)
1-9-98	GP-3	SOIL / 12-16	BDL	BDL	BDL	BDL
1-9-98	GP-3	SOIL / 16-20	BDL	BDL	BDL	BDL
1-9-98	GP-3	SOIL / 20-24	BDL	BDL	BDL	BDL
1-9-98	GP-3	SOIL / 24-28	BDL	BDL	BDL	BDL
1-9-98	STREAM 2	WATER / SAMPLE PT. 2	28	1	3	BDL
1-9-98	STREAM 2	SOIL / SAMPLE PT. 2 /4	BDL	BDL	BDL	BDL
1-9-98	GP-4	SOIL / 0-4	BDL	BDL	BDL	BDL
1-9-98	GP-4	SOIL / 4-8	BDL	BDL	BDL	BDL
1-9-98	GP-4	SOIL / 8-12	BDL	BDL	BDL	BDL
1-9-98	GP-4	SOIL / 12-16	BDL	BDL	BDL	BDL
1-9-98	GP-4	SOIL / 16-20	BDL	BDL	BDL	BDL
1-9-98	GP-4	SOIL / 20-24	BDL	BDL	BDL	BDL
1-9-98	GW-4	WATER / 30	ND	BDL	BDL	BDL
1-9-98	GP-5	SOIL / 0-4	ND	ND	ND	ND
1-9-98	GP-5	SOIL / 4-8	BDL	BDL	ND	BDL
1-9-98	GP-5	SOIL / 8-12	BDL	BDL	ND	BDL
1-9-98	GP-5	SOIL / 12-16	BDL	BDL	ND	BDL
1-9-98	GP-5	SOIL / 16-20	ND	ND	ND	ND
1-9-98	GP-5	SOIL / 20-24	BDL	BDL	ND	BDL
1-9-98	GP-5	SOIL / 24-28	BDL	BDL	ND	BDL

DEPTH/ MATRIX DESCRIPTION: S - SOIL AND GW- GROUNDWATER
ND - CONSTITUENT NOT DETECTED **BDL**- CONSTITUENT BELOW DETECTION LEVEL
MINIMUM DETECTION LIMIT (MDL) FOR BTEX IN SOIL IS 10 PPB AND GROUNDWATER IS 1 PPB.

MOBILE LABORATORY SERVICES: PHOTOVAC 10S PLUS GAS CHROMATOGRAPH

FIELD SCREENING OF SOIL AND GROUNDWATER SAMPLES FOR BTEX
SITE: TOKEENA CROSSROADS, SOUTH CAROLINA 1-7-987 THROUGH 1-9-98
CLIENT: ESCM, CARPENTER ENVIRONMENTAL CONSULTING, INC., POWDER SPRINGS, GA
ANALYTE CONCENTRATIONS IN PPB

ANALYSIS DATE	SAMPLE ID	MATRIX/ DEPTH (FT)	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES (TOTAL)
1-7-98	GP-1	SOIL / 0-4	BDL	BDL	BDL	BDL
1-7-98	GP-1	SOIL / 4-8	BDL	BDL	BDL	BDL
1-7-98	GP-1	SOIL / 8-12	BDL	BDL	BDL	BDL
1-7-98	GP-1	SOIL / 12-16	BDL	BDL	BDL	BDL
1-7-98	GP-1	SOIL / 16-20	BDL	BDL	ND	15
1-7-98	GP-1	SOIL / 20-24	BDL	BDL	BDL	BDL
1-7-98	GP-1	SOIL / 24-28	BDL	BDL	BDL	BDL
1-7-98	GP-1	SOIL / 28-32	BDL	BDL	ND	BDL
1-7-98	GP-1	SOIL / 32-36	BDL	BDL	BDL	BDL
1-8-98	STREAM 1	WATER / SAMPLE PT. 1	BDL	ND	BDL	ND
1-8-98	STREAM 2	WATER / SAMPLE PT. 1	238	2	ND	ND
1-8-98	STREAM 3	WATER / SAMPLE PT. 1	BDL	BDL	ND	BDL
1-8-98	GW-1	WATER / 43	ND	BDL	ND	BDL
1-8-98	GP-2	SOIL / 0-4	BDL	BDL	BDL	BDL
1-8-98	GP-2	SOIL / 4-8	BDL	BDL	ND	BDL
1-8-98	GP-2	SOIL / 8-12	BDL	BDL	ND	BDL
1-8-98	GP-2	SOIL / 12-16	BDL	BDL	ND	BDL
1-8-98	GP-2	SOIL / 16-20	BDL	BDL	ND	BDL
1-8-98	GP-2	SOIL / 20-24	BDL	BDL	ND	BDL
1-8-98	GP-2	SOIL / 24-28	BDL	BDL	ND	BDL
1-8-98	GW-2	WATER / 25	BDL	3	2	6
1-8-98	GP-3	SOIL / 0-4	ND	ND	ND	ND
1-8-98	GP-3	SOIL / 4-8	BDL	BDL	ND	BDL
1-8-98	GP-3	SOIL / 8-12	BDL	BDL	ND	BDL

DEPTH/ MATRIX DESCRIPTION: S - SOIL AND GW- GROUNDWATER
ND - CONSTITUENT NOT DETECTED **BDL**- CONSTITUENT BELOW DETECTION LEVEL

ESI
ECOLOGICAL SERVICES, INC.

620 North I-85 Service Rd., Charlotte, NC 28216

Phone (704) 399-4000
Fax (704) 399-4090

January 13, 1998

Mrs. Myrta A. Carpenter
Carpenter Environmental Consulting Services, Inc.
2950 Sterling Drive
Powder Springs, Ga 30127

Subject: Field Screening with Photovac 10s plus Portable Gas Chromatograph Services
Crossroads Grocery Site
Tokeena, South Carolina
ESI Project No. G-1286

Dear Mrs. Carpenter,

As requested, Ecological Services, Inc. conducted field screening of Geoprobe™ soil and groundwater samples collected January 7 through January 9, 1997 at the Crossroads Grocery site in Tokeena, South Carolina. Seven groundwater samples and thirty-seven soil samples were collected and field screened for benzene, toluene, ethylbenzene, and total xylenes (BTEX) with a Photovac 10splus Gas Chromatograph. The field screening lab reports, gas chromatographs, and raw data for the samples are included with this letter.

In addition, information pertaining to the Photovac 10s plus GC mechanics is included with this letter.

If you have any questions concerning this report or if we can be of any further service, please do not hesitate to call.

Sincerely,

ECOLOGICAL SERVICES, INC.

Diana G. Lanier
Sr. Lab Analyst

MOBILE LAB: FIELD SCREENING RESULTS

JOB NO: 6-1286
CLIENT: ESCO
SITE: TOKEENA, SC
METHOD: FIELD SCREENING BY PHOTOIONIZATION
COMPOUNDS: BTEX

CONTACT: MYRTA CARPENTER
DATE: 1/7/98 - 1/9/98
ALL MEASUREMENTS IN PPB
BDL INDICATES BELOWDETECTION LIMIT
ND INDICATE NOT DETECTED

PAGE 1

SAMPLE ID	MATRIX	DEPTH (FT)	BENZENE	TCE	TOLUENE	PCE	ETHYL-BENEZENE	XYLENES (TOTAL))
GP-1	SOIL	0-4	BDL		BDL		BDL	BDL
"	"	4-8	BDL		BDL		BDL	BDL
"	"	8-12	BDL		BDL		BDL	BDL
"	"	12-16	BDL		BDL		BDL	BDL
"	"	16-20	BDL		BDL		~~BDL~~ ND	15
"	"	20-24	BDL		BDL		BDL	BDL
"	"	24-28	BDL		BDL		BDL	BDL
"	"	28-32	BDL		BDL		~~BDL~~ ND	BDL
"	"	32-36	BDL		BDL		BDL	BDL
SAMPLE-1 STREAM-1	WATER	-0-	BDL		ND		BDL	ND
SAMPLE-1 STREAM-2	WATER	-0-	238		2		NA	ND
SAMPLE-1 STREAM-3	WATER	-0-	BDL		BDL		ND	BDL
GW-1	WATER	43	ND		BDL		ND	BDL
GP-2	SOIL	0-4	BDL		BDL		BDL	BDL
GP-2	SOIL	4-8	BDL		BDL		ND	BDL
GP-2	SOIL	8-12	BDL		BDL		ND	BDL
GP-2	SOIL	12-16	BDL		BDL		ND	BDL
GW-2	WATER	25	BDL		3		2	9/6
GP-2	SOIL	16-20	BDL		BDL		ND	BDL
GP-2	SOIL	20-24	BDL		BDL		ND	BDL
GP-2	SOIL	24-28	BDL		BDL		ND	BDL
GP-3	SOIL	0-4	ND		ND		ND	ND
GP-3	SOIL	4-8	BDL		BDL		ND	BDL
GP-3	SOIL	8-12	BDL		BDL		ND	BDL
GP-3	SOIL	12-16	BDL		BDL		BDL	BDL
GP-3	SOIL	16-20	BDL		BDL		BDL	BDL
GP-3	SOIL	20-24	BDL		BDL		BDL	BDL
GP-3	SOIL	24-28	BDL		BDL		BDL	BDL

1-7-98
1-8-98
1-9-98

MDL FOR BTEX IN SOIL IS 10 PPB
IN W IS 1 PPB

MOBILE LAB: FIELD SCREENING RESULTS

JOB NO: G-1286
CLIENT: ESCM
SITE: TOKEENA CROSSROADS, SC
METHOD: FIELD SCREENING BY PHOTOVAC 10S PLUS
COMPOUNDS: BTEX

CONTACT: MYRTA CARPENTER
DATE: 1-7-98 / 1-9-98
ALL MEASUREMENTS IN PPB
BDL INDICATES BELOWDETECTION LIMIT
ND INDICATE NOT DETECTED

SAMPLE ID	MATRIX	DEPTH (FT)	BENZENE	TCE	TOLUENE	PCE	ETHYL-BENEZENE	XYLENES (TOTAL))
STREAM 2 SAMPLE 2	WATER	-0-	28		1		3	BDL
STREAM SAMPLE 2	SOIL	-4-	BDL		BDL		BDL	BDL
GP-4	SOIL	0-4	BDL		BDL		BDL	BDL
"	"	4-8	BDL		BDL		BDL	BDL
"	"	8-12	BDL		BDL		BDL	BDL
"	"	12-16	BDL		BDL		BDL	BDL
"	"	16-20	BDL		BDL		BDL	BDL
"	"	20-24	BDL		BDL		BDL	BDL
GW-4	WATER	30	ND		BDL		BDL	BDL
GP-5	SOIL	0-4	ND		ND		NO	NO
"	"	4-8	BDL		BDL		ND	BDL
"	"	8-12	BDL		BDL		NO	BDL
"	"	12-16	BDL		BDL		NO	BDL
"	"	16-20	ND		NO		NO	ND
"	"	20-24	BDL		BDL		ND	BDL
"	"	24-28	BDL		BDL		NO	BDL

1-9-98

MDL FOR BTEX IN SOIL IS 10 PPB
GROUNDWATER IS 1 PPB

DATA REPORT

ESCM & ASSOCIATES, INC
2950 STERLING DRIVE
POWDER SPRINGS, GA 30127

CROSSROADS GROCERY, HIGHWAY 24/59, TOKEENA CROSSROADS, SC
CLIENT PROJECT # CROSSROADS

TEG PROJECT # 3-98045-G1

BTEX ANALYSIS OF SOIL (EPA METHOD 8020)

DATA REPORTED IN MILLIGRAMS PER KILOGRAM (PPM)

SAMPLE ID	DATE COLLECTED	DATE ANALYZED	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYLBENZ (mg/kg)	XYLENES (mg/kg)	TOT. BTEX (mg/kg)	Surrogate Recovery (%)	Data Qualifiers	PQL
METHOD BLANK	—	2/18/98	ND	ND	ND	ND	ND	99.0		0.005
GP6 (4-6)	2/18/98	2/18/98	ND	ND	ND	ND	ND	99.4		0.005
GP6 (8-10)	2/18/98	2/18/98	ND	ND	ND	ND	ND	99.6		0.005
GP6 (13-14)	2/18/98	2/18/98	ND	ND	ND	ND	ND	99.0		0.005
GP7 (4-6)	2/18/98	2/18/98	ND	ND	ND	ND	ND	99.0		0.005
GP7 (7-8)	2/18/98	2/18/98	ND	ND	ND	ND	ND	100		0.005
GP8 (4-6)	2/18/98	2/18/98	ND	ND	ND	ND	ND	101		0.005
GP9 (4-6)	2/18/98	2/18/98	ND	ND	ND	ND	ND	100		0.005
GP9 (8-10)	2/18/98	2/18/98	ND	ND	ND	ND	ND	97.0		0.005
GP9 (13-15)	2/18/98	2/18/98	ND	ND	ND	ND	ND	101		0.005
GP10 (4-5)	2/18/98	2/18/98	ND	ND	ND	ND	ND	99.8		0.005
METHOD BLANK	.....	2/19/98	ND	ND	ND	ND	ND	99.8		0.005
GP11 (4-6)	2/19/98	2/19/98	ND	ND	ND	ND	ND	83.8		0.005
GP11 (8-10)	2/19/98	2/19/98	ND	ND	ND	ND	ND	99.0		0.005
GP11 (14-15)	2/19/98	2/19/98	ND	ND	ND	ND	ND	100		0.005
GP12 (4-6)	2/19/98	2/19/98	ND	ND	ND	ND	ND	98.8		0.005
GP12 (8-10)	2/19/98	2/19/98	ND	ND	ND	ND	ND	100		0.005
GP12 (14-15)	2/19/98	2/19/98	ND	ND	ND	ND	ND	99.6		0.005
GP13 (4-6)	2/19/98	2/19/98	ND	ND	ND	ND	ND	91.2		0.005
GP13 (8-10)	2/19/98	2/19/98	ND	ND	ND	ND	ND	97.6		0.005
GP13 (14-16)	2/19/98	2/19/98	ND	ND	ND	ND	ND	99.2		0.005
GP15 (24-26)DUP	2/20/98	2/20/98	ND	ND	ND	ND	ND	99.2		0.005

"ND" INDICATES ANALYTE NOT DETECTED AT OR ABOVE LISTED PRACTICAL QUANTITATION LIMITS (PQL'S)
ANALYSIS PERFORMED IN TEG'S CERTIFIED LABORATORY
ANALYSIS PERFORMED BY: ROBERT BARTHOLOMEW
DATA REVIEWED BY: MARK MASINO MW 2/21/98

DATA QUALIFIERS

MI = MATRIX INTERFERENCE
DO = SURROGATE SPIKE DILUTED OUT
D = ALL SAMPLE VALUES OBTAINED BY DILUTION, PQL IS ADJUSTED ACCORDINGLY
I = INDIVIDUAL VALUE OBTAINED BY DILUTION
E = ESTIMATED CONCENTRATION(S)

3600-C KENNESAW N. IND. PKWY KENNESAW, GA 30144 770-919-0805 FAX 770-919-0806

DATA REPORT

ESCM & ASSOCIATES, INC
2950 STERLING DRIVE
POWDER SPRINGS, GA 30127

CROSSROADS GROCERY, HIGHWAY 24/59, TOKEENA CROSSROADS, SC
CLIENT PROJECT # CROSSROADS

TEG PROJECT # 3-98045-G1

BTEX ANALYSIS OF SOIL (EPA METHOD 8020)

DATA REPORTED IN MILLIGRAMS PER KILOGRAM (PPM)

SAMPLE ID	DATE COLLECTED	DATE ANALYZED	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYLBENZ (mg/kg)	XYLENES (mg/kg)	TOT. BTEX (mg/kg)	Surrogate Recovery (%)	Data Qualifiers	PQL
GP14 (4-6)	2/19/98	2/19/98	ND	ND	ND	ND	**ND**	100		0.005
METHOD BLANK	.....	2/20/98	ND	ND	ND	ND	**ND**	99.2		0.005
GP15 (4-6)	2/20/98	2/20/98	ND	ND	ND	ND	**ND**	99.6		0.005
GP15 (8-10)	2/20/98	2/20/98	0.007	0.011	ND	ND	**0.018**	99.2		0.005
GP15 (14-16)	2/20/98	2/20/98	ND	ND	ND	ND	**ND**	99.2		0.005
GP15 (18-20)	2/20/98	2/20/98	ND	ND	ND	ND	**ND**	MI		0.005
GP15 (24-26)	2/20/98	2/20/98	ND	ND	ND	ND	**ND**	99.4		0.005
GP16 (4-6)	2/20/98	2/20/98	0.019	0.033	ND	0.024	**0.076**	98.4		0.005
GP16 (8-10)	2/20/98	2/20/98	0.074	0.156	0.021	0.123	**0.374**	76.8		0.005
GP16 (14-16)	2/20/98	2/20/98	0.130	0.255	0.037	0.200	**0.622**	80.8		0.005
GP16 (18-20)	2/20/98	2/20/98	0.083	0.186	0.025	0.161	**0.455**	MI		0.005
GP16 (24-26)	2/20/98	2/20/98	2.48	45.5	21.7	103	**172.68**	87.0	d	0.25

"ND" INDICATES ANALYTE NOT DETECTED AT OR ABOVE LISTED PRACTICAL QUANTITATION LIMITS (PQL'S)
ANALYSIS PERFORMED IN TEG'S CERTIFIED LABORATORY
ANALYSIS PERFORMED BY: ROBERT BARTHOLOMEW
DATA REVIEWED BY: MARK MASINO 2/21/98

DATA QUALIFIERS

MI = MATRIX INTERFERENCE
DO = SURROGATE SPIKE DILUTED OUT
D = ALL SAMPLE VALUES OBTAINED BY DILUTION, PQL IS ADJUSTED ACCORDINGLY
= INDIVIDUAL VALUE OBTAINED BY DILUTION
E = ESTIMATED CONCENTRATION(S)

3600-C KENNESAW N. IND. PKWY KENNESAW, GA 30144 770-919-0805 FAX 770-919-0806

DATA REPORT

ESCM & ASSOCIATES, INC
2950 STERLING DRIVE
POWDER SPRINGS, GA 30127

CROSSROADS GROCERY, HIGHWAY 24/59, TOKEENA CROSSROADS, SC
CLIENT PROJECT # CROSSROADS

TEG PROJECT # 3-98045-G1

BTEX ANALYSIS OF WATER (EPA METHOD 8020)

DATA REPORTED IN MICROGRAMS PER LITER (PPB)

SAMPLE ID	DATE COLLECTED	DATE ANALYZED	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZ (ug/L)	XYLENES (ug/L)	TOT. BTEX (ug/L)	Surrogate Recovery (%)	Data Qualifiers	PQL
METHOD BLANK	—	2/18/98	ND	ND	ND	ND	**ND**	98.4		2.0
STREAM1 PT1	2/18/98	2/18/98	ND	ND	ND	ND	**ND**	101		2.0
STREAM2 SP1	2/18/98	2/18/98	55.5	ND	ND	ND	**55.5**	99.6		2.0
STREAM2 SP2	2/18/98	2/18/98	33.7	ND	ND	ND	**33.7**	99.6		2.0
STREAM2 SP3	2/18/98	2/18/98	174	ND	ND	ND	**174**	100		2.0
GP6 (14)	2/18/98	2/18/98	ND	ND	ND	ND	**ND**	101		2.0
STREAM2 PT4	2/18/98	2/18/98	13.3	ND	ND	ND	**13.3**	101		2.0
STREAM3A PT1	2/18/98	2/18/98	ND	ND	ND	ND	**ND**	98		2.0
GP8 (6)	2/18/98	2/18/98	70.2	ND	ND	ND	**70.2**	101		2.0
METHOD BLANK	.....	2/19/98	ND	ND	ND	ND	**ND**	100		2.0
GP11 (17)	2/19/98	2/19/98	ND	ND	ND	ND	**ND**	99.6		2.0
GP12 (17)	2/19/98	2/19/98	ND	ND	ND	ND	**ND**	100		2.0
GP13 (26)	2/19/98	2/19/98	ND	ND	ND	ND	**ND**	100		2.0
STREAM2 PT3	2/19/98	2/19/98	318	ND	ND	ND	**318**	98.0		2.0
GP14 (16)	2/19/98	2/19/98	ND	ND	ND	ND	**ND**	94.4		2.0
METHOD BLANK	.....	2/20/98	ND	ND	ND	ND	**ND**	99.6		2.0
MW5	2/20/98	2/20/98	ND	ND	ND	ND	**ND**	100		2.0
MW5 DUP	2/20/98	2/20/98	ND	ND	ND	ND	**ND**	76.4		2.0

"ND" INDICATES ANALYTE NOT DETECTED AT OR ABOVE LISTED PRACTICAL QUANTITATION LIMITS (PQL'S)
ANALYSIS PERFORMED IN TEG'S CERTIFIED LABORATORY
ANALYSIS PERFORMED BY: ROBERT BARTHOLOMEW
DATA REVIEWED BY: MARK MASINO MM 2/21/98

DATA QUALIFIERS

MI = MATRIX INTERFERENCE
DO = SURROGATE SPIKE DILUTED OUT
D = ALL SAMPLE VALUES OBTAINED BY DILUTION, PQL IS ADJUSTED ACCORDINGLY
I = INDIVIDUAL VALUE OBTAINED BY DILUTION
E = ESTIMATED CONCENTRATION(S)

3600-C KENNESAW N. IND. PKWY KENNESAW, GA 30144 770-919-0805 FAX 770-919-0806

QA/QC DATA REPORT

ESCM & ASSOCIATES, INC
2950 STERLING DRIVE
POWDER SPRINGS, GA 30127

CROSSROADS GROCERY, HIGHWAY 24/59, TOKEENA CROSSROADS, SC
CLIENT PROJECT # CROSSROADS

TEG PROJECT # 3-98045-G1

BTEX ANALYSIS OF SOIL (EPA METHOD 8020)

DATA REPORTED IN MILLIGRAMS PER KILOGRAM (PPM)

DATE ANALYZED: 2/19/98
SAMPLE SPIKED: GP12 (13-15)

	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYLBENZ (mg/kg)	XYLENES (mg/kg)
MATRIX SPIKE				
SPIKED CONC.	0.100	0.100	0.100	0.300
MEASURED CONC.	0.094	0.098	0.088	0.275
% RECOVERY	94.0%	98.0%	88.0%	91.7%
MATRIX SPIKE DUPLICATE				
SPIKED CONC.	0.100	0.100	0.100	0.300
MEASURED CONC.	0.098	0.096	0.087	0.265
% RECOVERY	98.0%	96.0%	87.0%	88.3%
RELATIVE PERCENT DIFFERENCE (RPD)	4.2%	2.1%	1.1%	3.7%

ANALYSIS PERFORMED IN TEG'S CERTIFIED LABORATORY
ANALYSIS PERFORMED BY: ROBERT BARTHOLOMEW
DATA REVIEWED BY: MARK MASINO 2/21/98

3600-C KENNESAW N. IND. PKWY KENNESAW, GA 30144 770-919-0805 FAX 770-919-0806

QA/QC DATA REPORT

ESCM & ASSOCIATES, INC
2950 STERLING DRIVE
POWDER SPRINGS, GA 30127

CROSSROADS GROCERY, HIGHWAY 24/59, TOKEENA CROSSROADS, SC
CLIENT PROJECT # CROSSROADS

TEG PROJECT # 3-98045-G1

BTEX ANALYSIS OF WATER (EPA METHOD 8020)

DATA REPORTED IN MICROGRAMS PER LITER (PPB)

DATE ANALYZED: 2/19/98
SAMPLE SPIKED: GP11 (17)

	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZ (ug/L)	XYLENES (ug/L)
MATRIX SPIKE				
SPIKED CONC.	50.0	50.0	50.0	150.0
MEASURED CONC.	42.4	47.8	48.8	131.0
% RECOVERY	84.8%	95.6%	97.6%	87.3%
MATRIX SPIKE DUPLICATE				
SPIKED CONC.	50.0	50.0	50.0	150.0
MEASURED CONC.	48.6	50.4	50.6	145.0
% RECOVERY	97.2%	100.8%	101.2%	96.7%
RELATIVE PERCENT DIFFERENCE (RPD)	13.6%	5.3%	3.6%	10.1%

ANALYSIS PERFORMED IN TEG'S CERTIFIED LABORATORY
ANALYSIS PERFORMED BY: ROBERT BARTHOLOMEW
DATA REVIEWED BY: MARK MASINO 2/21/98

3600-C KENNESAW N. IND. PKWY KENNESAW, GA 30144 770-919-0805 FAX 770-919-0806

TRANSGLOBAL ENVIRONMENTAL GEOCHEMISTRY, INC.

CHAIN-OF-CUSTODY RECORD

CLIENT: ESCM & ASSOCIATES INC
ADDRESS: 2950 STERLING DRIVE
CITY: POWDER SPRING STATE: GA ZIP: 30127
PHONE: 770-577-8909 FAX: 770-577-9401
CLIENT PROJECT #: CROSSROADS PROJECT MANAGER: [illegible]

DATE: 2-18-98 PAGE 1 OF 3
TEG PROJECT #: 3-[illegible]
LOCATION: CROSSROADS GROCERY, [illegible]
TOKEENA CROSSROADS S.C
COLLECTOR: DATE OF COLLECTION: 2-18-98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS						FIELD NOTES	Total Number Of Containers	Laboratory Note Number
Stream 1 Sample Pt 1			H_2O			X																					
Stream 2	SP1		H_2O			X																					
" (gully)	SP2		H_2O			X																					
"	SP3		H_2O			X																					
GP6 Soil	4-6'		S			X																					
GP6 Soil	8-10'		S			X																					
GP6 Soil	13-14'		S			X																					
GP6 Water	14'		W			X																					
Stream 2 Pt 4	@ prop line		W			X																					
Stream 3 Pt 1	near prop line		W			X																					
GP7 Soil	4-6		S			X																					
GP7	7-8		S			X																					
GP8	4-6'		Soil			X																					
GP8 - Water	6'		Water			X																					
GP9 ~~4-6~~	4-6		S			X																					
GP9	8-10		S			X																					
GP9	13-15		S			X																					

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		[signature]	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES: 12

TRANSGLOBAL ENVIRONMENTAL GEOCHEMISTRY, INC.

CHAIN-OF-CUSTODY RECORD

CLIENT: ESCM ASSOCIATES INC.
ADDRESS:
CITY: STATE: ZIP:
PHONE: FAX:
CLIENT PROJECT #: PROJECT MANAGER:

DATE: 2-18-98 PAGE 2 OF 3
TEG PROJECT #: 3-550 [illegible]
LOCATION:
COLLECTOR: DATE OF COLLECTION: 2-18-98

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS	FIELD NOTES	Total Number Of Containers	Laboratory Note Number
GP11	4-5'		S		X																	
GP11	4-6		S		X																	
GP11	8-10		S		X																	
GP11	14-15'		S		X																	
GP11	17'		W		X																	
GP12	4-6		S		X																	
GP12	8-10		S		X																	
GP12	14-15'		S		X																	
GP12	17'		W		X																	
GP13	4-6		S		X																	
GP13	8-10		S		X																	
GP13	14-6		S		X																	
GP13	20'		W		X																	
GP13 DUP			W		X																	
GP14 ~~4-6~~	4-6		S		X																	
GP14	16		W		X																	
[illegible]			W		X																	

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature) DATE/TIME

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature) DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

17

TRANSGLOBAL ENVIRONMENTAL GEOCHEMISTRY, INC.

CHAIN-OF-CUSTODY RECORD

CLIENT: ESC M & Associate INC.
ADDRESS:
CITY: STATE: ZIP:
PHONE: FAX: 770-577-9401
CLIENT PROJECT #: Cross Roads PROJECT MANAGER:

DATE: 2-20-98 PAGE 3 OF 3
TEG PROJECT #: [illegible]
LOCATION:
COLLECTOR: DATE OF COLLECTION: 2-20-98

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS						FIELD NOTES	Total Number Of Containers	Laboratory Note Number
GP15	4-6		S			X																					
GP15	8-10		S			X																					
GP15	14-16		S			X																					
GP15	18-20		S			X																					
GP15	24-26		S			X																					
GP16	4-6		S			X																					
GP16	8-10		S			X																					
GP16	14-16		S			X																					
GP16	18-20		S			X																					
GP16	24-26		S			X																					

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		[signature]	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES: 44

Appendix D

Laboratory Data and Chain-of-Custody Documentation

CERTIFICATE OF ANALYSIS

GOLDIE & ASSOCIATES
engineering, environmental and laboratory services

Client: Carpenter Environmental Consulting, Inc
479 Sterling Drive
Powder Springs, GA 30127

Reporting Date: 05/20/1998

Attention: Mirta A. Carpenter

Project: 0326.001.00

Sample location: Cross Road Grocery, Tokeena Crossroads SB8(13.5-15') Date Received: 04/14/1998 17:00

Sample Date: 04/14/1998 13:00 Lab Sample No: 9804-090

Collected By: Client Lab Certification: 04108 & 84002002

Parameter Name	Result		Method Number	Date & Time Analyzed
Acenaphthene	< 170	µg/kg	8270	04/16/1998
Acenaphthylene	< 170	µg/kg	8270	04/16/1998
Anthracene	< 170	µg/kg	8270	04/16/1998
Benzo (a) Anthracene	< 170	µg/kg	8270	04/16/1998
Benzo[a]pyrene	< 170	µg/kg	8270	04/16/1998
Benzo[b]fluoranthene	< 170	µg/kg	8270	04/16/1998
Benzo[ghi]perylene	< 170	µg/kg	8270	04/16/1998
Benzo[k]fluoranthene	< 170	µg/kg	8270	04/16/1998
Chrysene	< 170	µg/kg	8270	04/16/1998
Dibenzo[a,h]anthracene	< 170	µg/kg	8270	04/16/1998
Fluoranthene	< 170	µg/kg	8270	04/16/1998
Fluorene	< 170	µg/kg	8270	04/16/1998
Indeno[1,2,3-cd]pyrene	< 170	µg/kg	8270	04/16/1998
Naphthalene	6130	µg/kg	8260	04/24/1998
Phenanthrene	< 170	µg/kg	8270	04/16/1998
Pyrene	< 170	µg/kg	8270	04/16/1998
Benzene	< 50	µg/kg	8260	04/24/1998
Ethylbenzene	144	µg/kg	8260	04/24/1998
Toluene	< 50	µg/kg	8260	04/24/1998
Xylenes	1570	µg/kg	8260	04/24/1998

Authorized Agent:

210-A W. North Second Street • Seneca, SC 29678 • Phone (864) 882-8194 • FAX (864) 882-0851 • Email: goldieassociates.com

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID
CLIENT NUMBER 326.1
SAMPLE COLLECTION
START DATE & TIME
LAB SAMPLE ID NUMBER 9804-040
COLLECTED BY Client
4/14/98 1300
STOP DATE & TIME
Number Containers 2

Sample Matrix:				Preservative:	Checked By:	Sample Type:		Turnaround	Surcharge
Wastewater	☐	Ground Water	☐	1 - HNO3 4-HCl 7-EDTA	PW	Grab	☒	10-15 Work Days	☒ None
Drinking Water	☐	Soils	☒	2 - H2SO4 5-Na2S2O3 8-Refrigeration		Composite	☐	5 Work Days	☐ Times 2
Other (specify)	☐			3 - NaOH 6-Zinc Acetate				24-48 Hours	☐ Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7					
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / Naph.	X			8+4
Fecal Coliform				8+5	~~TPH~~ PAHs	X			8
Total Coliform				8+5	VOCs				8+4

Relinquished By	Received By	Date/Time
[signature]	[signature]	4/14/98 1700
Relinquished By	Received By	Date/Time

Sample Location/Comments:

MW-8 13.5 - 15'

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CERTIFICATE OF ANALYSIS

GOLDIE & ASSOCIATES
engineering, environmental and laboratory services

Client: Carpenter Environmental Consulting, Inc
479 Sterling Drive
Powder Springs, GA 30127

Reporting Date: 05/20/1998

Attention: Mirta A. Carpenter

Project: 0326.001.00

Sample location: Cross Road Grocery, Tokeena Crossroads MW-8 @ 8-10'

Date Received: 04/14/1998 17:00

Sample Date: 04/14/1998 13:00

Lab Sample No: 9804-089

Collected By: Client

Lab Certification: 04108

Parameter Name	Result		Method Number	Date & Time Analyzed
TPH-3550	280	µg/kg	SW8015B	04/16/1998

Authorized Agent: [signature]

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CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID _____ LAB SAMPLE ID NUMBER 9804-089
CLIENT NUMBER 326.1 COLLECTED BY client
SAMPLE COLLECTION _____ START DATE & TIME 4/14/98 1300 STOP DATE & TIME Number Containers _____

Sample Matrix:		Preservative:	Checked By:	Sample Type:	Turnaround	Surcharge
Wastewater ☐	Ground Water ☐	1 - HNO3 4-HCl 7-EDTA		Grab ☒	10-15 Work Days ☒	None
Drinking Water ☐	Soils ☒	2 - H2SO4 5-Na2S2O3 8-Refrigeration		Composite ☐	5 Work Days ☐	Times 2
Other (specify) ☐		3 - NaOH 6-Zinc Acetate			24-48 Hours ☐	Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7					
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					~~BTEX~~ X				8+4
Fecal Coliform				8+5	~~TPH~~ X				8
Total Coliform				8+5	~~VOCs~~ TPH				8+4

Relinquished By	Received By	Date/Time
[signature]	[signature]	4/14/98 1700
Relinquished By	Received By	Date/Time

Sample Location/Comments:

MW 8 @ 8-10' ~~TOC~~ TPH & grain size

REVIEW BY: ~~@ 13.5-15' BTEX & PAH~~

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CERTIFICATE OF ANALYSIS

GOLDIE & ASSOCIATES

engineering, environmental and laboratory services

Client: Carpenter Environmental Consulting, Inc
479 Sterling Drive
Powder Springs, GA 30127

Reporting Date: 05/01/1998

Attention: Mirta A. Carpenter

Project: 0326.001.00

Sample location:	Cross Road Grocery, Tokeena Crossroads MW-8 @ 8-10'	Date Received:	04/14/1998	17:00	Page 1 of 1
Sample Date:	04/14/1998 13:00	Lab Sample No:	9804-089		
Collected By:	Client	Lab Certification:	04108		

Parameter Name	Result	Method Number	Date & Time Analyzed
grain size/hydrometer	see attached sheet		

Authorized Agent: Rebecca Owen

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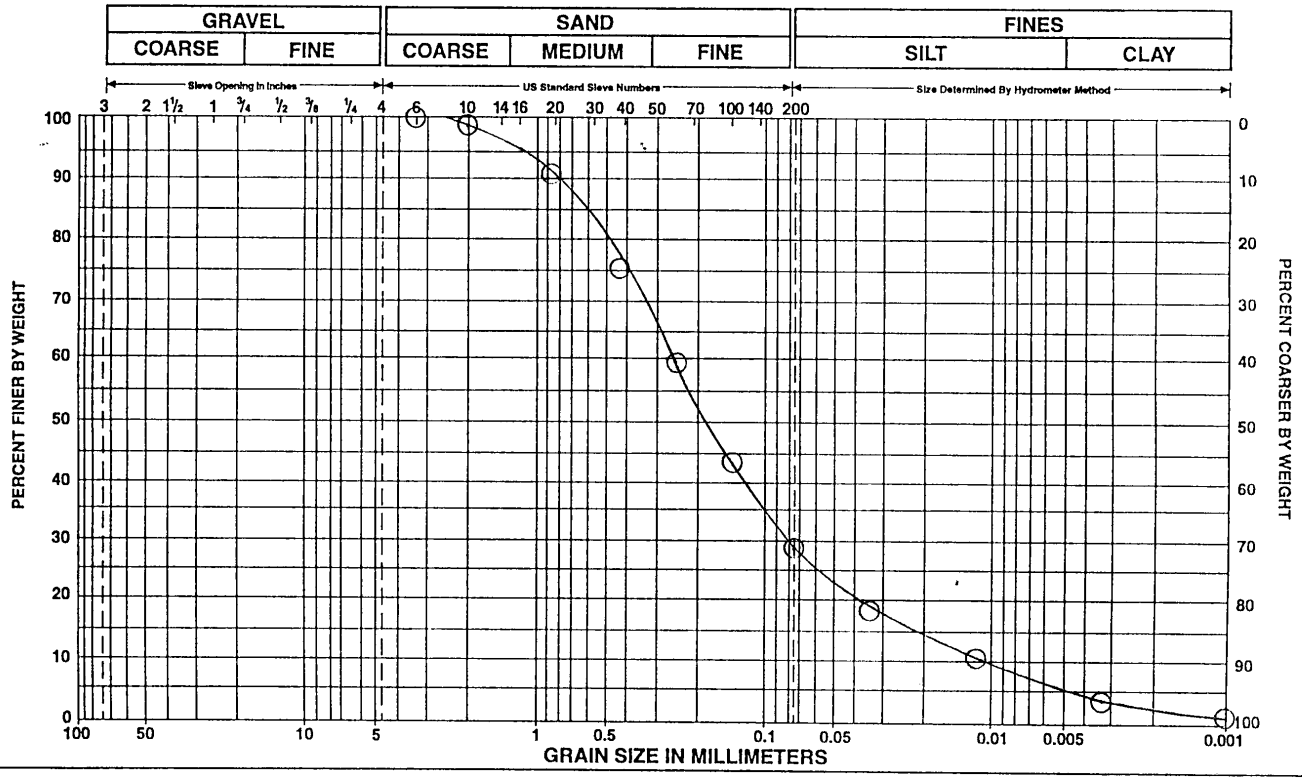
atlanta testing & engineering

GRAIN SIZE DISTRIBUTION TEST REPORT

PROJECT Crossroads Grocery		**JOB NO.** 5057	**REPORT NO.** 67503
DATE 4-30-98	**LOCATION** MW8 (SB8)	**DEPTH/ELEV.** 8-10'	**REVIEWED** KWW
TEST PROCEDURE ASTM D-422		**SAMPLE TYPE** Grab	**SAMPLE NO.** 1
SOIL DESCRIPTION Yellow and Red Micaceous Silty Sand (SM)			

INDEX PROPERTIES	**LL** -	**PI** -	**MC,%** 12.5	**FINES,%** 28.5	G_S 2.81



CERTIFICATE OF ANALYSIS

GOLDIE & ASSOCIATES
engineering, environmental and laboratory services

Client: Carpenter Environmental Consulting, Inc
479 Sterling Drive
Powder Springs, GA 30127

Reporting Date: 05/20/1998

Attention: Mirta A. Carpenter

Project: 0326.001.00

Sample location: Cross Road Grocery, Tokeena Crossroads MW-10: @10'

Date Received: 04/14/1998 17:00

Sample Date: 04/02/1998 12:00

Lab Sample No: 9804-086

Collected By: Client

Lab Certification: 04108 & 98012

Parameter Name	Result		Method Number	Date & Time Analyzed
TOC	7320	mg/kg	415.1	04/21/1998 10:00

Authorized Agent: Wes NO

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CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID
CLIENT NUMBER 326.1
SAMPLE COLLECTION START DATE & TIME
LAB SAMPLE ID NUMBER 9804-086
COLLECTED BY Client
4/2/98 1200 STOP DATE & TIME
Number Containers 1

Sample Matrix: Wastewater ☐ Ground Water ☐ Drinking Water ☐ Soils ☒ Other (specify) ☐

Preservative: 1 - HNO3 4-HCl 7-EDTA 2 - H2SO4 5-Na2S2O3 8-Refrigeration 3 - NaOH 6-Zinc Acetate

Checked By: pw

Sample Type: Grab ☒ Composite ☐

Turnaround: 10-15 Work Days ☒ 5 Work Days ☐ 24-48 Hours ☐

Surcharge: None ☒ Times 2 ☐ Times 3 ☐

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7					
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					~~BTEX~~				8+4
Fecal Coliform				8+5	~~TPH~~				8
Total Coliform				8+5	VOCs				8+4

Relinquished By	Received By	Date/Time 4/14/98 1700
Relinquished By	Received By	Date/Time

Sample Location/Comments:

MW10 @ 10' TOC analysis ONLY

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CERTIFICATE OF ANALYSIS

GOLDIE & ASSOCIATES
engineering, environmental and laboratory services

Client: Carpenter Environmental Consulting, Inc
479 Sterling Drive
Powder Springs, GA 30127

Reporting Date: 05/20/1998

Attention: Mirta A. Carpenter

Project: 0326.001.00

Sample location: Cross Road Grocery, Tokeena Crossroads UST-SB #4

Date Received: 04/14/1998 17:00

Sample Date: 04/14/1998 15:00

Lab Sample No: 9804-087

Collected By: Client

Lab Certification: 04108 & 84002002

Parameter Name	Result			Method Number	Date & Time Analyzed
Acenaphthene	<	170	µg/kg	8270	04/16/1998
Acenaphthylene	<	170	µg/kg	8270	04/16/1998
Anthracene	<	170	µg/kg	8270	04/16/1998
Benzo (a) Anthracene	<	170	µg/kg	8270	04/16/1998
Benzo[a]pyrene	<	170	µg/kg	8270	04/16/1998
Benzo[b]fluoranthene	<	170	µg/kg	8270	04/16/1998
Benzo[ghi]perylene	<	170	µg/kg	8270	04/16/1998
Benzo[k]fluoranthene	<	170	µg/kg	8270	04/16/1998
Chrysene	<	170	µg/kg	8270	04/16/1998
Dibenzo[a,h]anthracene	<	170	µg/kg	8270	04/16/1998
Fluoranthene	<	170	µg/kg	8270	04/16/1998
Fluorene	<	170	µg/kg	8270	04/16/1998
Indeno[1,2,3-cd]pyrene	<	170	µg/kg	8270	04/16/1998
Naphthalene	<	1	µg/kg	8260	04/21/1998
Phenanthrene	<	170	µg/kg	8270	04/16/1998
Pyrene	<	170	µg/kg	8270	04/16/1998
Benzene	<	1	µg/kg	8260	04/21/1998
Ethylbenzene	<	1	µg/kg	8260	04/21/1998
Toluene	<	1	µg/kg	8260	04/21/1998
Xylenes	<	1	µg/kg	8260	04/21/1998

Authorized Agent:

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CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID _____ LAB SAMPLE ID NUMBER 9804-087

CLIENT NUMBER 326.1 COLLECTED BY Client

SAMPLE COLLECTION _____ 4/14/98 1500 Number Containers 2
START DATE & TIME STOP DATE & TIME

Sample Matrix:				Preservative:			Checked By: PW	Sample Type:		Turnaround		Surcharge	
Wastewater	☐	Ground Water	☐	1 - HNO3	4-HCl	7-EDTA		Grab	☒	10-15 Work Days	☒	None	
Drinking Water	☐	Soils	☒	2 - H2SO4	5-Na2S2O3	8-Refrigeration		Composite	☐	5 Work Days	☐	Times 2	
Other (specify)	☐			3 - NaOH	6-Zinc Acetate					24-48 Hours	☐	Times 3	

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7					
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / Naphth.	X			8+4
Fecal Coliform				8+5	PAHs	X			8
Total Coliform				8+5	VOCs				8+4

Relinquished By _____ Received By _____ Date/Time 4/14/98 1700

Relinquished By _____ Received By _____ Date/Time _____

Sample Location/Comments:

UST - SB#4 BTEX & PAH

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CERTIFICATE OF ANALYSIS

GOLDIE & ASSOCIATES
engineering, environmental and laboratory services

Client: Carpenter Environmental Consulting, Inc
479 Sterling Drive
Powder Springs, GA 30127

Reporting Date: 05/20/1998

Attention: Mirta A. Carpenter

Project: 0326.001.00

Sample location: Cross Road Grocery, Tokeena Crossroads L&DSB7(6-8')

Date Received: 04/14/1998 17:00

Sample Date: 04/14/1998 14:00

Lab Sample No: 9804-088

Collected By: Client

Lab Certification: 04108 & 84002002

Parameter Name	Result		Method Number	Date & Time Analyzed
Acenaphthene	< 170	µg/kg	8270	04/16/1998
Acenaphthylene	< 170	µg/kg	8270	04/16/1998
Anthracene	< 170	µg/kg	8270	04/16/1998
Benzo (a) Anthracene	< 170	µg/kg	8270	04/16/1998
Benzo[a]pyrene	< 170	µg/kg	8270	04/16/1998
Benzo[b]fluoranthene	< 170	µg/kg	8270	04/16/1998
Benzo[ghi]perylene	< 170	µg/kg	8270	04/16/1998
Benzo[k]fluoranthene	< 170	µg/kg	8270	04/16/1998
Chrysene	< 170	µg/kg	8270	04/16/1998
Dibenzo[a,h]anthracene	< 170	µg/kg	8270	04/16/1998
Fluoranthene	< 170	µg/kg	8270	04/16/1998
Fluorene	< 170	µg/kg	8270	04/16/1998
Indeno[1,2,3-cd]pyrene	< 170	µg/kg	8270	04/16/1998
Naphthalene	10.9	µg/kg	8260	04/21/1998
Phenanthrene	< 170	µg/kg	8270	04/16/1998
Pyrene	< 170	µg/kg	8270	04/16/1998
Benzene	2.11	µg/kg	8260	04/21/1998
Ethylbenzene	1.9	µg/kg	8260	04/21/1998
Toluene	6.71	µg/kg	8260	04/21/1998
Xylenes	16.8	µg/kg	8260	04/21/1998

Authorized Agent:

210-A W. North Second Street • Seneca, SC 29678 • Phone (864) 882-8194 • FAX (864) 882-0851 • Email: goldieassociates.com

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID _____ LAB SAMPLE ID NUMBER 9804 – 088
CLIENT NUMBER 326.1 COLLECTED BY [illegible]
SAMPLE COLLECTION _____ START DATE & TIME 4/14/98 1100 STOP DATE & TIME Number Containers 2

Sample Matrix:		Preservative:	Checked By:	Sample Type:	Turnaround	Surcharge
Wastewater ☐	Ground Water ☐	1 - HNO3 4-HCl 7-EDTA	DW	Grab ☒	10-15 Work Days	☒ None
Drinking Water ☐	Soils ☒	2 - H2SO4 5-Na2S2O3 8-Refrigeration		Composite ☐	5 Work Days	☐ Times 2
Other (specify) ☐		3 - NaOH 6-Zinc Acetate			24-48 Hours	☐ Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7					
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / Naptl.	X			8+4
Fecal Coliform				8+5	~~TPH~~ PAHs	X			8
Total Coliform				8+5	VOCs				8+4

Relinquished By	Received By	Date/Time
[signature]	Wang Ping	4/14/98 1700
Relinquished By	Received By	Date/Time

Sample Location/Comments:

L D 3B#7 BTEX & PAH 6-8' depth

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CERTIFICATE OF ANALYSIS

GOLDIE & ASSOCIATES
engineering, environmental and laboratory services

Client: Carpenter Environmental Consulting, Inc
479 Sterling Drive
Powder Springs, GA 30127

Reporting Date: 05/20/1998

Attention: Mirta A. Carpenter

Project: 0326.001.00

Sample location: Cross Road Grocery, Tokeena Crossroads L & D SB # 9

Date Received: 04/14/1998 17:00

Sample Date: 04/14/1998 15:30

Lab Sample No: 9804-091

Collected By: Client

Lab Certification: 04108 & 84002002

Parameter Name	Result		Method Number	Date & Time Analyzed
Acenaphthene	< 170	µg/kg	8270	04/16/1998
Acenaphthylene	< 170	µg/kg	8270	04/16/1998
Anthracene	< 170	µg/kg	8270	04/16/1998
Benzo (a) Anthracene	< 170	µg/kg	8270	04/16/1998
Benzo[a]pyrene	< 170	µg/kg	8270	04/16/1998
Benzo[b]fluoranthene	< 170	µg/kg	8270	04/16/1998
Benzo[ghi]perylene	< 170	µg/kg	8270	04/16/1998
Benzo[k]fluoranthene	< 170	µg/kg	8270	04/16/1998
Chrysene	< 170	µg/kg	8270	04/16/1998
Dibenzo[a,h]anthracene	< 170	µg/kg	8270	04/16/1998
Fluoranthene	< 170	µg/kg	8270	04/16/1998
Fluorene	< 170	µg/kg	8270	04/16/1998
Indeno[1,2,3-cd]pyrene	< 170	µg/kg	8270	04/16/1998
Naphthalene	7.31	µg/kg	8260	04/21/1998
Phenanthrene	< 170	µg/kg	8270	04/16/1998
Pyrene	< 170	µg/kg	8270	04/16/1998
Benzene	1.75	µg/kg	8260	04/21/1998
Ethylbenzene	6.06	µg/kg	8260	04/21/1998
Toluene	11.3	µg/kg	8260	04/21/1998
Xylenes	49.8	µg/kg	8260	04/21/1998

Authorized Agent:

210-A W. North Second Street • Seneca, SC 29678 • Phone (864) 882-8194 • FAX (864) 882-0851 • Email: goldieassociates.com

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID
CLIENT NUMBER 326.1
SAMPLE COLLECTION
START DATE & TIME

LAB SAMPLE ID NUMBER 9804-091
COLLECTED BY Client
STOP DATE & TIME 4/14/98 1530
Number Containers 2

Sample Matrix:
Wastewater ☐ Ground Water ☐
Drinking Water ☐ Soils ☒
Other (specify) ☐

Preservative: **Checked By:** PW
1 - HNO3 4-HCl 7-EDTA
2 - H2SO4 5-Na2S2O3 8-Refrigeration
3 - NaOH 6-Zinc Acetate

Sample Type:
Grab ☒
Composite ☐

Turnaround
10-15 Work Days ☒
5 Work Days ☐
24-48 Hours ☐

Surcharge
None ☒
Times 2 ☐
Times 3 ☐

Parameter	Results	Date & time	Init.	Pres.
General Chemistry				
Alkalinity				8
Ammonia				8+2
BOD, 5 day				8
COD				8+2
Chlorine, Total Residual				8
Chloride				8
Cyanide				8+3
Dissolved Oxygen				8
Flash Point				
Formaldehyde				8
Nitrate				8
Nitrite				8
Nitrate/Nitrite				8+2
Nitrogen, Total				8+2
Nitrogen, Total Organic				8+2
Oil & Grease				8+2
Paint Filter Test				
pH				8
Phenols, Total				8+2
Phosphorus, Ortho				8
Phosphorus, Total				8+2
Solids, Total Diss. (TDS)				8
Solids, Total (TS)				8
Solids, Total Susp. (TSS)				8
Specific Conductivity				8
Sulfates				8
Sulfides				8+5+6
Sulfites				8+7
TOC				8+2
TKN				8+2
Turbidity				8
Microbiology				
Fecal Coliform				8+5
Total Coliform				8+5

Parameter	Results	Date & Time	Init.	Pres.
Metals				
Aluminum				1
Antimony				1
Arsenic				1
Barium				1
Beryllium				1
Boron				1
Cadmium				1
Calcium				1
Cesium				1
Chromium				1
Cobalt				1
Copper				1
Iron				1
Lead				1
Magnesium				1
Manganese				1
Mercury				1
Molybdenum				1
Nickel				1
Potassium				1
Selenium				1
Silver				1
Sodium				1
Thallium				1
Tin				1
Vanadium				1
Zinc				1
Organics (Specify Method Where Appropriate)				
Acid Extractables				8
B/N Extractables				8
BTEX / Naphth.	X			8+4
PAHs	X			8
VOCs				8+4

Relinquished By	Received By	Date/Time 4/14/98 1700
Relinquished By	Received By	Date/Time

Sample Location/Comments:

L & D SB#9 BTEX & PAH

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CERTIFICATE OF ANALYSIS

GOLDIE & ASSOCIATES
engineering, environmental and laboratory services

Client: Carpenter Environmental Consulting, Inc
479 Sterling Drive
Powder Springs, GA 30127

Reporting Date: 05/01/1998

Attention: Mirta A. Carpenter

Project: 0326.001.00

Sample location: Cross Road Grocery, Tokeena Crossroads MW-8

Date Received: 04/14/1998 17:00

Sample Date: 04/14/1998 16:00

Lab Sample No: 9804-085

Collected By: Client

Lab Certification: 04108 & 84002002: 98012

Parameter Name	Result		Method Number	Date & Time Analyzed	
Nitrate	1.5	mg/L	9200	04/15/1998	14:30
Sulfate	7	mg/L	375.4	04/23/1998	14:00
Ferrous Iron	< 0.03	MG/L	8146	04/15/1998	9:00
Lead	< 0.05	mg/L	239.1	04/17/1998	9:00

Authorized Agent: Rebecca Owens

210-A W. North Second Street • Seneca, SC 29678 • Phone (864) 882-8194 • FAX (864) 882-0851 • Email: goldieassociates.com

CERTIFICATE OF ANALYSIS

GOLDIE & ASSOCIATES
engineering, environmental and laboratory services

Client: Carpenter Environmental Consulting, Inc
479 Sterling Drive
Powder Springs, GA 30127

Reporting Date: 05/01/1998

Attention: Mirta A. Carpenter

Project: 0326.001.00

Sample location: Cross Road Grocery, Tokeena Crossroads MW-8

Date Received: 04/14/1998 17:00

Sample Date: 04/14/1998 16:00

Lab Sample No: 9804-085

Collected By: Client

Lab Certification: 04108 & 84002002: 98012

Parameter Name	Result		Method Number	Date & Time Analyzed	
Methyl Tertiary Butyl Ether	35500	ug/L	8260	04/23/1998	
Acenaphthene	< 5	ug/L	8270	04/17/1998	
Acenaphthylene	< 5	ug/L	8270	04/17/1998	
Anthracene	< 5	ug/L	8270	04/17/1998	
Benzo (a) Anthracene	< 5	ug/L	8270	04/17/1998	
Benzo[a]pyrene	< 5	ug/L	8270	04/17/1998	
Benzo[b]fluoranthene	< 5	ug/L	8270	04/17/1998	
Benzo[ghi]perylene	< 5	ug/L	8270	04/17/1998	
Benzo[k]fluoranthene	< 5	ug/L	8270	04/17/1998	
Chrysene	< 5	ug/L	8270	04/17/1998	
Dibenzo[a,h]anthracene	< 5	ug/L	8270	04/17/1998	
Fluoranthene	< 5	ug/L	8270	04/17/1998	
Fluorene	< 5	ug/L	8270	04/17/1998	
Indeno[1,2,3-cd]pyrene	< 5	ug/L	8270	04/17/1998	
Naphthalene	188	ug/L	8260	04/23/1998	
Phenanthrene	< 5	ug/L	8270	04/17/1998	
Pyrene	< 5	ug/L	8270	04/17/1998	
1,2,4-Trimethylbenzene	908	ug/L	8260	04/23/1998	
1,2-Dibromoethane(EDB)	1.3	ug/L	8260	04/23/1998	10:00
1,3,5-Trimethylbenzene	256	ug/L	8260	04/23/1998	
Benzene	11000	ug/L	8260	04/23/1998	
Ethylbenzene	722	ug/L	8260	04/23/1998	
Toluene	15900	ug/L	8260	04/23/1998	
Xylenes	6520	ug/L	8260	04/23/1998	

Authorized Agent: Rebecca Jones

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID [illegible]
LAB SAMPLE ID NUMBER 1504 - 085
CLIENT NUMBER [illegible]
COLLECTED BY Client
SAMPLE COLLECTION
START DATE & TIME
4/11/98 1700
STOP DATE & TIME
Number Containers 10

Sample Matrix:		Preservative:	Checked By:	Sample Type:	Turnaround	Surcharge
Wastewater ☐	Ground Water ☒	1 - HNO3 4-HCl 7-EDTA		Grab ☒	10-15 Work Days ☒	None
Drinking Water ☐	Soils ☐	2 - H2SO4 5-Na2S2O3 8-Refrigeration		Composite ☐	5 Work Days ☐	Times 2
Other (specify) ☐		3 - NaOH 6-Zinc Acetate			24-48 Hours ☐	Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7	Fe4				
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / Napth. / MTBE / Trimethylbenzene			X	8+4
Fecal Coliform				8+5	~~TPH~~ PAH'S X				8
Total Coliform				8+5	~~VOCs~~ EDB X				8+4

Relinquished By	Received By	Date/Time
[signature]	[signature]	4/11/98 1700
Relinquished By	Received By	Date/Time

Sample Location/Comments:

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK - LAB

Appendix E

SCDHEC Completed Well Record Forms

6/25/98
Report by
Environmental
Monitoring Corp

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division 2600 Bull Street Columbia, S.C. 29201 (803) 734-5331 **Water Well Record**

1. LOCATION OF WELL

County: Oconee System Name: Crossroads Grocery MW-8

Latitude: Longitude:

Distance And Direction from Road Intersections: 100' due East of S.C. Hwy 24 & S.C. Hwy 59

Street address & City of Well Location

Sketch Map: (See example on back)

2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

Indicate water bearing zones

(use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address Crossroad Grocery Route 2, Box 149, Westminster SC
Telephone No.

Engineer Address EMC P.O. Box 901 Hartwell, GA 30643
Telephone No. 706-376-5000

5. WELL DEPTH (Completed) 45 ft. Date Started: Date Completed: 4/14/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply-Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☑ Test Well ☐

8. CASING: ☑ Threaded ☐ Welded
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 45 ft. depth
in. to ft. depth
Height: Above/Below flush mounted
Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: 0.010" PVC Diam 2"
Slot/Gauze 0.010" Length 20'
Set Between 25 ft. and 45 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL
28.87 ft. below ~~land surface~~ top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. See RBCA Tier III 4/29/98

13. ARTIFICIAL FILTER (~~Gravel~~ Sand Pack) ☑ Yes ☐ No
Installed from 23 ft. to 45 ft.
Effective size uniformity coefficient

14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☑ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.5 ft. to 21 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 1 Feet S Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type monitor well Amount

16. PUMP: Date Installed not installed ☑
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This [illegible] and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME (Kilman Brothers) Environmental Monitoring Corp. ADDRESS P.O. Box 901 [illegible] GA
CERT. NO. [illegible]
Signed [illegible] Date [illegible]
AUTHORIZED REPRESENTATIVE

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | **Water Well Record**

1. LOCATION OF WELL

County: Oconee
System Name: Crossroads Grocery HW-9
Latitude:
Longitude:

Distance And Direction from Road Intersections: 50 due South of S.C. Hwy 59 & S.C. Hwy 24

Street address & City of Well Location

Sketch Map: (See example on back)

2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
*Indicate water bearing zones (use a 2nd sheet if needed)		

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address: Crossroads Grocery, Route 2, Box 149, Westminster, SC
Telephone No.

Engineer: EMC
Address: P.O. Box 901, Hartwell GA 30643
Telephone No. 706-376-5000

5. WELL DEPTH (Completed): 32 ft.
Date Started:
Date Completed: 4/1/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply-Permit No. ______ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☑ Test Well ☐

8. CASING: ☐ Threaded ☐ Welded — flush mounted
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 32 ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ______ ft.
Weight ______ lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze 0.010" Length 15'
Set Between 17 ft. and 32 ft. **NOTE: MULTIPLE SCREENS USE SECOND SHEET**
____ ft. and ____ ft.
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL
23.94 ft. below ~~land surface~~ top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
____ ft. after ____ hrs. pumping ____ G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. See RBCA Tier III 4/29/98

13. ARTIFICIAL FILTER (~~Gravel~~ Sand Pack) ☑ Yes ☐ No
Installed from 15 ft. to 32 ft.
Effective size ______ uniformity coefficient ______

14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☑ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 6.50 ft. to 13 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 130 Feet NE Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type ~~monitor~~ well Amount

16. PUMP: Date Installed ______ not installed ☑
Mfr. name ______ model no. ______
H.P. ____ volts ____ length of drop pipe ____ ft. capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This ... and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME: (Kilman Brothers) Environmental Monitoring Corp.
ADDRESS: P.O. Box 901 [illegible]
CERT. NO.: [illegible]
Signed: [signature] Date: [illegible]
AUTHORIZED REPRESENTATIVE

DHEC [illegible] COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL [illegible]

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | **Water Well Record**

1. LOCATION OF WELL

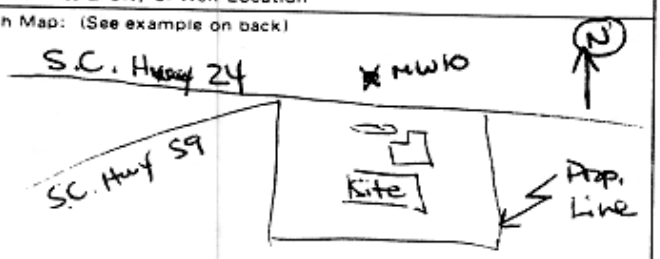
County: Oconee | System Name: Crossroads Grocery MW-10

Latitude: | Longitude:

Distance And Direction from Road Intersections: 160' NE of S.C. Hwys 59 & 24

Street address & City of Well Location:

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

Indicate water bearing zones (use a 2nd sheet if needed)

12. REMARKS

4. OWNER OF WELL: Address: Neil Alexander, Crossroads Grocery, Route 2, Box 1499, Westminster, SC | Telephone No.

Engineer Address: EMC, P.O. Box 901, Hartwell, GA 30643 | Telephone No. 706-376-5000

5. WELL DEPTH (Completed) 42 ft. | Date Started: | Date Completed: 4/2/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☑ Test Well ☐

8. CASING: ☑ Threaded ☐ Welded | Diam. 2" | Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other | 2 in. to 42 ft. depth | ____ in. to ____ ft. depth | Height: Above/Below flush mounted | Surface ____ ft. | Weight ____ lbs./ft. | Drive Shoe? ☐ Yes ☐ No

9. SCREEN: Type: PVC | Diam 2" | Slot/Gauze 0.010" | Length 15' | Set Between 27 ft. and 42 ft. | ____ ft. and ____ ft. | NOTE: MULTIPLE SCREENS USE SECOND SHEET | Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL 29.77 ft. below ~~land surface~~ top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface ____ ft. after ____ hrs. pumping ____ G.P.M. | Pumping Test: ☐ Yes (Please enclose) ☑ No | Yield ____

12. WATER QUALITY: Chemical Analysis ☑ Yes ☐ No | Bacterial Analysis ☐ Yes ☑ No | Please Enclose Lab Results. See RBCA Tier III 4/29/98

13. ARTIFICIAL FILTER (~~Gravel Pack~~) ☐ Yes ☐ No | Installed from 25 Sand ft. to 42 ft. | Effective size ____ uniformity coefficient ____

14. WELL GROUTED? ☑ Yes ☐ No | Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other ☐ ____ | Depth From 0.50 ft. to 23 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 150 Feet S Direction gasoline Type | Well disinfected upon completion ☐ Yes ☑ No | Type Monitor Well | Amount ____

16. PUMP: Date Installed ____ ☑ not installed | Mfr. name ____ model no. ____ | H.P. ____ volts ____ length of drop pipe ____ ft. capacity ____ gpm | TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was constructed and this report is true to the best of my knowledge and belief.

REGISTERED BUSINESS NAME: (Kilgore Brothers) EMC | ADDRESS: P.O. Box 901 | CERT. NO. | Signed: M. A. Campbell | Date: 4/2/98

AUTHORIZED REPRESENTATIVE

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL, ADDRESS ABOVE

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division 2600 Bull Street Columbia, S.C. 29201 (803) 734-5331 **Water Well Record**

1. LOCATION OF WELL

County: Oconee System Name: Crossroads Grocery MW-11

Latitude: Longitude:

Distance And Direction from Road Intersections: 130' SE of S.C. Hwys 59 & 24

Street address & City of Well Location:

Sketch Map: (See example on back)

2. CUTTING SAMPLES ☐ Yes ☒ No

Geophysical Logs ☐ Yes (Please enclose) ☒ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

Indicate water bearing zones (use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL:
Address: Neil Alexander, Crossroads Grocery, Route 2 Box 1490, Westminster, SC
Telephone No.

Engineer
Address: EMC, P.O. Box 901, Hartwell, GA 30643
Telephone No. 706-376-5000

5. WELL DEPTH (Completed) 25 ft. Date Started: Date Completed: 4/1/98

6. ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☒ Test Well ☐

8. CASING ☒ Threaded ☐ Welded
Diam. 2"
Type ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 25 ft. depth
in. to ft. depth
Height: Above/Below Flush mounted
Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze 0.010" Length 15'
Set Between 10 ft. and 25 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☒ No

10. STATIC WATER LEVEL
17.84 ft. below land surface top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☒ No
Yield

12. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please Enclose Lab Results. See RBCA Tier III 4/29/98

13. ARTIFICIAL FILTER (~~Gravel Pack~~) ☒ Yes ☐ No
Installed from 8 ft. to 25 ft. Sand
Effective size uniformity coefficient

14. WELL GROUTED? ☒ Yes ☐ No
Neat Cement ☒ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.50 ft. to 6 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 230 Feet NE Direction
gasoline Type Well disinfected ☐ Yes ☒ No upon completion Type Monitor Well Amount

16. PUMP: Date Installed not installed ☒
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME (Kilman Brothers) EMC ADDRESS Pioneer, SC
Signed M.A. Capps CERT. NO. Date 6/2/98
AUTHORIZED REPRESENTATIVE

DHEC # 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL, ADDRESS ABOVE

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | Water Well Record

1. LOCATION OF WELL

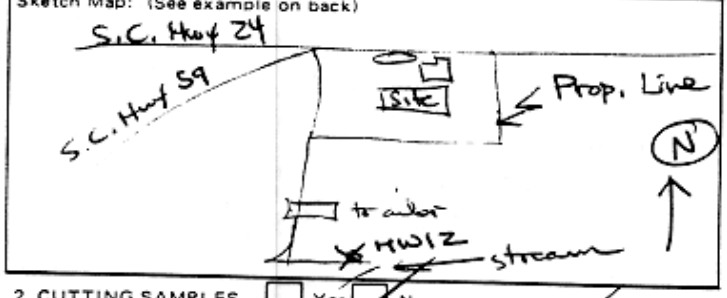
County: Oconee | System Name: Crossroads Grocery MW-12 D

Latitude: | Longitude:

Distance And Direction from Road Intersections: 600' SE of S.C. Hwys 59 & 24

Street address & City of Well Location:

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

Indicate water bearing zones (use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL:
Address: Neil Alexander, Crossroads Grocery, Route 3 Box 149, Westminster, SC
Telephone No.:

Engineer
Address: EMC, P.O. Box 901, Hartwell, GA 30643
Telephone No.: 706-376-5000

5. WELL DEPTH (Completed) 12 ft. Date Started: Date Completed: 3/31/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE:
☐ Domestic ☐ Public Supply Permit No. ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☑ Test Well ☐

8. CASING ☑ Threaded ☐ Welded
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 12 ft. depth
in. to ft. depth
Height: Above/Below flush mounted
Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze 0.010" Length 5'
Set Between 7 ft. and 12 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL
6.97 ft. below ~~land surface~~ top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. See RBCA Tier III (4/29/98)

13. ARTIFICIAL FILTER (Gravel Pack) ☑ Yes ☐ No
Installed from 5 (Sand) ft. to 12 ft.
Effective size uniformity coefficient

14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.5 ft. to 3 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 580 Feet NNW Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type Monitor Well Amount

16. PUMP: Date Installed not installed ☑
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION. This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME (Kilman Brothers) EMC ADDRESS
Signed AUTHORIZED REPRESENTATIVE CERT. NO. Date

DHEC [illegible] COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL, [illegible]

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division 2600 Bull Street Columbia, S.C. 29201 (803) 734-5331 **Water Well Record**

1. LOCATION OF WELL

County: Oconee System Name: Crossroads Grocery MW-13

Latitude: Longitude:

Distance And Direction from Road Intersections: 350' SE of S.C. Hwys 59 & 24

Street address & City of Well Location

Sketch Map: (See example on back)

2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

Indicate water bearing zones

(use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL:
Address: Neil Alexander, Crossroads Grocery, Route 2, Box 149, Westminster, SC
Telephone No.

Engineer
Address: EMC, P.O. Box 901, Hartwell, GA 30643
Telephone No. 706-376-5000

5. WELL DEPTH (Completed) 20 ft. Date Started: Date Completed: 3/31/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☑ Test Well ☐

8. CASING ☑ Threaded ☐ Welded
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 20 ft. depth
in. to ft. depth
Height: Above/Below: Flush mounted
Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam 2"
Slot/Gauze 0.010" Length 10'
Set Between 10 ft. and 20 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL 10.89 ft. below ~~land surface~~ top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. See RBCA Tier III (4/29/98)

13. ARTIFICIAL FILTER (~~Gravel Pack~~ Sand) ☑ Yes ☐ No
Installed from 8 ft. to 20 ft.
Effective size uniformity coefficient

14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☑ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.50 ft. to 6 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 330 Feet NNW Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type Monitor Well Amount

16. PUMP: Date Installed not installed ☑
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my supervision and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME (Kilman Brothers) EMC ADDRESS P.O. Box 901 Hartwell, GA
CERT. NO.
Signed AUTHORIZED REPRESENTATIVE Date

DHEC # 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division 2600 Bull Street Columbia, S.C. 29201 (803) 734-5331 **Water Well Record**

1. LOCATION OF WELL

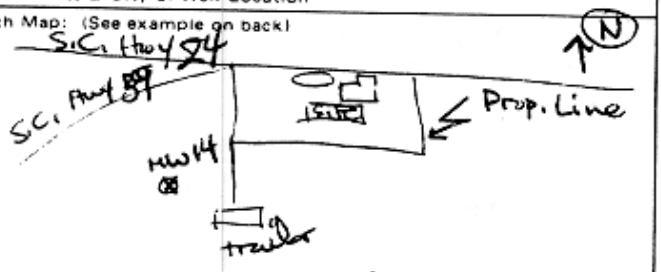
County: Oconee System Name: Crossroads Grocery MW-14

Latitude: Longitude:

Distance And Direction from Road Intersections: 340' SE of S.C. Hwys 59 & 24

Street address & City of Well Location

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

* Indicate water bearing zones

(use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL: Neil Alexander
Address: Crossroads Grocery, Route 2, Box 149, Westminster, SC
Telephone No.

Engineer
Address: EMC P.O. Box 901, Hartwell, GA
Telephone No. 706-376-5000

5. WELL DEPTH (Completed) 23 ft. Date Started: Date Completed: 4/2/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☑ Test Well ☐

8. CASING ☑ Threaded ☐ Welded
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 23 ft. depth
in. to ft. depth

Flush mounted
Height: Above/Below Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam 2"
Slot/Gauze 0.010" Length 15'
Set Between 8 ft. and 23 ft. NOTE: MULTIPLE SCREENS USE SECOND SHEET
ft. and ft.
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL 11.99 ft. below ~~land surface~~ top of casing after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. (See RBCA Tier III - 4/29/98)

13. ARTIFICIAL FILTER (~~Gravel~~ Pack) ☑ Yes ☐ No
Installed from 6 Sand ft. to 23 ft.
Effective size uniformity coefficient

14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.50 ft. to 4 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 320 Feet NNE Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type Monitor Well Amount

16. PUMP: Date Installed not installed ☑
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME (Kilman Brothers) EMC ADDRESS P.O. Box 901, Hartwell, GA
Signed AUTHORIZED REPRESENTATIVE CERT. NO. Date 4/2/98

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL, ADDRESS ABOVE

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division | 2600 Bull Street | Columbia, S.C. 29201 | (803) 734-5331 | Water Well Record

1. LOCATION OF WELL

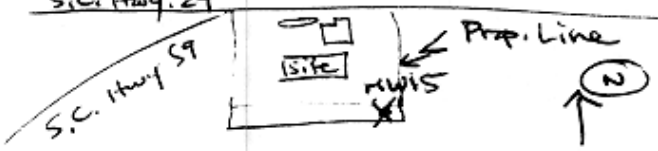
County: Oconee | System Name: Crossroads Grocery MW-15

Latitude: | Longitude:

Distance And Direction from Road Intersections: 410' SE of S.C. Hwys 59 & 24

Street address & City of Well Location:

Sketch Map: (See example on back)



2. CUTTING SAMPLES ☐ Yes ☑ No

Geophysical Logs ☐ Yes (Please enclose) ☑ No

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM

Indicate water bearing zones

(use a 2nd sheet if needed)

3. REMARKS

4. OWNER OF WELL:
Address: Neil Alexander, Crossroads Grocery, Route 2, Box 149J, Westminster, SC
Telephone No.:

Engineer
Address: EMC, P.O. Box 901, Hartwell GA
Telephone No. 706-376-5000

5. WELL DEPTH (Completed) 35 ft. | Date Started: | Date Completed: 4/2/98

6. ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE:
☐ Domestic ☐ Public Supply Permit No. ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☑ Test Well ☐

8. CASING ☐ Threaded ☐ Welded
Diam. 2"
Type ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 35 ft. depth
in. to ft. depth
Height: Above/Below: flush mounted
Surface ft.
Weight lbs./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN:
Type: PVC Diam. 2"
Slot/Gauze 0.010" Length 15'
Set Between 20 ft. and 35 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (Please enclose) ☑ No

10. STATIC WATER LEVEL top of casing
23.65 ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface
ft. after hrs. pumping G.P.M.
Pumping Test: ☐ Yes (Please enclose) ☑ No
Yield

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No Bacterial Analysis ☐ Yes ☑ No
Please Enclose Lab Results. See RBBA Tier III (4/29/98)

13. ARTIFICIAL FILTER (~~Gravel~~ Pack) ☑ Yes ☐ No
Installed from 18 Sand ft. to 35 ft.
Effective size uniformity coefficient

14. WELL GROUTED? ☑ Yes ☐ No
Neat Cement ☑ Sand Cement ☐ Concrete ☐ Other ☐
Depth From 0.50 ft. to 16 ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 200 Feet NW Direction
gasoline Type Well disinfected upon completion ☐ Yes ☑ No Type Monitor Well Amount

16. PUMP: Date Installed not installed ☑
Mfr. name model no.
H.P. volts length of drop pipe ft. capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
REGISTERED BUSINESS NAME (Kilman Brothers) EMC ADDRESS
Signed CERT. NO. Date
AUTHORIZED REPRESENTATIVE

DHEC # 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Appendix F

Field Data Information Sheets of Ground Water Sampling

Field Data Information Sheet for Ground Water Sampling for MW-2

Date (mm/dd/yy) 4/2/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Mild and Sunny
Ambient Air Temperature ≈ 75°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612
Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Conductivity Meter:
serial no.# 9612

Chain of Custody:
(refer to Appendix D)

Well # MW-2

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft^2
Total Well Depth (TWD) 30 feet
Depth to GW (DGW) 26.98 feet

Length of Water Column (LWC=TWD-DGW) 3.02 feet

1 Csg. Volume (LWC x C) = 3.02 ft x 0.022 ft^2 = 0.066 ft^3
1 Csg. Volume = 0.066 ft^3 x 7.48 gal/ft^3 = 0.49 gallons
3 Csg. Volume = 3 x 0.49 gals. = 1.48 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 0.25 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	500 mL	40 ± 20 mL	40 ± 20 mL	40 ± 20 mL				1/4 gal
Time (military)	11:30	11:50	12:15	12:40				12:40
pH(s.u.)	8.23	7.31	7.07	7.40				7.40
Specific Cond. (umhos/cm)	3.21 x 100	3.14 x 100	3.14 x 100	3.26 x 100				3.26 x 100
Water Temp (°F)	72.5	72.9	72.8	73.1				73.1
Turbidity (*)	2	2	2	2				2

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks: This well is usually dry and very difficult to sample due to slow recharge and little groundwater available in well. All required constituents were analyzed except PAH.

Field Data Information Sheet for Ground Water Sampling for MW-3

Date (mm/dd/yy) 4/2/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Mild and Sunny
Ambient Air Temperature ≈ 75°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612

Conductivity Meter:
serial no.# 9612

Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Chain of Custody:
(refer to Appendix D)

Well # MW-3

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft²
Total Well Depth (TWD) 30 feet
Depth to GW (DGW) 27.30 feet

Length of Water Column (LWC=TWD-DGW) 2.7 feet

1 Csg. Volume (LWC x C) = 2.7 ft x 0.022 ft² = 0.060 ft³
1 Csg. Volume = 0.060 ft³ x 7.48 gal/ft³ = 0.44 gallons
3 Csg. Volume = 3 x 0.44 gals. = 1.32 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 0.63 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	0.25 gal	40 ± 20 mL	40 ± 20 mL	40 ± 20 mL				0.63 gal
Time (military)	9:00	9:30	9:50	11:00				11:00
pH(s.u.)	8.12	8.11	8.03	8.03				8.03
Specific Cond. (umhos/cm)	3.34 x 100	3.36 x 100	3.39 x 100	3.43 x 100				3.43 x 100
Water Temp (°F)	66.7	66.8	69.1	69.1				69.1
Turbidity (*)	2	2	2	2				2

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks: This well is usually dry and very difficult to sample due to slow recharge and little groundwater available in well. All required constituents were analyzed except PAH.

Field Data Information Sheet for Ground Water Sampling for MW-4

Date (mm/dd/yy) 4/2/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Warm and Sunny
Ambient Air Temperature ≈ 80°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612
Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Conductivity Meter:
serial no.# 9612

Chain of Custody:
(refer to Appendix D)

Well # MW-4

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft²
Total Well Depth (TWD) 25 feet
Depth to GW (DGW) 21.45 feet

Length of Water Column (LWC=TWD-DGW) 3.55 feet

1 Csg. Volume (LWC x C) = 3.55 ft x 0.022 ft² = 0.077 ft³
1 Csg. Volume = 0.077 ft³ x 7.48 gal/ft³ = 0.58 gallons
3 Csg. Volume = 3 x 0.58 gals. = 1.73 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 2.5 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	0.5 gals	0.5 gals	0.5 gals	1.0 gal				2.5 gals
Time (military)	13:00	13:30	13:55	14:15				14:15
pH(s.u.)	7.26	7.29	7.29	7.10				7.10
Specific Cond. (umhos/cm)	3.51 x 10	3.40 x 10	3.38 x 10	3.37 x 10				3.37 x 10
Water Temp (°F)	73.4	69.4	69.4	69.7				69.7
Turbidity (*)	3	3	2	2				2
* subjective (1) None (2) Faint (3) Moderate (4) Strong								
Remarks:								

Field Data Information Sheet for Ground Water Sampling for MW-5

Date (mm/dd/yy) 4/1/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Mild and Sunny
Ambient Air Temperature ≈ 82°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612
Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Conductivity Meter:
serial no.# 9612

Chain of Custody:
(refer to Appendix D)

Well # MW-5

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft²
Total Well Depth (TWD) 20 feet
Depth to GW (DGW) 12.40 feet

Length of Water Column (LWC=TWD-DGW) 7.6 feet

1 Csg. Volume (LWC x C) = 7.6 ft x 0.022 ft² = 0.17 ft³
1 Csg. Volume = 0.17 ft³ x 7.48 gal/ft³ = 1.24 gallons
3 Csg. Volume = 3 x 1.24 gals. = 3.72 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 5.0 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	2.0 gals	1.0 gal	1.0 gal	1.0 gal				5.0 gals
Time (military)	13:00	14:00	14:25	14:45				14:45
pH(s.u.)	5.40	6.15	5.77	5.90				5.90
Specific Cond. (umhos/cm)	3.40 x 10	3.40 x 10	3.23 x 10	3.22 x 10				3.22 x 10
Water Temp (°F)	67.5	67.4	67.7	65.1				65.1
Turbidity (*)	3	3	2	2				2
* subjective (1) None (2) Faint (3) Moderate (4) Strong								
Remarks:								

Field Data Information Sheet for Ground Water Sampling for MW-6

Date (mm/dd/yy) 4/2/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Warm and Sunny
Ambient Air Temperature ≈ 85°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612
Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Conductivity Meter:
serial no.# 9612

Chain of Custody:
(refer to Appendix D)

Well # MW-6

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft²
Total Well Depth (TWD) 35 feet
Depth to GW (DGW) 23.25 feet

Length of Water Column (LWC=TWD-DGW) 11.75 feet

1 Csg. Volume (LWC x C) = 11.75 ft x 0.022 ft² = 0.26 ft³
1 Csg. Volume = 0.26 ft³ x 7.48 gal/ft³ = 1.92 gallons
3 Csg. Volume = 3 x 1.92 gals. = 5.75 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 8.50 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	1.0 gal	1.5 gal	2.0 gal	2.0 gal	2.0 gal			8.50 gals
Time (military)	15:00	15:20	15:45	15:55	16:05			16:05
pH(s.u.)	6.67	6.88	6.70	6.37	6.36			6.36
Specific Cond. (umhos/cm)	3.50 x 10	3.23 x 10	2.85 x 10	2.86 x 10	2.86 x 10			2.86 x 10
Water Temp (°F)	74.3	68.8	68.1	66.9	66.4			66.4
Turbidity (*)	2	2	2	2	2			2
* subjective (1) None (2) Faint (3) Moderate (4) Strong								
Remarks:								

Field Data Information Sheet for Ground Water Sampling for MW-7

Date (mm/dd/yy) 4/2/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Warm and Sunny
Ambient Air Temperature ≈ 85°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612
Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Conductivity Meter:
serial no.# 9612

Chain of Custody:
(refer to Appendix D)

Well # MW-7

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft^2
Total Well Depth (TWD) 39 feet
Depth to GW (DGW) 27.06 feet

Length of Water Column (LWC=TWD-DGW) 11.94 feet

1 Csg. Volume (LWC x C) = 11.94 ft x 0.022 ft^2 = 0.26 ft^3
1 Csg. Volume = 0.26 ft^3 x 7.48 gal/ft^3 = 1.95 gallons
3 Csg. Volume = 3 x 1.95 gals. = 5.85 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 6.0 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	2.0 gals	2.0 gals	2.0 gals					6.0 gals
Time (military)	16:10	16:25	16:40					16:40
pH(s.u.)	6.24	6.22	5.90					5.90
Specific Cond. (umhos/cm)	3.23 x 10	2.75 x 10	2.77 x 10					2.77 x 10
Water Temp (°F)	69.3	71.3	71.0					71.0
Turbidity (*)	2	2	2					2

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks:

Field Data Information Sheet for Ground Water Sampling for MW-8

Date (mm/dd/yy) 4/14/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Warm and Sunny
Ambient Air Temperature ≈ 87°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612

Conductivity Meter:
serial no.# 9612

Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Chain of Custody:
(refer to Appendix D)

Well # MW-8

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft²
Total Well Depth (TWD) 45 feet
Depth to GW (DGW) 28.87 feet

Length of Water Column (LWC=TWD-DGW) 16.13 feet

1 Csg. Volume (LWC x C) = 16.13 ft x 0.022 ft² = 0.35 ft³
1 Csg. Volume = 0.35 ft³ x 7.48 gal/ft³ = 2.63 gallons
3 Csg. Volume = 3 x 2.63 gals. = 7.90 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 8.0 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	3.0 gals	2.5 gals	2.5 gals					8.0 gals
Time (military)	15:35	15:55	16:15					16:15
pH(s.u.)	8.60	8.65	8.63					8.63
Specific Cond. (umhos/cm)	5.23 x 100	5.00 x 100	4.95 x 100					4.95 x 100
Water Temp (°F)	62.0	62.0	62.2					62.2
Turbidity (*)	2	2	2					2
* subjective (1) None (2) Faint (3) Moderate (4) Strong								
Remarks:								

Field Data Information Sheet for Ground Water Sampling for MW-9

Date (mm/dd/yy) 4/1/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Cool and Sunny
Ambient Air Temperature ≈ 65°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612
Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Conductivity Meter:
serial no.# 9612

Chain of Custody:
(refer to Appendix D)

Well # MW-9

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft²
Total Well Depth (TWD) 32 feet
Depth to GW (DGW) 23.94 feet

Length of Water Column (LWC=TWD-DGW) 8.06 feet

1 Csg. Volume (LWC x C) = 8.06 ft x 0.022 ft² = 0.18 ft³
1 Csg. Volume = 0.18 ft³ x 7.48 gal/ft³ = 1.32 gallons
3 Csg. Volume = 3 x 1.32 gals. = 3.95 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 4.10 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	1.33 gals	1.25 gals	1.5 gals					4.10 gals
Time (military)	18:00	18:15	18:30					18:30
pH(s.u.)	8.90	8.38	8.18					8.18
Specific Cond. (umhos/cm)	5.64 x 100	4.99 x 100	4.55 x 100					4.55 x 100
Water Temp (°F)	63.4	61.7	62.7					62.7
Turbidity (*)	3	3	2					2
* subjective (1) None (2) Faint (3) Moderate (4) Strong								
Remarks:								

Field Data Information Sheet for Ground Water Sampling for MW-10

Date (mm/dd/yy) 4/2/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Warm and Sunny
Ambient Air Temperature ≈ 85°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:
pH Meter:
serial no. # 9612
Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Conductivity Meter:
serial no.# 9612

Chain of Custody:
(refer to Appendix D)

Well # MW-10

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft²
Total Well Depth (TWD) 42 feet
Depth to GW (DGW) 29.77 feet

Length of Water Column (LWC=TWD-DGW) 12.23 feet

1 Csg. Volume (LWC x C) = 12.23 ft x 0.022 ft² = 0.27 ft³
1 Csg. Volume = 0.27 ft³ x 7.48 gal/ft³ = 2.00 gallons
3 Csg. Volume = 3 x 2.00 gals. = 6.00 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 6.5 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	0.5 gal	2.0 gals	2.0 gals	2.0 gals				6.5 gals
Time (military)	17:00	17:10	17:20	17:30				17:30
pH(s.u.)	5.7	6.05	6.29	6.24				6.24
Specific Cond. (umhos/cm)	3.24 x 100	3.20 x 100	3.17 x 100	3.17 x 100				3.26 x 100
Water Temp (°F)	70.5	70.2	70.0	69.4				73.1
Turbidity (*)	2	2	2	2				2

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks:

Field Data Information Sheet for Ground Water Sampling for MW-11

Date (mm/dd/yy) 4/1/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Cool Evening
Ambient Air Temperature ≈ 65°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612
Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Conductivity Meter:
serial no.# 9612

Chain of Custody:
(refer to Appendix D)

Well # MW-11

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft²
Total Well Depth (TWD) 25 feet
Depth to GW (DGW) 17.84 feet

Length of Water Column (LWC=TWD-DGW) 7.16 feet

1 Csg. Volume (LWC x C) = 7.16 ft x 0.022 ft² = 0.16 ft³
1 Csg. Volume = 0.16 ft³ x 7.48 gal/ft³ = 1.17 gallons
3 Csg. Volume = 3 x 1.17 gals. = 3.51 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 4.5 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	1.0 gal	1.0 gal	2.5 gals					4.5 gals
Time (military)	19:30	19:35	19:50					19:50
pH(s.u.)	8.70	8.75	8.50					8.50
Specific Cond. (umhos/cm)	5.30 x 100	3.69 x 100	3.51 x 100					3.51 x 100
Water Temp (°F)	63.0	63.1	62.4					62.4
Turbidity (*)	3	3	2					2
* subjective (1) None (2) Faint (3) Moderate (4) Strong								
Remarks:								

Field Data Information Sheet for Ground Water Sampling for MW-12

Date (mm/dd/yy) 4/1/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Mild and Sunny
Ambient Air Temperature ≈ 80°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612
Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Conductivity Meter:
serial no.# 9612

Chain of Custody:
(refer to Appendix D)

Well # MW-12

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft^2
Total Well Depth (TWD) 12 feet
Depth to GW (DGW) 6.97 feet

Length of Water Column (LWC=TWD-DGW) 5.03 feet

1 Csg. Volume (LWC x C) = 5.03 ft x 0.022 ft^2 = 0.11 ft^3
1 Csg. Volume = 0.11 ft^3 x 7.48 gal/ft^3 = 0.82 gallons
3 Csg. Volume = 3 x 0.82 gals. = 2.46 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 4.0 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	1.0 gal	1.0 gal	1.0 gal	1.0 gal				1.0 gal
Time (military)	16:00	16:15	16:20	16:35				16:35
pH(s.u.)	10.87	11.02	10.24	10.60				10.60
Specific Cond. (umhos/cm)	5.83 x 100	8.87 x 100	8.73 x 100	7.88 x 100				7.88 x 100
Water Temp (°F)	66.1	61.4	61.4	60.8				60.8
Turbidity (*)	2	2	2	2				2
* subjective (1) None (2) Faint (3) Moderate (4) Strong								
Remarks:								

Field Data Information Sheet for Ground Water Sampling for MW-13

Date (mm/dd/yy) 4/1/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Cool Evening
Ambient Air Temperature ≈ 65°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612

Conductivity Meter:
serial no.# 9612

Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Chain of Custody:
(refer to Appendix D)

Well # MW-13

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft²
Total Well Depth (TWD) 20 feet
Depth to GW (DGW) 10.89 feet

Length of Water Column (LWC=TWD-DGW) 9.11 feet

1 Csg. Volume (LWC x C) = 9.11 ft x 0.022 ft² = 0.20 ft³
1 Csg. Volume = 0.20 ft³ x 7.48 gal/ft³ = 1.49 gallons
3 Csg. Volume = 3 x 1.49 gals. = 4.46 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 4.5 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	1.5 gal	1.5 gal	1.5 gal					4.5 gals
Time (military)	20:30	20:50	21:15					21:15
pH(s.u.)	8.77	7.77	7.41					7.41
Specific Cond. (umhos/cm)	3.54 x 100	2.92 x 100	2.84 x 100					2.84 x 100
Water Temp (°F)	57.6	56.9	56.6					56.6
Turbidity (*)	3	2	2					2
* subjective (1) None (2) Faint (3) Moderate (4) Strong								
Remarks:								

Field Data Information Sheet for Ground Water Sampling for MW-14

Date (mm/dd/yy) 4/2/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Warm and Sunny
Ambient Air Temperature ≈ 82°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612
Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Conductivity Meter:
serial no.# 9612

Chain of Custody:
(refer to Appendix D)

Well # MW-14

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft²
Total Well Depth (TWD) 23 feet
Depth to GW (DGW) 11.99 feet

Length of Water Column (LWC=TWD-DGW) 11.01 feet

1 Csg. Volume (LWC x C) = 11.01 ft x 0.022 ft² = 0.24 ft³
1 Csg. Volume = 0.24 ft³ x 7.48 gal/ft³ = 1.80 gallons
3 Csg. Volume = 3 x 1.80 gals. = 5.40 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 7.5 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	1.5 gals	2.0 gals	2.0 gals	2.0 gals				7.5 gals
Time (military)	17:45	17:55	18:00	18:15				18:15
pH(s.u.)	7.24	8.16	8.86	9.10				9.10
Specific Cond. (umhos/cm)	5.44 x 100	4.49 x 100	3.75 x 100	3.44 x 100				3.44 x 100
Water Temp (°F)	69.0	65.5	64.8	64.3				64.3
Turbidity (*)	3	3	2	2				2
* subjective (1) None (2) Faint (3) Moderate (4) Strong								
Remarks:								

Field Data Information Sheet for Ground Water Sampling for MW-15

Date (mm/dd/yy) 4/14/98
Field Personnel Mirta A. Carpenter and J. Britt Myers
General Weather Conditions Warm and Sunny
Ambient Air Temperature ≈ 87°F

Facility Name Crossroads Crocery
Site ID# # 06742

Quality Assurance:

pH Meter:
serial no. # 9612

Conductivity Meter:
serial no.# 9612

Ph/Temp/Conductivity Meter:
Beta Tech, Inc.
Cambridge, MA 21613
Pine Environmental Services
Rental # 00280

Chain of Custody:
(refer to Appendix D)

Well # MW-15

Well Casing Diameter (D) 2 inch or 0.167 feet
Conversion Factor (C): $\pi \times (D/2)^2 = 0.022$ ft²
Total Well Depth (TWD) 35 feet
Depth to GW (DGW) 23.65 feet

Length of Water Column (LWC=TWD-DGW) 11.35 feet

1 Csg. Volume (LWC x C) = 11.35 ft x 0.022 ft² = 0.25 ft³
1 Csg. Volume = 0.25 ft³ x 7.48 gal/ft³ = 1.85 gallons
3 Csg. Volume = 3 x 1.85 gals. = 5.56 gallons (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 7.8 gallons

Well Test Procedures and data:	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)	3.8 gals	2.0 gals	2.0 gals					7.8 gals
Time (military)	15:00	15:15	15:30					15:30
pH(s.u.)	7.50	7.40	7.20					7.40
Specific Cond. (umhos/cm)	5.44 x 10	6.02 x 10	5.98 x 10					5.98 x 10
Water Temp (°F)	64.2	64.2	64.2					64.2
Turbidity (*)	2	2	2					2
* subjective (1) None (2) Faint (3) Moderate (4) Strong								
Remarks:								

Appendix G

Supplemental Laboratory Journal Article

RECEIVED
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DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

CORRECTIVE ACTION PLAN

of

Cross Roads Grocery
Site #06742
850 West Oak Highway
Oconee County, South Carolina

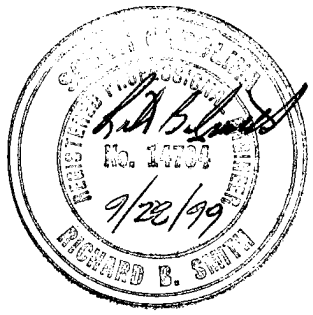
September 28, 1999

Prepared for:

South Carolina Department of Health and Environmental Control
Underground Storage Tank Division
2600 Bull Street
Columbia, South Carolina 29201

Prepared by:

Smith Monitoring & Maintenance Engineering, Inc.
145 Merrill Avenue
Decatur, Georgia 30030
(404) 371-9332
SC COA Number: C01435



777 tech

Introduction

The following Corrective Action Plan provides a summary of the efforts proposed to reduce the chemicals of concern (CoC) impacting DHEC Site Number 06742 to or below the Site Specific Target Levels (SSTL) and to reduce the floating hydrocarbon in MW-4 and MW-8 to a thickness less than 0.01 feet, as stipulated in the solicitation bid number SB-6672-07/29/99-REB.

Technologies

Product Recovery

SMME proposes the use of vacuum-enhanced, total fluids recovery from MW-4 and MW-8. Estimates of floating hydrocarbons range from 700 to 2,000 gallons, based on the assessment conducted by Environmental Monitoring Corporation.

A 3,500 gallon vacuum-truck will be used to with-draw mixed water and product from the monitoring wells. We currently anticipate that one trip will reduce product thickness to a fraction of an inch. Complete reduction of the product layer will then be accomplished biologically during the Phoster treatment.

CoC Reduction

The technology to be used in the reduction of the chemicals of concern will be the PHOSter II™ technology as adapted by Freeman & Vaughn Engineering, Inc. PHOSter II™ is a patented bio-stimulation process that delivers a measured and predetermined combination of phosphorous, nitrogen and oxygen to VOC and/or semi-VOC contaminated soil and groundwater. The volume and mixture of gaseous nutrient, flow rate, pressure and frequency of the pulsed injections are determined by the types and volumes of contaminants of concern. Calculations are also based on site conditions such as soil types, groundwater flow rates, dissolved oxygen in the groundwater, base line nutrient levels and microbial plate counts. A Safety Evaluation of the PHOSter II™ technology has been made by the State Toxicologist, Dr. John F. Brown, DVM. A memo to this effect is provided as an attachment to this report.

The gas injection volumes and rates are far below the levels that could induce air sparging. Because nutrients are injected in a mixture of air, the terms "bioventing" (defined as "air slowly injected into the unsaturated soils") and "biosparging" (defined as "air and specific gases injected into saturated sediments"), may be applied to the PHOSter II™ process. Injection points are sealed against air, gases or vaporized contaminates venting to the atmosphere.

Injection of gaseous nutrients into soil and groundwater can be administered through vertical or horizontal air injection wells or may incorporate existing monitoring wells through specifically fitted ports in the well heads.

The basic PHOSter II™ units are self-contained and housed in a covered metal trailer with lockable entry doors. The standard unit conforms to all DOT standards for size

and weight and are towed by a full size pickup truck or utility vehicle. Once mobilized to the site, the unit will be connected to a 220-volt single phase electrical supply, provided by Blue Ridge Power Co-operative. The poles and meters will be sited with approval from DHEC and the site owner. The proposed trailer and pole locations are shown in Figure 4. The process unit is also equipped with a modem to allow off site monitoring of the system's PLC. The unit will be equipped to inject through twelve separate injection ports.

During operation of the treatment unit, SMME will conduct confirmatory testing to determine the increase in heterotrophic bacteria and decrease in Chemical Oxygen Demand. Other tests to be conducted during remediation will include, DO concentration and rate of utilization, pH change and initial and quarterly analysis to quantify the reduction of CoC, as required by DHEC.

Construction

Figure 4 depicts the location of the proposed injection wells, trailer locations and proposed power/telephone pole locations for the three injection scenarios. Table 1 provides the property owner's name, address and telephone number (if available) for those properties impacted during the construction.

The total number of injection wells proposed for this effort is 14.

Figure 5 is provided as a typical injection point. Injection tubing will consist of ½" nominal diameter PEX piping. This material has shown good chemical resistance and has sufficient wall thickness to withstand shallow burial. Injection tubing will be buried from the trailer to the injection well head (unless requested otherwise by the property owner).

Remediation Schedule

The site specific design is provided as an appendix to this plan. In it, SMME has anticipated the treatment time in a typical treatment zone to be 175 days. Using this information and assuming that remediation could require up to twice the time calculated, SMME has anticipated the schedule proposed in Table 2. Assuming we are awarded a construction permit by November 14, we should begin remediation not later than December 7. Completion of treatment is expected to be by December of 2000. Well abandonment, power and telephone service disconnection and pole removal should occur within 30 days of the final site assessment or by May of 2001.

Monitoring Proposal

Site monitoring for system effectiveness and progress determination will consist of heterotrophic plate count and Chemical Oxygen Demand (COD) of two wells in the treatment area. These samples will be recovered monthly and will be used as evidence of the remediation progress.

Site monitoring for the chemicals of concern (CoC) will be as dictated in the solicitation SB-6672 and will consist of initial and quarterly monitoring of those identified in Table 3. BTEX, MTBE and Naphthalene will be analyzed using EPA Method 8260 or EPA

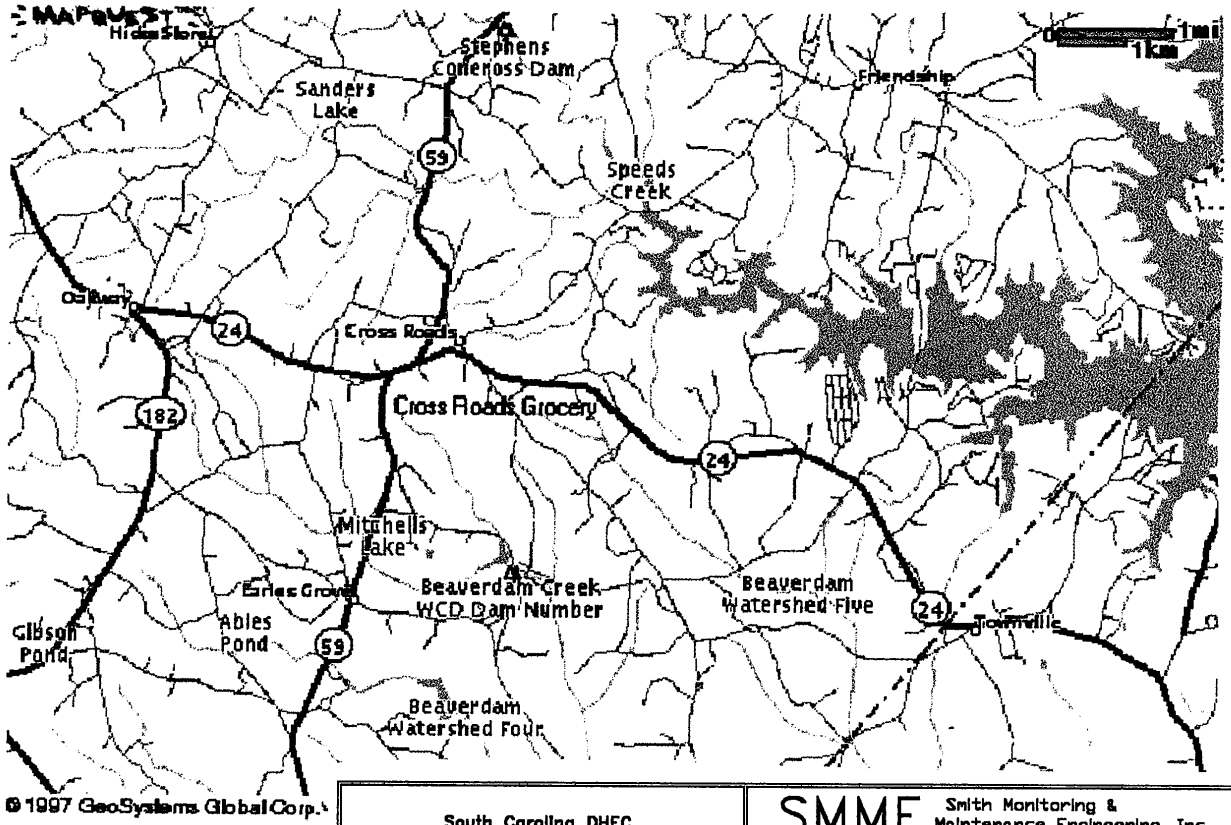
Method 8021B (modified). Once compliance with the SSTLs is shown due to regular quarterly sampling, SMME will install up to eight (8) additional monitoring points (at DHEC's discretion). The listed sampling points and the additional wells will be monitored for two more quarters (verification monitoring) and will include sampling and analysis for dissolved oxygen, ferrous iron, nitrate and sulfate. SMME anticipates quarterly monitoring for up to one year then two additional quarters of verification monitoring.

Quarterly monitoring will also document the water and product levels in the wells of concern. Depth and elevations (based on MEC assessment) will be documented in the format presented in Table 4.

Abandonment

Once the last assessment report documenting site remediation has met approval from the UST Section, SMME will conduct the project close-out. This will consist of disconnecting and removing the trailer mounted treatment unit, disconnecting the telephone and power services, removal of the power pole and utility boxes and abandonment of all site injection, recovery and monitoring wells. Wells will be closed by grout-filling, in compliance with the South Carolina Well Standards and Regulations R.61-71.

FIGURES



South Carolina DHEC
2600 Bull Street
Columbia, South Carolina

SMME Smith Monitoring & Maintenance Engineering, Inc.
Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance
145 Merrill Avenue Decatur, Georgia 30030
Telephone: (404) 371-9332

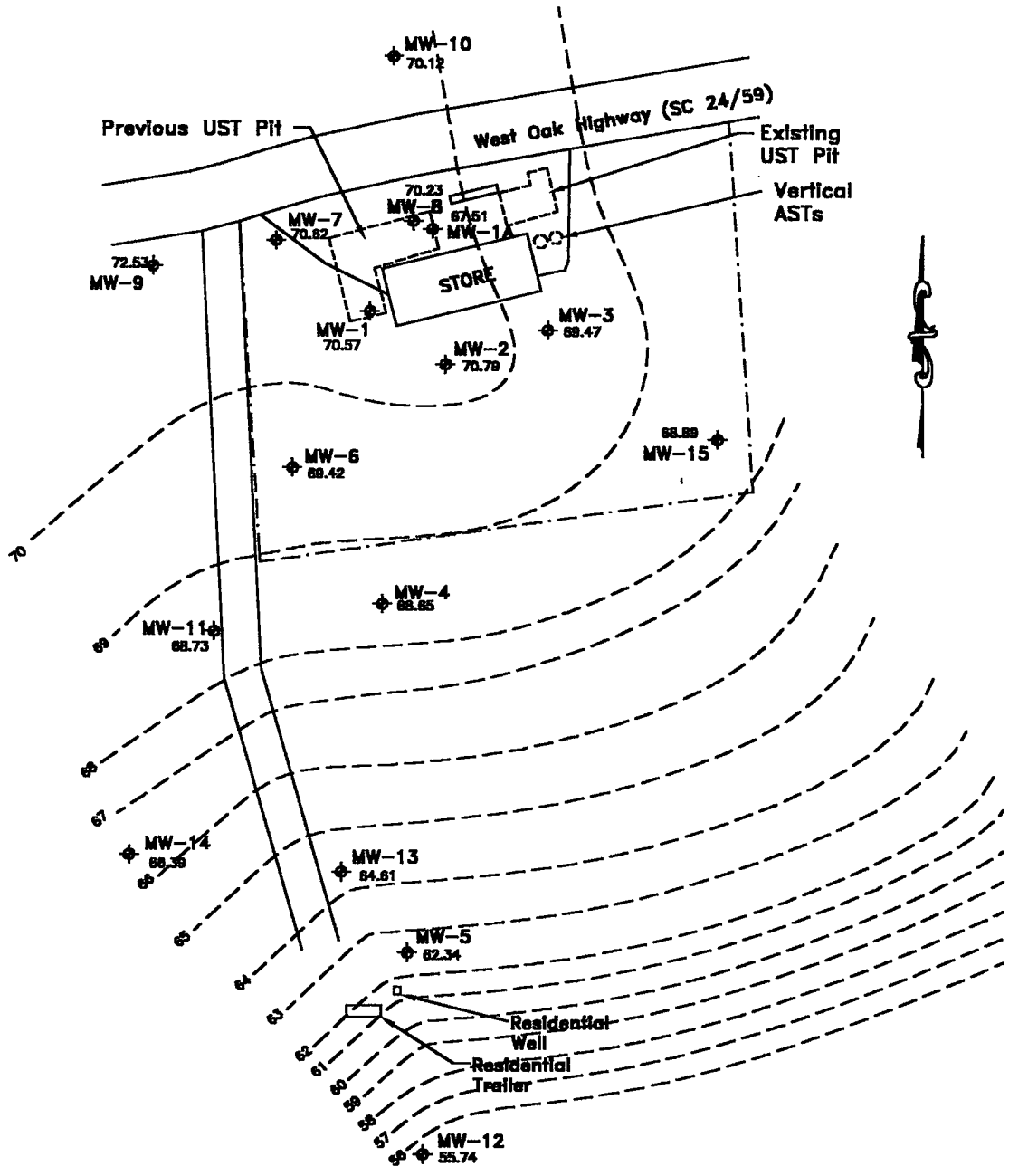
PROJECT #:	DRAWN BY: RBS
SCALE: As Shown	DATE: September, 1999

SITE LOCATION MAP

CROSS ROADS GROCERY
OCONEE COUNTY, SOUTH CAROLINA

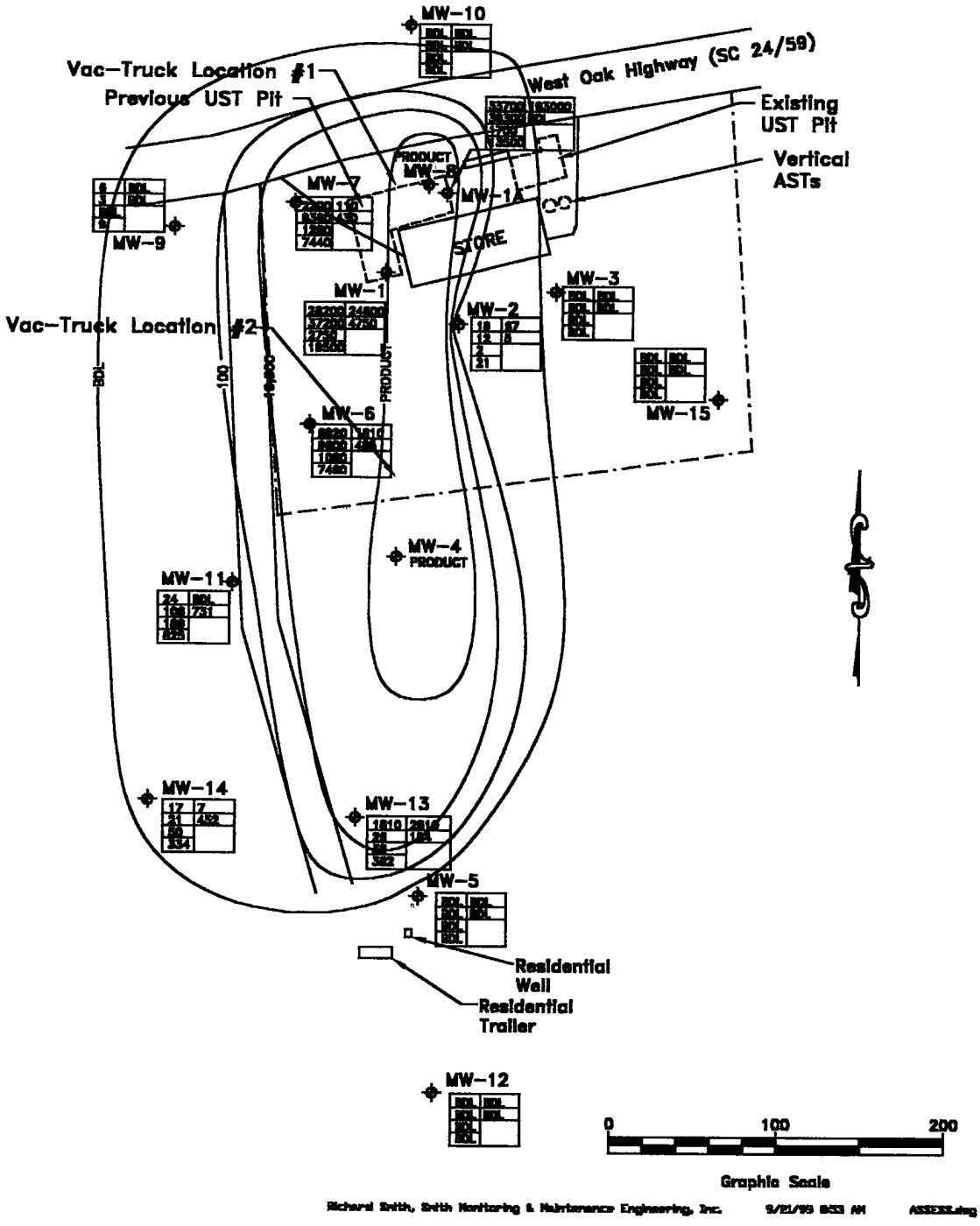
d:\dwg\.dwg

FIGURE
1



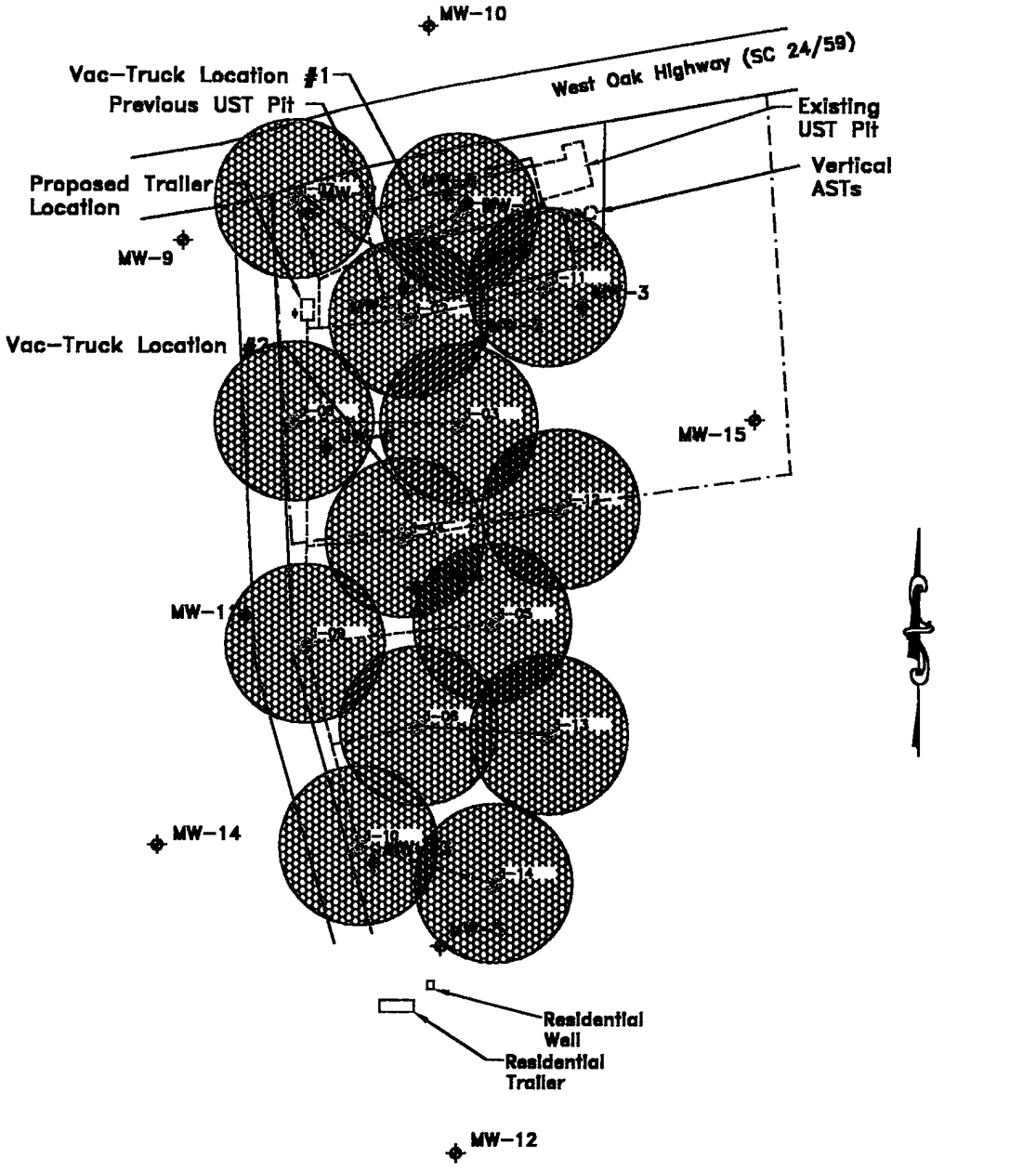
South Carolina DHEC 2600 Bull Street Columbia, South Carolina	SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332
PROJECT #: / DRAWN BY: RBS	POTENTIOMETRIC SURFACE APRIL 2, 1998 CROSS ROADS GROCERY OCONEE COUNTY, SOUTH CAROLINA
SCALE: 1" = 100' / DATE: September, 1999	FIGURE 2
	assess.dwg

Richard Smith, Smith Monitoring & Maintenance Engineering, Inc. 9/21/99 8:25 AM ASSESS.dwg

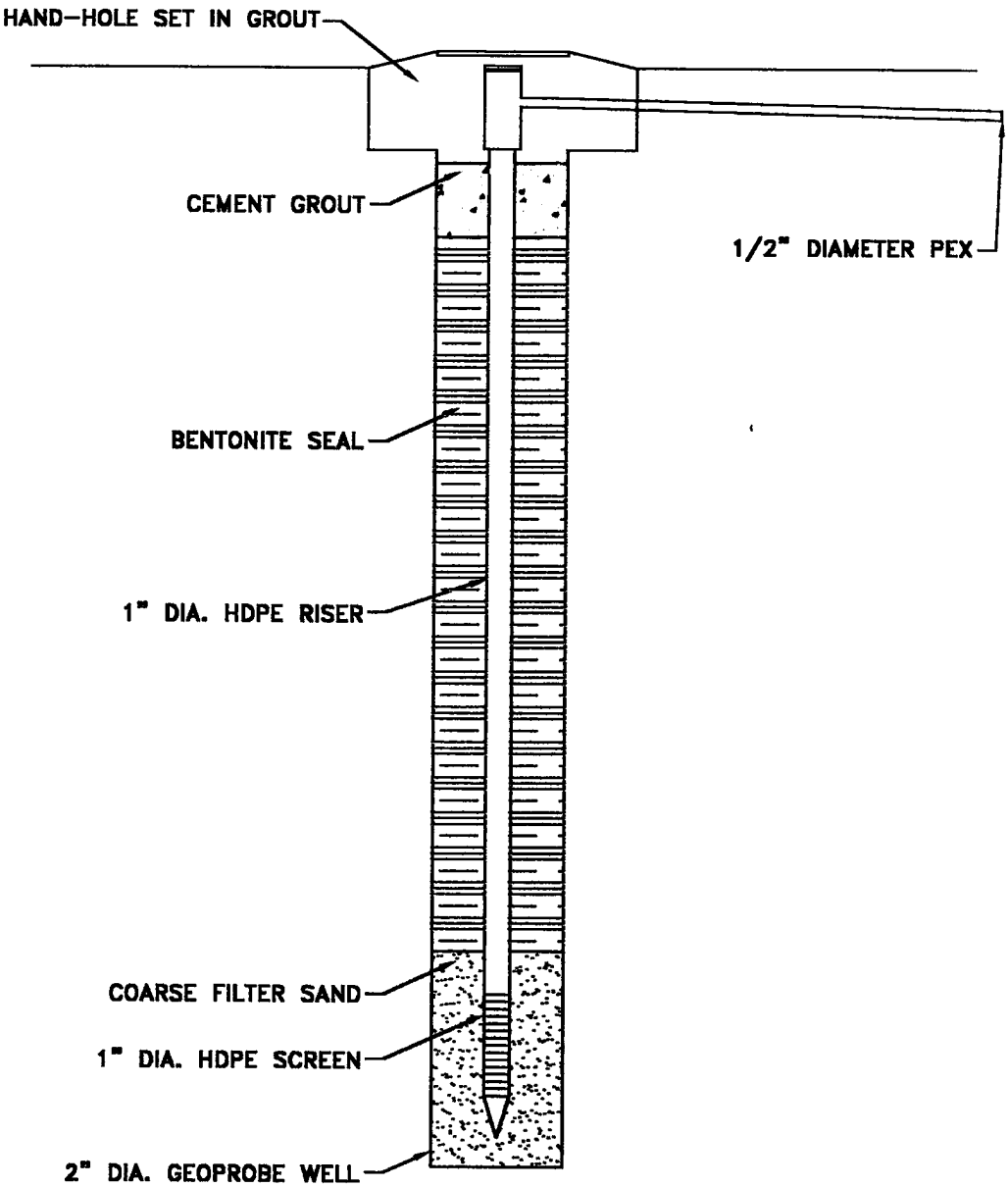


Richard Smith, Smith Monitoring & Maintenance Engineering, Inc. 9/21/99 8:53 AM ASSESS.dwg

South Carolina DHEC 2600 Bull Street Columbia, South Carolina	SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Construction, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332	
PROJECT #:	DRAWN BY: RBS	BENZENE ISOPLETH JULY 15, 1999 CROSS ROADS GROCERY OCONEE COUNTY, SOUTH CAROLINA
SCALE: 1" = 100'	DATE: September, 1999	FIGURE 3
	assess.dwg	



South Carolina DHEC 2600 Bull Street Columbia, South Carolina	SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332		
PROJECT #:	DRAWN BY: RBS	INJECTION WELL LOCATIONS CROSS ROADS GROCERY OCONEE COUNTY, SOUTH CAROLINA	FIGURE 4
SCALE: 1" = 100'	DATE: September, 1999	assess.dwg	



NEW INJECTION POINT

SOUTH CAROLINA DHEC 2600 BULL STREET COLUMBIA, SOUTH CAROLINA	SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone (404) 371-9332	
PROJECT #:	DRAWN BY: RBS	INJECTION WELL DETAIL CROSS ROADS GROCERY OCONEE COUNTY, SOUTH CAROLINA
SCALE: Not to Scale	DATE: September, 1999	FIGURE 5

TABLES

Table 1

IDENTIFICATION OF SURROUNDING PROPERTY OWNERS

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742

As of: 9/20/99

Install Date	Owner	Address	City, State, Zip	Phone	Map/Bl/Pcl/Lot	Pole	Trailer	Inj. Well
✓ 11/22/99	R.L. Jordan Oil Co. of NC	PO Box 2527	Spartanburg, SC 29304	864 585-2784	301/4/40	x	x	1-4,7,8,11,12
✓	W. R. Long	4845 Bill Long Rd.	Blairsville, GA 30512		301/4/29 NA			5,6,9,10,13,14
✓	Charles & Edna Dockins	138 Malibu Drive	Westminster, SC 29693	864 972-2921	301/4/39 NA			
✓	John Dockins	138 Malibu Drive	Westminster, SC 29693		301/4/34 NA			
✓	Charles & Donna Shirley	598 Earles Grove Rd.	Westminster, SC 29693		301/4/12 NA			
✓	Pioneer Rural Water Dist.	PO Box 203	Westminster, SC 29693	864 972-3082	301/4/2 NA			
	Denise Curry	PO Box 154	Mtn Rest, SC 29664		301/4/17 X			
	Harvey & Pamela Hughes	145 Bethel Church Rd.	Westminster, SC 29693		301/4/13 X			
✓	Harvey & Pamela Hughes	PO Box 8033	Seneca, SC 29678	864 885-1066	301/4/21 NA			
	Perry & Linda Donald	380 Charis Lane	Westminster, SC 29693	864 972-9964	301/4/35 X			
	Dennis & Irene Pitts	8019 West Oak Highway	Westminster, SC 29693	864 972-3591	301/7/1 NA			
	Southern Bell			-	301/7/17 X			

1-11-93

Table 2

CORRECTIVE ACTION IMPLEMENTATION SCHEDULE			
SB-6672-07/29/99-REB Crossroads Grocery 850 West Oak Highway Oconee County, South Carolina			
Crossroads Grocery 6742			As of: 9/20/99
ITEM	Start	Term	End
1 Bid Due			7/29/99
2 Contractor Selection			8/18/99
3 Corrective Action Plan			9/27/99
4 Performance Bond Due			9/20/99
5 Public Notice Period	10/10/99	30 days	11/9/99
6 CAP Approval/Construction Permit			11/14/99
7 Initial Sampling			10/25/99
8 Initial Area Constr./Product Recovery		15 days	11/29/99
9 Permit to Operate		3 days	12/2/99
10 System Start-up			**12/7/99**
11 Completion of CA		12 months	**12/1/00**
12 First Quarter Monitoring			1/23/00
12 Second Quarter Monitoring			4/22/00
12 Third Quarter Monitoring			7/21/00
14 Install 2 Verification Wells			12/21/00
15 Final Site Assessment 1st Quarter			1/5/01
16 Final Site Assessment 2nd Quarter			4/5/01
17 Site Closure/Well Removal			5/5/01

Table 3

GROUNDWATER SAMPLING

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 9/20/99
Site ID #: 6742 — Data through: 12-Aug-98

Location	Date	Chemical of Concern, ppb							Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene		
MW-1	4/2/98								Product
	1/25/99	28,200	37,200	2,750	19,500	24,600	4,750		117,000
Target		111	22,164	2,750	19,500	887	554		
MW-1A	4/2/98								Product
	1/25/99	33,700	39,300	1,700	13,500	193,000	5,000		286,200
Target		111	22,164	1,700	13,500	187	554		
MW-2	4/2/98	11	17	14	87	<1	9		
	1/25/99	19	12	2	21	67	5		126
Target		19	12	5	21	67	5		
MW-3	4/2/98	15	24	9	117	<1	11		
	1/25/99	<1	<1	<1	<1	<1	<5		
MW-4	4/2/98	15,700	2,570	27,600	13,300	5,820	882		
	1/25/99								6,197,000
Target		74	14,775	10,344	147,734	592	369		
MW-5	4/2/98	<1	<1	<1	<1	<1	<5		
	1/25/99	<1	<1	<1	<1	<1	<5		
MW-6	4/2/98	39,600	2,460	41,100	12,400	16,400	561		
	1/25/99	6,920	9,600	1,080	7,460	1,810	495		27,365
Target		97	9,600	1,080	7,460	163	482		
MW-7	4/2/98	2,780	1,630	10,500	7,610	63	468		
	1/25/99	2,200	9,360	1,280	7,440	110	430		20,820
Target		111	9,360	1,280	7,440	110	430		
MW-8	4/2/98	11,000	722	15,900	6,520	188	35,500		
	1/25/99								6,197,000
Target		111	22,164	15,515	221,643	887	554		

GROUNDWATER SAMPLING

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery
Site ID #: 6742

As of: 9/20/99
Data through: 12-Aug-98

Location	Date	Chemical of Concern, ppb							Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene		
MW-9	4/2/98	9	12	4	54	<1	2		
	1/25/99	6	3	<1	9	<1	<5		
MW-10	4/2/98	132	48	464	224	1	11		
	1/25/99	<1	<1	<1	<1	<1	<5		
MW-11	4/2/99	<1	1,090	312	5,090	<1	272		
	1/25/99	24	106	189	825	10	731		1,885
Target		24	106	189	825	10	369		
MW-12	4/2/98	<1	<1	<1	<1	<1	<5		
	1/25/99	<1	<1	<1	<1	<1	<5		
MW-13	4/2/98	<1	130	78	434	1,950	25		
	1/25/99	1,810	26	38	382	2,810	154		5,220
Target		10	26	38	382	134	83		
MW-14	4/2/98	150	149	501	921	1	80		
	1/25/99	17	21	50	334	7	452		881
Target		10	21	50	334	7	83		
MW-15	4/2/98	<5	<5	<5	<5	<1	3		
	1/25/99	Not Sampled							
Total Mass									12,853,497
Target									559,387
Initial Mass above SSTL									12,294,113
% Reduction									**0**

Table 4

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742

Data through: 2-Apr-98
As of: 9/20/99

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
MW-1 2"	4/2/99	-	-	30.0	28.47	28.45	99.04	0.02	70.59
MW-1A 2"	4/2/99	-	-	40.0	31.50	28.66	99.01	2.84	69.92
MW-2 2"	4/2/99	6.24	23.7	30.0	26.98	-	97.77	-	70.79
MW-3 2"	4/2/99	7.07	22.7	30.0	27.30	-	96.77	-	69.47
MW-4 2"	4/2/99	3.84	22.9	25.0	21.45	-	90.10	-	68.65
MW-5 2"	4/2/99	5.86	14.1	20.0	12.40	-	74.74	-	62.34
MW-6 2"	4/2/99	0.66	17.6	35.0	23.35	-	92.67	-	69.32
MW-7 2"	4/2/99	5.18	21.7	39.0	27.06	-	97.68	-	70.62
MW-8 2"	4/2/99	3.83	19.7	45.0	28.87	-	99.10	-	70.23
MW-9 2"	4/2/99	5.45	18.7	32.0	23.94	-	96.47	-	72.53
MW-10 2"	4/2/99	7.27	20.7	42.0	29.77	-	99.89	-	70.12
MW-11 2"	4/2/99	3.03	17.3	25.0	17.84	-	86.57	-	68.73
MW-12 2"	4/2/99	8.28	20.4	12.0	6.97	-	62.71	-	55.74
MW-13 2"	4/2/99	4.79	14.7	20.0	10.89	-	75.50	-	64.61
MW-14 2"	4/2/99	5.54	18.5	23.0	11.99	-	78.38	-	66.39
MW-15 2"	4/2/99	9.89	18.0	35.0	23.65	-	92.54	-	68.89

ATTACHMENTS

D H E C
PROMOTE PROTECT PROSPER
Mills/Jarrett Complex
Box 101106
Columbia, SC 29211-0106

COMMISSIONER:
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BOARD:
John H. Burriss
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Cyndi C. Mosteller

Brian K. Smith

Rodney L. Grandy

November 2, 1998

MEMORANDUM

TO: Read Minor, PG
Underground Storage Tank Management Division

FROM: John F. Brown, DVM, PhD
State Toxicologist
Division of Health Hazard Evaluation

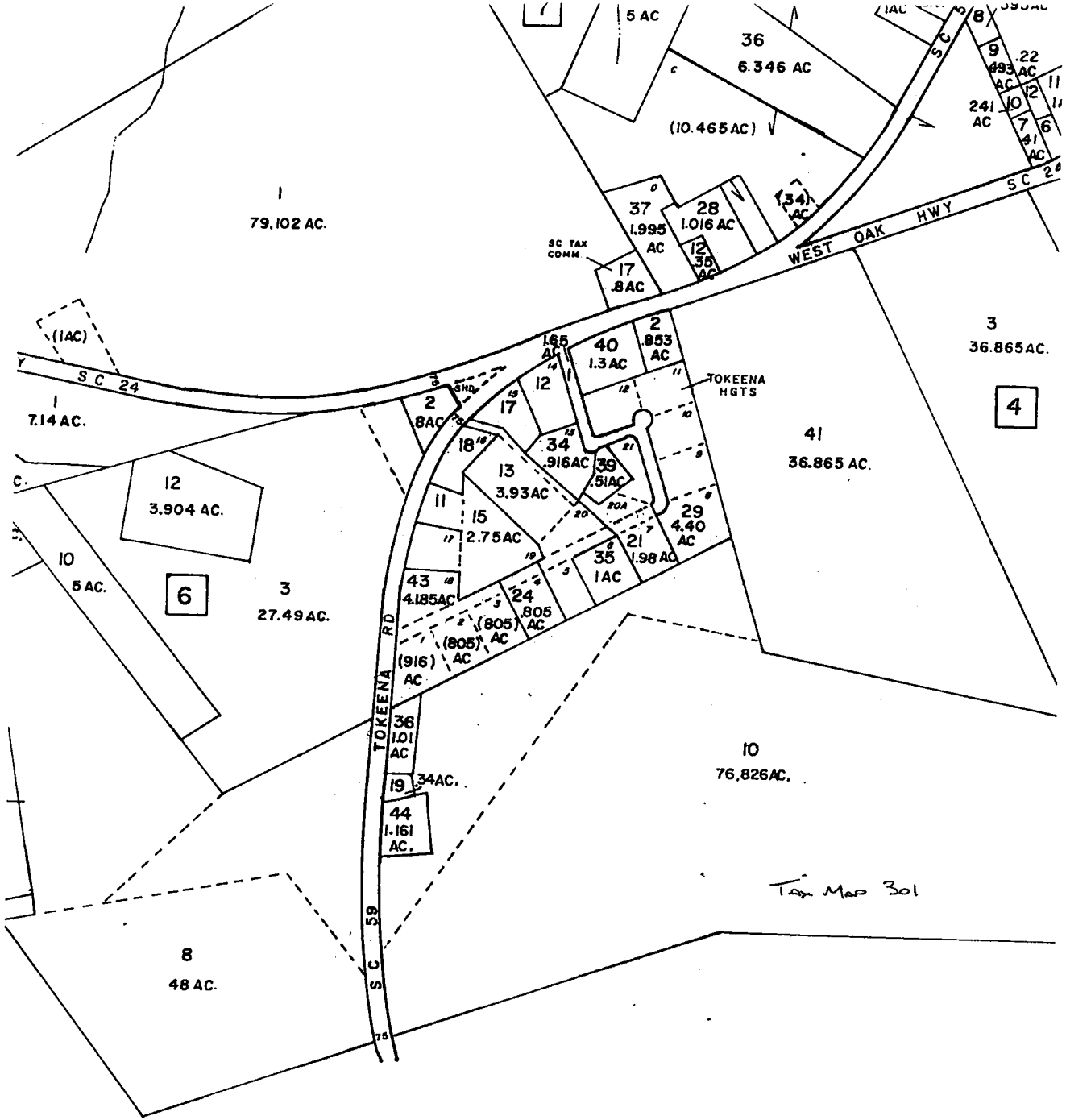
RE: Safety Evaluation of PHOS tex II
Bioremediation Technology for Petroleum Contaminated Soil

1. I have reviewed the responses to DHEC Guidelines for Health Hazard Evaluation of Bioremediation Procedures for Contaminated Soil using the process noted above. The responses were submitted by James C.Vaughn, Jr. PE of Freeman & Vaughn Engineering, Inc. of Savannah, Georgia. All proprietary information submitted will be secured and kept confidential, as requested.

2. If the described process noted above is used in an approved application procedure, I find no significant threat to the public health and environmental integrity of South Carolina and have no objection to the described procedure being carried out at approved, designate sites. It is noted that some items of the process have an explosion potential if submitted to excessive pressure and temperature and will caution that needed safety precautions be carried out.

3. This review does not address the effectiveness of the proposed procedure. Efficacy evaluation must be made by other parties, if required.

/bl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Tax Map 301
8
48 AC.
S C 59

Form 1 UIC	Underground Injection Control Permit Application Ground-Water Protection Division (Collected under the Authority of Title 48 Chapter 1 of the 1976 South Carolina Code of Laws)	I. EPA ID NUMBER		T/A	C
		U			

Read attached instructions before starting.

For Offical Use Only

Application Approved month	day	year	Date Received month	day	year	Permit/Well Number

Comments

II. Facility Name and Address	III. Owner/Operator and Address
Facility Name: Cross Roads Grocery Remediation Project	Owner/Operator Name: R.L. Jordan Oil Company of N.C.
Street Address: 850 West Oak Highway	Street Address: PO Box 2527
City: Westminster State: SC Zip Code: 29693	City: Spartanburg State: SC Zip Code: 29304

IV. Ownership Status (Mark "x")

☐ A. Federal ☐ B. State [x] C. Private ☐ D. Public ☐ E. Other (Explain)

V. SIC Codes

8744

VI. Well Status (Mark "x")

☐ A. Operating — Date Started month day year

| | B. Modification/Conversion [X] C. Proposed

VII. Type of Permit Requested - Class and Type of Well (see reverse)

A. Class(es) enter code(s)	B. Type(s) enter code(s)	C. If class is "other" or type is code "x", explain	D. Number of Wells per type
V.B.	I.		14

VIII. Location of Wells or Approximate Center of field or Project

C	A. Latitude				B. Longitude			
		Deg	Min	Sec		Deg	Min	Sec
1		34	36	12		82	58	43

IX. Attachments

Complete the following questions on a separate sheet(s) and number accordingly; see instructions for Classes II, III, and V, complete and submit on a separate sheet(s) attachments A-U as appropriate. Attach maps where required. List attachments by letter which are applicable and include with your application.

X. Certification

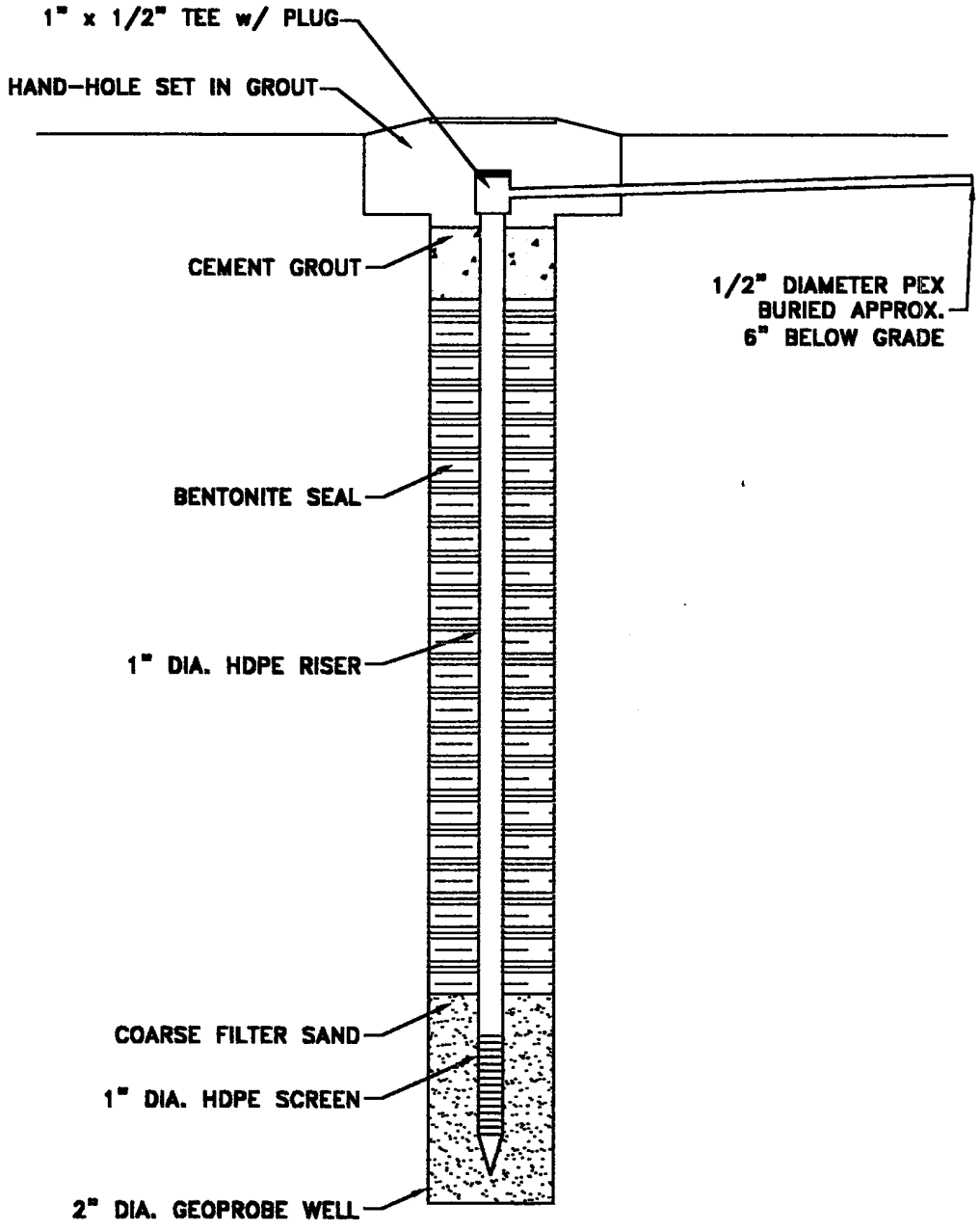
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

A. Name and Title (Type or Print)	B. Phone No.
Richard B. Smith, P.E.	(404) 371-9332
C. Signature: Richard B. Smith	D. Date Signed: September 27, 1999 9/27/99

Attachment A: Activity for Review

This Underground Injection Control Permit Application is provided due to the proposed Corrective Action to reduce the chemicals of concern (CoC) impacting DHEC Site Number 06742 to or below the Site Specific Target Levels (SSTL), as stipulated in the solicitation bid number SB-6672-07/29/99-REB. The technology selected for this effort is nutrient injection to stimulate growth of the native bacteria population (in an aerobic environment) which, in turn, utilize the hydrocarbon contamination as a food source. The method of supplying the bacteria with nutrients and oxygen is through groundwater injection, in the gas phase.

Attachment B: Well Construction Details
(See following figure)



NEW INJECTION POINT

SOUTH CAROLINA DHEC 2600 BULL STREET COLUMBIA, SOUTH CAROLINA	SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Construction, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332
PROJECT #: / DRAWN BY: RBS	INJECTION WELL DETAIL CROSS ROADS GROCERY OCONEE COUNTY, SOUTH CAROLINA
SCALE: Not to Scale / DATE: September, 1999	FIGURE 5

Attachment C: Operating Data

1) Injection rate per well: 2 cfm average/5 cfm maximum
2) Injection pressure: 5 psi minimum/15 psi maximum (as measured at the trailer and includes static pressure and dynamic losses. Rate and pressure is varied for each well to ensure that sufficient pressure is provided to overcome the water column but not enough to overcome the well seal.
3) Pumping Schedule: Alternating cycles
4) Ranges in concentration: 20.9 % oxygen; 70% nitrogen (use of ambient air); <0.01% phosphorous. Each component is in the gas phase.
5) Remediation is expected to be completed within two years (24 months).

Attachment D: Monitoring Program

Site monitoring for system effectiveness and progress determination will consist of heterotrophic plate count and Chemical Oxygen Demand (COD) of two wells in the treatment area. These samples will be recovered monthly and will be used as evidence of the remediation progress.

Site monitoring for the chemicals of concern (CoC) will be as dictated in the solicitation SB-6672 and will consist of initial and quarterly monitoring of those wells and surface water identified in Table 3. BTEX, MTBE and Naphthalene will be analyzed using EPA Method 8260 or EPA Method 8021B. Once compliance with the SSTLs is shown due to regular quarterly sampling, SMME will install two additional monitoring points (at DHEC's discretion). The listed sampling points and the additional wells will be monitored for two more quarters (verification monitoring) and will include sampling and analysis for dissolved oxygen, ferrous iron, nitrate and sulfate. SMME anticipates quarterly monitoring for up to one year then two additional quarters of verification monitoring.

Quarterly monitoring will also document the water and product levels in the wells of concern.

Attachment E: Existing or Pending State/Federal Permits

SMME is not aware of any current state or federal permits in connection with this remediation project.

Attachment F: Description of Business

The contaminant source(s) were USTs at the Cross Roads Grocery located at 850 West Oak Highway near Westminster, South Carolina.

Table 3

GROUNDWATER SAMPLING

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742

As of: 9/20/99
Data through: 12-Aug-98

Location	Date	Chemical of Concern, ppb							Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene		
MW-1	4/2/98	28,200	37,200	2,750	19,500	24,600	4,750		Product
	1/25/99								117,000
Target		111	22,164	2,750	19,500	887	554		
MW-1A	4/2/98	33,700	39,300	1,700	13,500	193,000	5,000		Product
	1/25/99								286,200
Target		111	22,164	1,700	13,500	187	554		
MW-2	4/2/98	11	17	14	87	<1	9		
	1/25/99	19	12	2	21	67	5		126
Target		19	12	5	21	67	5		
MW-3	4/2/98	15	24	9	117	<1	11		
	1/25/99	<1	<1	<1	<1	<1	<5		
MW-4	4/2/98	15,700	2,570	27,600	13,300	5,820	882		
	1/25/99								6,197,000
Target		74	14,775	10,344	147,734	592	369		
MW-5	4/2/98	<1	<1	<1	<1	<1	<5		
	1/25/99	<1	<1	<1	<1	<1	<5		
MW-6	4/2/98	39,600	2,460	41,100	12,400	16,400	561		
	1/25/99	6,920	9,600	1,080	7,460	1,810	495		27,365
Target		97	9,600	1,080	7,460	163	482		
MW-7	4/2/98	2,780	1,630	10,500	7,610	63	468		
	1/25/99	2,200	9,360	1,280	7,440	110	430		20,820
Target		111	9,360	1,280	7,440	110	430		
MW-8	4/2/98	11,000	722	15,900	6,520	188	35,500		
	1/25/99								6,197,000
Target		111	22,164	15,515	221,643	887	554		

Table 3

GROUNDWATER SAMPLING

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 9/20/99
Site ID # 6742 — Data through: 12-Aug-98

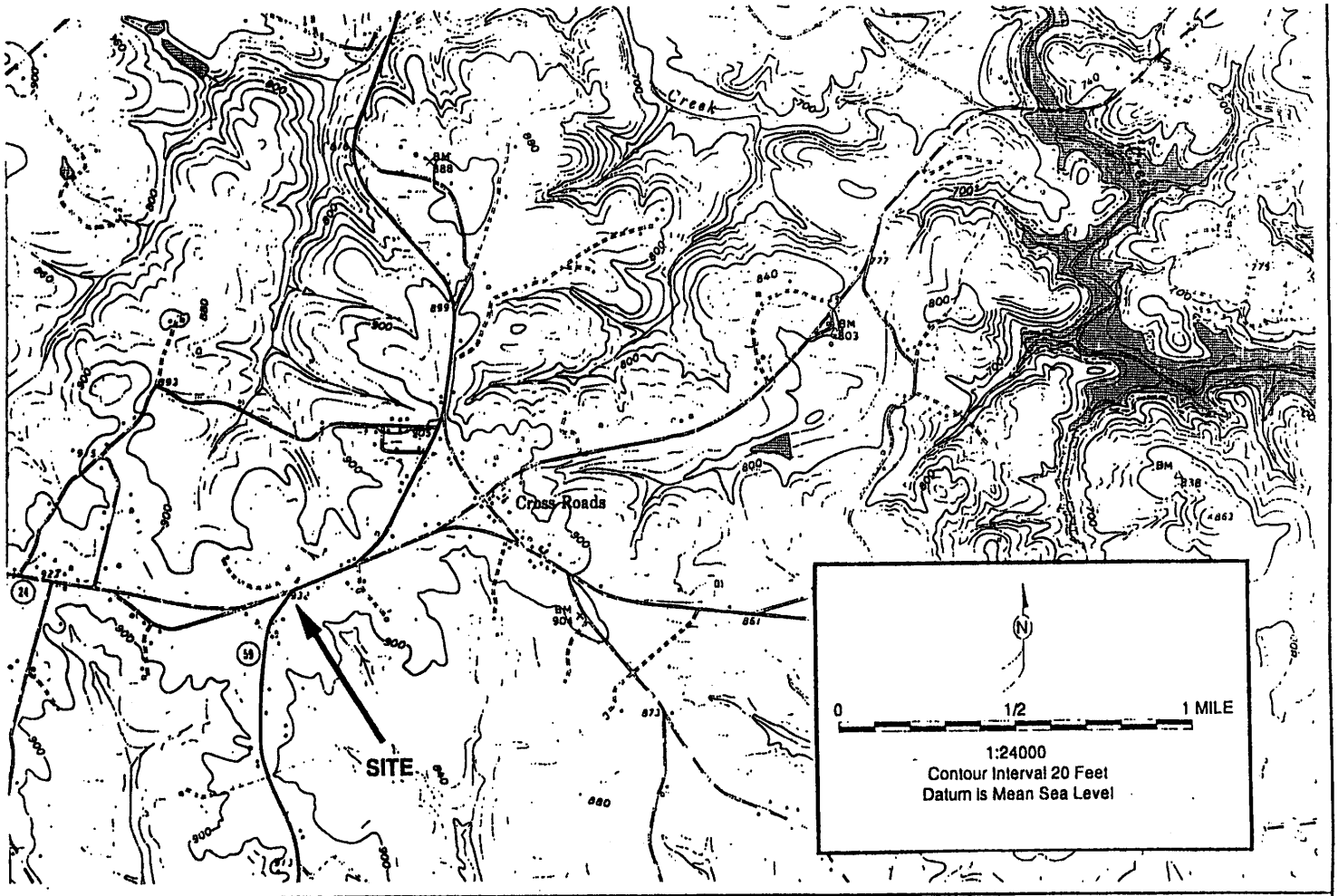
Location	Date	Chemical of Concern, ppb							Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene		
MW-9	4/2/98	9	12	4	54	<1	2		
	1/25/99	6	3	<1	9	<1	<5		
MW-10	4/2/98	132	48	464	224	1	11		
	1/25/99	<1	<1	<1	<1	<1	<5		
MW-11	4/2/99	<1	1,090	312	5,090	<1	272		
	1/25/99	24	106	189	825	10	731		1,885
Target		24	106	189	825	10	369		
MW-12	4/2/98	<1	<1	<1	<1	<1	<5		
	1/25/99	<1	<1	<1	<1	<1	<5		
MW-13	4/2/98	<1	130	78	434	1,950	25		
	1/25/99	1,810	26	38	382	2,810	154		5,220
Target		10	26	38	382	134	83		
MW-14	4/2/98	150	149	501	921	1	80		
	1/25/99	17	21	50	334	7	452		881
Target		10	21	50	334	7	83		
MW-15	4/2/98	<5	<5	<5	<5	<1	3		
	1/25/99	Not Sampled							
Total Mass									12,853,497
Target									559,387
Initial Mass above SSTL									12,294,113
% Reduction									**0**

Attachment G: Area of Review

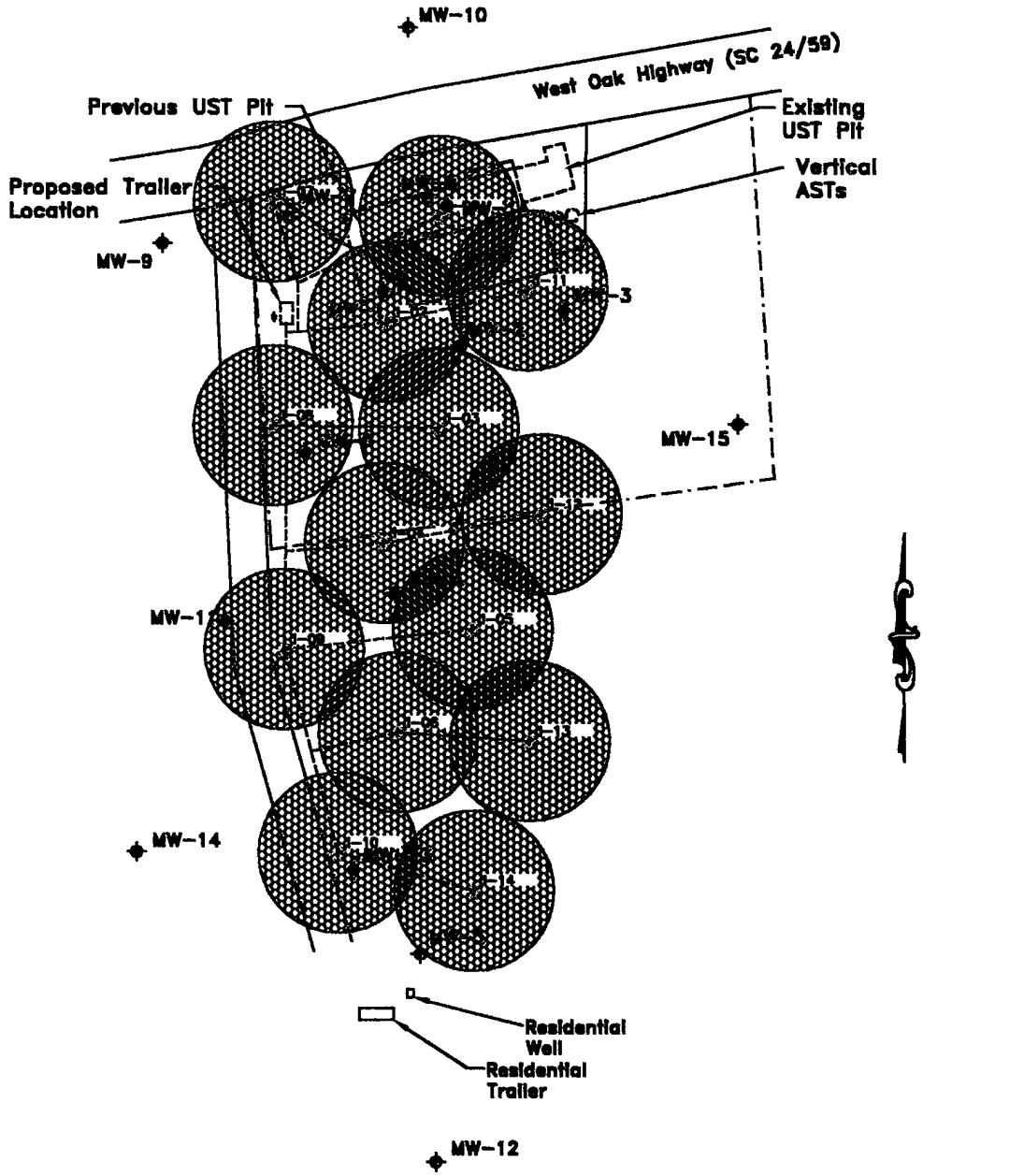
The radius used in determination of the potential receptors has not been found. The primary receptor found seems to be a tributary of Beaverdam Creek and an unused private well on the property of Charles and Edna Dowkins which are both directly downgradient of the remediation area.

Attachment H: Maps (Attached)

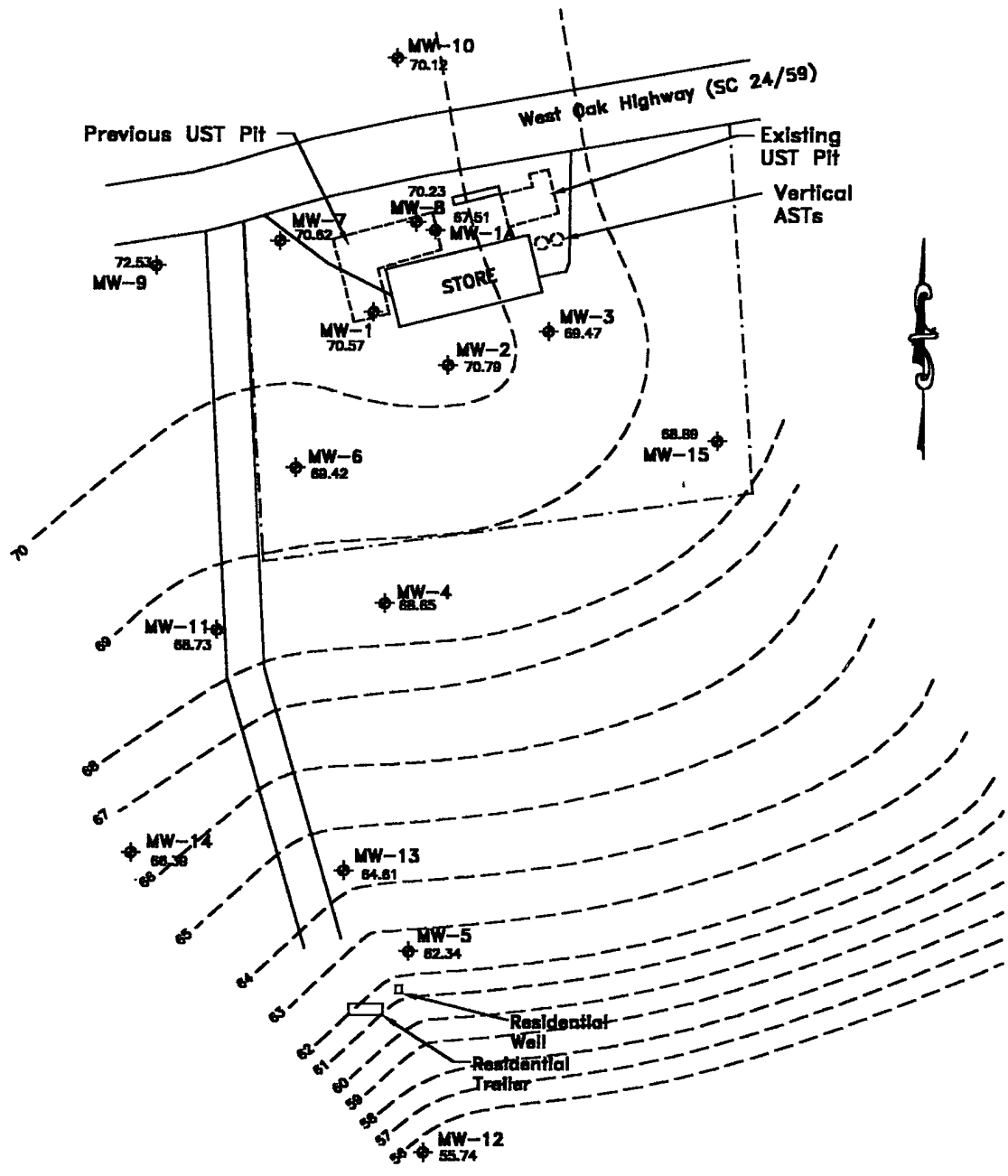
1) USGS Topographic map
2) Maps of Injection wells
3) Potentiometric map



Crossroads Grocery	USGS MAP SHOWING SITE LOCATION
Highway 24/59, Tokeena, Oconee County, South Carolina	(Fair Play, SC, Quad, 1958-Photorevised 1979)
ESCM & Associates, Inc. 394 S. Milledge Avenue Athens, Georgia 30605	Scale: 1:24000 — FIGURE 1



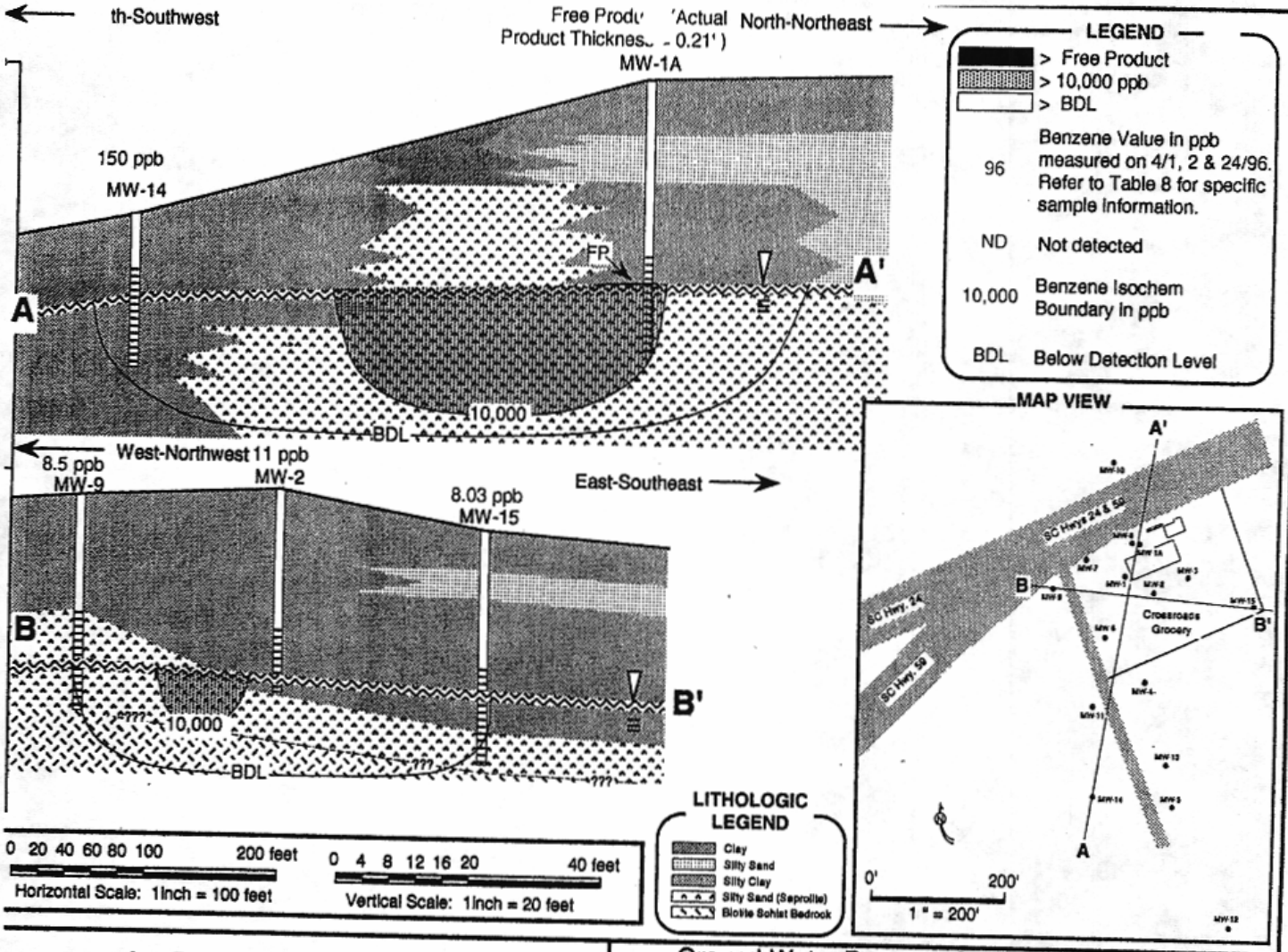
South Carolina DHEC 2600 Bull Street Columbia, South Carolina	SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332
PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: September, 1999
INJECTION WELL LOCATIONS CROSS ROADS GROCERY OCONEE COUNTY, SOUTH CAROLINA assess.dwg	FIGURE 4



South Carolina DHEC 2600 Bull Street Columbia, South Carolina	SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332		
PROJECT #:	DRAWN BY: RBS	POTENTIOMETRIC SURFACE APRIL 2, 1998 CROSS ROADS GROCERY OCONEE COUNTY, SOUTH CAROLINA	FIGURE 2
SCALE: 1" = 100'	DATE: September, 1999		
		cassss.dwg	

Attachment I: Cross Sections/Diagrams

1) Geologic cross-sections.
2) Schematic of injection points.(See Attachment B)



ossroads Grocery

ironmental Monitoring Corporation
). Box 901, Hartwell, Georgia

Ground-Water Benzene Concentrations in ppb
(A-A' & B-B' Cross-Sections) April 1,2 & 14, 1998

Drafted by: Mirta A. Carpenter 5/13/98
Scale: 1"=100' Horizontal 1"= 20' Vertical

FIGURE 16

SC DHEC Page 21
SB-6672-07/29/99-REB

Attachment J: Name and Depth of Underground Sources of Drinking Water (USDW's)

The local drinking supply comes from the Little River and is supplied by Pioneer Rural Water District. Pioneer purchases treated water from the Towns of Seneca and Westminster. The water used in the local area is purchased from Seneca which draws it from Lake Kewowee. The withdrawl point is approximately 9 miles north of the impacted site.

A private drinking water well owned by Edna and Charles Dockins has been impacted by the contaminant plume. This well is no longer in use. The Dockins are now served by the Pioneer Rural Water District.

Attachment K: Hydraulic Control

Data from site assessment report from Environmental Monitoring Corporation:

$K = 5.41 \times 10^{-5}$ ft/min I = 0.03 ft/ft Ne = 0.05 V = 17.1 ft/year

Design Calculations

Phoster Injection System

Cross Roads Grocery

Oconee County, South Carolina

Chemicals of Concern Reduction

The technology to be used in the reduction of the chemicals of concern will be the PHOSter II™ technology as adapted by Freeman & Vaughn Engineering, Inc. PHOSter II™ is a patented bio-stimulation process that delivers a measured and predetermined combination of phosphorous, nitrogen and oxygen to VOC and/or semi-VOC contaminated soil and groundwater. The volume and mixture of gaseous nutrient, flow rate, pressure and frequency of the pulsed injections are determined by the types and volumes of contaminants of concern.

The gas injection volumes and rates are far below the levels that could induce air sparging. Because nutrients are injected in a mixture of air, the terms "bioventing" (defined as "air slowly injected into the unsaturated soils") and "biosparging" (defined as "air and specific gases injected into saturated sediments"), may be applied to the PHOSter II™ process. Injection points are sealed against air, gases or vaporized contaminates venting to the atmosphere.

The basic PHOSter II™ units are self-contained and housed in a covered metal trailer with lockable double entry doors. The standard unit conforms to all DOT standards for size and weight and are towed by a full size pickup truck or utility vehicle. Once mobilized to the site, the unit will be connected to a 220-volt single phase electrical supply, provided by South Carolina Electric and Gas Company. The poles and meters will be sited with approval from DHEC and the site owner. The proposed trailer and pole locations are shown in Figure 4. The process unit is also equipped with a modem to allow off site monitoring of the system's PLC. The unit will be equipped to inject through twelve separate injection ports.

Figure 4 is provided as a typical injection point. Injection tubing will consist of ½" nominal diameter PEX piping. This tubing is normally used in residential and commercial potable water plumbing. This material can be directly buried. We currently plan to bury all air/nutrient injection lines and the injection well head assemblies.

During operation of the treatment unit, SMME will conduct confirmatory testing to determine the increase in heterotrophic bacteria and decrease in Chemical

Oxygen Demand. Other tests to be conducted during remediation will include, DO concentration and rate of oxygen utilization, pH change and initial and quarterly analysis to quantify the reduction of CoC, as required by DHEC.

Assumed Area of Treatment

Normal running mode is to inject into six points at any given time. Trailer units can handle the injection of a total of twelve points. If we assume one trailer can affect 100,000 sf during one set-up, the time required to remediate and a radius of influence can be estimated.

Rate of Hydrocarbon Decay

The following imperical equation is adapted from Eq. 3-2 of EPA's Bioventing Design Manual:

HC_{bio}= Rate of hydrocarbon decay (kg/day)
K_{DO} = Average rate of DO consumption (10 to 40 %/day)
Q = Air injection rate (8 cfm = 226.5 L/min)
C = Mass ratio of hydrocarbon degraded to oxygen (1/3.5)
ρ_{O2} = Density of oxygen
MW_{O2} = Molecular wt. of oxygen

$HC_{bio} = K_{DO} \times Q \times C \times \rho_{O2} \times MW_{O2} \times 1.44$

$HC_{bio} = 0.10 \times 226.5 \times 1/3.5 \times .042 \times 32 \times 1.44$

$= 10.14$ kg/day

Treatment Time for Critical Zone:

Active treatment zone is assumed to extend to an average depth of 40 below the top of the water table, based on the iso-concentration lines shown in the geologic cross-sections. Active area for one set-up will be 250' by 200'.

Total Volume below WT = 500 x 200 x 25 = 2,500,000 cf

V_{water} = 2,500,000 cf x 0.25 (porosity) x 7.48 gal/cf = 4,675,000 gallons

Time Required = $V_{water} \times C_{ave} \times 3.78$ kg/gal / HC_{bio}

Time Required = 4.675 MG x 100 ppm x 3.78 kg/gal /(10.14 kg/day) = 175 days

Design Radius of Influence(based on oxygen uptake):

R_i = Radius of Influence(ft.)
Q = Injection rate (cf/day)
C_{DOsat} = DO conc. in injection well (% of saturation)
C_{DOx} = DO conc. in untreated well (% of saturation)
h = Depth of treatment zone (ft.)
k_o = Rate of oxygen uptake (10 - 40 %/day)
θ_a = Porosity

$R_i = Sqrt[(Q \times (C_{DOsat} - C_{DOx})/(\pi \times h \times k_o \times \theta_a)]$

$R_i = Sqrt[(11{,}520 \times (110 - 10)/(\pi \times 25 \times 10 \times 0.25)]$

R_i = 76.6 feet

Figure 4 is provided to show the proposed injection well layout. The radius of influence is depicted as 45 feet to be conservative.

Table 1

IDENTIFICATION OF SURROUNDING PROPERTY OWNERS

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742

As of: 9/20/99

Install Date	Owner	Address	City, State, Zip	Phone	Map/Bl/Pcl/Lot	Pole	Trailer	Inj. Well
✓ 11/22/99	R.L. Jordan Oil Co. of NC	PO Box 2527	Spartanburg, SC 29304	864 585-2784	301/4/40	x	x	1-4,7,8,11,12
✓	W. R. Long	4845 Bill Long Rd.	Blairsville, GA 30512		301/4/29 NA			5,6,9,10,13,14
✓	Charles & Edna Dockins	138 Malibu Drive	Westminster, SC 29693	864 972-2921	301/4/39 NA			
✓	John Dockins	138 Malibu Drive	Westminster, SC 29693		301/4/34 NA			
✓	Charles & Donna Shirley	598 Earles Grove Rd.	Westminster, SC 29693		301/4/12 NA			
✓	Pioneer Rural Water Dist.	PO Box 203	Westminster, SC 29693	864 972-3082	301/4/2 NA			
	Denise Curry	PO Box 154	Mtn Rest, SC 29664		301/4/17 X			
	Harvey & Pamela Hughes	145 Bethel Church Rd.	Westminster, SC 29693		301/4/13 X			
✓	Harvey & Pamela Hughes	PO Box 8033	Seneca, SC 29678	864 885-1066	301/4/21 NA			
	Perry & Linda Donald	380 Charis Lane	Westminster, SC 29693	864 972-9964	301/4/35 X			
	Dennis & Irene Pitts	8019 West Oak Highway	Westminster, SC 29693	864 972-3591	301/7/1 NA			
	Southern Bell				301/7/17 X			

1-11-93

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ANALYTICAL REPORT

SCDHEC 2200

2600 BULL STREET
COLUMBIA, SC 29201

Project: 06742
Project Name:
Sampler: REED MINER

Lab Number: 00-A137417
Sample ID: MW-1R
Sample Type: Water
Site ID:

Date Collected: 9/25/00
Time Collected: 14:42
Date Received: 9/27/00
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Ethyl-t-butylether	ND	ug/l	1000	10.0	500	9/30/00	20:30	B.Herford	8260B	7471
Methyl-t-amyl ether	ND	ug/l	1000	10.0	500	9/30/00	20:30	B.Herford	8260B	7471
t-Butanol	ND	ug/l	50000	100.	500	9/30/00	20:30	B.Herford	8260B	7471
Benzene	51500	ug/l	1000	2.0	500	9/30/00	20:30	B.Herford	8260B	7471
Ethylbenzene	3900	ug/l	1000	2.0	500	9/30/00	20:30	B.Herford	8260B	7471
Naphthalene	ND	ug/l	2500	5.0	500	9/30/00	20:30	B.Herford	8260B	7471
Toluene	56000	ug/l	1000	2.0	500	9/30/00	20:30	B.Herford	8260B	7471
Xylenes, Total	20200	ug/l	1000	2.0	500	9/30/00	20:30	B.Herford	8260B	7471
Ethanol	ND	ug/l	50000	100.	500	9/30/00	20:30	B.Herford	8260B	7471
Methyl-t-butyl ether	78500	ug/l	1000	2.0	500	9/30/00	20:30	B.Herford	8260B	7471
t-Amyl Alcohol	50500	ug/l	50000	100.	500	9/30/00	20:30	B.Herford	8260B	7471
t-Butyl Formate	ND	ug/l	50000	100.	500	9/30/00	20:30	B.Herford	8260B	7471
Ethyl-t-butyl alcohol	ND	ug/l	50000	100.	500	9/30/00	20:30	B.Herford	8260B	7471
Isopropylether	ND	ug/l	1000	10.0	500	9/30/00	20:30	B.Herford	8260B	7471

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	107.	71. - 136.
VOA Surr, Toluene d8	99.	69. - 129.
VOA Surr, 4-BFB	100.	65. - 122.
VOA Surr, DBFM	106.	61. - 139.

= Recovery outside Laboratory historical limits.

Sample report continued . . .

78 tech

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ANALYTICAL REPORT

Laboratory Number: 00-A137417
Sample ID: MW-1R

These results relate only to the items tested.
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Report Approved By: _____ Report Date: 10/ 2/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

End of Sample Report.

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ANALYTICAL REPORT

SCDHEC 2200

2600 BULL STREET
COLUMBIA, SC 29201

Project: 06742
Project Name:
Sampler: REED MINER

Lab Number: 00-A137410
Sample ID: MW-1AR
Sample Type: Water
Site ID:

Date Collected: 9/25/00
Time Collected: 12:23
Date Received: 9/27/00
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Ethyl-t-butylether	ND	ug/l	100.	10.0	50	9/30/00	18:05	B.Herford	8260B	7471
Methyl-t-amyl ether	ND	ug/l	100.	10.0	50	9/30/00	18:05	B.Herford	8260B	7471
t-Butanol	ND	ug/l	5000	100.	50	9/30/00	18:05	B.Herford	8260B	7471
Benzene	1280	ug/l	100.	2.0	50	9/30/00	18:05	B.Herford	8260B	7471
Ethylbenzene	570.	ug/l	100.	2.0	50	9/30/00	18:05	B.Herford	8260B	7471
Naphthalene	ND	ug/l	250.	5.0	50	9/30/00	18:05	B.Herford	8260B	7471
Toluene	3160	ug/l	100.	2.0	50	9/30/00	18:05	B.Herford	8260B	7471
Xylenes, Total	3520	ug/l	100.	2.0	50	9/30/00	18:05	B.Herford	8260B	7471
Ethanol	ND	ug/l	5000	100.	50	9/30/00	18:05	B.Herford	8260B	7471
Methyl-t-butyl ether	730.	ug/l	100.	2.0	50	9/30/00	18:05	B.Herford	8260B	7471
t-Amyl Alcohol	ND	ug/l	5000	100.	50	9/30/00	18:05	B.Herford	8260B	7471
t-Butyl Formate	ND	ug/l	5000	100.	50	9/30/00	18:05	B.Herford	8260B	7471
Ethyl-t-butyl alcohol	ND	ug/l	5000	100.	50	9/30/00	18:05	B.Herford	8260B	7471
Isopropylether	ND	ug/l	100.	10.0	50	9/30/00	18:05	B.Herford	8260B	7471

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	108.	71. - 136.
VOA Surr, Toluene d8	101.	69. - 129.
VOA Surr, 4-BFB	100.	65. - 122.
VOA Surr, DBFM	108.	61. - 139.

= Recovery outside Laboratory historical limits.

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Storage Tank Management

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 00-A137410
Sample ID: MW-1AR

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Report Approved By: _____ Report Date: 10/ 2/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
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Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

End of Sample Report.

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ANALYTICAL REPORT

SCDHEC 2200

2600 BULL STREET
COLUMBIA, SC 29201

Project: 06742
Project Name:
Sampler: REED MINER

Lab Number: 00-A137413
Sample ID: MW-2R
Sample Type: Water
Site ID:

Date Collected: 9/25/00
Time Collected: 13:15
Date Received: 9/27/00
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Ethyl-t-butylether	ND	ug/l	2.0	2.0	1	9/29/00	1:04	B.Herford	8260B	7471
Methyl-t-amyl ether	ND	ug/l	2.0	2.0	1	9/29/00	1:04	B.Herford	8260B	7471
t-Butanol	ND	ug/l	100.	100.	1	9/29/00	1:04	B.Herford	8260B	7471
Benzene	103.	ug/l	2.0	2.0	1	9/29/00	1:04	B.Herford	8260B	7471
Ethylbenzene	396.	ug/l	40.0	2.0	20	9/30/00	13:59	B.Herford	8260B	7471
Naphthalene	102.	ug/l	5.0	5.0	1	9/29/00	1:04	B.Herford	8260B	7471
Toluene	1270	ug/l	40.0	2.0	20	9/30/00	13:59	B.Herford	8260B	7471
Xylenes, Total	2030	ug/l	40.0	2.0	20	9/30/00	13:59	B.Herford	8260B	7471
Ethanol	ND	ug/l	100.	100.	1	9/29/00	1:04	B.Herford	8260B	7471
Methyl-t-butyl ether	ND	ug/l	2.0	2.0	1	9/29/00	1:04	B.Herford	8260B	7471
t-Amyl Alcohol	821.	ug/l	100.	100.	1	9/29/00	1:04	B.Herford	8260B	7471
t-Butyl Formate	ND	ug/l	100.	100.	1	9/29/00	1:04	B.Herford	8260B	7471
Ethyl-t-butyl alcohol	ND	ug/l	100.	100.	1	9/29/00	1:04	B.Herford	8260B	7471
Isopropylether	ND	ug/l	2.0	2.0	1	9/29/00	1:04	B.Herford	8260B	7471

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	103.	71. - 136.
VOA Surr, Toluene d8	98.	69. - 129.
VOA Surr, 4-BFB	100.	65. - 122.
VOA Surr, DBFM	102.	61. - 139.

= Recovery outside Laboratory historical limits.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 00-A137413
Sample ID: MW-2R

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Report Approved By: _____ Report Date: 10/ 2/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
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Laboratory Certification Number: 84009

End of Sample Report.

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ANALYTICAL REPORT

SCDHEC 2200

2600 BULL STREET
COLUMBIA, SC 29201

Project: 06742
Project Name:
Sampler: REED MINER

Lab Number: 00-A137414
Sample ID: MW-6
Sample Type: Water
Site ID:

Date Collected: 9/25/00
Time Collected: 13:37
Date Received: 9/27/00
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Ethyl-t-butylether	ND	ug/l	1000	10.0	500	9/30/00	19:18	B.Herford	8260B	7471
Methyl-t-amyl ether	ND	ug/l	1000	10.0	500	9/30/00	19:18	B.Herford	8260B	7471
t-Butanol	ND	ug/l	50000	100.	500	9/30/00	19:18	B.Herford	8260B	7471
Benzene	41000	ug/l	1000	2.0	500	9/30/00	19:18	B.Herford	8260B	7471
Ethylbenzene	2400	ug/l	1000	2.0	500	9/30/00	19:18	B.Herford	8260B	7471
Naphthalene	ND	ug/l	2500	5.0	500	9/30/00	19:18	B.Herford	8260B	7471
Toluene	41600	ug/l	1000	2.0	500	9/30/00	19:18	B.Herford	8260B	7471
Xylenes, Total	13200	ug/l	1000	2.0	500	9/30/00	19:18	B.Herford	8260B	7471
Ethanol	ND	ug/l	50000	100.	500	9/30/00	19:18	B.Herford	8260B	7471
Methyl-t-butyl ether	15600	ug/l	1000	2.0	500	9/30/00	19:18	B.Herford	8260B	7471
t-Amyl Alcohol	ND	ug/l	50000	100.	500	9/30/00	19:18	B.Herford	8260B	7471
t-Butyl Formate	ND	ug/l	50000	100.	500	9/30/00	19:18	B.Herford	8260B	7471
Ethyl-t-butyl alcohol	ND	ug/l	50000	100.	500	9/30/00	19:18	B.Herford	8260B	7471
Isopropylether	ND	ug/l	1000	10.0	500	9/30/00	19:18	B.Herford	8260B	7471

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	107.	71. - 136.
VOA Surr, Toluene d8	99.	69. - 129.
VOA Surr, 4-BFB	100.	65. - 122.
VOA Surr, DBFM	107.	61. - 139.

= Recovery outside Laboratory historical limits.

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 00-A137414
Sample ID: MW-6

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 10/ 2/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

SCDHEC 2200

2600 BULL STREET
COLUMBIA, SC 29201

Project: 06742
Project Name:
Sampler: REED MINER

Lab Number: 00-A137415
Sample ID: MW-7
Sample Type: Water
Site ID:

Date Collected: 9/25/00
Time Collected: 13:57
Date Received: 9/27/00
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Ethyl-t-butylether	ND	ug/l	100.	10.0	50	9/30/00	18:42	B.Herford	8260B	7471
Methyl-t-amyl ether	ND	ug/l	100.	10.0	50	9/30/00	18:42	B.Herford	8260B	7471
t-Butanol	ND	ug/l	5000	100.	50	9/30/00	18:42	B.Herford	8260B	7471
Benzene	3670	ug/l	100.	2.0	50	9/30/00	18:42	B.Herford	8260B	7471
Ethylbenzene	1540	ug/l	100.	2.0	50	9/30/00	18:42	B.Herford	8260B	7471
Naphthalene	ND	ug/l	250.	5.0	50	9/30/00	18:42	B.Herford	8260B	7471
Toluene	11200	ug/l	100.	2.0	50	9/30/00	18:42	B.Herford	8260B	7471
Xylenes, Total	8380	ug/l	100.	2.0	50	9/30/00	18:42	B.Herford	8260B	7471
Ethanol	ND	ug/l	5000	100.	50	9/30/00	18:42	B.Herford	8260B	7471
Methyl-t-butyl ether	205.	ug/l	100.	2.0	50	9/30/00	18:42	B.Herford	8260B	7471
t-Amyl Alcohol	ND	ug/l	5000	100.	50	9/30/00	18:42	B.Herford	8260B	7471
t-Butyl Formate	ND	ug/l	5000	100.	50	9/30/00	18:42	B.Herford	8260B	7471
Ethyl-t-butyl alcohol	ND	ug/l	5000	100.	50	9/30/00	18:42	B.Herford	8260B	7471
Isopropylether	ND	ug/l	100.	10.0	50	9/30/00	18:42	B.Herford	8260B	7471

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	106.	71. - 136.
VOA Surr, Toluene d8	100.	69. - 129.
VOA Surr, 4-BFB	100.	65. - 122.
VOA Surr, DBFM	106.	61. - 139.

= Recovery outside Laboratory historical limits.

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 00-A137415
Sample ID: MW-7

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 10/ 2/00

Paul E. Lane, Jr., Lab Director
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Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

SCDHEC 2200

2600 BULL STREET
COLUMBIA, SC 29201

Project: 06742
Project Name:
Sampler: REED MINER

Lab Number: 00-A137416
Sample ID: MW-8
Sample Type: Water
Site ID:

Date Collected: 9/25/00
Time Collected: 14:18
Date Received: 9/27/00
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Ethyl-t-butylether	ND	ug/l	1000	10.0	500	9/30/00	19:54	B.Herford	8260B	7471
Methyl-t-amyl ether	ND	ug/l	1000	10.0	500	9/30/00	19:54	B.Herford	8260B	7471
t-Butanol	ND	ug/l	50000	100.	500	9/30/00	19:54	B.Herford	8260B	7471
Benzene	43900	ug/l	1000	2.0	500	9/30/00	19:54	B.Herford	8260B	7471
Ethylbenzene	3700	ug/l	1000	2.0	500	9/30/00	19:54	B.Herford	8260B	7471
Naphthalene	ND	ug/l	2500	5.0	500	9/30/00	19:54	B.Herford	8260B	7471
Toluene	61500	ug/l	1000	2.0	500	9/30/00	19:54	B.Herford	8260B	7471
Xylenes, Total	19700	ug/l	1000	2.0	500	9/30/00	19:54	B.Herford	8260B	7471
Ethanol	ND	ug/l	50000	100.	500	9/30/00	19:54	B.Herford	8260B	7471
Methyl-t-butyl ether	68000	ug/l	1000	2.0	500	9/30/00	19:54	B.Herford	8260B	7471
t-Amyl Alcohol	ND	ug/l	50000	100.	500	9/30/00	19:54	B.Herford	8260B	7471
t-Butyl Formate	ND	ug/l	50000	100.	500	9/30/00	19:54	B.Herford	8260B	7471
Ethyl-t-butyl alcohol	ND	ug/l	50000	100.	500	9/30/00	19:54	B.Herford	8260B	7471
Isopropylether	ND	ug/l	1000	10.0	500	9/30/00	19:54	B.Herford	8260B	7471

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	109.	71. - 136.
VOA Surr, Toluene d8	100.	69. - 129.
VOA Surr, 4-BFB	100.	65. - 122.
VOA Surr, DBFM	108.	61. - 139.

= Recovery outside Laboratory historical limits.

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 00-A137416
Sample ID: MW-8

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 10/ 2/00

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Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

SCDHEC 2200

2600 BULL STREET
COLUMBIA, SC 29201

Project: 06742
Project Name:
Sampler: REED MINER

Lab Number: 00-A137411
Sample ID: MW-11R
Sample Type: Water
Site ID:

Date Collected: 9/25/00
Time Collected: 12:44
Date Received: 9/27/00
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Ethyl-t-butylether	ND	ug/l	20.0	10.0	10	9/30/00	13:23	B.Herford	8260B	7471
Methyl-t-amyl ether	ND	ug/l	20.0	10.0	10	9/30/00	13:23	B.Herford	8260B	7471
t-Butanol	ND	ug/l	1000	100.	10	9/30/00	13:23	B.Herford	8260B	7471
Benzene	39.0	ug/l	20.0	2.0	10	9/30/00	13:23	B.Herford	8260B	7471
Ethylbenzene	264.	ug/l	20.0	2.0	10	9/30/00	13:23	B.Herford	8260B	7471
Naphthalene	109.	ug/l	50.0	5.0	10	9/30/00	13:23	B.Herford	8260B	7471
Toluene	101.	ug/l	20.0	2.0	10	9/30/00	13:23	B.Herford	8260B	7471
Xylenes, Total	1260	ug/l	20.0	2.0	10	9/30/00	13:23	B.Herford	8260B	7471
Ethanol	ND	ug/l	1000	100.	10	9/30/00	13:23	B.Herford	8260B	7471
Methyl-t-butyl ether	ND	ug/l	20.0	2.0	10	9/30/00	13:23	B.Herford	8260B	7471
t-Amyl Alcohol	ND	ug/l	1000	100.	10	9/30/00	13:23	B.Herford	8260B	7471
t-Butyl Formate	ND	ug/l	1000	100.	10	9/30/00	13:23	B.Herford	8260B	7471
Ethyl-t-butyl alcohol	ND	ug/l	1000	100.	10	9/30/00	13:23	B.Herford	8260B	7471
Isopropylether	ND	ug/l	20.0	10.0	10	9/30/00	13:23	B.Herford	8260B	7471

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	104.	71. - 136.
VOA Surr, Toluene d8	100.	69. - 129.
VOA Surr, 4-BFB	100.	65. - 122.
VOA Surr, DBFM	104.	61. - 139.

= Recovery outside Laboratory historical limits.

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 00-A137411
Sample ID: MW-11R

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 10/ 2/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

SCDHEC 2200

2600 BULL STREET
COLUMBIA, SC 29201

Project: 06742
Project Name:
Sampler: REED MINER

Lab Number: 00-A137412
Sample ID: MW-14
Sample Type: Water
Site ID:

Date Collected: 9/25/00
Time Collected: 12:58
Date Received: 9/27/00
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Ethyl-t-butylether	ND	ug/l	4.0	4.0	2	9/30/00	12:46	B.Herford	8260B	7471
Methyl-t-amyl ether	ND	ug/l	4.0	4.0	2	9/30/00	12:46	B.Herford	8260B	7471
t-Butanol	ND	ug/l	200.	100.	2	9/30/00	12:46	B.Herford	8260B	7471
Benzene	25.2	ug/l	4.0	2.0	2	9/30/00	12:46	B.Herford	8260B	7471
Ethylbenzene	89.6	ug/l	4.0	2.0	2	9/30/00	12:46	B.Herford	8260B	7471
Naphthalene	87.2	ug/l	10.0	5.0	2	9/30/00	12:46	B.Herford	8260B	7471
Toluene	145.	ug/l	4.0	2.0	2	9/30/00	12:46	B.Herford	8260B	7471
Xylenes, Total	682.	ug/l	4.0	2.0	2	9/30/00	12:46	B.Herford	8260B	7471
Ethanol	ND	ug/l	200.	100.	2	9/30/00	12:46	B.Herford	8260B	7471
Methyl-t-butyl ether	7.6	ug/l	4.0	2.0	2	9/30/00	12:46	B.Herford	8260B	7471
t-Amyl Alcohol	ND	ug/l	200.	100.	2	9/30/00	12:46	B.Herford	8260B	7471
t-Butyl Formate	ND	ug/l	200.	100.	2	9/30/00	12:46	B.Herford	8260B	7471
Ethyl-t-butyl alcohol	ND	ug/l	200.	100.	2	9/30/00	12:46	B.Herford	8260B	7471
Isopropylether	ND	ug/l	4.0	4.0	2	9/30/00	12:46	B.Herford	8260B	7471

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	102.	71. - 136.
VOA Surr, Toluene d8	102.	69. - 129.
VOA Surr, 4-BFB	100.	65. - 122.
VOA Surr, DBFM	102.	61. - 139.

= Recovery outside Laboratory historical limits.

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 00-A137412
Sample ID: MW-14

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 10/ 2/00

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

End of Sample Report.

TestAmerica
INCORPORATED

PROJECT QUALITY CONTROL DATA

Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
Benzene	mg/l	1.285	3.920	2.500	105	53. - 134.	7471	00-A137410
Toluene	mg/l	3.160	5.500	2.500	94	54. - 135.	7471	00-A137410

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Benzene	mg/l	3.920	4.050	3.26	25.	7471
Toluene	mg/l	5.500	5.650	2.69	29.	7471

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Ethyl-t-butylether	mg/l	0.0500	0.0468	94	70 - 130	7471
Methyl-t-amyl ether	mg/L	0.05	0.04	80	70 - 130	7471
t-Butanol	mg/l	0.500	0.619	124	70 - 130	7471
Benzene	mg/l	0.05000	0.05170	103	73 - 113	7471
Ethylbenzene	mg/l	0.05000	0.05140	103	78 - 119	7471
Naphthalene	mg/l	0.0500	0.0456	91	62 - 149	7471
Toluene	mg/l	0.05000	0.05140	103	70 - 119	7471
Xylenes, Total	mg/l	0.1500	0.1524	102	62 - 137	7471
Ethanol	mg/L	0.500	0.437	87	70 - 130	7471
Methyl-t-butyl ether	mg/l	0.0500	0.0478	96	68 - 129	7471
t-Amyl Alcohol	mg/L	0.500	0.430	86	70 - 130	7471
t-Butyl Formate	mg/L	0.500	0.442	88	70 - 130	7471
Ethyl-t-butyl alcohol	mg/L	0.50	0.38	76	70 - 130	7471
Isopropylether	mg/l	0.0500	0.0492	98	71 - 130	7471

Blank Data

Analyte	Blank Value	Units	Q.C. Batch
Ethyl-t-butylether	< 0.0020	mg/l	7471
Methyl-t-amyl ether	< 0.00	mg/L	7471
t-Butanol	< 0.100	mg/l	7471

Project QC continued . . .

TestAmerica
INCORPORATED

PROJECT QUALITY CONTROL DATA

Blank Data

Analyte	Blank Value	Units	Q.C. Batch
Benzene	< 0.00200	mg/l	7471
Ethylbenzene	< 0.00200	mg/l	7471
Naphthalene	< 0.0050	mg/l	7471
Toluene	< 0.00200	mg/l	7471
Xylenes, Total	< 0.00200	mg/l	7471
Ethanol	< 0.100	mg/L	7471
Methyl-t-butyl ether	< 0.0020	mg/l	7471
t-Amyl Alcohol	< 0.100	mg/L	7471
t-Butyl Formate	< 0.100	mg/L	7471
Ethyl-t-butyl alcohol	< 0.10	mg/L	7471
Isopropylether	< 0.0020	mg/l	7471

= Value outside Laboratory historical QC limits.

End of Report for Project 209436

TESTAMERICA, INC.

COOLER RECEIPT FORM

Client: SCDHEC BC# 209436

Cooler Received On: 11/27/00 And Opened On: 11/27/00 By: Mark Beasley

Mark Beasley
(Signature)

1. Temperature of Cooler when opened 4.0 DEGREES CELSIUS
2. Were custody seals on outside of cooler and intact?.....YES
   a. If yes,what kind and where: TAPE 1 Front
   b. Were the signature and date correct?.....YES
3. Were custody seals on containers intact?.....NO
4. Were custody papers inside cooler?.....YES
5. Were custody papers properly filled out (ink,signed,etc)?.....YES
6. Did you sign the custody papers in the appropriate place?.....YES
7. What kind of packing material was used? Bubblewrap Peanuts Other None
8. Was sufficient ice used (if appropriate)?.....YES
9. Did all bottles arrive in good condition(unbroken)?.....YES
10. Were all bottle labels complete (#,date,signed,pres,etc)?.....YES
11. Did all bottle labels and tags agree with custody papers?.....YES
12. Were correct bottles used for the analysis requested?.....YES
13. If present, was any observable VOA headspace present?.....NO
14. If present, were VOA vials checked for absence of air bubbles and noted if found?.....YES
15. Was sufficient amount of sample sent in each bottle?.....YES
16. Were correct preservatives used?.....YES
17. Was residual chlorine present (if appropriate?).....NO
18. Corrective action taken, if necessary:
    a. Name of person contacted: SEE ATTACHED FOR RESOLUTION IF NEEDED
    b. Date:_____

Chain of Custody Record

TESTAMERICA INC.

2200

Page 1 of ___

☐ Asheville, NC (A) (828) 254-5169	☐ Bartlett, IL (C) (630) 289-3100	☐ Cedar Falls, IA (E) (319) 277-2401	☐ Charlotte, NC (G) (704) 392-1164	☐ Dayton, OH (I) (937) 294-6856	☐ Lumberton, NC (K) (910) 738-6190	☐ Nashville, TN (M) (615) 726-0177	☐ Pontiac, MI (O) (248) 332-1940	☐ Rockford. Il (Q) (815) 874-2171
☐ Atlanta, GA (B) (770) 368-0636	☐ Brighton, CO (D) (303) 659-0497	☐ Charleston, SC (F) (843) 849-6550	☐ Columbia, SC (H) (803) 796-8989	☐ Davenport, IA (J) (319) 323-7944	☐ Indianapolis, IN (L) (317) 842-4261	☐ Macon, GA (N) (912) 757-0811	☐ Orlando, FL (P) (407) 851-2560	☐ Watertown, WI (R) (920) 261-1660

Client: SCDHEC
Project No.: 06742
Report Address: 2600 Bull St.
Columbia, SC 29201
Invoice Address:
Attn: Debra Thoma
Attn: Debra Thoma
Phone No.: 803-898-4350
Sampled By: Reed Miner
Fax No.: 803-898-4330
P.O. No: 179220
Quote No. Special
State Samples Collected SC

TURNAROUND TIME
☒ Standard
☐ Rush (surcharges may apply)
Date Needed: 10-3-00

REQUESTED PARAMETERS

209436 #2200

BTEX, Naph, MTBE 8260B
ETBE, TAME, TBA, TAA
TBF, ETBA, DIPE, Ethanol

RECEIVED
OCT 03 2000
Bureau of Underground Storage Tank Management

Is this work being conducted for regulatory compliance monitoring? Yes___ No X

Is this work being conducted for regulatory enforcement action? Yes___ No X

Which regulations apply:
RCRA___ NPDESWastewater___
UST X Drinking Water___
Other___ None___

Sample ID	Date	Time	Comp (C) Grab (G)	Matrix	Lab Use	BTEX, Naph, MTBE 8260B	ETBE, TAME, TBA, TAA, TBF, ETBA, DIPE, Ethanol	# and type of containers: HCl	NaOH	HNO_3	H_2SO_4	Other	None	REMARKS
MW-1AR	9-25	1223	G	W	137410	X	X	3						
MW-11R	9-25	1244	G	W	11	X	X	3						
MW-14	9-25	1258	G	W	12	X	X	3						
MW-2R	9-25	1315	G	W	13	X	X	3						
MW-6	9-25	1337	G	W	14	X	X	3						
MW-7	9-25	1377	G	W	15	X	X	3						
MW-8	9-25	1418	G	W	16	X	X	3						
MW-1R	9-25	1442	G	W	137417	X	X	3						

QC Deliverables: ☐ None ☐ Level 2 - Batch QC ☐ Level 3 ☐ Level 4 ☐ Other

Init Lab Temp | Rec Lab Temp

COMMENTS: CP #11806: P 821162918659 4.0 FAX CHAIN TO COLUMBIA

Relinquished By: Reed B. Miner	Date 9-26-00	Time 1303	Received By: [signature]	Date 9-26-00	Time 13:05
Relinquished By: [signature]	Date 9-26-00	Time 850	Received By: M. Beasley	Date 9/27/00	Time 9:00
Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	Date	Time	Received By:	Date	Time

LAB USE ONLY:
Custody Seal: ☐ Yes ☐ No ☐ N/A
Bottles Supplied by TA: ☐ Yes ☐ No

TestAmerica INCORPORATED Division/Laboratory Name: Charleston, SC

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Rick Smith Client #: 2432 25674 3

Address: 145 Merrill Ave.

City/State/Zip Code: Decatur, GA. 30030

Project Manager: _____

Telephone Number: (404) 371-9332 Fax: _____

Sampler Name: (Print Name) Travis Crowder

Sampler Signature: [signature]

Project Name: Crossroads

Project #: _____

Site/Location ID: _____ State: S.C.

Report To: SAME

Invoice To: SAME

Quote #: _____ PO#: _____

TAT: ✓ Standard; ___ Rush (surcharges may apply)
Date Needed: ~~10/16/01~~ 10/22/01
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: 8260 - BTEX, MTBE (MARTA)	REMARKS
MW-10	10/9	3:00	G		GW		2						✓	148059
MWR-3	10/9	3:25	G		GW		2						✓	148060
MWR-11	10/9	4:05	G		GW		2						✓	61
MWR-2	10/9	4:32	G		GW		2						✓	62
MWR-1A	10/9	5:04	G		GW		2						✓	63
MW-8	10/9	5:30	G		GW		2						✓	1980 64

QC Deliverables: ___ None; ✓ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

Special Instructions:

	Date:	Time:		Date:	Time:
Relinquished By: [signature]	10/15/01	12:30	Received By: [signature]	10/15/01	1220
Relinquished By: [signature]	10/15/01	1800	Received By: Marvin Blank	10-16-01	9:00
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 20
Custody Seals: Y N N/A
Bottles Supplied by TestAmerica: Y N
Method of Shipment: 831872257945 Fedex to TA-Nashville

ATTN: John Nevels RUSH to make holding time.

CHAIN OF CUSTODY RECORD

NOT Rush per John Nevels LB 4/9/98

Environmental Testing & Consulting, Inc.
2924 Walnut Grove Rd.
Memphis, TN 38111
(901)327-2750 FAX (901)327-6334

ETC Work Order : 98047278

All other lab work done through Goldie & Associates Inc. (ATTN: Ralph Ty 1-864-882-81

Company Name: CEC, Inc.
Project/Site: Tokeena Crossroads, SC Crossroads Grocery
Project #:
Project Manager/Contact: Mirta Carpenter

Phone #: 770-577-8909
Fax #: 770-577-9401
FID #:
PO #:

Fax Results: RUSH X
Ice

Matrix: 1 Wastewater, 2 Aqueous, 3 Soil/Sediment, 4 Sludge, 5 Solvent, 6 Other

Analysis Requested (Note special detection limits or methods): These samples were sent direct to save time

# of cont.	Sample ID/ Number	Depth	Sample Date	Sample Time	Matrix	Type Grab/Comp	PAH (8270)	BTEX/Naph (8260)	Comments
2	UST-SB#3	5-7'	4/4/98	11:30am	Soil-3	Split spoon	✓	✓	please rush to test within 7 day holding
2	L&D-SB#5	7' (6-8')	4/4/98	1:30pm	Soil-3	"	✓	✓	"
2	L&D-SB#6	10'	4/4/98	3pm	Soil-3	"	✓	✓	"

please RUSH

Sampled By: Mirta Carpenter
Method of Shipment: Fed Ex
Blank/Cooler Temp: ice-cooled
Remarks: Please rush tests to make 7-day holding time allowed.

RELINQUISHED BY (sign)	DATE	TIME	RECEIVED BY (sign)	DATE	TIME	Sample Delivery Group ID
Mirta Carpenter	4/8/98	4pm	Fed Ex	4/8/98	6pm	
RELINQUISHED BY (sign)	DATE	TIME	RECEIVED BY (sign)	DATE	TIME	
RELINQUISHED BY (sign)	DATE	TIME	RECEIVED BY LAB (print/sign) Bugg/Lynette Bugg	4/9/98	0900	

Distribution : Original and Yellow accompany samples to the laboratory. Pink copy for Field Crew.
Original copy returned with results. Yellow copy for [illegible] files.

GOLDIE & ASSOCIATES TEL: Apr 08'98 16:31 No.007 P.02

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID: MW-15
CLIENT NUMBER: 326.1
SAMPLE COLLECTION START DATE & TIME: 4/14/98 1500
LAB SAMPLE ID NUMBER: 9804-084
COLLECTED BY: Client
STOP DATE & TIME
Number Containers: 10

Sample Matrix: Wastewater ☐ Ground Water ☒ Drinking Water ☐ Soils ☐ Other (specify) ☐

Preservative: 1 - HNO3 4-HCl 7-EDTA 2 - H2SO4 5-Na2S2O3 8-Refrigeration 3 - NaOH 6-Zinc Acetate

Checked By: _____

Sample Type: Grab ☒ Composite ☐

Turnaround: 10-15 Work Days ☒ 5 Work Days ☐ 24-48 Hours ☐

Surcharge: None ☒ Times 2 ☐ Times 3 ☐

Parameter	Results	Date & time	Init.	Pres.
General Chemistry				
Alkalinity				8
Ammonia				8+2
BOD, 5 day				8
COD				8+2
Chlorine, Total Residual				8
Chloride				8
Cyanide				8+3
Dissolved Oxygen				8
Flash Point				
Formaldehyde				8
Nitrate				8
Nitrite				8
Nitrate/Nitrite				8+2
Nitrogen, Total				8+2
Nitrogen, Total Organic				8+2
Oil & Grease				8+2
Paint Filter Test				
pH				8
Phenols, Total				8+2
Phosphorus, Ortho				8
Phosphorus, Total				8+2
Solids, Total Diss. (TDS)				8
Solids, Total (TS)				8
Solids, Total Susp. (TSS)				8
Specific Conductivity				8
Sulfates				8
Sulfides				8+5+6
Sulfites				8+7
TOC				8+2
TKN				8+2
Turbidity				8
Microbiology				
Fecal Coliform				8+5
Total Coliform				8+5

Parameter	Results	Date & Time	Init.	Pres.
Metals				
Aluminum				1
Antimony				1
Arsenic				1
Barium				1
Beryllium				1
Boron				1
Cadmium				1
Calcium				1
Cesium				1
Chromium				1
Cobalt				1
Copper				1
Iron				1
Lead				1
Magnesium				1
Manganese				1
Mercury				1
Molybdenum				1
Nickel				1
Potassium				1
Selenium				1
Silver				1
Sodium				1
Thallium				1
Tin				1
Vanadium				1
Zinc				1
(Fe 2+)				
Organics (Specify Method Where Appropriate)				
Acid Extractables				8
B/N Extractables				8
BTEX / Napth. / MTBE / Trimethylbenzene X				8+4
~~TCL~~ PAH's X				8
~~VOCs~~ EDB X				8+4

Relinquished By: [signature] — Received By: [signature] — Date/Time: 4/14/98 1700

Relinquished By: _____ — Received By: _____ — Date/Time: _____

Sample Location/Comments:

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID: MW-2
LAB SAMPLE ID NUMBER: 9804-035
CLIENT NUMBER: 326.1
COLLECTED BY: Client
SAMPLE COLLECTION: START DATE & TIME
STOP DATE & TIME: 4/2/98 1230
Number Containers: 10

Sample Matrix:		Preservative:	Checked By:	Sample Type:	Turnaround	Surcharge
Wastewater ☐	Ground Water ☒	1 - HNO3 4-HCl 7-EDTA	PW	Grab ☒	10-15 Work Days ☒	None
Drinking Water ☐	Soils ☐	2 - H2SO4 5-Na2S2O3 8-Refrigeration		Composite ☐	5 Work Days ☐	Times 2
Other (specify) ☐		3 - NaOH 6-Zinc Acetate			24-48 Hours ☐	Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7	Fe^{2+}				
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / Napth. / MTBE / Trimethylbenzene			X	8+4
Fecal Coliform				8+5	~~TDH~~ ~~PAHs~~ X				8
Total Coliform				8+5	~~VOCs~~ EDB X				8+4

Relinquished By	Received By	Date/Time
[signature]	[signature]	4/2/98 1900
Relinquished By	Received By	Date/Time

Sample Location/Comments:

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID: MW-3
CLIENT NUMBER: 326.1
SAMPLE COLLECTION: START DATE & TIME
LAB SAMPLE ID NUMBER: 9804-036
COLLECTED BY: Client
4/2/98 1100 STOP DATE & TIME
Number Containers: 10

Sample Matrix: Wastewater ☐ Drinking Water ☐ Other (specify) ☐ Ground Water ☒ Soils ☐

Preservative: 1 - HNO3 4-HCl 7-EDTA 2 - H2SO4 5-Na2S2O3 8-Refrigeration 3 - NaOH 6-Zinc Acetate
Checked By: DW

Sample Type: Grab ☒ Composite ☐

Turnaround: 10-15 Work Days ☒ 5 Work Days ☐ 24-48 Hours ☐
Surcharge: None ☐ Times 2 ☐ Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					Metals				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7	Fe2+				
TOC				8+2					
TKN				8+2					
Turbidity				8	Organics (Specify Method Where Appropriate)				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / Napth. / MTBE / Trimethylbenzene			X	8+4
Fecal Coliform				8+5	~~TDH~~ ~~[illegible]~~ X				8
Total Coliform				8+5	~~VOCs~~ EDB X				8+4

Relinquished By: [signature] Received By: [signature] Date/Time: 4/2/98 1900
Relinquished By: Received By: Date/Time:

Sample Location/Comments:

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK - LAB

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID: MW-14
LAB SAMPLE ID NUMBER: 9804-041
CLIENT NUMBER: 326.1
COLLECTED BY: Client
SAMPLE COLLECTION: START DATE & TIME
STOP DATE & TIME: 4/2/98 1800
Number Containers: 10

Sample Matrix:		Preservative:	Checked By:	Sample Type:	Turnaround	Surcharge
Wastewater ☐	Ground Water ☒	1 - HNO3 4-HCl 7-EDTA	PW	Grab ☒	10-15 Work Days ☒	None
Drinking Water ☐	Soils ☐	2 - H2SO4 5-Na2S2O3 8-Refrigeration		Composite ☐	5 Work Days ☐	Times 2
Other (specify) ☐		3 - NaOH 6-Zinc Acetate			24-48 Hours ☐	Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7	Fe^{2+}				
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / Napth. / MTBE / Trimethylbenzene			X	8+4
Fecal Coliform				8+5	~~TOH~~ PAH'S X				8
Total Coliform				8+5	~~VOCs~~ EDB X				8+4

Relinquished By	Received By	Date/Time
[signature]	[signature]	4/2/98 1900
Relinquished By	Received By	Date/Time

Sample Location/Comments:

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID: [illegible]
LAB SAMPLE ID NUMBER: [illegible]-027
CLIENT NUMBER: [illegible]
COLLECTED BY: [illegible]
SAMPLE COLLECTION: START DATE & TIME
4/1/98 0830 PM STOP DATE & TIME
Number Containers: 0

Sample Matrix:		Preservative:	Checked By:	Sample Type:	Turnaround	Surcharge
Wastewater ☐	Ground Water ☒	1 - HNO3 4-HCl 7-EDTA	[illegible]	Grab ☒	10-15 Work Days	☒ None
Drinking Water ☐	Soils ☐	2 - H2SO4 5-Na2S2O3 8-Refrigeration		Composite ☐	5 Work Days	☐ Times 2
Other (specify) ☐		3 - NaOH 6-Zinc Acetate			24-48 Hours	☐ Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7	Fe^{2+}				
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / Naphth / MTBE / Trimethyl benzene				8+4
Fecal Coliform				8+5	TPH / PAHs				8
Total Coliform				8+5	VOCs / EDB				8+4

Relinquished By	Received By	Date/Time
[illegible]	Wong Fis	4/2/98 0830
Relinquished By	Received By	Date/Time

Sample Location/Comments: MW-13

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID 226.1 [illegible] LAB SAMPLE ID NUMBER 1804-025
CLIENT NUMBER COLLECTED BY [illegible]
SAMPLE COLLECTION START DATE & TIME 4/1/98 [illegible] STOP DATE & TIME Number Containers [illegible]

Sample Matrix:		Preservative:	Checked By:	Sample Type:	Turnaround	Surcharge
Wastewater ☐	Ground Water ☐	1 - HNO3 4-HCl 7-EDTA	[illegible]	Grab ☒	10-15 Work Days ☒	None
Drinking Water ☐	Soils ☐	2 - H2SO4 5-Na2S2O3 8-Refrigeration		Composite ☐	5 Work Days ☐	Times 2
Other (specify) ☐		3 - NaOH 6-Zinc Acetate			24-48 Hours ☐	Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7	Ferrous Iron				
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / NaPH / MTBE / Trimethylbenzene				8+4
Fecal Coliform				8+5	~~TPH~~ DAH'S				8
Total Coliform				8+5	~~VOCs~~ EOB				8+4

Relinquished By	Received By	Date/Time
[illegible]	[illegible]	4/2/98 0830
Relinquished By	Received By	Date/Time

Sample Location/Comments:

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID: MW-80 | LAB SAMPLE ID NUMBER: 9804-040
CLIENT NUMBER: 326.1 | COLLECTED BY: Client
SAMPLE COLLECTION START DATE & TIME: | STOP DATE & TIME: 4/2/98 1700 | Number Containers: 10

Sample Matrix:		Preservative:	Checked By: PW	Sample Type:	Turnaround	Surcharge
Wastewater ☐	Ground Water ☒	1 - HNO3 4-HCl 7-EDTA		Grab ☒	10-15 Work Days ☒	None
Drinking Water ☐	Soils ☐	2 - H2SO4 5-Na2S2O3 8-Refrigeration		Composite ☐	5 Work Days ☐	Times 2
Other (specify) ☐		3 - NaOH 6-Zinc Acetate			24-48 Hours ☐	Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7	(Fe 2+)				
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / Naph. / MTBE / Trimethylbenzene	X			8+4
Fecal Coliform				8+5	~~Total~~ PAH's X				8
Total Coliform				8+5	~~VOCs~~ EDB X				8+4

Relinquished By: [signature]	Received By: [signature]	Date/Time: 4/2/98 1900
Relinquished By	Received By	Date/Time

Sample Location/Comments:

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID: [illegible]
LAB SAMPLE ID NUMBER: [illegible]
CLIENT NUMBER: [illegible]
COLLECTED BY: [illegible]
SAMPLE COLLECTION: START DATE & TIME
STOP DATE & TIME: [illegible] 1030
Number Containers: [illegible]

Sample Matrix:		Preservative:	Checked By:	Sample Type:	Turnaround	Surcharge
Wastewater ☐	Ground Water ☒	1 - HNO3 4-HCl 7-EDTA	[illegible]	Grab ☒	10-15 Work Days	☒ None
Drinking Water ☐	Soils ☐	2 - H2SO4 5-Na2S2O3 8-Refrigeration		Composite ☐	5 Work Days	☐ Times 2
Other (specify) ☐		3 - NaOH 6-Zinc Acetate			24-48 Hours	☐ Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7	[illegible]				
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / Naph / MTBE / Trimethylbenzene				8+4
Fecal Coliform				8+5	~~TPH~~ DAH				8
Total Coliform				8+5	~~VOCs~~ EDB				8+4

Relinquished By	Received By	Date/Time
[signature]	[signature]	4/2/98 8:30am
Relinquished By	Received By	Date/Time

Sample Location/Comments:

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID: MW-7 | LAB SAMPLE ID NUMBER: 9804-039
CLIENT NUMBER: 326.1 | COLLECTED BY: Client
SAMPLE COLLECTION START DATE & TIME: | STOP DATE & TIME: 4/2/98 1630 | Number Containers: 10

Sample Matrix: Wastewater ☐ Ground Water ☒ Drinking Water ☐ Soils ☐ Other (specify) ☐

Preservative: 1 - HNO3 4-HCl 7-EDTA 2 - H2SO4 5-Na2S2O3 8-Refrigeration 3 - NaOH 6-Zinc Acetate

Checked By: pw

Sample Type: Grab ☒ Composite ☐

Turnaround: 10-15 Work Days ☒ 5 Work Days ☐ 24-48 Hours ☐

Surcharge: None ☒ Times 2 ☐ Times 3 ☐

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7	Fe^{2+}				
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX /Naph. / MTBE / Trimethylbenzene	X			8+4
Fecal Coliform				8+5	~~TPH~~ PAH's X				8
Total Coliform				8+5	~~VOCs~~ EDB X				8+4

Relinquished By: Linda L. Campbell	Received By:	Date/Time: 4/2/98 1900
Relinquished By:	Received By:	Date/Time:

Sample Location/Comments:

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK - LAB

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID: MW-6 | LAB SAMPLE ID NUMBER: 9804-038
CLIENT NUMBER: 326.1 | COLLECTED BY: Client
SAMPLE COLLECTION START DATE & TIME: | STOP DATE & TIME: 4/2/98 1500 | Number Containers: 10

Sample Matrix:		Preservative:	Checked By: pw	Sample Type:	Turnaround	Surcharge
Wastewater ☐	Ground Water ☒	1 - HNO3 4-HCl 7-EDTA		Grab ☒	10-15 Work Days ☒	None
Drinking Water ☐	Soils ☐	2 - H2SO4 5-Na2S2O3 8-Refrigeration		Composite ☐	5 Work Days ☐	Times 2
Other (specify) ☐		3 - NaOH 6-Zinc Acetate			24-48 Hours ☐	Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7	Fe 2+				
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / Naph. / MTBE / Trimethylbenzene	X			8+4
Fecal Coliform				8+5	~~TPH~~ PAH's X				8
Total Coliform				8+5	~~VOCs~~ EDB X				8+4

Relinquished By: [signature]	Received By: [signature]	Date/Time: 4/2/98 1900
Relinquished By:	Received By:	Date/Time:

Sample Location/Comments:

RFVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID: MW-4
CLIENT NUMBER: 326.1
SAMPLE COLLECTION START DATE & TIME:
LAB SAMPLE ID NUMBER: 9804-037
COLLECTED BY: client
STOP DATE & TIME: 4/2/98 1400
Number Containers: 10

Sample Matrix: Wastewater ☐ Ground Water ☒ Drinking Water ☐ Soils ☐ Other (specify) ☐

Preservative: 1 - HNO3 4-HCl 7-EDTA 2 - H2SO4 5-Na2S2O3 8-Refrigeration 3 - NaOH 6-Zinc Acetate

Checked By: pw

Sample Type: Grab ☒ Composite ☐

Turnaround: 10-15 Work Days ☒ 5 Work Days ☐ 24-48 Hours ☐

Surcharge: None ☒ Times 2 ☐ Times 3 ☐

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					Metals				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7	(Fe27)				
TOC				8+2					
TKN				8+2					
Turbidity				8	Organics (Specify Method Where Appropriate)				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / Naph. / MTBE / Trimethylbenzene X				8+4
Fecal Coliform				8+5	~~TOH~~ PAH's X				8
Total Coliform				8+5	~~VOCs~~ EDB X				8+4

Relinquished By: [signature]	Received By: [signature]	Date/Time: 4/2/98 1900
Relinquished By	Received By	Date/Time

Sample Location/Comments:

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

CHAIN OF CUSTODY RECORD

GOLDIE & ASSOCIATES
210-A W. NORTH SECOND STREET
SENECA, SOUTH CAROLINA 29678
(864) 882-8194 FAX (864) 882-0851

CLIENT SAMPLE ID [illegible]
LAB SAMPLE ID NUMBER 7504 - 026
CLIENT NUMBER 326
COLLECTED BY [illegible]
SAMPLE COLLECTION
START DATE & TIME
[illegible] 20
STOP DATE & TIME
Number Containers [illegible]

Sample Matrix:		Preservative:	Checked By:	Sample Type:	Turnaround	Surcharge
Wastewater ☐	Ground Water ☐	1 - HNO3 4-HCl 7-EDTA	[illegible]	Grab ☒	10-15 Work Days	☒ None
Drinking Water ☐	Soils ☐	2 - H2SO4 5-Na2S2O3 8-Refrigeration		Composite ☐	5 Work Days	☐ Times 2
Other (specify) ☐		3 - NaOH 6-Zinc Acetate			24-48 Hours	☐ Times 3

Parameter	Results	Date & time	Init.	Pres.	Parameter	Results	Date & Time	Init.	Pres.
General Chemistry					**Metals**				
Alkalinity				8	Aluminum				1
Ammonia				8+2	Antimony				1
BOD, 5 day				8	Arsenic				1
COD				8+2	Barium				1
Chlorine, Total Residual				8	Beryllium				1
Chloride				8	Boron				1
Cyanide				8+3	Cadmium				1
Dissolved Oxygen				8	Calcium				1
Flash Point					Cesium				1
Formaldehyde				8	Chromium				1
Nitrate				8	Cobalt				1
Nitrite				8	Copper				1
Nitrate/Nitrite				8+2	Iron				1
Nitrogen, Total				8+2	Lead				1
Nitrogen, Total Organic				8+2	Magnesium				1
Oil & Grease				8+2	Manganese				1
Paint Filter Test					Mercury				1
pH				8	Molybdenum				1
Phenols, Total				8+2	Nickel				1
Phosphorus, Ortho				8	Potassium				1
Phosphorus, Total				8+2	Selenium				1
Solids, Total Diss. (TDS)				8	Silver				1
Solids, Total (TS)				8	Sodium				1
Solids, Total Susp. (TSS)				8	Thallium				1
Specific Conductivity				8	Tin				1
Sulfates				8	Vanadium				1
Sulfides				8+5+6	Zinc				1
Sulfites				8+7	Tot				
TOC				8+2					
TKN				8+2					
Turbidity				8	**Organics (Specify Method Where Appropriate)**				
					Acid Extractables				8
					B/N Extractables				8
Microbiology					BTEX / [illegible] / MTBE / [illegible]				8+4
Fecal Coliform				8+5	~~TPH~~ PAH				8
Total Coliform				8+5	~~VOCs~~ EDB				8+4

Relinquished By	Received By	Date/Time
[illegible]	[illegible]	4/2/98 0830
Relinquished By	Received By	Date/Time

Sample Location/Comments:

REVIEW BY:

WHITE - OFFICE/CLIENT YELLOW - REPORT PINK -LAB

TestAmerica
INCORPORATED

12/14/01

SCDHEC 2200
UNDERGRD STOR TANK-DEBRA THOMA
2600 BULL STREET
COLUMBIA, SC 29201

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project 06742 HOT SPOT 2040.
An executed copy of the chain of custody and the sample receipt form are also included as an addendum to this report.

Sample Identification	Lab Number	Collection Date
MW-1R	01-A178178	12/ 6/01

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 12/14/01

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

TestAmerica
INCORPORATED

ANALYTICAL REPORT

SCDHEC 2200
UNDERGRD STOR TANK-DEBRA THOMA
2600 BULL STREET
COLUMBIA, SC 29201

Project: 06742
Project Name: HOT SPOT 2040
Sampler: B. FALLER

Lab Number: 01-A178178
Sample ID: MW-1R
Sample Type: Water
Site ID:

Date Collected: 12/ 6/01
Time Collected:
Date Received: 12/ 8/01
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Benzene	35.0	ug/l	10.0	2.0	10	12/14/01	15:15	M.Himelick	8260B	9772
Toluene	59.0	ug/l	10.0	2.0	10	12/14/01	15:15	M.Himelick	8260B	9772
Ethylbenzene	19.0	ug/l	10.0	2.0	10	12/14/01	15:15	M.Himelick	8260B	9772
Xylenes, Total	190.	ug/l	10.0	2.0	10	12/14/01	15:15	M.Himelick	8260B	9772
Methyl-t-butyl ether	ND	ug/l	50.0	2.0	10	12/14/01	15:15	M.Himelick	8260B	9772
Naphthalene	60.0	ug/l	10.0	5.0	10	12/14/01	15:15	M.Himelick	8260B	9772

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	120.	60. - 158.
VOA Surr Toluene-d8	121.	82. - 127.
VOA Surr, 4-BFB	100.	72. - 136.
VOA Surr, DBFM	120.	81. - 137.

LABORATORY COMMENTS:

ND = Not detected at the report limit.

= Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
INCORPORATED

PROJECT QUALITY CONTROL DATA
Project Number: 06742
Page: 1

Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	< 0.00100	0.06480	0.05000	130	70. - 136.	9772	blank
Toluene	mg/l	< 0.00100	0.06300	0.05000	126	69. - 137.	9772	blank

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.06480	0.06230	3.93	21.	9772
Toluene	mg/l	0.06300	0.05970	5.38	22.	9772

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.1000	0.1190	119	79 - 124	9772
Ethylbenzene	mg/l	0.1000	0.1010	101	77 - 126	9772
Naphthalene	mg/l	0.1000	0.0883	88	57 - 143	9772
Toluene	mg/l	0.1000	0.1178	118	78 - 124	9772
Xylenes, Total	mg/l	0.3000	0.3144	105	76 - 127	9772
Methyl-t-butyl ether	mg/l	0.1000	0.1152	115	68 - 131	9772

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 06742
Page: 2

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.00100	mg/l	9772	12/13/01	22:27
Ethylbenzene	< 0.00100	mg/l	9772	12/13/01	22:27
Naphthalene	< 0.0050	mg/l	9772	12/13/01	22:27
Toluene	< 0.00100	mg/l	9772	12/13/01	22:27
Xylenes, Total	< 0.00100	mg/l	9772	12/13/01	22:27
Methyl-t-butyl ether	< 0.0050	mg/l	9772	12/13/01	22:27
VOA Surr 1,2-DCA-d4	117.	% Rec	9772	12/13/01	22:27
VOA Surr Toluene-d8	116.	% Rec	9772	12/13/01	22:27
VOA Surr, 4-BFB	110.	% Rec	9772	12/13/01	22:27

- Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 263575

TESTAMERICA, INC.-NASHVILLE

COOLER RECEIPT FORM

Client: TA - Columbia BC# 263575

Cooler Received On: 12/8/4 And Opened On: 12/8/4 By: Paul Buckingham

(Signature)

1. Temperature of Cooler when opened 1.0 Degrees Celsius
2. Were custody seals on outside of cooler? ..... (YES) NO
   a. If yes, how many, what kind and where: 2 front/side
3. Were custody seals on containers and intact? ..... (NO) YES
4. Were the seals intact, signed, and dated correctly? ..... (YES) NO
5. Were custody papers inside cooler? ..... (YES) NO
6. Were custody papers properly filled out (ink, signed, etc)? ..... (YES) NO
7. Did you sign the custody papers in the appropriate place? ..... (YES) NO
8. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite Other None
9. Was sufficient ice used (if appropriate)? ..... (YES) NO
10. Did all bottles arrive in good condition (unbroken)? ..... (YES) NO
11. Were all bottle labels complete (#, date, signed, pres, etc)? ..... (YES) NO
12. Did all bottle labels and tags agree with custody papers? ..... (YES) NO
13. Were correct bottles used for the analysis requested? ..... (YES) NO
14. a. Were VOA vials received? ..... (YES) NO
    b. Was there any observable head space present in any VOA vial? ..... (NO) YES
15. Was sufficient amount of sample sent in each bottle? ..... (YES) NO
16. Were correct preservatives used? ..... (YES) NO
17. Was residual chlorine present? ..... NO YES ~~NA~~
18. Corrective action taken, if necessary:

See attached for resolution

TestAmerica INCORPORATED

263575

Division/Laboratory Name: FAX CHAIN TO COLUMBIA

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring

Client Name: SCDHEC Client #: 2200
Address: 2600 Bull St.
City/State/Zip Code: Colu, S.C. 29201
Project Manager: R. Miner
Telephone Number: 803 898-4350 Fax: 803 898-4330
Sampler Name: (Print Name) B. Faller
Sampler Signature: [signature]

Project Name: Hot Spot 2040
Project #: 06742
Site/Location ID: Oconee State: S.C.
Report To: D. Thoma
Invoice To: P. Holland
Quote #: PO#: 179220

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: 12/14/01
Fax Results: Y N

Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other
Preservation & # of Containers
Analyze For:

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	BTEX, Naph, MTBE 8260										REMARKS
MW-1R	12/06/01		G		GW		3						X										178178

RECEIVED
DEC 17 2001
Underground Storage Tank Program

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

Special Instructions:
CP# 15327:P Fed Ex# 828105708915

Relinquished By: [signature]	Date: 12/07/01	Time: 0935	Received By: C. Compton	Date: 12/7/01	Time: 9:30
Relinquished By: [signature]	Date: 12/7/01	Time: 1635	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By: [signature]	Date: 12/8/01	Time: 9:00

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by TestAmerica: Y N
Method of Shipment:

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11254
Sample ID: MW-1
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 15:45
Date Received: 1/28/99
Time Received: 9:00

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	28200	ug/l	500.	1.0	500	2/ 4/99	12:20	B.Herford	8021B	211
Toluene	37200	ug/l	500.	1.0	500	2/ 4/99	12:20	B.Herford	8021B	211
Ethylbenzene	2750	ug/l	500.	1.0	500	2/ 4/99	12:20	B.Herford	8021B	211
Xylenes, total	19500	ug/l	500.	1.0	500	2/ 4/99	12:20	B.Herford	8021B	211
Methyl-t-butylether	24600	ug/l	500.	1.0	500	2/ 4/99	12:20	B.Herford	8021B	211
Naphthalene	4750	ug/l	2500	5.0	500	2/ 4/99	12:20	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	91.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Lab Number: 99-A11259
Sample ID: MW-1A
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 19:00
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	33700	ug/l	1000	1.0	1000	2/ 4/99	14:47	B.Herford	8021B	211
Toluene	39300	ug/l	1000	1.0	1000	2/ 4/99	14:47	B.Herford	8021B	211
Ethylbenzene	1700	ug/l	1000	1.0	1000	2/ 4/99	14:47	B.Herford	8021B	211
Xylenes, total	13500	ug/l	1000	1.0	1000	2/ 4/99	14:47	B.Herford	8021B	211
Methyl-t-butylether	193000	ug/l	1000	1.0	1000	2/ 4/99	14:47	B.Herford	8021B	211
Naphthalene	ND	ug/l	5000	5.0	1000	2/ 4/99	14:47	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	97.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11252
Sample ID: MW-2
Sample Type: Water
Site ID:

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Date Collected: 1/25/99
Time Collected: 14:55
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	18.9	ug/l	1.0	1.0	1	2/ 3/99	22:45	B.Herford	8021B	211
Toluene	12.4	ug/l	1.0	1.0	1	2/ 3/99	22:45	B.Herford	8021B	211
Ethylbenzene	1.8	ug/l	1.0	1.0	1	2/ 3/99	22:45	B.Herford	8021B	211
Xylenes, total	20.8	ug/l	1.0	1.0	1	2/ 3/99	22:45	B.Herford	8021B	211
Methyl-t-butylether	66.5	ug/l	1.0	1.0	1	2/ 3/99	22:45	B.Herford	8021B	211
Naphthalene	5.0	ug/l	5.0	5.0	1	2/ 3/99	22:45	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	100	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 6320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11253
Sample ID: MW-3
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 15:06
Date Received: 1/28/99
Time Received: 9:00

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	ND	ug/l	1.0	1.0	1	2/ 3/99	23:14	B.Herford	8021B	211
Toluene	ND	ug/l	1.0	1.0	1	2/ 3/99	23:14	B.Herford	8021B	211
Ethylbenzene	ND	ug/l	1.0	1.0	1	2/ 3/99	23:14	B.Herford	8021B	211
Xylenes, total	ND	ug/l	1.0	1.0	1	2/ 3/99	23:14	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	1.0	1.0	1	2/ 3/99	23:14	B.Herford	8021B	211
Naphthalene	ND	ug/l	5.0	5.0	1	2/ 3/99	23:14	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	108.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11250
Sample ID: MW-5
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 13:15
Date Received: 1/28/99
Time Received: 9:00

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	ND	ug/l	1.0	1.0	1	2/ 3/99	21:47	B.Herford	8021B	211
Toluene	ND	ug/l	1.0	1.0	1	2/ 3/99	21:47	B.Herford	8021B	211
Ethylbenzene	ND	ug/l	1.0	1.0	1	2/ 3/99	21:47	B.Herford	8021B	211
Xylenes, total	ND	ug/l	1.0	1.0	1	2/ 3/99	21:47	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	1.0	1.0	1	2/ 3/99	21:47	B.Herford	8021B	211
Naphthalene	ND	ug/l	5.0	5.0	1	2/ 3/99	21:47	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	105.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8020
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11251
Sample ID: MW-6
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 14:25
Date Received: 1/28/99
Time Received: 9:00

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	6920	ug/l	50.0	1.0	50	2/ 3/99	22:16	B.Herford	8021B	211
Toluene	9800	ug/l	50.0	1.0	50	2/ 3/99	22:16	B.Herford	8021B	211
Ethylbenzene	1080	ug/l	50.0	1.0	50	2/ 3/99	22:16	B.Herford	8021B	211
Xylenes, total	7460	ug/l	50.0	1.0	50	2/ 3/99	22:16	B.Herford	8021B	211
Methyl-t-butylether	1810	ug/l	50.0	1.0	50	2/ 3/99	22:16	B.Herford	8021B	211
Naphthalene	495.	ug/l	250.	5.0	50	2/ 3/99	22:16	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	93.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11247
Sample ID: MW-7
Sample Type: Water
Site ID:

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Date Collected: 1/25/99
Time Collected: 10:30
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	2200	ug/l	50.0	1.0	50	2/ 3/99	20:19	B.Herford	8021B	211
Toluene	9360	ug/l	50.0	1.0	50	2/ 3/99	20:19	B.Herford	8021B	211
Ethylbenzene	1280	ug/l	50.0	1.0	50	2/ 3/99	20:19	B.Herford	8021B	211
Xylenes, total	7440	ug/l	50.0	1.0	50	2/ 3/99	20:19	B.Herford	8021B	211
Methyl-t-butylether	110.	ug/l	50.0	1.0	50	2/ 3/99	20:19	B.Herford	8021B	211
Naphthalene	430	ug/l	250.	5.0	50	2/ 3/99	20:19	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	112.	50. - 150.

Report Approved By: JM Mitchell Report Date: 2/ 5/99

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Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: B4009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11248
Sample ID: MW-9
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 10:55
Date Received: 1/28/99
Time Received: 9:00

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	5.6	ug/l	1.0	1.0	1	2/ 3/99	20:48	B.Herford	8021B	211
Toluene	2.9	ug/l	1.0	1.0	1	2/ 3/99	20:48	B.Herford	8021B	211
Ethylbenzene	ND	ug/l	1.0	1.0	1	2/ 3/99	20:48	B.Herford	8021B	211
Xylenes, total	9.3	ug/l	1.0	1.0	1	2/ 3/99	20:48	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	1.0	1.0	1	2/ 3/99	20:48	B.Herford	8021B	211
Naphthalene	ND	ug/l	5.0	5.0	1	2/ 3/99	20:48	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	102.	50. - 150.

Report Approved By: J Mitchell Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11258
Sample ID: MW-10
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 18:00
Date Received: 1/28/99
Time Received: 9:00

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	ND	ug/l	1.0	1.0	1	2/ 4/99	14:18	B.Herford	8021B	211
Toluene	ND	ug/l	1.0	1.0	1	2/ 4/99	14:18	B.Herford	8021B	211
Ethylbenzene	ND	ug/l	1.0	1.0	1	2/ 4/99	14:18	B.Herford	8021B	211
Xylenes, total	ND	ug/l	1.0	1.0	1	2/ 4/99	14:18	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	1.0	1.0	1	2/ 4/99	14:18	B.Herford	8021B	211
Naphthalene	ND	ug/l	5.0	5.0	1	2/ 4/99	14:18	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	105	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11249
Sample ID: MW-11
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 11:20
Date Received: 1/28/99
Time Received: 9:00

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	24.0	ug/l	10.0	1.0	10	2/ 4/99	11:51	B.Herford	8021B	211
Toluene	106.	ug/l	10.0	1.0	10	2/ 4/99	11:51	B.Herford	8021B	211
Ethylbenzene	189.	ug/l	10.0	1.0	10	2/ 4/99	11:51	B.Herford	8021B	211
Xylenes, total	825.	ug/l	10.0	1.0	10	2/ 4/99	11:51	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	10.0	1.0	10	2/ 4/99	11:51	B.Herford	8021B	211
Naphthalene	731.	ug/l	50.0	5.0	10	2/ 4/99	11:51	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	106.	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11255
Sample ID: MW-12
Sample Type: Water
Site ID:

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Date Collected: 1/25/99
Time Collected: 16:45
Date Received: 1/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	ND	ug/l	1.0	1.0	1	2/ 4/99	12:49	B.Herford	8021B	211
Toluene	ND	ug/l	1.0	1.0	1	2/ 4/99	12:49	B.Herford	8021B	211
Ethylbenzene	ND	ug/l	1.0	1.0	1	2/ 4/99	12:49	B.Herford	8021B	211
Xylenes, total	ND	ug/l	1.0	1.0	1	2/ 4/99	12:49	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	1.0	1.0	1	2/ 4/99	12:49	B.Herford	8021B	211
Naphthalene	ND	ug/l	5.0	5.0	1	2/ 4/99	12:49	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	105.	50. - 150.

Report Approved By: J.J. Mitchell Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11256
Sample ID: MW-13
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 17:10
Date Received: 1/28/99
Time Received: 9:00

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	1810	ug/l	20.0	1.0	20	2/ 4/99	13:19	B.Herford	8021B	211
Toluene	26.0	ug/l	20.0	1.0	20	2/ 4/99	13:19	B.Herford	8021B	211
Ethylbenzene	38.0	ug/l	20.0	1.0	20	2/ 4/99	13:19	B.Herford	8021B	211
Xylenes, total	382.	ug/l	20.0	1.0	20	2/ 4/99	13:19	B.Herford	8021B	211
Methyl-t-butylether	2810	ug/l	20.0	1.0	20	2/ 4/99	13:19	B.Herford	8021B	211
Naphthalene	154.	ug/l	100.	5.0	20	2/ 4/99	13:19	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	89.	50. - 150.

Report Approved By: J.M. Mitchell Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8020
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11257
Sample ID: MW-14
Sample Type: Water
Site ID:

Date Collected: 1/25/99
Time Collected: 17:30
Date Received: 1/28/99
Time Received: 9:00

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	16.5	ug/l	5.0	1.0	5	2/ 4/99	13:48	B.Herford	8021B	211
Toluene	20.5	ug/l	5.0	1.0	5	2/ 4/99	13:48	B.Herford	8021B	211
Ethylbenzene	58.0	ug/l	5.0	1.0	5	2/ 4/99	13:48	B.Herford	8021B	211
Xylenes, total	334	ug/l	5.0	1.0	5	2/ 4/99	13:48	B.Herford	8021B	211
Methyl-t-butylether	6.5	ug/l	5.0	1.0	5	2/ 4/99	13:48	B.Herford	8021B	211
Naphthalene	452.	ug/l	25.0	5.0	5	2/ 4/99	13:48	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-trifluorotoluene	102.	50. - 150.

Report Approved By: J.J. Mitchell Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC, INC 8320
GRADY SATCHER
200 RICH LEX DR
LEXINGTON, SC 29072

Lab Number: 99-A11260
Sample ID. TRIP BLANK
Sample Type: Water
Site ID:

Date Collected:
Time Collected:
Date Received: 1/28/99
Time Received: 9:00

Project: 06742
Project Name: SCDHEC
Sampler: DANNY RAWL

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Benzene	ND	ug/l	1.0	1.0	1	2/ 4/99	15:16	B.Herford	8021B	211
Toluene	ND	ug/l	1.0	1.0	1	2/ 4/99	15:16	B.Herford	8021B	211
Ethylbenzene	ND	ug/l	1.0	1.0	1	2/ 4/99	15:16	B.Herford	8021B	211
Xylenes, total	ND	ug/l	1.0	1.0	1	2/ 4/99	15:16	B.Herford	8021B	211
Methyl-t-butylether	ND	ug/l	1.0	1.0	1	2/ 4/99	15:16	B.Herford	8021B	211
Naphthalene	ND	ug/l	5.0	5.0	1	2/ 4/99	15:16	B.Herford	8021B	211

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
BTEX/GRO Surr , a,a,a-trifluorotoluene	104	50. - 150.

Report Approved By: _____ Report Date: 2/ 5/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

PROJECT QUALITY CONTROL DATA

Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch
Benzene	ng/l	< 0.0010	0.0210	0.0200	105	75. - 125.	211
Toluene	ng/l	< 0.0010	0.0210	0.0200	105	70. - 125.	211
Ethylbenzene	ng/l	< 0.0010	0.0208	0.0200	104	71. - 129.	211
Xylenes, total	ng/l	< 0.0010	0.0421	0.0400	105	71. - 133.	211
Methyl-t-butylether	ng/l	< 0.0010	0.0212	0.0200	106	75. - 125.	211
Naphthalene	ng/l	< 0.005	0.019	0.020	95	68. - 119.	211

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Benzene	ng/l	0.0210	0.0222	5.56	20.	211
Toluene	ng/l	0.0210	0.0222	5.56	20.	211
Ethylbenzene	ng/l	0.0208	0.0220	5.61	20.	211
Xylenes, total	ng/l	0.0421	0.0444	5.32	20.	211
Methyl-t-butylether	ng/l	0.0212	0.0225	5.95	20.	211
Naphthalene	ng/l	0.019	0.025	27.27%	19.	211

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Benzene	ng/l	0.0200	0.0221	110	70 - 130	211
Toluene	ng/l	0.0200	0.0223	112	70 - 130	211
Ethylbenzene	ng/l	0.0200	0.0215	108	70 - 130	211
Xylenes, total	ng/l	0.0400	0.0445	111	70 - 130	211
Methyl-t-butylether	ng/l	0.0200	0.0223	112	70 - 130	211
Naphthalene	ng/l	0.020	0.019	95	60 - 140	211

Blank Data

Analyte	Blank Value	Units	Q.C. Batch
Benzene	< 0.0010	ng/l	211
Toluene	< 0.0010	ng/l	211
Ethylbenzene	< 0.0010	ng/l	211
Xylenes, total	< 0.0010	ng/l	211
Methyl-t-butylether	< 0.0010	ng/l	211
Naphthalene	< 0.005	ng/l	211

TESTAMERICA INC.

ıain of Custody Record

Page 1 of 2

❒ Asheville, NC (828) 254-5169 ❒ Norcross, GA (770) 368-0636 ❒ Charlotte, NC (704) 392-1164 ❒ Frankfort KY (502) 223-0251 ❒ Morrisville, NC (919) 380-9699

❒ Lumberton, NC (910) 738-6190 X Lexington, SC (803) 796-8989 ❒ Brighton, CO (303) 659-0497 ❒ Macon, GA (912) 757-0811 ❒ Orlando, FL (407) 851-2560

Client: SCDHEC	Project No.: 06742	
Report Address: 2600 Bull St. Colo., S.C. 29201	Invoice Address: Crossroad Grocery Attn: Bob Faller	
Attn: Dan Cooke	Attn: Read Miner	
Phone No.: 898-4350	Sampled By: Danny Rawl	
Fax No.: 898-4330	P.O. No: 1831	
	State Samples Collected S.C.	

TURNAROUND TIME

❒ 24 Hours ❒ 48 Hours

❒ 5 Days X 10 Days Date Needed: 2/10

REQUESTED PARAMETERS

8020/8260 BTEX, MTBE, Naph.

LAB CODE I.D.
A = Asheville, NC
C = Charlotte, NC
~~D = Denver, CO~~
E = Lexington, SC
~~G = Macon, GA~~
K = Frankfort, KY
L = Lumberton, NC
M = Morrisville, NC
N = Norcross, GA
O = Orlando, FL
S = Subcontracted

Sample ID	Date	Time	Comp/ Grab	Matrix	Containers	HCl	← Preserv.	REMARKS
MW-7	1/25/99	1030	C	GW	2	✓		
MW-9		1055			2	✓		
MW-11		1120			2	✓		
MW-5		1315			2	✓		
MW-6		1425			2	✓		
MW-2		1455			2	✓		
MW-3		1506			2	✓		
MW-1		1545			2	✓		
MW-12		1645			2	✓		
MW-13		1710			2	✓		

Lab Use Only Custody Seal: ❒ Yes ❒ No ❒ N/A SA E-Billing 2.2°C Init Lab Temp. Rec. Lab Temp

COMMENTS: Shipped samples to Spec. Assay via FedEx# 809898283068

Please Send Copy of results to Greg Kuntz @ Schnabe Eng.

Relinquished By:	Date	Time	Received By:	Date	Time	Lab Use Only:
Danny Rawl	1/26/99	2100	[illegible]	1/27/99	1050	
[illegible]	1/27/99	1600				
Relinquished By:	Date	Time	Received By:	Date	Time	
Relinquished By:	Date	Time	Received By:	Date	Time	

Chain of Custody Record

TESTAMERICA INC. 109001

Page 2 of 2

☐ Asheville, NC (828) 254-5169 ☐ Norcross, GA (770) 368-0636 ☐ Charlotte, NC (704) 392-1164 8320 ☐ Frankfort KY (502) 223-0251 ☐ Morrisville, NC (919) 380-9699

☐ Lumberton, NC (910) 738-6190 ☒ Lexington, SC (803) 796-8989 ☐ Brighton, CO (303) 659-0497 ☐ Macon, GA (912) 757-0811 ☐ Orlando, FL (407) 851-2560

Client: SCDHEC	Project No.: 06742
Report Address: 2600 Bull St. Cola. S.C 29201	Invoice Address: Crossroad Grocery AHN: Bob Faller
Attn: Dan Cooke	Attn: Read Miner
Phone No.: 898-4350	Sampled By: Danny Rawl
Fax No.: 898-4330	P.O. No: 1831
	State Samples Collected S.C.

TURNAROUND TIME

☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☒ 10 Days Date Needed: 2/10

REQUESTED PARAMETERS

8020/8260 BTEX, MTBE, Naph.

LAB CODE I.D.
A = Asheville, NC
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E = Lexington, SC
G = Macon, GA
K = Frankfort, KY
L = Lumberton, NC
M = Morrisville, NC
N = Norcross, GA
O = Orlando, FL
S = Subcontracted

Sample ID	Date	Time	Comp/ Grab	Matrix	Containers	HCl	8020	← Preserv.	REMARKS
MW-14	1/25/99	1730	C	GW	2	–			11257
MW-10	1/25	1800	C	GW	2	–			11258
MW-1A	1/25	1900	C	GW	2	–			11259
									~~H2O~~
Trip Blank	–	–			1	–			11260

Lab Use Only Custody Seal: ☐Yes ☐No ☐N/A SA E-Billing 2.2°C Init Lab Temp. Rec. Lab Temp

COMMENTS: Shipped samples to Spec. Assay via Fed Ex # 809818203068

Please Send Copy of results to Greg Kuntz @ Schnabel Eng.

	Date	Time		Date	Time	Lab Use Only:
Relinquished By: Danny Rawl	1/26/99	2100	Received By: Moore	1/27/99	1030	
Relinquished By: Moore	1/27/99	1600	Received By:	Date	Time	
Relinquished By:	Date	Time	Received By: [illegible]	Date	Time	
Relinquished By:	Date	Time	Received By: [illegible]	1/28/99	9:00	

Chain of Custody Record

TESTAMERICA INC. 129001

Page 1 of 2

☐ Asheville, NC (828) 254-5169 ☐ Norcross, GA (770) 368-0636 ☐ Charlotte, NC (704) 392-1164 8320 ☐ Frankfort KY (502) 223-0251 ☐ Morrisville, NC (919) 380-9699
☐ Lumberton, NC (910) 738-6190 ☒ Lexington, SC (803) 796-8989 ☐ Brighton, CO (303) 659-0497 ☐ Macon, GA (912) 757-0811 ☐ Orlando, FL (407) 851-2560

Client: SCDHEC	Project No.: 06742
Report Address: 2600 Bull St. Cola., S.C., 29201	Invoice Address: Crossroad Grocery AHAI: Bob Foller
Attn: Jan Cooke	Attn: Read Miner
Phone No.: 898-4350	Sampled By: Danny Rawl
Fax No.: 898-4330	P.O. No: 1831
	State Samples Collected S.C.

TURNAROUND TIME
☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☒ 10 Days Date Needed: 2/10

REQUESTED PARAMETERS

8020/8260 BTEX, 1,1,TBE, Naph.

LAB CODE I.D.
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L = Lumberton, NC
M = Morrisville, NC
N = Norcross, GA
O = Orlando, FL
S = Subcontracted

Sample ID	Date	Time	Comp/Grab	Matrix	Containers	HCL	← Preserv.	REMARKS
MW-7	1/25/99	1030	G	GW	2	✓		11247
MW-9		1055			2	✓		11248
MW-11		1120			2	✓		11249
MW-5		1315			2	✓		11250
MW-6		1425			2	✓		11251
MW-2		1455			2	✓		11252
MW-3		1506			2	✓		11253
MW-1		1545			2	✓		11254
MW-12		1645			2	✓		11255
MW-13	↓	1710	↓	↓	2	✓		11256

Lab Use Only | Custody Seal: ☐ Yes ☐ No ☐ N/A | SA E-Billing | 2.2C Init Lab Temp. | Rec. Lab Temp

COMMENTS: Shipped samples to Spec. Assay via Fed Ex# 807898283068

Please Send Copy of results to Greg Kuntz @ Schnabe Eng.

	Date	Time		Date	Time
Relinquished By: Danny Rawl	1/26/99	1100	Received By: [illegible]	1/27/99	1050
Relinquished By: [illegible]	1/27/99	1600	Received By:	Date	Time
Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	Date	Time	Received By: [illegible]	1/28/99	9:00

Lab Use Only: 40C

Chain of Custody Record

TESTAMERICA INC. 109001

☐ Asheville, NC (828) 254-5169
☐ Norcross, GA (770) 368-0636
☐ Charlotte, NC (704) 392-1164
8320
☐ Frankfort KY (502) 223-0251
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☐ Lumberton, NC (910) 738-6190
☒ Lexington, SC (803) 796-8989
☐ Brighton, CO (303) 659-0497
☐ Macon, GA (912) 757-0811
☐ Orlando, FL (407) 851-2560

Client: SCDHEC
Project No.: 06742
Report Address: 2600 Bull St.
Invoice Address: Crossroad Grocery
Cola. S.C 29201
AHN: Bob Faller
Attn: Dan Cooke
Attn: Read Miner
Phone No.: 898-4350
Sampled By: Danny Rawl
Fax No.: 898-4330
P.O. No: 1831
State Samples Collected S.C.

TURNAROUND TIME
☐ 24 Hours ☐ 48 Hours
☐ 5 Days ☒ 10 Days
Date Needed: 2/10

REQUESTED PARAMETERS

8030/8260 BTEX, MTBE, Naph.

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K = Frankfort, KY
L = Lumberton, NC
M = Morrisville, NC
N = Norcross, GA
O = Orlando, FL
S = Subcontracted

Sample ID	Date	Time	Comp/ Grab	Matrix	Containers	HCL								← Preserv.	REMARKS
MW-14	1/25/99	1730	C	GW	2	✓									11257
MW-10	1/25	1800	C	GW	2	✓									11258
MW-1A	1/25	1900	C	GW	2	✓									11259
															~~11260~~
Trip Blank	-	-			1	-									11260

Lab Use Only | Custody Seal: ☐ Yes ☐ No ☐ N/A | SA E-Billing | 2.2°C Init Lab Temp. | Rec. Lab Temp

COMMENTS: Shipped samples to spec. Assay via Fed Ex # 809818203068

Please Send Copy of results to Greg Kuntz @ Schnabel Eng.

	Date	Time		Date	Time
Relinquished By: Danny Rawl	1/26/99	2100	Received By: Moore	1/27/99	1030
Relinquished By: Moore	1/27/99	1600	Received By:	Date	Time
Relinquished By:	Date	Time	Received By:	Date 1/27/99	Time 1700
Relinquished By:	Date	Time	Received By:	1/28/99	9:00

Lab Use Only: 4°C

No. _____

RM

Schnabel Engineering Associates, Inc.

MANIFEST - NON-HAZARDOUS LIQUIDS

Date of Shipment		Project #:	Load #:
1-25-99		06742	

Generation Site (Transport from): (Name & Address)	Generator's Phone No.:
Crossroad's Grocery Oconee Co.	Person to Contact: Fax No.:
Consultant's Name & Billing Address:	**Consultant's Phone No.:**
SCHNABEL ENGINEERING ASSOCIATES, INC. 104 CORPORATE BLVD. SUITE 410 WEST COLUMBIA, SC 29169	803-796-6240 Person to Contact: Danny Rawl Fax No.: 803-796-6250

Waste Type, Volume, Container Type:

Purged groundwater
24.46 gallons Collected
Collected in 55 gallon plastic drum

Transporter's Name & Mailing Address:	Facility Phone No.:
SCHNABEL ENGINEERING ASSOCIATES, INC. 104 CORPORATE BLVD. SUITE 410 WEST COLUMBIA, SC 29169	803-796-6240 Person to Contact: Danny Rawl Fax No.: 803-796-6250
Designated Facility (Transport to): (Name & Address)	**Transporter's Phone No.:**
SCHNABEL ENGINEERING ASSOCIATES, INC. 104 CORPORATE BLVD. SUITE 410 WEST COLUMBIA, SC 29169	803-796-6240 Person to Contact: Danny Rawl Fax No.: 803-796-6250

Generator	Date	Time	Generator:
Relinquished by: (Signature) Danny Rawl	1-25-99	1915	Received by: (Signature)
Relinquished by: (Signature)			Received by: (Signature)
Transporter	**Date**	**Time**	**Transporter:**
Relinquished by: (Signature)			Received by: (Signature)
Relinquished by: (Signature)			Received by: (Signature)
Designated Facility	**Date**	**Time**	**Designated Facility:**
Relinquished by: (Signature)			Received by: (Signature)
Relinquished by: (Signature)			Received by: (Signature)

Remarks: Purged ground water Combined w/ ground water Collected from other sites, held until enough for disposal and treatment.

Chain of Custody Record

TESTAMERICA INC.

☐ Asheville, NC (828) 254-5169	☐ Norcross, GA (770) 368-0636	☐ Charlotte, NC (704) 392-1164	☐ Frankfort KY (502) 223-0251	☐ Morrisville, NC (919) 380-9699
☐ Lumberton, NC (910) 738-6190	☒ Lexington, SC (803) 796-8989	☐ Brighton, CO (303) 659-0497	☐ Macon, GA (912) 757-0811	☐ Orlando, FL (407) 851-2560

Client: SCDHEC	Project No.: 06742
Report Address: 2600 Bull St. Cola, S.C. 29201	Invoice Address: Crossroad Grocery AHN: Bob Faller
Attn: Jan Cooke	Attn: Read Miner
Phone No.: 898-4350	Sampled By: Danny Rawl
Fax No.: 898-4330	P.O. No: 1831
	State Samples Collected S.C.

TURNAROUND TIME

☐ 24 Hours ☐ 48 Hours

☐ 5 Days ☒ 10 Days Date Needed: 2/10

REQUESTED PARAMETERS

8020/8260 BTEX, MTBE, Naph.

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M = Morrisville, NC
N = Norcross, GA
O = Orlando, FL
S = Subcontracted

Sample ID	Date	Time	Comp/ Grab	Matrix	Containers	HCL										← Preserv.	REMARKS
MW-7	1/25/99	1030	G	GW	2	✓											
MW-9	↓	1055	↓	↓	2	✓											
MW-11	↓	1120	↓	↓	2	✓											
MW-5	↓	1315	↓	↓	2	✓											
MW-6	↓	1425	↓	↓	2	✓											
MW-2	↓	1455	↓	↓	2	✓											
MW-3	↓	1506	↓	↓	2	✓											
MW-1	↓	1545	↓	↓	2	✓											
MW-12	↓	1645	↓	↓	2	✓											
MW-13	↓	1710	↓	↓	2	✓											

Lab Use Only **Custody Seal:** ☐Yes ☐No ☐N/A

2.2C **Init Lab Temp.** **Rec. Lab Temp**

COMMENTS:

Please Send Copy of results to Greg Kuntz @ Schnabe Eng.

Relinquished By:	Date	Time	Received By:	Date	Time	Lab Use Only:
Danny Rawl	1/26/99	2100	[illegible]	1/27/99	1030	
Relinquished By:	Date	Time	Received By:	Date	Time	
Relinquished By:	Date	Time	Received By:	Date	Time	
Relinquished By:	Date	Time	Received By:	Date	Time	

TESTAMERICA INC.

Chain of Custody Record

Page 2 of 2

❒ Asheville, NC (828) 254-5169 ❒ Norcross, GA (770) 368-0636 ❒ Charlotte, NC (704) 392-1164 ❒ Frankfort KY (502) 223-0251 ❒ Morrisville, NC (919) 380-9699
❒ Lumberton, NC (910) 738-6190 ☒ Lexington, SC (803) 796-8989 ❒ Brighton, CO (303) 659-0497 ❒ Macon, GA (912) 757-0811 ❒ Orlando, FL (407) 851-2560

Client: SCDHEC	Project No.: 06742
Report Address: 2600 Bull St.	Invoice Address: C/O 1855 Road Grocery
Cola. S.C 29201	ATTN: Bob Fuller
Attn: Dan Cooke	Attn: Read Miner
Phone No.: 898-4350	Sampled By: Benny Rawl
Fax No.: 898-4330	P.O. No: 1831
	State Samples Collected S.C.

TURNAROUND TIME
❒ 24 Hours ❒ 48 Hours
❒ 5 Days ❒ 10 Days Date Needed: 2/10

REQUESTED PARAMETERS

8030/8260 BTEX, MTBE, Naph.

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L = Lumberton, NC
M = Morrisville, NC
N = Norcross, GA
O = Orlando, FL
S = Subcontracted

Sample ID	Date	Time	Comp/ Grab	Matrix	Containers	HCl	← Preserv.	REMARKS
MW-14	1/25/99	1730	G	GW	2	✓		
MW-10	1/25	1800	G	GW	2	✓		
MW-1A	1/25	1900	G	GW	2	✓		
Trip Blank	-	-			1	✓		

Lab Use Only Custody Seal: ❒ Yes ❒ No ❒ N/A — Init Lab Temp. 2.2C — Rec. Lab Temp

COMMENTS:

Please Send Copy of results to Greg Kuntz @ Schnabel Eng.

Relinquished By:	Date	Time	Received By:	Date	Time	Lab Use Only:
Benny Rawl	1/26/99	2100	[illegible]	1/27/99	1010	
Relinquished By:	Date	Time	Received By:	Date	Time	
Relinquished By:	Date	Time	Received By:	Date	Time	
Relinquished By:	Date	Time	Received By:	Date	Time	

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear / Lt. wind

Ambient Air Temperature: 15 °C

Quality Assurance

pH Meter
serial no. 980420166
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. Same
standard 14B
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Crossroads Grocery
Site ID#: 06742 **Monitoring Well #** MW-8
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
Depth to F.P. 32.05 for a 4 inch well C = 0.652
* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 34.54 feet
Total Well Depth (TWD) 37.65 feet
Length of the water column (LWC = TWD- DGW) _____ feet

1 casing volume (CV = LWC X C) = _____ X _____ = _____ gals
3 casing volume 3 X CV = _____ gals (standard purge volume)

Total Volume of Water Purged Before Sampling _____ gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)								
Time (military)								
pH (s.u.)		NO	Sample					
Specific Cond. (µmhos/cm)				F.P.				
Water Temperature (°C)								
Dissolved Oxygen								
PID readings, if required								

Remarks: Depth to F.P. 32.05' / 2.49' F.P. in well

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Conductivity Meter
serial no. _____	serial no. _____
pH=4.0 _____	standard _____
pH=7.0 _____	standard _____
pH=10.0 _____	standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Cross Roads Grocery
Site ID#: 06742 **Monitoring Well #** MW-15
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): _____ feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) _____ feet
Total Well Depth (TWD) _____ feet
Length of the water column (LWC = TWD- DGW) _____ feet

1 casing volume (CV = LWC X C) = _____ X _____ = _____ gals
3 casing volume 3 X CV = _____ gals (standard purge volume)

Total Volume of Water Purged Before Sampling _____ gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)								
Time (military)								
pH (s.u.)								
Specific Cond. (µmhos/cm)								
Water Temperature (°C)								
Dissolved Oxygen								
PID readings, if required								

Remarks: Could not locate well // water tower Construction in area may have been covered over are destroyed.

1030

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear / lt. wind

Ambient Air Temperature: 2.5 °C

Quality Assurance

pH Meter
serial no. 980420/66
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. SAME
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Crossroads Grocery
Site ID#: 06742 **Monitoring Well #** MW-7
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 30.23 feet
Total Well Depth (TWD) 35.85 feet
Length of the water column (LWC = TWD- DGW) 5.12 feet

1 casing volume (CV = LWC X C) = 5.12 X .163 = .83 gals
3 casing volume 3 X CV = 2.50 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 2.74 gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)	.25	1.08	1.91	2.74				
Time (military)	1016	1020	1023	1026				
pH (s.u.)	4.69	4.82	4.96	5.09				
Specific Cond. (µmhos/cm)	38.5	31.8	32.5	32.3				
Water Temperature (°C)	15.6	17.7	18.4	18.3				
Dissolved Oxygen	1.98	1.39	1.71	2.08				
PID readings, if required								

Remarks : Very Turbid

1055

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear / Lt. wind

Ambient Air Temperature: 3.0 °C

Quality Assurance

pH Meter
serial no. 980420/166
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. Same
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Crossroads Grocery
Site ID#: 06742 **Monitoring Well #** MW-9
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 28.54 feet
Total Well Depth (TWD) 30.50 feet
Length of the water column (LWC = TWD- DGW) 1.96 feet

1 casing volume (CV = LWC X C) = 1.96 X .163 = .32 gals
3 casing volume 3 X CV = .96 gals (standard purge volume)

Total Volume of Water Purged Before Sampling .57 gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)	.25	.57						
Time (military)	1044	1049						
pH (s.u.)	5.51	5.58						
Specific Cond. (µmhos/cm)	32.6	29.9						
Water Temperature (°C)	16.5	16.9						
Dissolved Oxygen	2.09	3.06						
PID readings, if required								

Remarks: Silty Bottom / very turbid / very little H2O well dry @ .57

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Bass
General Weather Conditions: Clear/windy

Ambient Air Temperature: 7.0 °C

Quality Assurance

pH Meter
serial no. 980420166
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. Same
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Crossroads Grocery
Site ID#: 06742 **Monitoring Well #** MW-11
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 21.63 feet
Total Well Depth (TWD) 24.75 feet
Length of the water column (LWC = TWD- DGW) 3.12 feet

1 casing volume (CV = LWC X C) = 3.12 X .163 = .51 gals
3 casing volume 3 X CV = 1.53 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 1.01 gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)	.25	.76	1.01					
Time (military)	1109	1111	1113					
pH (s.u.)	5.91	6.67	6.32					
Specific Cond. (µmhos/cm)	56.4	59.1	65.8					
Water Temperature (°C)	16.4	17.0	17.0					
Dissolved Oxygen	2.47	1.07	1.51					
PID readings, if required								

Remarks: Very turbid / Silty Bottom / Dry @ 1.01 gallons

1315

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Pawl
General Weather Conditions: Clear / windy

Ambient Air Temperature: 16 °C

Quality Assurance

pH Meter
serial no. 980420166
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. Same
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Cross Roads Grocery
Site ID#: 06742 **Monitoring Well #** MW-5
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 13.19 feet
Total Well Depth (TWD) 16.63 feet
Length of the water column (LWC = TWD- DGW) 3.44 feet

1 casing volume (CV = LWC X C) = 3.44 X .163 = .56 gals
3 casing volume 3 X CV = 1.68 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 1.06 gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)	.25	.81	1.06					
Time (military)	1300	1303	1305					
pH (s.u.)	6.55	6.41	6.39					
Specific Cond. (µmhos/cm)	83.7	78.2	77.6					
Water Temperature (°C)	17.0	17.1	17.1					
Dissolved Oxygen	4.98	5.06	4.71					
PID readings, if required								

Remarks : turbid

1425

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear / windy

Ambient Air Temperature: 17 °C

Quality Assurance

pH Meter
serial no. 980402144
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. Same
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Crossroads Grocery
Site ID#: 06742 **Monitoring Well #** mw-6
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 26.95 feet
Total Well Depth (TWD) 33.03 feet
Length of the water column (LWC = TWD- DGW) 6.08 feet

1 casing volume (CV = LWC X C) = 6.08 X .163 = .99 gals
3 casing volume 3 X CV = 2.97 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 3.22 gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)	.25	1.24	2.23	3.22				
Time (military)	1356	1403	1407	1421				
pH (s.u.)	6.12	6.03	5.94	5.84				
Specific Cond. (µmhos/cm)	103.1	88.7	74.5	67.2				
Water Temperature (°C)	18.0	18.0	17.8	17.7				
Dissolved Oxygen	1.64	.83	1.10	.99				
PID readings, if required								

Remarks: Sheen on H2O / moderate odor / turbid

1455

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear/Lt. wind

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter
serial no. 980420166
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. Same
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Crossroad's Grocery
Site ID#: 06742 **Monitoring Well #** MW-2
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 29.23 feet
Total Well Depth (TWD) 29.70 feet
Length of the water column (LWC = TWD- DGW) .47 feet

1 casing volume (CV = LWC X C) = .47 X .163 = .08 gals
3 casing volume 3 X CV = .23 gals (standard purge volume)

Total Volume of Water Purged Before Sampling — gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)								
Time (military)								
pH (s.u.)			Sample					
Specific Cond. (µmhos/cm)			only					
Water Temperature (°C)								
Dissolved Oxygen								
PID readings, if required								

Remarks: Not Enough H2O for Field readings

1506

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear/Lt. wind

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter
serial no. 980420/66
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. Same
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Crossroads Grocery
Site ID#: 06742 **Monitoring Well #** MW-3
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 28.57 feet
Total Well Depth (TWD) 29.04 feet
Length of the water column (LWC = TWD- DGW) .47 feet

1 casing volume (CV = LWC X C) = .47 X .163 = .08 gals
3 casing volume 3 X CV = .23 gals (standard purge volume)

Total Volume of Water Purged Before Sampling — gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)								
Time (military)								
pH (s.u.)			Sample					
Specific Cond. (µmhos/cm)		Sample	only					
Water Temperature (°C)		only						
Dissolved Oxygen								
PID readings, if required								

Remarks: Not enough H2O for Field Readings

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rau
General Weather Conditions: Clear / 4. wind

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter
serial no. 9804201166
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. Same
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Crossroads Grocery
Site ID#: 06742 **Monitoring Well #** MW-4
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X (D/2)^2 for a 2 inch well C = 0.163
Depth to F.P. - 25.16' for a 4 inch well C = 0.652
* Free Product Thickness: .05 feet
Depth to Ground Water (DGW) 25.21 feet
Total Well Depth (TWD) 27.45 feet
Length of the water column (LWC = TWD- DGW) _____ feet

1 casing volume (CV = LWC X C) = _____ X _____ = _____ gals
3 casing volume 3 X CV = _____ gals (standard purge volume)

Total Volume of Water Purged Before Sampling ____ gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)								
Time (military)								
pH (s.u.)								
Specific Cond. (µmhos/cm)								
Water Temperature (°C)								
Dissolved Oxygen								
PID readings, if required								

NO SAMPLE F.P.

Remarks: Depth to Free product 25.16' / .05' Free product in well

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter
serial no. _____
pH=4.0 _____
pH=7.0 _____
pH=10.0 _____

Conductivity Meter
serial no. _____
standard _____
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Cross roads Grocery
Site ID#: 06742 **Monitoring Well #** MW-1
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 29.37 feet
Total Well Depth (TWD) 29.77 feet
Length of the water column (LWC = TWD- DGW) .5 feet

1 casing volume (CV = LWC X C) = .5 X .163 = .08 gals
3 casing volume 3 X CV = .24 gals (standard purge volume)

Total Volume of Water Purged Before Sampling — gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)								
Time (military)								
pH (s.u.)		Sample						
Specific Cond. (µmhos/cm)		Only						
Water Temperature (°C)								
Dissolved Oxygen								
PID readings, if required								

Remarks : Not Enough H2O for Field readings / Sheen on Sample

1645

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Pawl
General Weather Conditions: Clear/Lt. wind

Ambient Air Temperature: 17 °C

Quality Assurance

pH Meter
serial no. 98042066
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. Same
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Cross Roads Grocery
Site ID#: 06742 **Monitoring Well #** MW-12
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 8.13 feet
Total Well Depth (TWD) 11.77 feet
Length of the water column (LWC = TWD- DGW) 3.64 feet

1 casing volume (CV = LWC X C) = 3.64 X .163 = .59 gals
3 casing volume 3 X CV = 1.78 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 2.02 gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)	.25	.84	1.43	2.02				
Time (military)	1630	1634	1638	1644				
pH (s.u.)	6.88	6.94	7.12	7.10				
Specific Cond. (µmhos/cm)	171.2	174.5	200	180.4				
Water Temperature (°C)	16.4	15.5	15.3	15.3				
Dissolved Oxygen	2.16	2.31	2.21	3.05				
PID readings, if required								

Remarks : Turbid

1710

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear/Lt. wind

Ambient Air Temperature: 16 °C

Quality Assurance

pH Meter
serial no. 980420166
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. Same
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Crossroads Grocery
Site ID#: 06742 **Monitoring Well #** MW-13
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 13.86 feet
Total Well Depth (TWD) 17.53 feet
Length of the water column (LWC = TWD- DGW) 3.67 feet

1 casing volume (CV = LWC X C) = 3.67 X .163 = .60 gals
3 casing volume 3 X CV = 1.79 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 2.05 gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)	.25	.85	1.45	2.05				
Time (military)	1657	1700	1703	1706				
pH (s.u.)	6.15	5.92	6.17	6.05				
Specific Cond. (µmhos/cm)	44.5	38.4	40.1	41.9				
Water Temperature (°C)	16.9	16.7	15.8	16.2				
Dissolved Oxygen	2.36	1.97	1.89	2.20				
PID readings, if required								

Remarks : very turbid.

1730

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 6-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear

Ambient Air Temperature: 15 °C

Quality Assurance

pH Meter
serial no. 98042066
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. SAME
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Crossroads Grocery
Site ID#: 06742 **Monitoring Well #** MW-14
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 15.29 feet
Total Well Depth (TWD) 22.47 feet
Length of the water column (LWC = TWD- DGW) 7.18 feet

1 casing volume (CV = LWC X C) = 7.18 X .163 = 1.17 gals
3 casing volume 3 X CV = 3.51 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 3.76 gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)	.25	1.42	2.59	3.76				
Time (military)	1719	1722	1724	1727				
pH (s.u.)	6.93	6.51	6.26	6.24				
Specific Cond. (µmhos/cm)	67.4	66.0	62.4	62.5				
Water Temperature (°C)	17.0	17.0	16.9	17.0				
Dissolved Oxygen	1.26	.95	1.48	1.35				
PID readings, if required								

Remarks : Silty Bottom / Heavy Sediment

1800

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear / lt. wind

Ambient Air Temperature: 15 °C

Quality Assurance

pH Meter
serial no. 98042066
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. Same
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Cross Roads Grocery
Site ID#: 06742 **Monitoring Well #** MW-10
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 33.33 feet
Total Well Depth (TWD) 40.92 feet
Length of the water column (LWC = TWD- DGW) 7.59 feet

1 casing volume (CV = LWC X C) = 7.59 X .163 = 1.24 gals
3 casing volume 3 X CV = 3.71 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 3.97 gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)	.25	1.49	2.73	3.97				
Time (military)	1748	1751	1754	1757				
pH (s.u.)	6.34	6.02	5.99	5.95				
Specific Cond. (µmhos/cm)	71.0	65.7	55.1	48.9				
Water Temperature (°C)	17.5	17.7	17.6	17.6				
Dissolved Oxygen	4.96	5.08	5.30	5.29				
PID readings, if required								

Remarks : _____

1900

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear

Ambient Air Temperature: 15 °C

Quality Assurance

pH Meter
serial no. 98042016G
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. Same
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Cross Roads Grocery
Site ID#: 06742 **Monitoring Well #** MW-1A
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 32.72 feet
Total Well Depth (TWD) 40.49 feet
Length of the water column (LWC = TWD- DGW) 7.77 feet

1 casing volume (CV = LWC X C) = 7.77 X .163 = 1.27 gals
3 casing volume 3 X CV = 3.80 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 4.06 gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)	.25	1.52	2.79	4.06				
Time (military)	1843	1847	1852	1855				
pH (s.u.)	5.40	5.38	5.61	5.59				
Specific Cond. (µmhos/cm)	49.9	44.4	44.2	38.4				
Water Temperature (°C)	17.7	18.6	18.6	18.6				
Dissolved Oxygen	.93	2.72	3.30	2.30				
PID readings, if required								

Remarks : Turbid / very silty

1030

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 1-25-99
Field Personnel: Danny Rawl
General Weather Conditions: Clear / lt. wind

Ambient Air Temperature: 2.5 °C

Quality Assurance

pH Meter
serial no. 980420/66
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 _____

Conductivity Meter
serial no. SAME
standard 1413
standard _____
standard _____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Crossroads Grocery
Site ID#: 06742 **Monitoring Well #** MW-7
Water Supply Well **Public:** _____ **Private:** _____

Monitoring Well Diameter (D): 2" feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: _____ feet
Depth to Ground Water (DGW) 30.23 feet
Total Well Depth (TWD) 35.85 feet
Length of the water column (LWC = TWD- DGW) 5.12 feet

1 casing volume (CV = LWC X C) = 5.12 X .163 = .83 gals
3 casing volume 3 X CV = 2.50 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 2.74 gals.
* If free product is present over ⅛ inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post sampling	
Cumulative Volume Purged (gallons)	.25	1.08	1.91	2.74				
Time (military)	1016	1020	1023	1026				
pH (s.u.)	4.69	4.82	4.96	5.09				
Specific Cond. (µmhos/cm)	38.5	31.8	32.5	32.3				
Water Temperature (°C)	15.6	17.7	18.4	18.3				
Dissolved Oxygen	1.98	1.39	1.71	2.08				
PID readings, if required								

Remarks : Very Turbid

Midlands
Environmental
Consultants, Inc.

April 23, 2002

RECEIVED
APR 2 3 2002
Underground Storage
Tank Program

Mr. Read S. Miner, P.G.
South Carolina Department of Health
and Environmental Control
Bureau of Underground Storage Tank Management
State Lead Program
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Assessment Activities
Crossroads Grocery
8050 West Oak Highway, Westminster, SC
SCDHEC Site ID# 06742, CP # 12832
MECI Project Number 00-328

Dear Mr. Miner,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the following Report of Assessment Activities. The activities and results described in this report are not intended to fully characterize the conditions at the subject site, but should be considered with respect to previous assessment activities performed. This report describes activities conducted at your request.

FIELD EXPLORATION

Seven shallow (water table bracketing) monitoring wells were installed at the site. Each was installed to replace a preexisting well (MW-4, MWR-4, MW-5, MW-7, MW-9, MW-13, and MW-14), which reportedly did not bracket the water table.

MONITORING WELL INSTALLATION

From February 27 through March 1, 2002, seven monitoring wells (MW-4R, MWR-4R, MW-5R, MW-7R, MW-9R, MW-13R and MW-14R) were installed at the site. These wells were installed by American Environmental Drilling Services. (AEDS; SCDHEC License – Kelly Grant # 1568). All replacement monitoring wells were installed using a truck-mounted drilling rig employing a air rotary techniques to construct the boreholes (total footage, 269 feet). Each boring was advanced to the groundwater table. Monitoring wells were then installed to their respective boring depths. See attached Test Boring and Monitoring Well Installation Records for well construction details.

Following completion of all monitoring wells, five were developed by MECI personnel using disposable bailers. These wells were bailed until they were determined to be functioning properly and turbidity was reduced. The development water was drummed and stored on-site for future disposal. Wells MW-4R and MWR-4R were found to have measurable free phase petroleum product. Well MW-4R had a product thickness of 0.02 feet. Well MWR-4R had a product thickness of 0.47 feet.

Post Office Box 854, Lexington SC 29071 • 1144 Old Two Notch Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

79 tch

SUBSEQUENT SURVEY

Following installation of the replacement monitoring wells, they were surveyed by MECI personnel utilizing a level and rod. The surveyed locations placed MW-4R 100 degrees east of north and approximately 7.38 feet in distance from the preexisting MW-4; MWR-4R is located 85 degrees east of north and approximately 9.70 feet in distance from the preexisting MWR-4; MW-5R is located 165 degrees east of north and approximately 6.80 feet in distance from the preexisting MW-5; MW-7R is located 60 degrees east of north and approximately 3.65 feet in distance from the preexisting MW-7; MW-9R is located 155 degrees east of north and approximately 11.10 feet in distance from the preexisting MW-9; MW-13R is located 20 degrees east of north and approximately 2.95 feet in distance from the preexisting MW-13; and MW-14R is located 90 degrees west of north and approximately 82.10 feet in distance from the preexisting well MW-13 (preexisting MW-14 could not be located). See attached table for top of casing and top of lid elevations (referenced to the assumed site datum see existing site monitoring wells).

WASTEWATER TREATMENT

The drummed purge water was treated on-site by passing through a granular activated carbon unit. A total of one drum of purge/development water was disposed of in this manner. A disposal manifest for the drummed purge water is attached at the end of this report.

SOIL (DRILL CUTTINGS) DISPOSAL

On March 15, 2002, Lexington Earthworks of North, South Carolina, visited the site and removed three drums (0.64 tons) of soils produced during the construction of the seven monitoring wells on the site. The soils were transported to Waste Management/Richland Landfill, Elgin, South Carolina for treatment and disposal. Disposal manifests for these soils are attached.

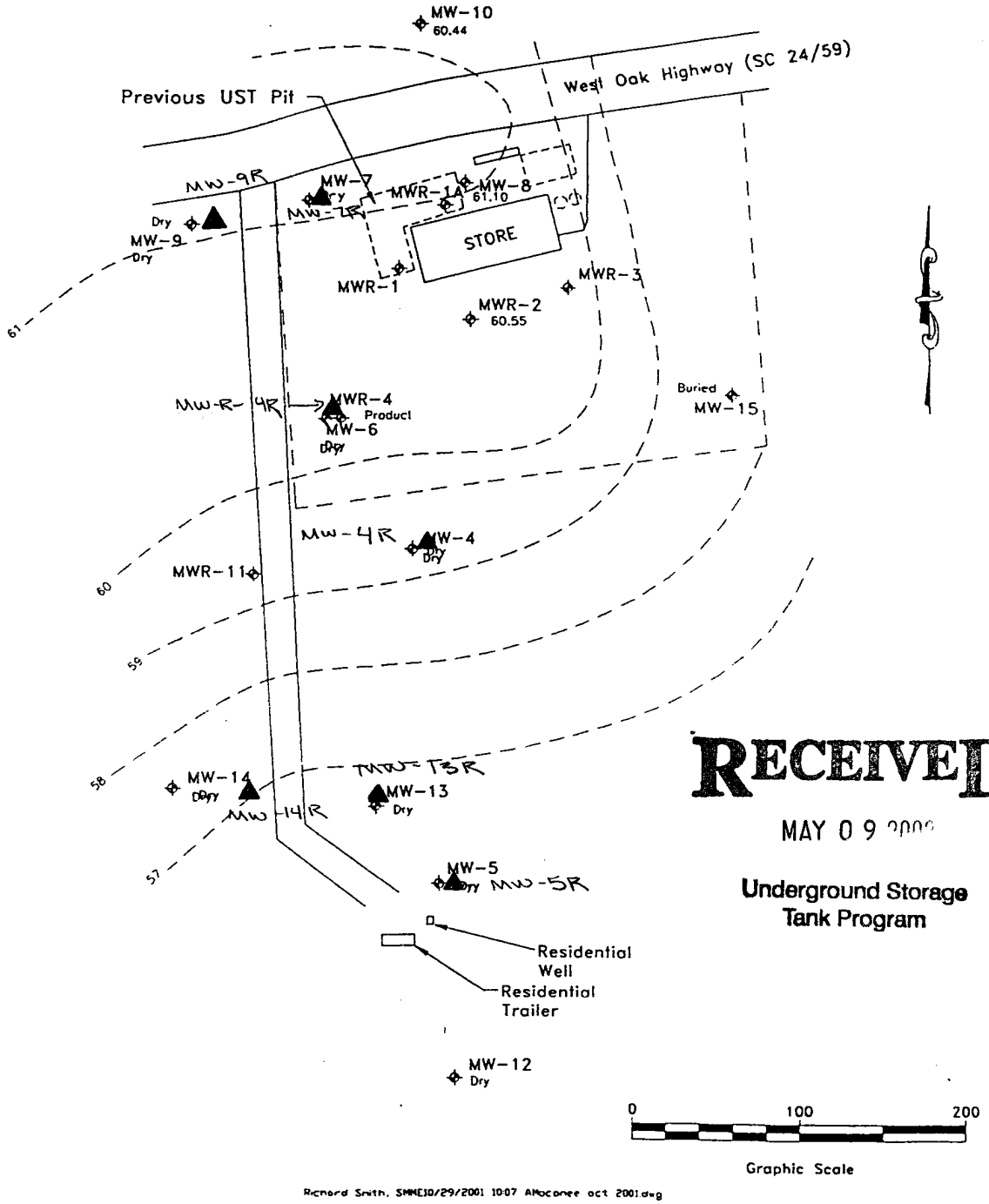
Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 808-2043 if you have any questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

William C. McClary
Staff Geologist

Bryan T. Shane, P.G.
Principal Geologist

Attachments



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MAY 0 9 2002

Underground Storage
Tank Program

▲ Approx. Location of Replacement Monitoring Wells

Reference: Figure 1 Prepared by SMME
Dated 10/29/01
SCDHEC Files

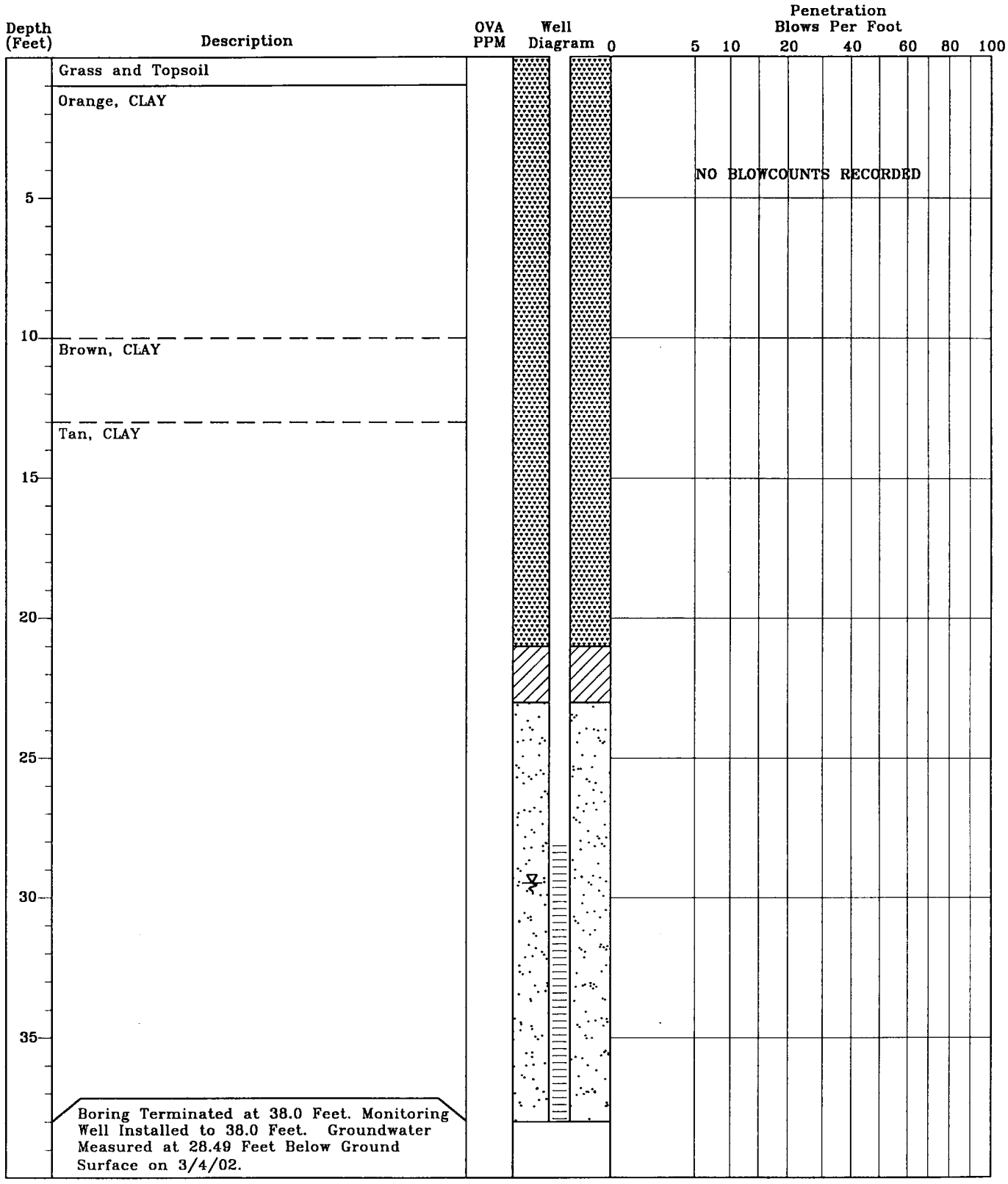
Midlands Environmental Consultants, Inc.	Replacement Monitoring Well Locations
Crossroads Grocery 8050 West Oak Hwy., Westminster, SC SCDHEC Site ID# 06742	
Figure 1	MECI 00-328

TABLE 1
REPLACEMENT WELL DATA
CROSSROADS GROCERY
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 00-328
SCDHEC SITE ID NUMBER 06742

Well Number	Measurement Date	Top of Lid Well-head Elevation	Depth to Product (feet)	Product Thickness (feet)	Depth to Water (feet)	Top of Casing Well-head Elevation	Groundwater Elevation
MW-4R	3/4/2002	85.49	28.47	0.02	28.49	85.07	56.60
MW-5R	3/4/2002	74.64	---	---	20.23	74.29	54.06
MW-7R	3/4/2002	100.46	---	---	38.55	100.06	61.51
MW-9R	3/4/2002	98.83	---	---	36.52	98.24	61.72
MW-13R	3/4/2002	77.07	---	---	21.88	76.70	54.82
MW-14R	3/4/2002	78.30	---	---	22.70	77.75	55.05
MWR-4R	3/4/2002	95.29	34.55	0.47	35.02	94.97	60.35

Notes:

1. Elevations are referenced to an assumed site datum (See Previous Survey in SCDHEC Files).
2. Groundwater depths were measured from the top of the PVC riser pipe.
3. Groundwater levels measured 3/4/02.
4. Elevations for MW-4R and MWR-4R corrected for the presence of free phase petroleum product based on a specific gravity for fuel of 0.85.



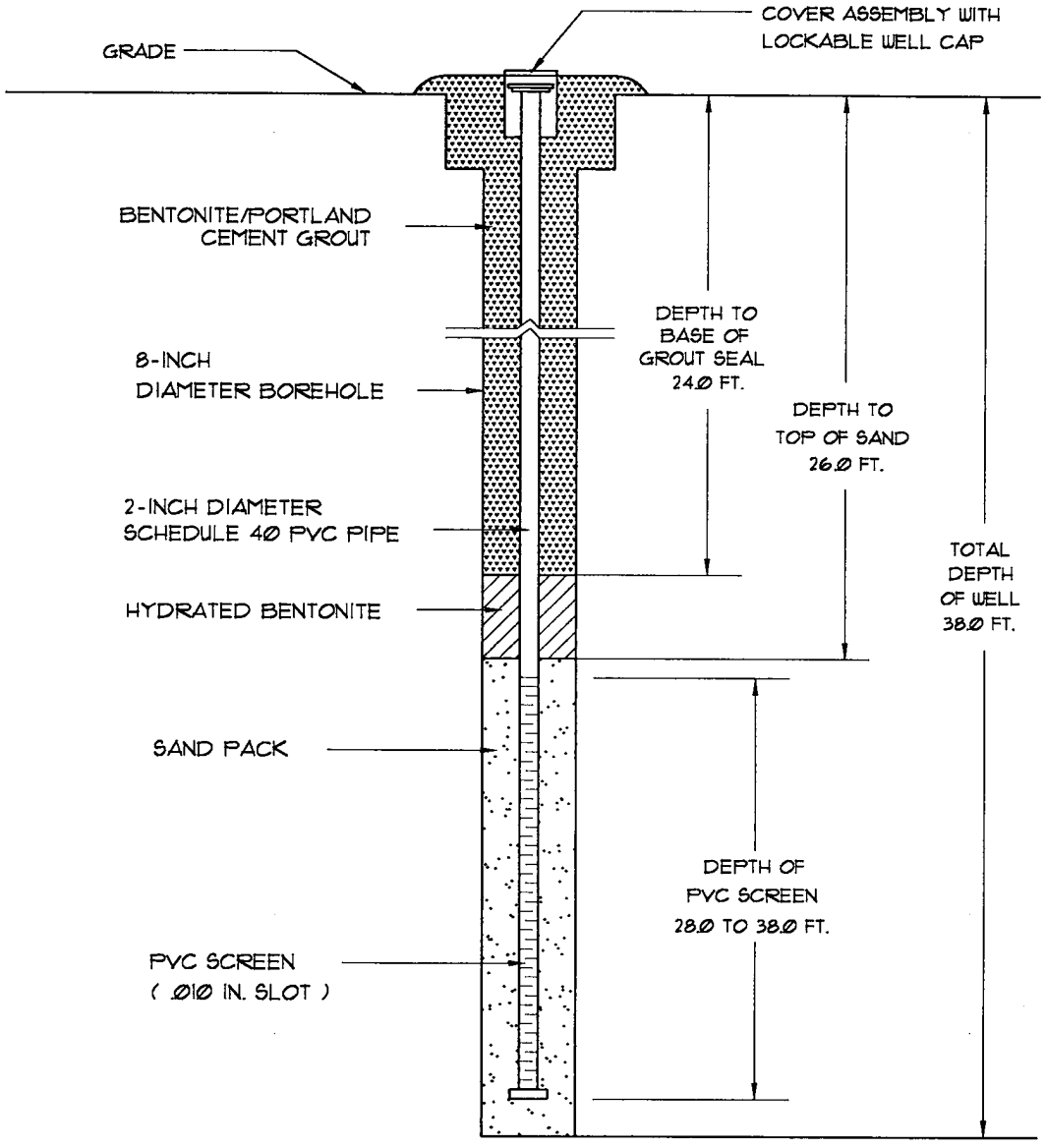
TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

Boring Number:	MW-4R
Date Drilled:	2/28/02
Drilled By:	American Enivoronmental Drilling
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 Fax: 808-2048

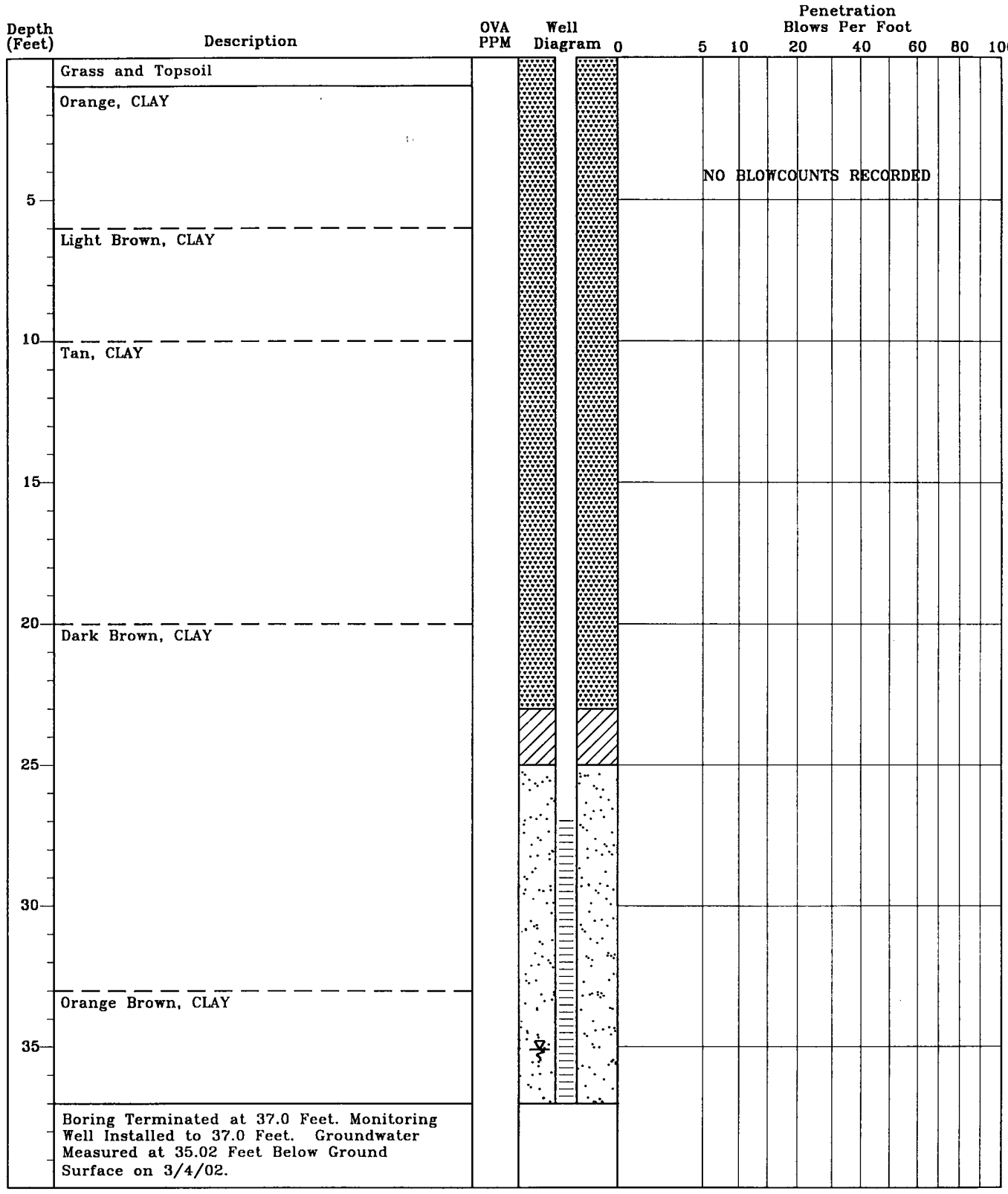
MONITORING WELL INSTALLATION RECORD

Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328



Well Number:	MW-4R
Date Drilled:	2/28/02
Drilled By:	American Environmental Drilling Services
Driller: K. Grant	S.C. I.D. #: 1568
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

Boring Number:	MWR-4R
Date Drilled:	2/27/02
Drilled By:	American Enivoronmental Drilling
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
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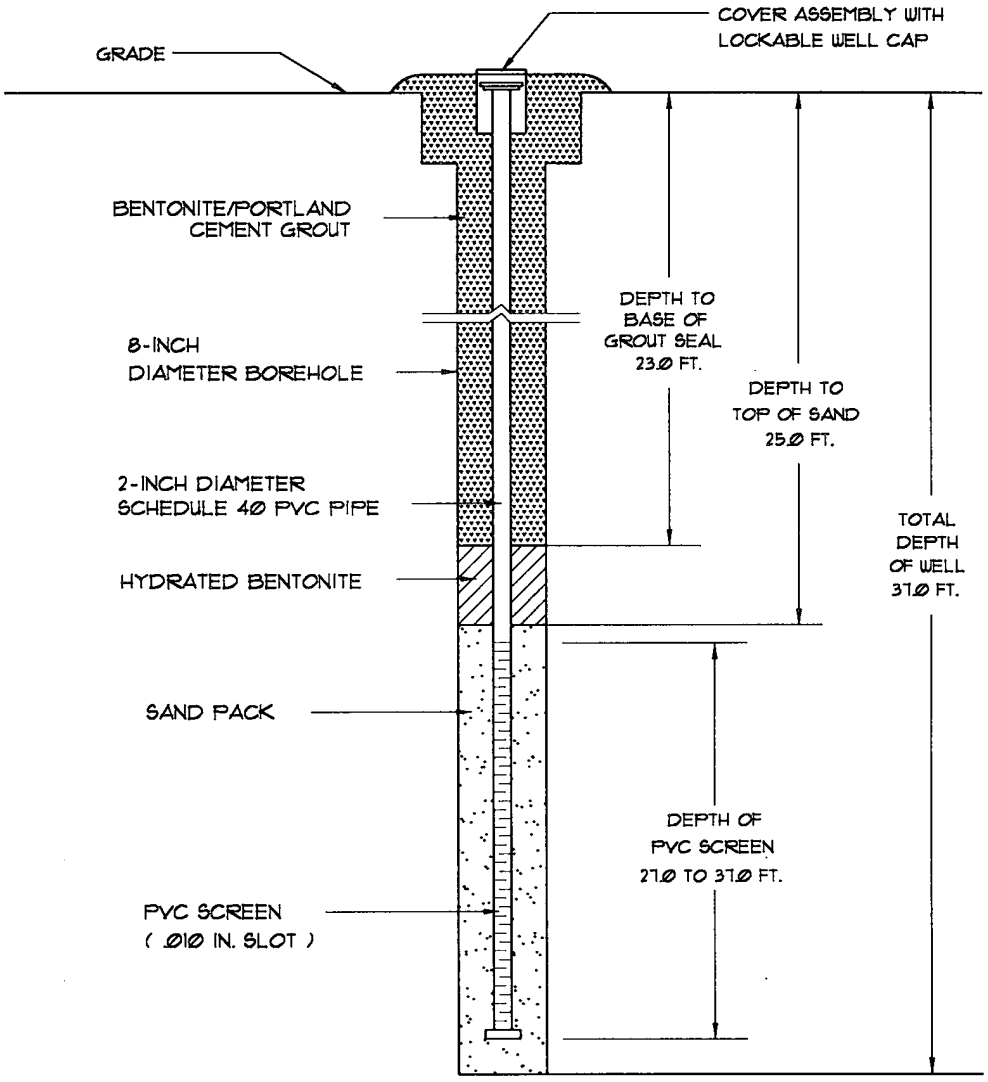
MONITORING WELL INSTALLATION RECORD

Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328



Well Number:	MWR-4R
Date Drilled:	2/28/02
Drilled By:	American Environmental Drilling Services
Driller: K. Grant	S.C. I.D. #: 1568
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
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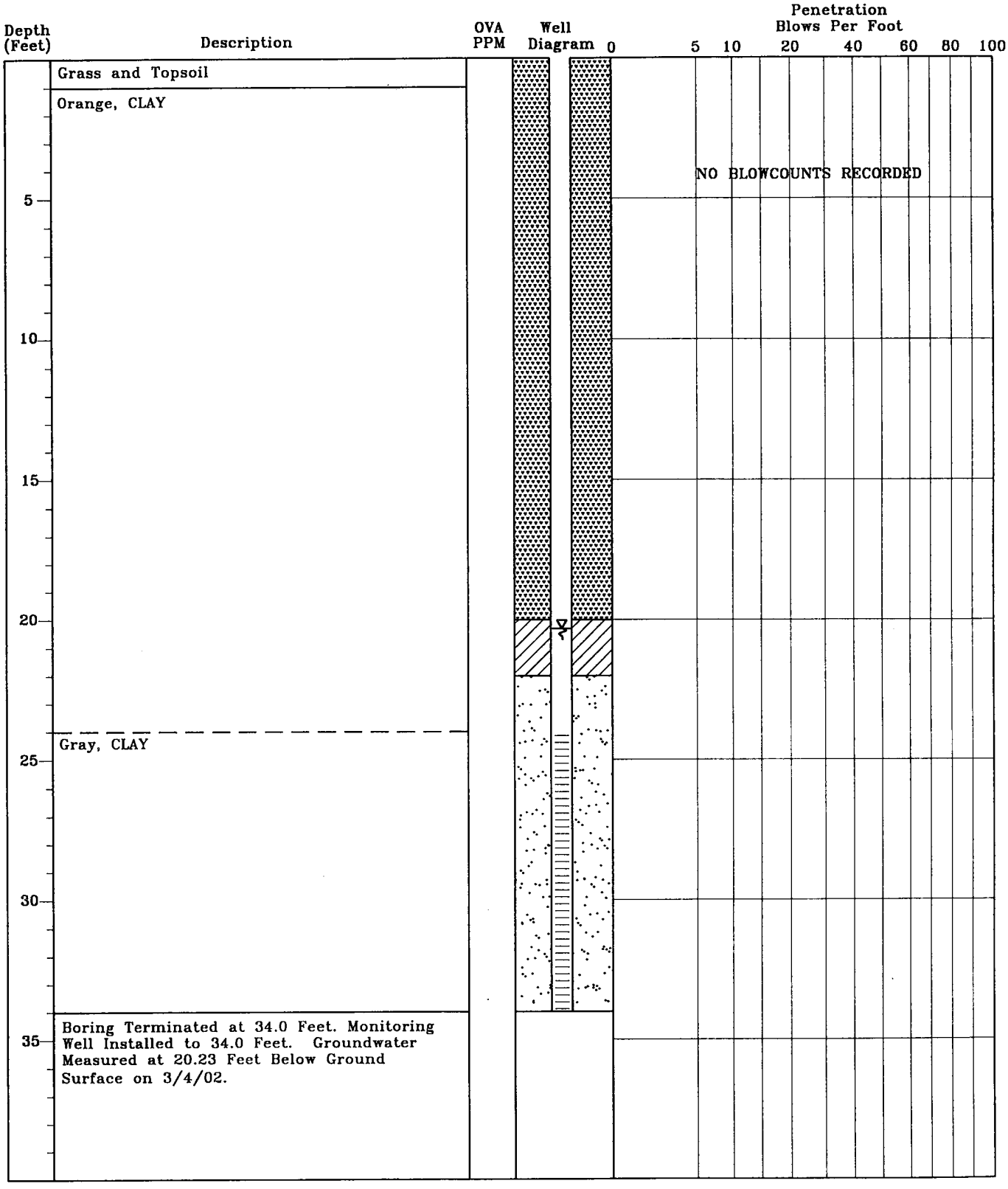
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



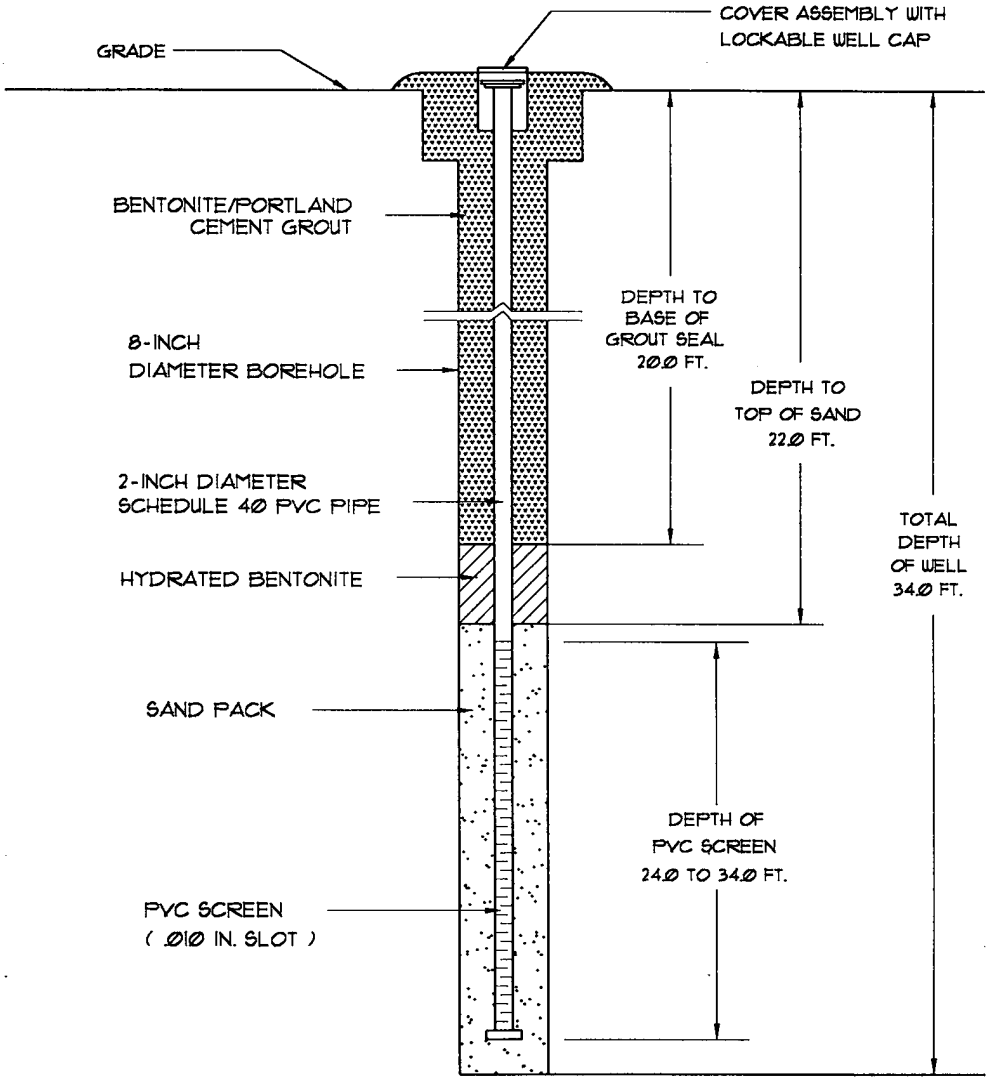
TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

Boring Number:	MW-5R
Date Drilled:	2/27/02
Drilled By:	American Enivoronmental Drilling
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

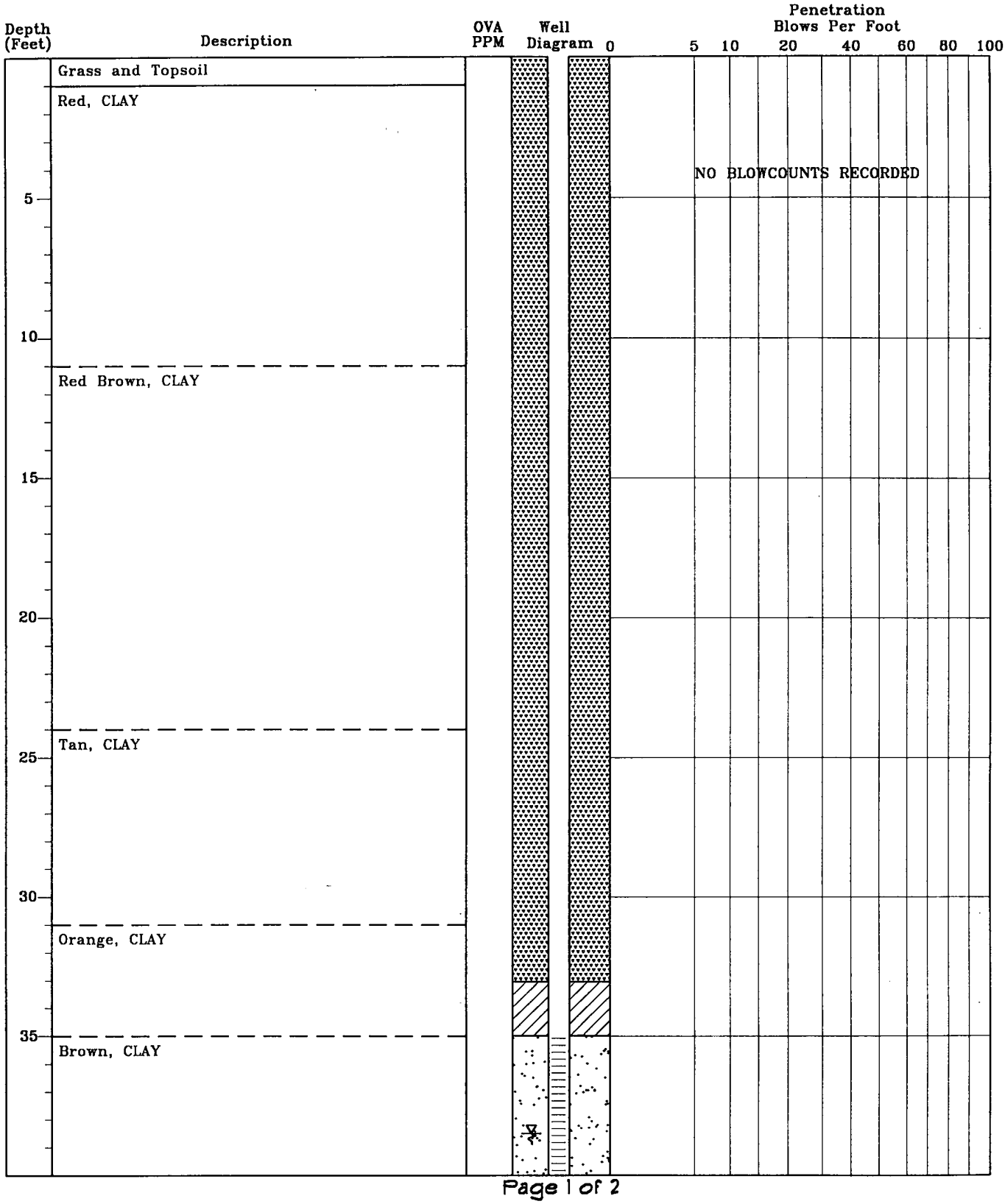
MONITORING WELL INSTALLATION RECORD

Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328



Well Number:	MW-5R
Date Drilled:	2/28/02
Drilled By:	American Environmental Drilling Services
Driller: K. Grant	S.C. I.D. #: 1568
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

Boring Number:	MW-7R
Date Drilled:	2/28/02
Drilled By:	American Environmental Drilling Services
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

Depth (Feet)	Description	OVA PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Brown, CLAY			NO BLOWCOUNTS RECORDED
45	Boring Terminated at 45.0 Feet. Monitoring Well Installed to 45.0 Feet. Groundwater Measured at 38.55 Feet Below Ground Surface on 3/4/02.			
50				
55				
60				
65				
70				
75				

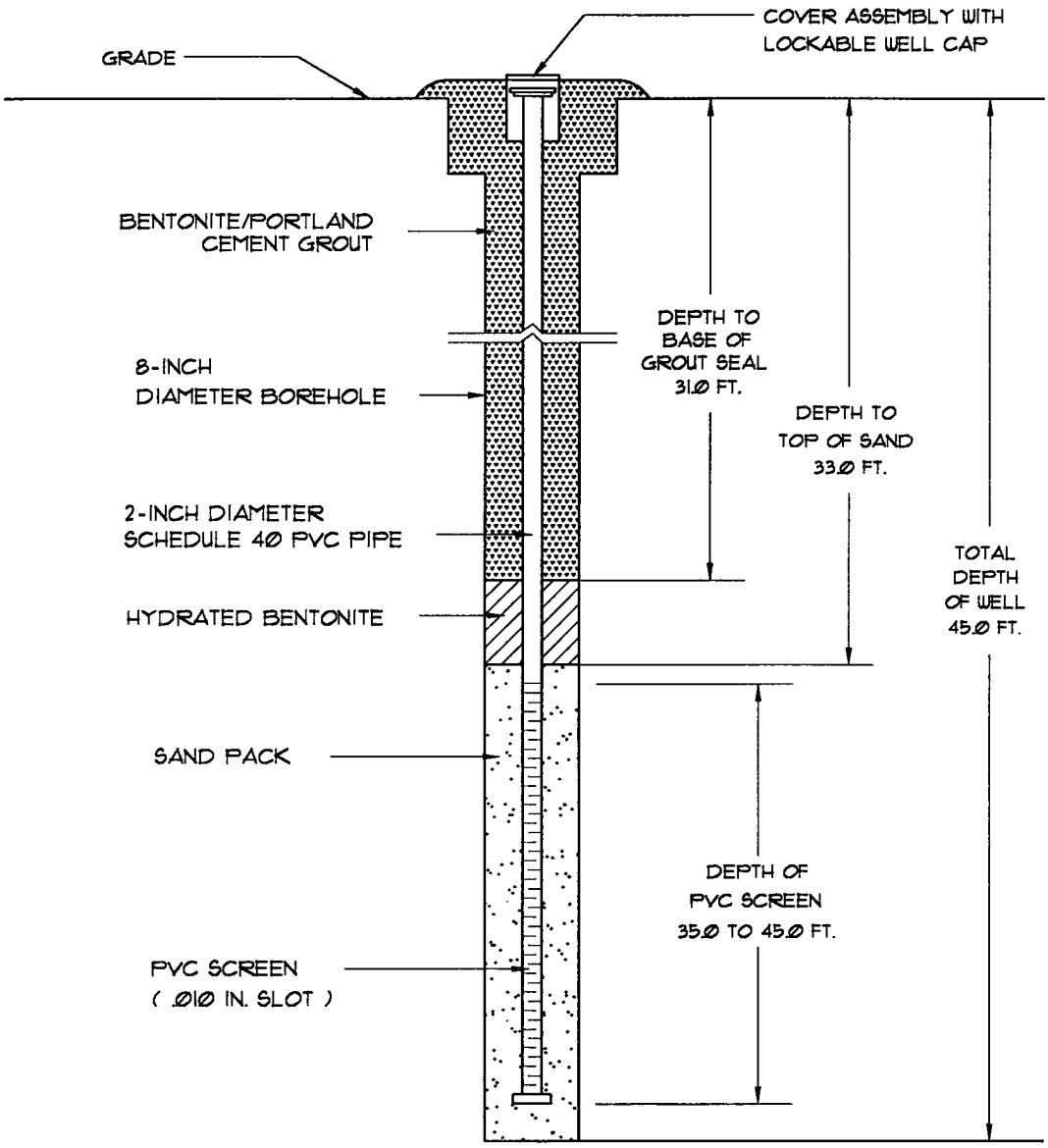
TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

Boring Number:	MW-7R
Date Drilled:	2/28/02
Drilled By:	American Environmental Drilling Services
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

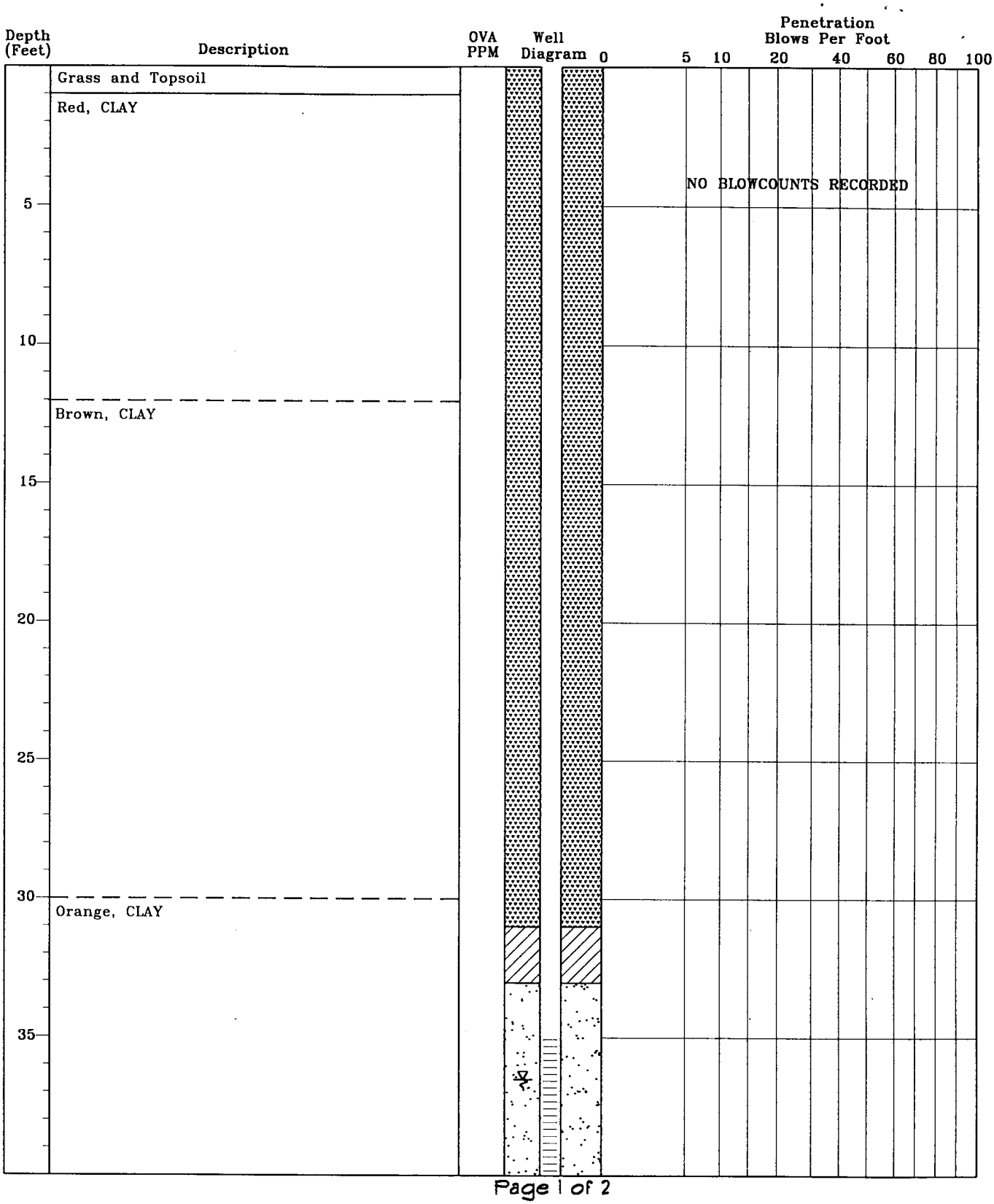
MONITORING WELL INSTALLATION RECORD

Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328



Well Number:	MW-7R
Date Drilled:	2/28/02
Drilled By:	American Environmental Drilling Services
Driller: K. Grant	S.C. I.D. #: 1568
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

Boring Number:	MW-9R
Date Drilled:	2/28/02
Drilled By:	American Environmental Drilling Services
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

Depth (Feet)	Description	OVA PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Orange, CLAY			NO BLOWCOUNTS RECORDED
45	Boring Terminated at 45.0 Feet. Monitoring Well Installed to 45.0 Feet. Groundwater Measured at 36.52 Feet Below Ground Surface on 3/4/02.			
50				
55				
60				
65				
70				
75				

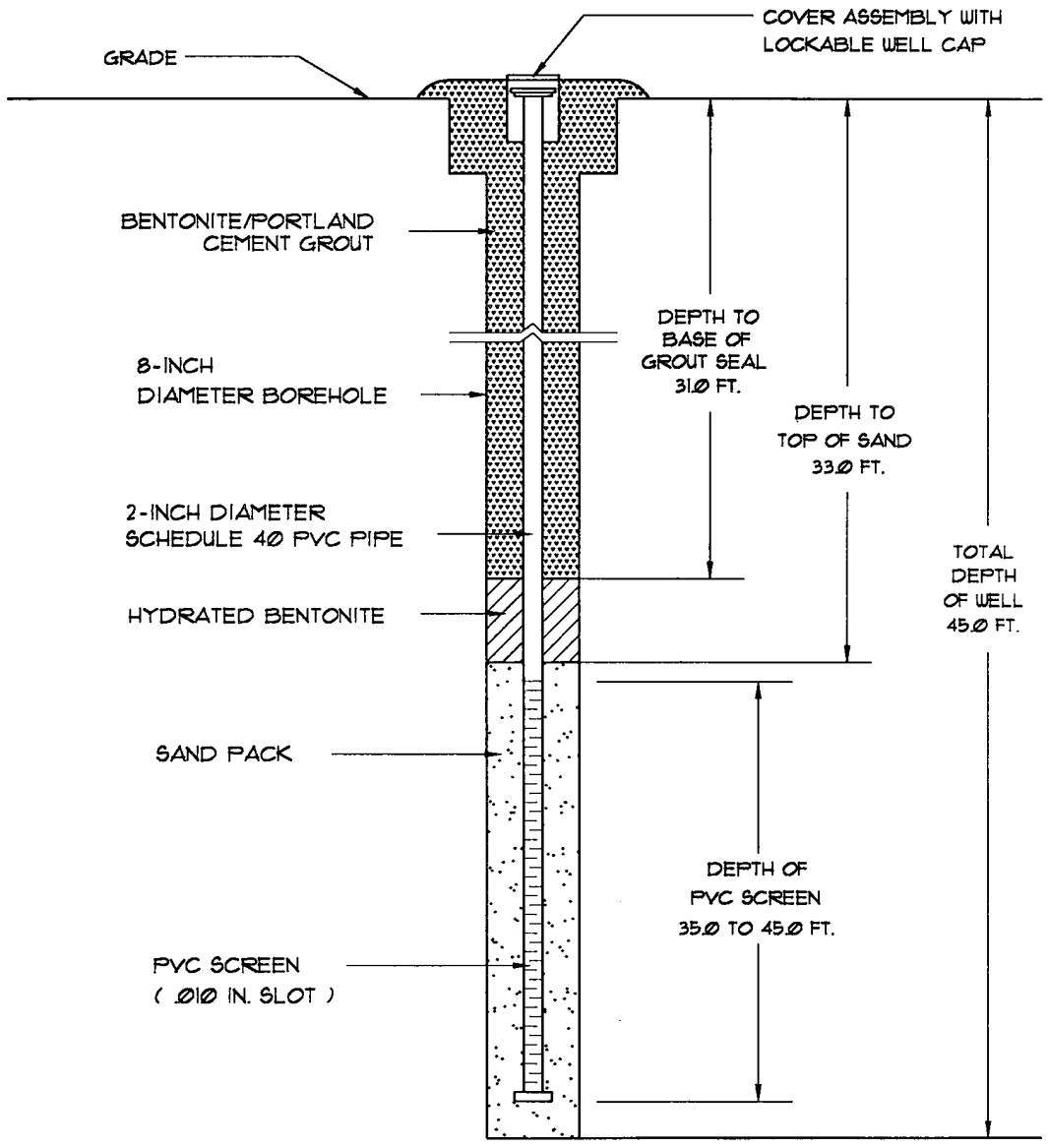
TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

Boring Number:	MW-9R
Date Drilled:	2/28/02
Drilled By:	American Environmental Drilling Services
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

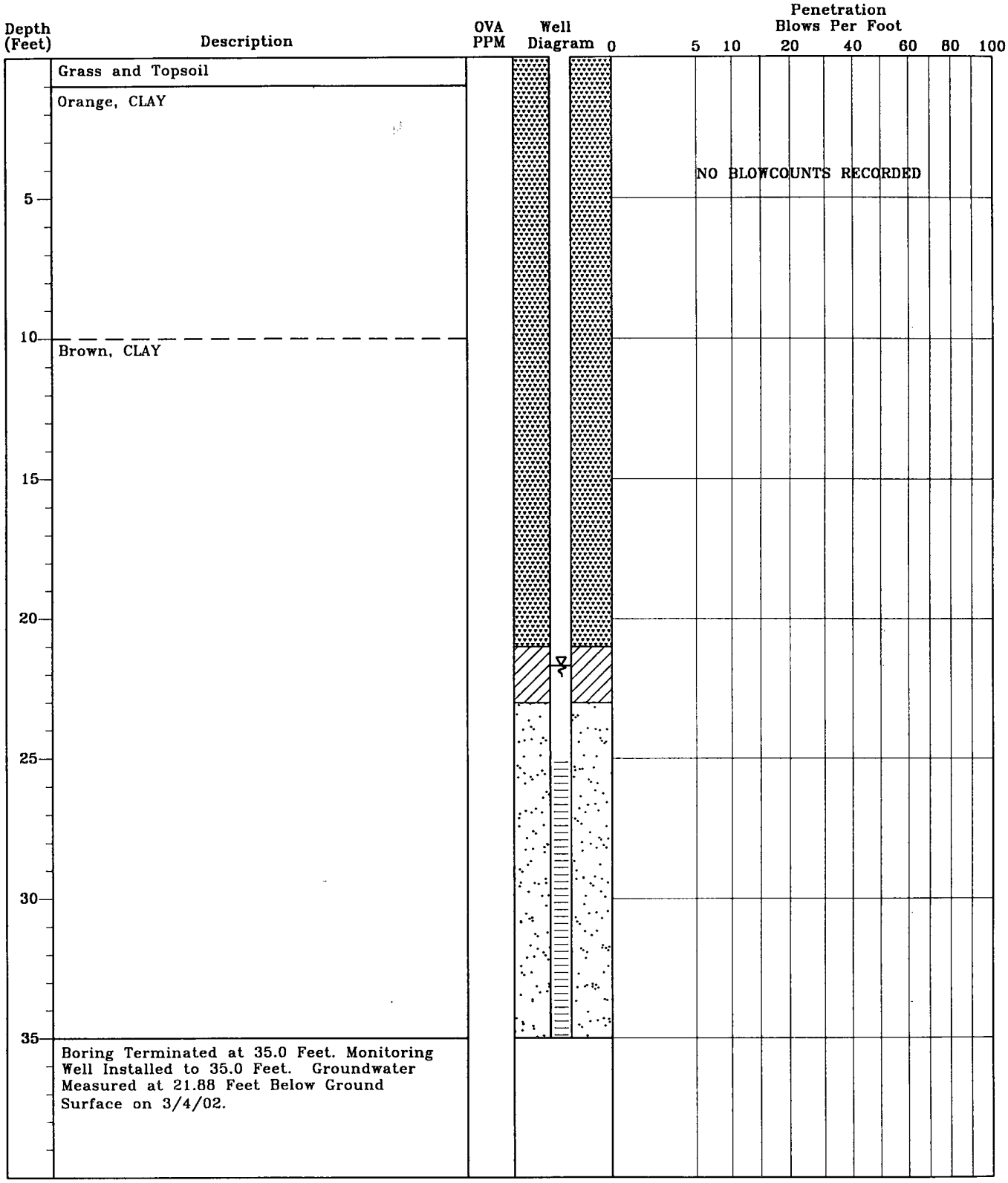
MONITORING WELL INSTALLATION RECORD

Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328



Well Number:	MW-9R
Date Drilled:	2/28/02
Drilled By:	American Environmental Drilling Services
Driller: K. Grant	S.C. I.D. #: 1568
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



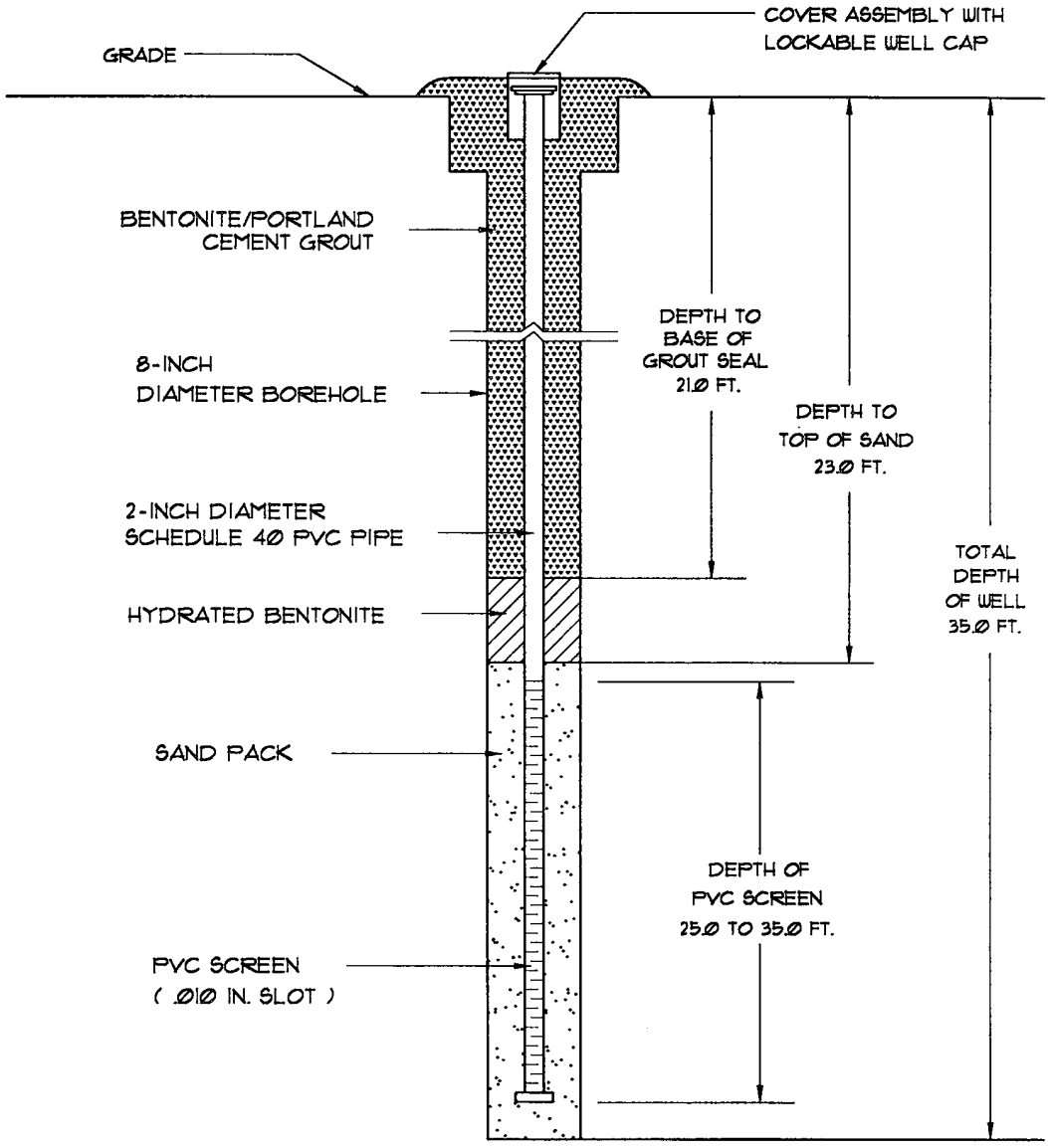
TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

Boring Number:	MW-13R
Date Drilled:	2/28/02
Drilled By:	American Enivoronmental Drilling
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

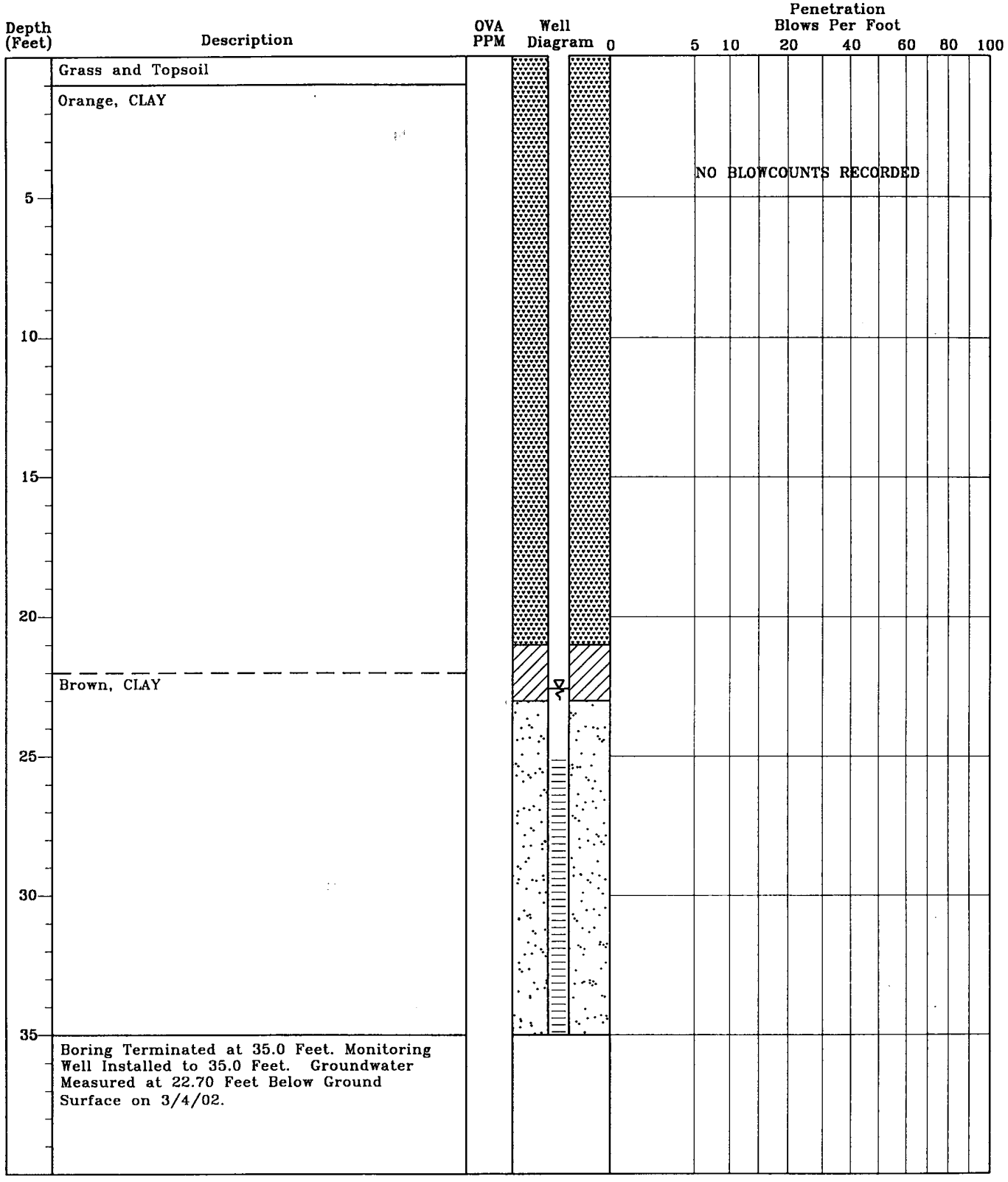
MONITORING WELL INSTALLATION RECORD

Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328



Well Number:	MW-13R
Date Drilled:	2/28/02
Drilled By:	American Environmental Drilling Services
Driller: K. Grant	S.C. I.D. #: 1568
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



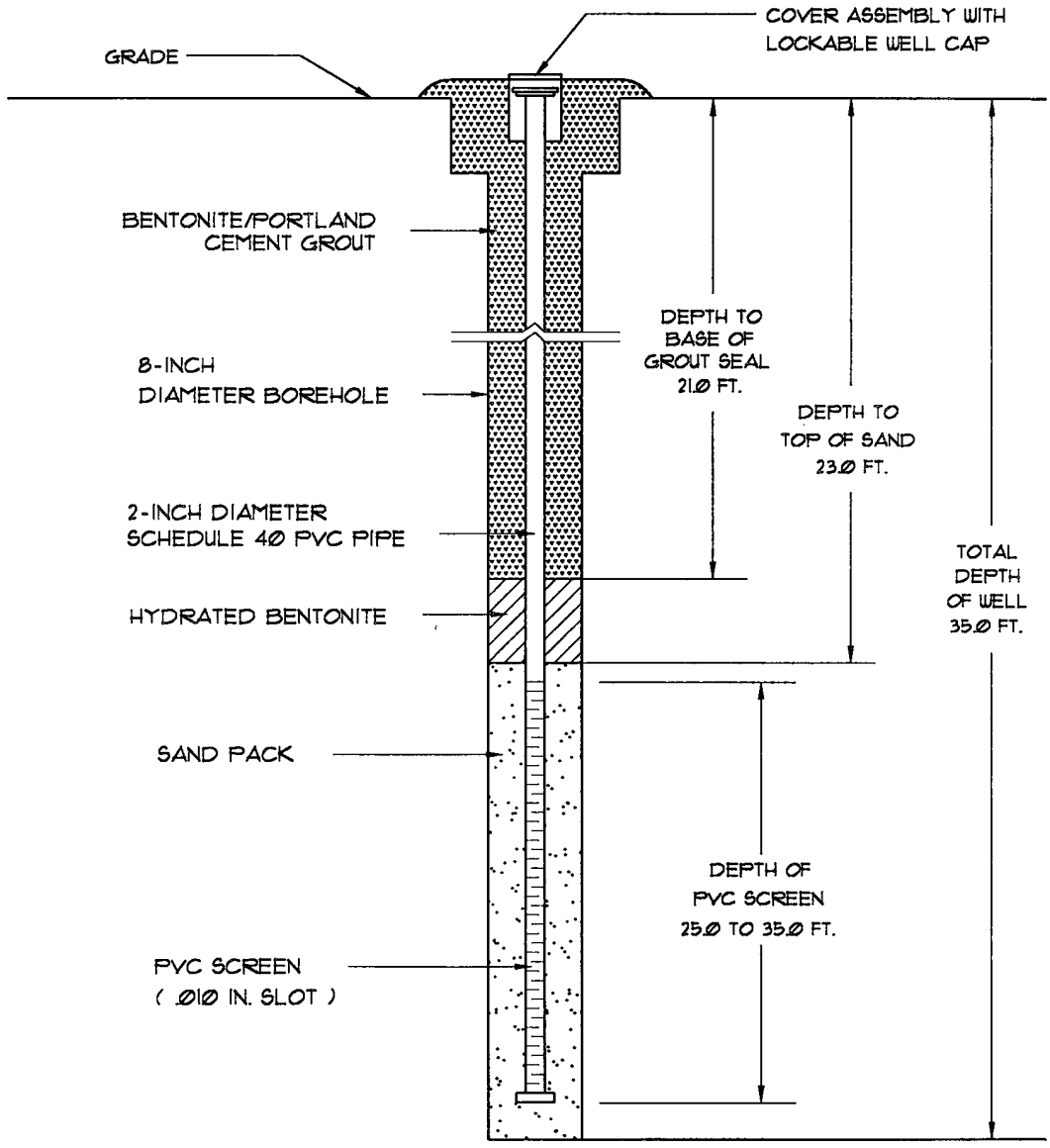
TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

Boring Number:	MW-14R
Date Drilled:	3/1/02
Drilled By:	American Enivoronmental Drilling
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

MONITORING WELL INSTALLATION RECORD

Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328



Well Number:	MW-14R
Date Drilled:	3/1/02
Drilled By:	American Environmental Drilling Services
Driller: K. Grant	S.C. I.D. #: 1568
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

Midlands Environmental Consultants, Inc.

April 17, 2002

Re: Treatment of Purge Water
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID Number 06742
MECI Project Number 00-328

To Whom it May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The worst-case well analysis was obtained before usage of the Activated Carbon Unit. The worst-case well analysis shows only petroleum hydrocarbon constituents in the purge/bail water. The purge/bail water was containerized on site before treatment for less than 30 days prior to treatment.

2. No free-product was detected in any of the purge water drums.

3. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

4. Record of usage is maintained by Contractor.

5. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

6. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

Post Office Box 854, Lexington SC 29071 • 1144 Old Two Notch Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

One 55-gallon drum was treated on March 4, 2002 at the referenced site

A total of one 55-gallon drum was treated at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Harry B. Walling
Staff Scientist

RICHLAND LANDFILL
A WASTE MANAGEMENT COMPANY

1047 Highway Church Road
Elgin, SC 29045
(803) 788-3054
(803) 736-0995 Fax

SPECIAL WASTE MANIFEST

WASTE ID # RC 0110011

APPROVAL EXPIRATION DATE:
OCTOBER 17, 2002

GENERATOR OF WASTE: MIDLANDS ENVIRONMENTAL CONSULTANTS

CUSTOMER ACCOUNT: MIDLANDS ENVIRONMENTAL CONSULTANTS 820 - 469

LOCATION OF WASTE : LEXINGTON, SOUTH CAROLINA (LEXINGTON COUNTY)

PHONE # 803 808 - 2043 CONTACT BRIAN SHANE

FAX # 803 808 - 2048

GENERATOR'S SIGNATURE _____ DATE: _____

TRANSPORTED OF WASTE LEXINGTON EARTHWORKS, INC.

DATE: 03-14-02 TRUCK NO. #1

DRIVER'S SIGNATURE Steve A Howard

**** TO BE COMPLETED BY RICELAND LANDFILL ****

DISPOSAL SITE: RICHLAND LANDFILL, INC. - ELGIN SC

DESCRIPTION OF WASTE: SOIL FROM UST ASSESSMENT

TICKET NO.# 364889 TONNAGE : 7.85

RECEIVED BY : SB

North Augusta
Cross Rds
Fountain

8
3/4
1/2
9 1/4

7.85 tons / 9.25 buckets = 0.85 tons/bucket

Crossroads Grocery
SCDHEC site ID 06742

0.75 bucket x 0.85 tons/bucket
= 0.64 ton
or 3 drams

RICHLAND COUNTY LANDFILL, INC.
TNT SANDS, INC.
A WASTE MANAGEMENT COMPANY
1047 Highway Church Rd.
Elgin, SC 29045
(803) 788-3054 • (803) 736-0995 Fax

Date: 03/15/2002 (MANUAL) 6:27 AM
TIME IN: 6:03 TIME OUT: 6:27 Ticket: 364889
820-469
MIDLANDS ENVIRONMENTAL CONSUL
PO BOX 854
LEXINGTON SC 29073

Driver: Truck: 1

Description	Quantity
OUTSIDE SPECIAL WASTE	7.85 TON

Generator: MECI MIDLANDS ENVIRONMENTAL CONST
Approval: RC 0110011 SOIL FROMUST ASSESSMENT
Source: 32-LEXINGTON Type: SOL District: IN
GVW 38980 TW 23280
FUEL SURCHARGE-820

SFI OF TEXAS • TOLL FREE 1-866-713-9278

$\frac{7.85 \text{ tons}}{9.25 \text{ buckets}} = 0.85 \text{ tons/bucket}$

Signature

WM 403-0082

SMITH

Monitoring & Maintenance Engineering, Inc.

September 15, 2003

RECEIVED
SEP 19 2003
UNDERGROUND STORAGE TANK PROGRAM

Ms. Karen M. Doran, Hydrogeologist
Department of Health and Environmental Control
UST Management Division
2600 Bull Street
Columbia, South Carolina 29201-1708

Re: Quarterly Monitoring Report; Site #06742
Cross Roads Grocery; Oconee County, South Carolina

Dear Ms. Doran,

As required, Smith Monitoring & Maintenance Engineering, Inc. (SMME) has completed groundwater sampling activities in compliance with condition number 7 of the referenced bid specification. The monitoring wells were sampled on August 26 and 27, 2003.

Static water levels and total well depths were measured to the nearest 0.01 foot, based on top of casing elevations previously established in EMC's assessment of May of 1998. Dissolved oxygen concentrations were measured prior to level measurement and well sampling to minimize errors due to aeration of the water in the well screen.

All wells were purged and sampled with a decontaminated 12-volt DC, low volume, centrifugal pump. The wells were purged until at least one standing well volume had been removed and the pH and temperature of the water had stabilized to within a 10 percent difference. The groundwater sampling parameters for each well were recorded in the attached groundwater sampling field tables.

The groundwater samples were recovered through the use of low-volume pumping. The water sample was then apportioned into the pre-labeled sample containers, which contained the appropriate preservatives according to U.S. EPA standards. Required sample volumes, containers, sample preservatives, and holding times followed guidelines stipulated in Appendix A of the EISOPQAM.

The sample bottles were labeled with all data required by the EISOPQAM and placed in iced containers for storage to maintain not more than 5 degrees Celsius temperature. Static water level measurements and well sampling were conducted in sequence from the least contaminated well to the most contaminated well.

Chain-of-custody procedures used for this assessment conformed to the EISOPQAM, Section 3. The chain-of-custody forms were used to record and document all times and changes of possession of the samples. The chain-of-custody form documents the project name; sample number; name and signature of sample personnel and the field supervisor, the sampling location, date, and collection time, type of sample, container type, sample media, and the number of containers for a given sample.

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296

80 tech

Groundwater elevations (see Groundwater Elevation Table 1), measured prior to groundwater sampling, were used to construct a water table contour map, which is included as Figure 1. Groundwater elevations were calculated by subtracting the depth-to-water measurement from the Top-of-Casing (TOC) elevation previously measured. At this time, the exact gradient is not determinate since the casing elevations for the new wells are unknown. Based upon prior site experience groundwater flow direction is generally toward the south.

Figure 2 shows the benzene isopleth, based on the latest sampling. A summary of recorded sampling events is provided in Table 3: Actual Concentrations. Laboratory analytical data sheets are provided in Attachment I. Table 2: Report Concentrations is provided as a summary of the analytical data using the SSTLs in summing the site score, for billing purposes.

Progress of Corrective Action

The groundwater treatment system, as described in the approved Corrective Action Plan, was installed and started operation on January 11, 2000. Problems due to freezing temperatures caused a temporary shutdown during late January of 2000. The treatment system was shut-down, temporarily, during the fall and winter 2001/2002 due to significant product reoccurrence and injection line destruction due to site clearing activities. System injection lines were repaired and product reduced. Last month a motor start capacitor failed. The capacitor was replaced and the system restarted two weeks ago, September 3rd.

LNAPL has formed in MW-8 and is impacting concentrations in adjacent monitoring wells. This well has no history of product formation. Historically, product was detected in the down-gradient well MWR-1 and in MW-1A during our initial sampling. During the previous year, dramatic reductions in CoC have occurred in MW-8, with the June, 2003 results showing only 20% of the initial sampling, conducted prior to system start-up. The potential for the detected product to be the result of a new release is considered high due to the well's location, adjacent to the active fuel pumps. We request the State sample and type this product.

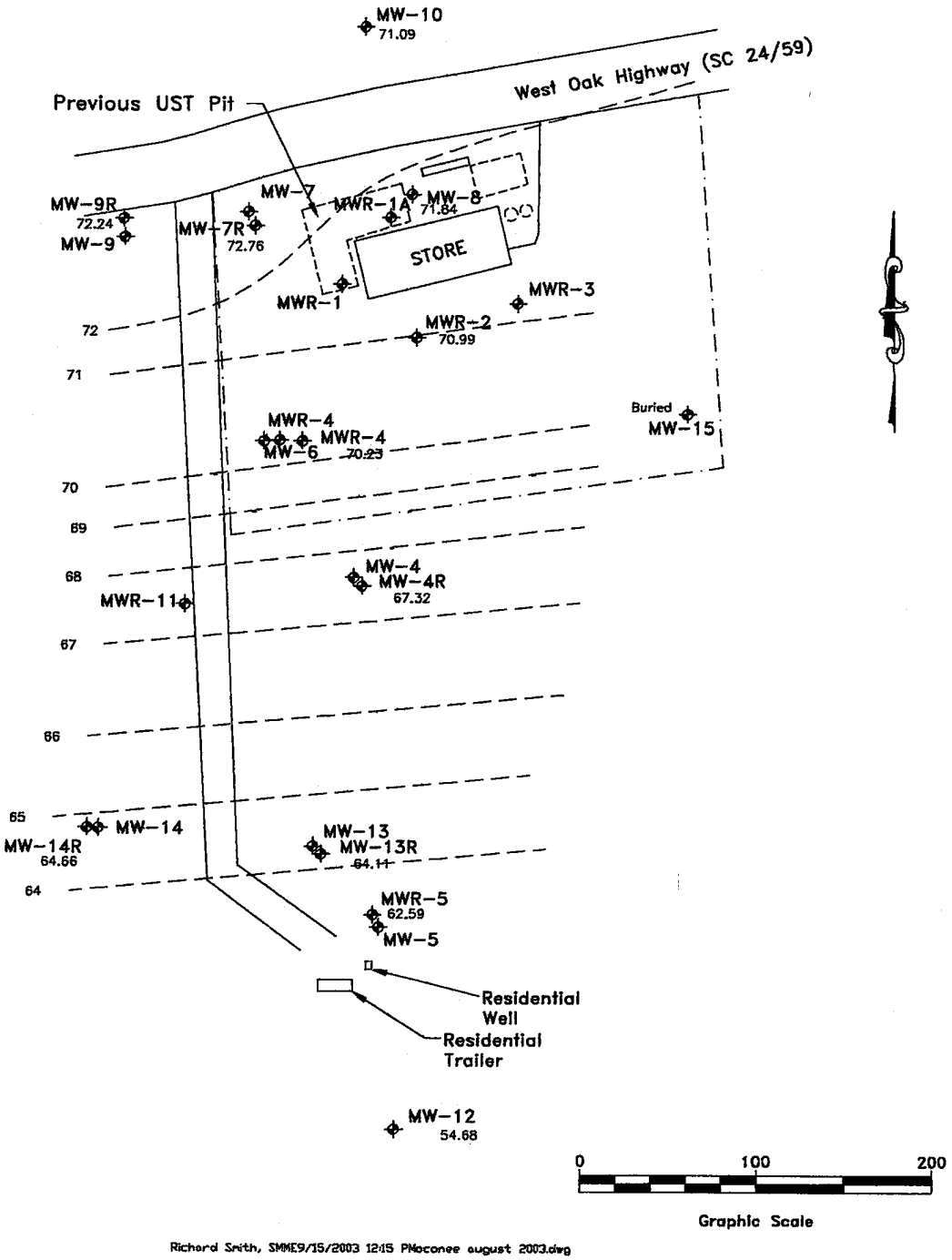
Should you have any questions, please contact the undersigned.

Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer
S.C. Reg.: 14734

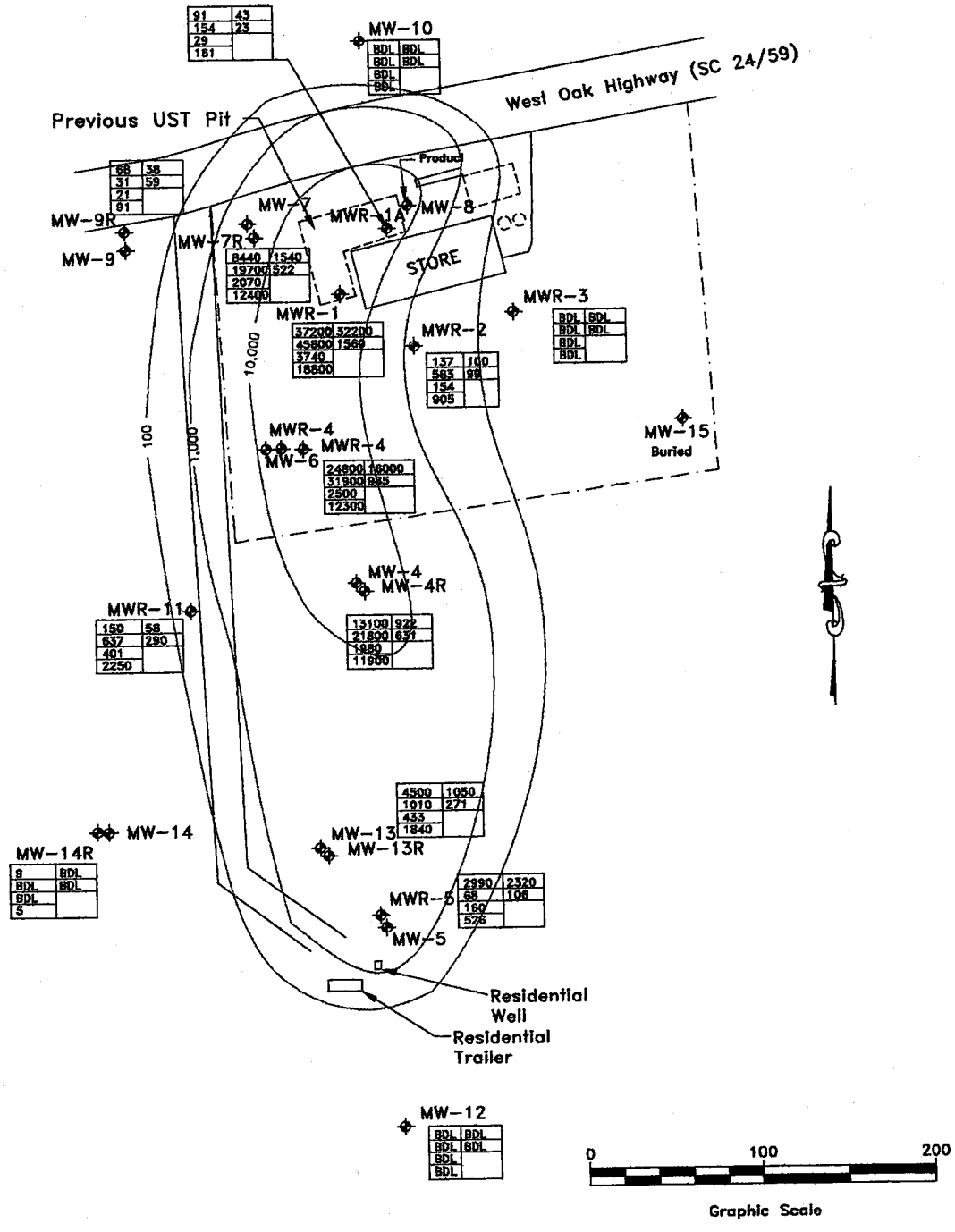
Certificate of Authorization: # C01435

FIGURES



Richard Smith, SMME9/15/2003 12:15 PMoconee august 2003.dwg

South Carolina DHEC 2600 Bull Street Columbia, South Carolina	SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332
PROJECT #: / DRAWN BY: RBS SCALE: 1" = 100' / DATE: Sept. 15, 2003	Potentiometric Surface Map August 26, 2003 Cross Roads Grocery Oconee County, South Carolina oconee august 2003.dwg
	FIGURE 1



Richard Smith, SMME9/15/2003 12:15 PMoconee august 2003.dwg

South Carolina DHEC
2600 Bull Street
Columbia, South Carolina

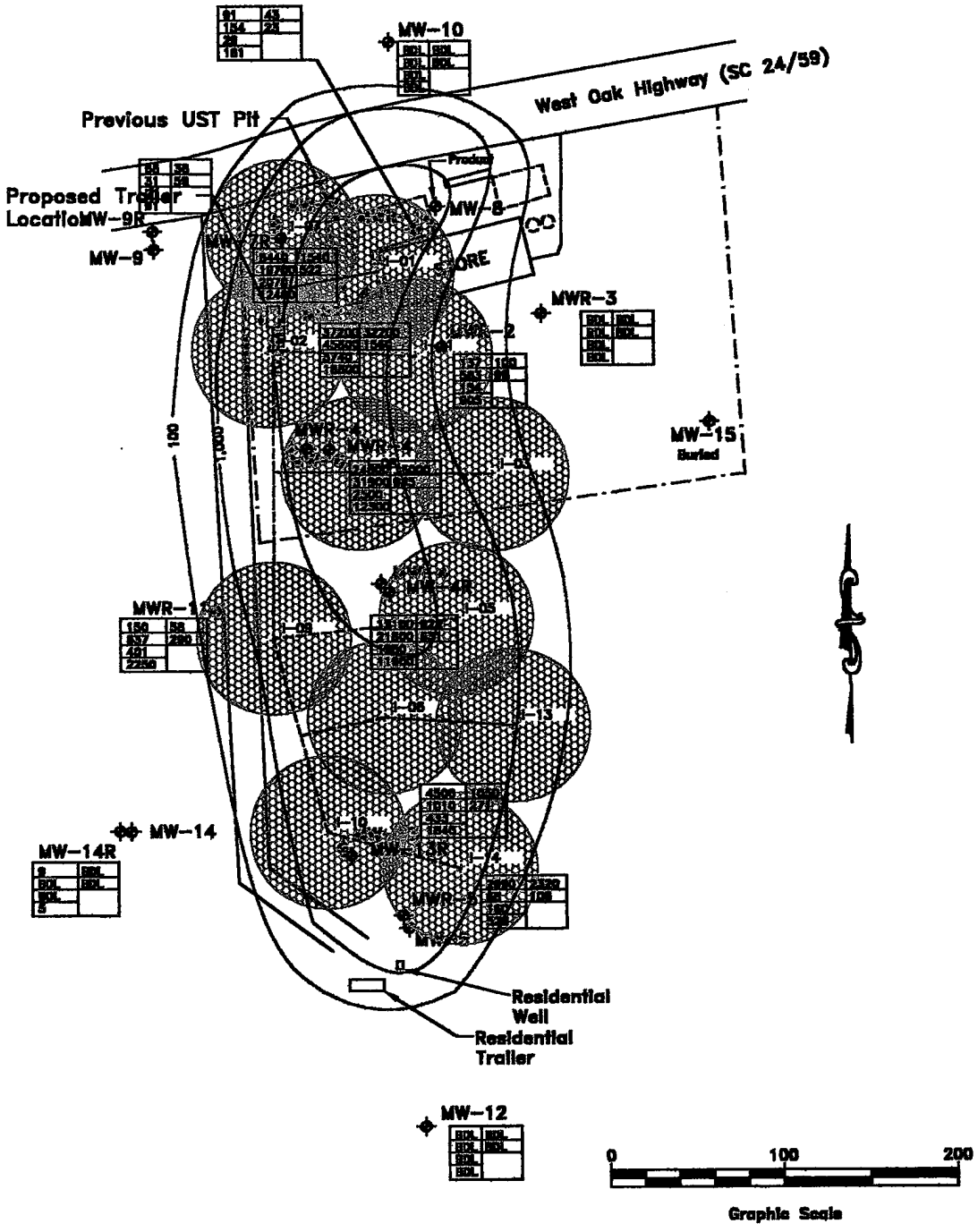
SMME Smith Monitoring & Maintenance Engineering, Inc.
Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance
145 Merrill Avenue Decatur, Georgia 30030
Telephone: (404) 371-9332

PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: Sept. 15, 2003

Benzene Isopleth
August 26, 2003
Cross Roads Grocery
Oconee County, South Carolina

oconee august 2003.dwg

FIGURE
2



Richard Smith, SMME 9/15/2003 12:15 P:\oconee august 2003.dwg

South Carolina DHEC 2600 Bull Street Columbia, South Carolina	SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332
PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: Sept. 15, 2003
Injection Well Locations Cross Roads Grocery Oconee County, South Carolina oconee august 2003.dwg	FIGURE 3

TABLES

GROUNDWATER ELEVATION
SB-6672-07/28/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 9/12/2003
Site ID # 6742

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	0.00	-	30.0	28.47	28.45	99.04	0.02	70.59
MW-1	12/10/99			29.8	29.60		99.04		
2"	4/4/00			29.8	Dry		99.04		
MWR-1	6/20/00			45.0	35.20	34.93		0.27	
	9/25/00	0.39	20.1	45.0	37.05	37.05		0.00	
	2/27/01		18.5	45.0	39.05	39.05		0.00	
	7/19/01			45.0	37.90	38.70		1.20	
	10/9/01			45.0	38.91	38.89		0.02	
	3/26/02			45.0	39.42	39.35		0.07	
	5/15/02			45.0	39.42	39.95		2.50	
	2/20/03	1.49	18.7	45.0	39.20	0.00		0.00	
	6/11/03	1.08	19.7	45.0	28.30	0.00		0.00	
	8/26/03	1.12	19.9	45.0	28.04	0.00		0.00	
	4/2/98	0.00	-	40.0	31.50	28.66	99.01	2.84	69.92
MW-1A	12/10/99			38.4	38.32	35.32	99.01	3.00	63.24
2"	4/4/00			38.4		-1.10	99.01	1.10	
MWR-1A	6/20/00	1.01	21.8	70.0	35.95	35.95	98.70	0.00	62.75
	9/25/00			70.0	37.43	37.43	98.70	0.00	61.27
	2/27/01	1.01	18.8	70.0	39.58		98.70		59.12
	4/23/01	1.04	19.4	70.0	38.35		98.70		60.35
	7/19/01	1.09	21.5	70.0	38.20		98.70		60.50
	10/9/01	1.22	20.8	70.0	40.80		98.70		57.90
	3/26/02	1.49	20.9	70.0	41.95		98.70		56.75
	5/15/02	1.12	19.8	70.0	40.20		98.70		58.50
	9/22/02	1.24	20.9	70.0	41.48		98.70		57.22
	2/19/03	1.32	18.7	70.0	34.40		98.70		64.30
	6/11/03	1.19	21.7	70.0	31.25		98.70		67.45
	8/26/03	1.98	20.5	70.0	29.30		98.70		69.40
	4/2/98	6.24	18.7	30.0	26.98	-	97.77	-	70.79
MW-2	12/10/99			29.3	29.22		97.77		
2"	4/4/00	0.48		29.3	29.22		97.77		Dry
MWR-2	6/20/00	1.23	22.3	40.0	33.23		97.40		64.17
	9/25/00	0.30	18.9	40.0	35.17		97.40		62.23
	2/27/01	1.01	17.9	40.0	36.92		97.40		60.48
	4/23/01	1.03	21.6	40.0	35.60		97.40		61.80
	7/19/01	1.27	22.7	40.0	35.21		97.40		62.19
	10/9/01	1.32	17.6	40.0	36.85		97.40		60.55
	3/26/02	1.15	18.9	40.0	37.20		97.40		60.20
	5/15/02	1.28	19.3	40.0	35.89		97.40		61.51
	9/22/02	1.33	18.8	40.0	36.63		97.40		60.77
	2/19/03	1.19	18.7	40.0	31.05		97.40		66.35
	6/11/03	1.38	18.3	40.0	26.89		97.40		70.51
	8/26/03	1.39	20.3	40.0	26.41		97.40		70.99
	4/2/98	7.07	18.0	30.0	27.30	-	96.77	-	69.47
MW-3	12/10/99			29.0	28.97		96.77		
2"	4/4/00			29.0	28.94		96.77		Dry
MWR-3	6/20/00	2.65	22.6	40.0	33.40				
	9/25/00	1.43	19.0	40.0	35.32				
	2/27/01	1.70	17.5	40.0	37.11				
	4/23/01	1.59	21.4	40.0	35.94				
	7/19/01	1.95	22.2	40.0	35.33				
	10/9/01	1.31	17.6	40.0	37.00				
	3/26/02	1.31	19.4	40.0	37.34				
	5/14/02	1.98	18.2	40.0	36.00				
	9/22/02	1.29	19.6	40.0	36.64				
	2/19/03	1.25	18.1	40.0	31.12				
	6/11/03	1.29	21.1	40.0	27.18				
	8/26/03	1.24	19.5	40.0	26.67				
	4/2/98	3.84	-	25.0	21.45	-	90.10	-	68.65
MW-4	12/10/99			27.4	27.13		90.10		
2"	4/4/00			27.4			90.10		Dry
MWR-4	6/20/00			40.0	30.43	-	92.97	0.01	62.55
	9/25/00	0.47	18.6	40.0	32.34	-	92.97	0.00	60.63
	2/27/01			40.0	35.85	-	92.97	1.00	57.97
	4/23/01			40.0	33.69	-	92.97	1.00	60.13
	7/19/01			40.0	32.77	-	92.97	0.50	60.63
	10/9/01			40.0	40.00	-	92.97	2.50	55.10
MW-4R	3/26/02	1.27	17.1	35.0	27.98	-	85.07		57.09
	5/15/02	1.06	17.7	35.0	26.60	-	85.07		58.47
	9/22/02	1.40	18.4	35.0	27.73	-	85.07		57.34
	2/20/03	1.12	17.1	35.0	21.72	-	85.07		63.35
	6/11/03	1.38	17.9	35.0	17.59	-	85.07		67.48
	8/26/03	1.19	19.0	35.0	17.75	-	85.07		67.32

GROUNDWATER ELEVATION

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850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 9/12/2003
Site ID # 6742

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	5.86	14.1	20.0	12.40	-	74.74	-	62.34
MW-5	12/10/99			20.0	16.93		74.74		57.81
2"	4/4/00	4.74	16.8	20.0	12.45		74.74		62.29
	6/20/00	1.75		20.0	16.86		74.74		57.88
	9/25/00			20.0	dry		74.74		#VALUE!
	2/27/01			20.0	dry		74.74		#VALUE!
	4/23/01	1.16	15.7	20.0	17.35		74.74		57.39
	7/19/01	4.48		20.0	16.37		74.74		58.37
	10/9/01	dry		20.0	dry		74.74		#VALUE!
MWR-5	3/26/02	1.30	16.4	34.0	19.59		74.29		54.70
	5/14/02	1.37	16.2	34.0	18.77		74.29		55.52
	9/22/02	1.30	18.0	34.0	20.50		74.29		53.79
	2/19/03	3.92	17.1	34.0	14.20		74.29		60.09
	6/11/03	1.21	18.0	34.0	10.93		74.29		63.36
	8/26/03	1.09	18.0	34.0	11.70		74.29		62.59
	4/2/98	0.66	17.6	35.0	23.35	-	92.67	-	69.32
MW-6	12/10/99			35.0	30.35		92.67		62.32
2"	4/4/00	0.18	18.0	35.0	29.88		92.67		62.79
	6/20/00	1.14	24.5	35.0	30.05		92.67		62.62
	9/25/00	0.33	18.6	35.0	32.05		92.67		60.62
	2/27/01			35.0	Dry		92.67		#VALUE!
	4/23/01	1.15	20.2	35.0	32.03		92.67		60.64
	7/19/01	1.09	19.5	35.0	32.02		92.67		60.65
	10/9/01	dry		35.0	dry		92.67		#VALUE!
MWR-6R	3/26/02			45.0	38.04		94.97	1.00	59.76
	5/15/02			45.0	36.79		94.97	0.50	58.61
	9/22/02			45.0	36.23		94.97	0.50	59.17
	2/20/03	1.97	17.5	45.0	28.19		94.97	0.00	66.78
	6/11/03	1.10	18.6	45.0	24.24		94.97	0.00	70.73
	8/26/03	1.04	19.8	45.0	24.74		94.97	0.00	70.23
	4/2/98	5.18	21.7	39.0	27.06	-	97.68	-	70.62
MW-7	12/10/99			39.0	33.90		97.68		63.78
2"	4/4/00	0.04	17.8	39.0	33.76		97.68		63.92
	6/20/00	0.61	26.8	39.0	33.59		97.68		64.09
	9/25/00	0.31	20.0	39.0	35.55		97.68		62.13
	2/27/01			39.0	Dry		97.68		#VALUE!
	4/23/01			39.0	Dry		97.68		#VALUE!
	7/19/01			37.0	36.21		97.68	0.65	61.47
	10/9/01			37.0	dry		97.68		#VALUE!
MW-7R	3/26/02	1.89	20.5	45.0	38.10		100.06		61.96
	5/15/02	1.21	20.0	45.0	36.86		100.06		63.20
	9/22/02	1.18	20.7	45.0	37.44		100.06		62.62
	2/20/03	1.22	19.3	45.0	32.30		100.06		67.76
	6/11/03	1.11	20.3	45.0	30.15		100.06		69.91
	8/26/03	1.00	21.0	45.0	27.30		100.06		72.76
	4/2/98	3.83	19.7	45.0	26.87	-	99.10	-	70.23
MW-8	12/10/99			43.0	35.82		99.10		63.28
2"	4/4/00	0.15	17.1	43.0	35.74		99.10		63.36
	6/20/00	0.99	23.3	43.0	35.50		99.10		63.60
	9/25/00	0.37	19.7	43.0	37.40		99.10		61.70
	2/27/01	0.94	19.0	43.0	39.34		99.10		59.76
	4/23/01	1.09	21.0	43.0	38.06		99.10		61.04
	7/19/01	1.12	22.0	43.0	37.44		99.10		61.66
	10/9/01	1.13	19.5	43.0	38.00		99.10		61.10
	3/26/02	1.19	19.9	43.0	39.54		99.10		59.56
	5/15/02	1.09	20.4	43.0	38.26		99.10		60.84
	9/22/02	1.18	22.0	43.0	38.75		99.10		60.35
	2/20/03	1.10	19.4	43.0	33.69		99.10		65.41
	6/11/03	1.09	20.8	43.0	28.75		99.10		70.35
	8/26/03			43.0	27.76		99.10	0.58	71.84
	4/2/98	5.45	18.7	32.0	23.94	-	96.47	-	72.53
MW-9	12/10/99			30.6	30.42		96.47		
2"	4/4/00			30.6			96.47		Dry
	6/20/00			30.6			96.47		Dry
	9/25/00			30.6			96.47		Dry
	2/27/01			30.6			96.47		Dry
	4/23/01			30.6			96.47		Dry
	7/19/01			30.6			96.47		Dry
	10/9/01			30.6			96.47		Dry
MW-9R	3/26/02	1.17	19.7	45.0	36.04		98.24		62.20
	5/14/02	1.17	19.1	45.0	34.70		98.24		63.54
	9/22/02	1.20	19.1	45.0	36.52		98.24		61.72
	2/19/03	1.09	18.3	45.0	29.86		98.24		68.38
	6/11/03	1.56	19.5	45.0	25.38		98.24		72.86
	8/26/03	1.03	19.9	45.0	26.00		98.24		72.24

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	4/2/98	7.27	20.7	42.0	29.77	-	99.89	-	70.12
MW-10	12/10/99			42.0	36.21		99.89		63.68
2"	4/4/00	4.59	18.2	42.0	36.22		99.89		63.67
	6/20/00	5.09	20.5	42.0	35.84		99.89		64.05
	9/25/00	4.82	19.3	42.0	37.78		99.89		62.11
	2/27/01	5.15	17.4	42.0	39.68		99.89		60.21
	4/23/01	5.19	18.7	42.0	38.46		99.89		61.43
	7/19/01	4.84	20.3	42.0	37.74		99.89		62.15
	10/8/01	2.48	19.1	42.0	39.45		99.89		60.44
	3/26/02	2.69	18.8	42.0	39.93		99.89		59.96
	5/14/02	2.90	18.5	42.0	38.63		99.89		61.26
	9/22/02	4.79	18.8	42.0	39.04		99.89		60.85
	2/18/03	3.59	17.8	42.0	34.13		99.89		65.76
	6/11/03	3.37	20.2	42.0	20.27		99.89		79.62
	8/26/03	2.39	21.0	42.0	28.80		99.89		71.09
	4/2/98	3.03	18.7	25.0	17.84	-	86.57	-	68.73
MW-11	12/10/99			25.0	24.64		86.57		
2"	4/4/00	1.04		25.0	24.43		86.57		
MWR-11	6/20/00	1.10	20.5	40.0	25.11				
	9/25/00	0.41	17.8	40.0	27.03				
	2/27/01	1.39	16.9	40.0	28.35				
	4/23/01	1.07	18.9	40.0	26.55				
	7/19/01	1.17	20.1	40.0	27.03				
	10/9/01	1.19	17.6	40.0	28.38				
	3/29/02	1.29	19.1	40.0	28.94				
	5/15/02	1.36	17.1	40.0	27.50				
	9/22/02	NM	NM	40.0	28.72				
	2/19/03	0.92	17.0	40.0	22.40				
	6/11/03	1.15	18.1	40.0	18.75				
	8/26/03	1.08	17.9	40.0	18.31				
	4/2/98	8.28	20.4	12.0	6.97	-	62.71	-	55.74
MW-12	12/10/99			12.0	10.94		62.71		51.77
2"	4/4/00			12.0			62.71		Dry
	6/20/00			12.0			62.71		Dry
	9/25/00			12.0			62.71	Can't	Locate
	2/27/01			12.0			62.71	Can't	Locate
	4/23/01	5.89	15.4	12.0	10.72		62.71		51.99
	7/19/01			11.6	dry		62.71		
	10/9/01			11.6	dry		62.71		
	3/26/02			11.6	dry		62.71		
	5/14/02			11.6	11.33		62.71		51.38
	9/22/02			11.6	dry		62.71		
	2/18/03	6.67	12.8	11.6	7.90		62.71		54.81
	6/11/03	5.29	16.8	11.6	6.85		62.71		55.86
	8/26/03	3.92	18.4	11.6	8.03		62.71		54.68
	4/2/98	4.79	14.7	20.0	10.69	-	75.50	-	64.81
MW-13	12/10/99			20.0	17.51		75.50		57.99
2"	4/4/00	0.43	16.1	20.0	16.02		75.50		59.48
	6/20/00			20.0					Dry
	9/25/00			20.0					Dry
	2/27/01			20.0					Dry
	4/23/01			20.0					Dry
	7/19/01			20.0					Dry
	10/9/01			20.0					Dry
MW-13R	3/26/02	2.25	18.4	35.0	21.20		76.70		55.50
	5/15/02	1.38	18.6	35.0	20.20		76.70		56.50
	9/22/02	1.25	18.0	35.0	21.90		76.70		54.80
	2/19/03	1.43	17.6	35.0	15.56		76.70		61.14
	6/11/03	1.28	19.3	35.0	11.66		76.70		65.04
	8/26/03	1.19	18.9	35.0	12.59		76.70		64.11
	4/2/98	5.54	18.5	23.0	11.99	-	78.38	-	66.39
MW-14	12/10/99			23.0	19.12		78.38		59.26
2"	4/4/00	1.00	18.3	23.0	17.83		78.38		60.55
	6/20/00	1.11	24.2	23.0	19.00		78.38		59.38
	9/25/00	0.39	18.9	23.0	21.00		78.38		57.38
	2/27/01			22.0	dry		78.38		#VALUE!
	4/23/01	1.10	18.7	22.0	19.95		78.38		58.43
	7/19/01	1.21	18.7	22.0	20.97		78.38		57.41
	10/9/01			22.0	dry		78.38		#VALUE!
MW-14R	3/26/02	2.19	18.8	35.0	22.05		77.75		55.70
	5/15/02	4.83	17.6	35.0	21.05		77.75		56.70
	9/22/02	3.49	17.8	35.0	22.75		77.75		55.00
	2/19/03	3.50	16.9	35.0	16.63		77.75		61.12
	6/11/03	1.23	17.9	35.0	12.56		77.75		65.19
	8/26/03	1.78	18.1	35.0	13.09		77.75		64.66
	4/2/98	9.89	18.0	35.0	23.65		92.54	-	68.89
MW-15	12/10/99					Well Buried			
2"	4/4/00					Well Buried			

GROUNDWATER SAMPLING

SB-6872-07/28/98-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 9/15/2003
Site ID # 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-1	4/2/98							
	1/25/99	28,200	37,200	2,750	19,500	24,600	4,750	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-1	6/20/00	Product Measured						
	9/25/00	51,500	58,000	3,900	20,200	78,500	2,500	
	2/27/01	29,800	31,100	2,750	19,500	34,600	5,000	
	4/23/01	228,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	228,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	228,000	301,000	280,000	278,000	5,110,000	2,000	
	3/26/02	228,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	228,000	301,000	280,000	278,000	5,110,000	2,000	
	9/18/02	228,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	24,500	24,200	2,750	19,500	27,900	600	
	6/11/03	19,200	24,900	2,750	19,500	28,600	605	
	8/27/03	37,200	45,800	3,740	19,500	32,200	1,560	140,000
Target		111	22,184	2,750	19,500	687	554	
MW-1A	4/2/98							
	1/25/99	33,700	39,300	1,700	13,500	193,000	5,000	
	12/9/99							
	4/4/00							
MWR-1A	6/21/00	625	22,184	1,700	13,500	338	554	
	9/25/00	1,280	22,184	1,700	13,500	730	554	
	2/27/01	111	22,184	1,700	13,500	187	554	
	4/23/01	111	22,184	1,700	13,500	187	554	
	7/19/01	111	22,184	1,700	13,500	187	554	
	10/9/01	452	22,184	1,700	13,500	187	554	
	3/26/02	1,300	22,184	1,700	13,500	187	554	
	5/15/02	150	22,184	1,700	13,500	187	554	
	9/18/02	274	22,184	1,700	13,500	187	554	
	2/19/03	428	22,184	1,700	13,500	187	554	
	6/11/03	185	22,184	1,700	13,500	187	554	
	8/27/03	111	22,184	1,700	13,500	187	554	39,215
Target		111	22,184	1,700	13,500	187	554	
MW-2	4/2/98	11	17	14	87	<1	9	
	1/25/99	19	12	2	21	87	5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-2	6/20/00	68	721	385	2,090	87	183	
	9/25/00	103	1,270	396	2,030	87	102	
	2/27/01	74	190	60	301	87	50	
	4/23/01	78	524	183	1,010	87	79	
	7/19/01	76	320	150	730	87	69	
	10/9/01	167	461	165	931	87	60	
	3/26/02	180	508	310	1,590	87	102	
	5/15/02	194	651	340	1,810	119	170	
	9/18/02	258	852	444	2,120	288	228	
	2/19/03	149	480	121	595	87	122	
	6/11/03	184	705	181	1,040	123	59	
	8/27/03	137	583	164	905	100	99	1,976
Target		19	12	5	21	87	5	
MW-3	4/2/98	16	24	9	117	<1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-3	6/20/00	<1	1	<1	<1	2	<5	
	9/25/00	<1	1	<1	<1	2	<5	
	2/27/01	<1	1	<1	<3	<1	<5	
	4/23/01	<1	1	<1	<3	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	1	2	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/17/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
MW-4	4/2/98	15,700	2,570	27,600	13,300	5,820	682	
	1/25/99							
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-4	6/20/00	Product Measured						
	9/25/00	20,500	31,200	10,344	147,734	4,650	2,500	
	2/27/01	228,000	301,000	280,000	278,000	5,110,000	2,000	
	4/23/01	228,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	228,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	228,000	301,000	280,000	278,000	5,110,000	2,000	
MW-4R	3/26/02	21,100	17,800	10,344	147,734	6,300	1,000	
	5/15/02	31,900	37,200	10,344	147,734	6,400	1,100	
	9/18/02	23,700	27,500	10,344	147,734	2,900	700	
	2/19/03	12,400	17,900	10,344	147,734	1,840	520	
	6/11/03	5,300	14,775	10,344	147,734	869	498	
	8/27/03	13,100	21,800	10,344	147,734	922	631	194,531
Target		74	14,775	10,344	147,734	592	369	

GROUNDWATER SAMPLING

SB-6872-07/29/99-RBB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 9/15/2003
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethyb.	Xylenes	MTBE	Naphthalene	
MW-5	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/8/99	Dry Well, Not Sampled						
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	Dry Well, Not Sampled						
MWR-5	3/26/02	4,410	1	220	1,150	3,950	5	
	5/14/02	4,140	1	190	1,200	2,990	5	
	9/17/02	8,890	200	580	2,100	7,500	500	
	2/19/03	8,080	175	425	1,540	9,460	300	
	6/11/03	3,620	98	256	769	4,640	201	
	8/26/03	2,990	68	160	526	2,320	106	
MW-6	4/2/98	39,600	2,460	41,100	12,400	16,400	561	
	1/25/99	6,920	9,600	1,060	7,460	1,810	495	
	12/8/99	10,200	11,000	800	6,000	6,800	1,000	
	4/4/00	21,100	33,400	2,000	10,300	<10000	482	
	6/21/00	21,800	18,000	*1,080*	*7,460*	8,320	500	
	9/25/00	41,000	41,600	2,400	13,200	15,600	2,500	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	2,000	*9,600*	*1,080*	*7,460*	2,510	500	
	7/19/01	4,820	*9,600*	*1,080*	*7,460*	5,200	500	
	10/9/01	Dry Well, Not Sampled						
MWR-6R	3/26/02	226,000	301,000	280,000	276,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	276,000	5,110,000	2,000	
	9/18/02	226,000	301,000	280,000	276,000	5,110,000	2,000	
	2/19/03	19,400	30,700	3,200	18,300	16,900	1,100	
	6/11/03	13,700	18,700	2,080	11,200	11,600	1,010	
	8/27/03	24,800	31,900	2,500	12,300	16,900	985	69,485
Target		97	9,600	1,080	7,460	163	492	
MW-7	4/2/98	2,780	1,830	10,600	7,810	63	468	
	1/25/99	2,200	9,360	1,280	7,440	110	430	
	12/8/99	1,300	7,050	1,050	6,500	100	400	
	4/4/00	680	*9,360*	*1,280*	*7,440*	*110*	*430*	
	6/21/00	1,050	*9,360*	*1,280*	*7,440*	*110*	*430*	
	9/25/00	3,670	11,200	1,540	8,380	205	430	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-7R	3/26/02	3,020	*9,360*	*1,280*	*7,440*	*110*	*430*	
	5/15/02	15,700	41,500	4,130	21,900	400	860	
	9/18/02	12,400	28,400	2,180	11,300	265	615	
	2/19/03	6,780	16,200	1,350	7,450	*110*	500	
	6/11/03	2,200	*9,360*	*1,280*	*7,440*	*110*	*430*	
	8/27/03	8,440	*9,360*	18,700	12,400	1,540	522	51,952
Target		111	9,360	1,280	7,440	110	439	
MW-8	4/2/98	11,000	722	15,900	6,520	168	35,500	
	1/25/99							
	12/8/99	32,500	39,000	2,500	13,500	93,000	2,500	
	4/4/00	44,700	60,000	*15,515*	*221,643*	164,000	661	
	6/21/00	27,400	26,500	*15,515*	*221,643*	105,000	661	
	9/25/00	43,900	61,500	*15,515*	*221,643*	68,000	2,500	
	2/27/01	24,300	31,000	*15,515*	*221,643*	40,000	5,000	
	4/23/01	28,100	33,700	*15,515*	*221,643*	87,800	1,000	
	7/19/01	30,300	37,800	*15,515*	*221,643*	99,100	2,500	
	10/9/01	24,750	37,050	*15,515*	*221,643*	30,850	2,500	
	3/26/02	21,000	34,100	*15,515*	*221,643*	19,000	2,500	
	5/15/02	29,700	47,200	*15,515*	*221,643*	40,400	5,000	
	9/18/02	25,300	33,200	*15,515*	*221,643*	45,600	500	
	2/19/03	12,700	*22,164*	*15,515*	*221,643*	13,600	500	
	6/11/03	6,100	*22,164*	*15,515*	*221,643*	11,300	*554*	
	8/28/03	226,000	301,000	280,000	276,000	5,110,000	2,000	6,197,800
Target		111	22,164	15,515	221,643	887	554	
MW-9	4/2/98	9	12	4	54	<1	2	
	1/25/99	6	3	<1	9	<1	<5	
	12/8/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-9R	3/26/02	110	99	97	552	39	89	
	5/14/02	150	63	32	250	104	68	
	9/17/02	238	38	54	244	30	70	
	2/19/03	137	27	27	110	45	38	
	6/11/03	108	36	30	130	52	50	
	8/26/03	68	31	21	91	38	59	

GROUNDWATER SAMPLING

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 9/15/2003
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethyb.	Xylenes	MTBE	Naphthalene	
MW-10	4/2/99	132	48	484	224	1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	<1	<1	<1	<1	<1	<5	
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	<1	<1	<1	<1	<1	<5	
	9/25/00	<1	<1	<1	<1	<1	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<1	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	1	4	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/17/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
MW-11	4/2/99	<1	1,090	312	5,090	<1	272	
	1/25/99	24	106	189	825	10	731	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-11	6/20/00	*24*	*106*	*189*	*825*	43	369	
	9/25/00	39	*106*	264	1,260	20	*369*	
	2/27/01	72	*106*	*189*	*825*	13	*369*	
	4/23/01	33	*106*	*189*	*825*	49	*369*	
	7/19/01	*24*	150	257	1,260	18	*369*	
	10/9/01	*24*	*106*	*189*	*825*	34	*369*	
	3/26/02	15,300	32,100	3,100	15,600	500	2,500	
	5/15/02	3,770	12,000	2,020	10,100	430	710	
	2/19/03	244	822	216	1,700	15	380	
	6/11/03	173	889	496	2,600	54	408	
	8/26/03	150	637	401	2,250	58	369	3,965
Target		24	106	189	825	10	369	
MW-12	4/2/99	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Could not locate						
	2/27/01	Could not locate						
	4/23/01	1	1	1	1	1	5	
	7/19/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
MW-13	4/2/99	<1	130	76	434	1,950	25	
	1/25/99	1,810	28	38	382	2,810	154	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-13R	3/26/02	6,740	3,040	840	3,250	1,020	500	
	5/15/02	10,000	4,660	1,310	5,060	1,600	350	
	9/18/02	13,000	5,540	1,280	5,240	3,600	1,000	
	2/19/03	6,160	2,030	500	2,280	2,320	250	
	6/11/03	4,090	1,350	559	2,380	2,160	321	
	8/27/03	4,500	1,010	433	1,940	1,950	271	9,104
Target		19	28	38	382	134	83	
MW-14	4/2/99	150	149	501	921	1	60	
	1/25/99	17	21	50	334	7	452	
	12/9/99	18	6	20	190	77	20	
	4/4/00	29	64	78	598	<10	89	
	6/21/00	24	40	*50*	*334*	48	83	
	9/25/00	25	145	90	682	8	87	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	86	334	116	1,090	88	144	
	7/19/01	169	392	249	1,380	76	239	
	10/9/01	Dry Well, Not Sampled						
MW-14R	3/26/02	53	22	*50*	*334*	7	83	
	5/15/02	34	22	*50*	*334*	18	83	
	9/17/02	89	21	*50*	*334*	7	83	
	2/19/03	42	21	*50*	*334*	7	83	
	6/11/03	32	33	*50*	*334*	7	83	
	8/29/03	*10*	*21*	*50*	*334*	7	83	505
Target		10	21	50	334	7	83	
MW-15	4/2/99	<5	<5	<5	<5	<1	3	
	1/25/99	Not Sampled						
	12/9/99	Well Buried; Not Sampled						
	4/4/00	Well Buried; Not Sampled						
	6/20/00	Well Buried; Not Sampled						
	9/25/00	Well Buried; Not Sampled						
	2/27/01	Well Buried; Not Sampled						
	4/23/01	Well Buried; Not Sampled						
	10/9/01	Well Buried; Not Sampled						
Total Mass								6,726,646
Target								559,387
Initial Mass above SSTL								12,294,113
% Reduction								49.8%

GROUNDWATER SAMPLING
SB-8872-07/29/98-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 9/15/2003
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-1	4/2/98							Product
	1/25/99	28,200	37,200	2,750	19,500	24,600	4,750	
	12/8/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-1	6/21/00	Product Measured						
	9/25/00	51,500	58,000	3,900	20,200	76,500	2,500	
	2/27/01	29,800	31,100	2,300	*13,200*	34,600	5,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	3/29/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/17/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	24,500	24,200	*1,880*	*9,690*	27,900	600	
	6/11/03	19,200	24,900	*1,930*	*10,400*	28,800	805	
	8/27/03	37,200	45,800	3,740	*18,800*	32,200	1,560	139,300
Target		111	22,184	2,750	19,500	687	554	
MW-1A	4/2/98							
	1/25/99	33,700	39,300	1,700	13,500	193,000	5,000	
	12/8/99							
	4/4/00							
Target		111	22,184	1,700	13,500	187	554	
MWR-1A	6/21/00	525	1,460	116	716	338	<50	
	9/25/00	1,280	3,160	570	3,520	730	250	
	2/27/01	*47*	*102*	*39*	*417*	*31*	*60*	
	4/23/01	*24*	*22*	*20*	*130*	*14*	*29*	
	7/19/01	*28*	*23*	*33*	*168*	*19*	*40*	
	10/9/01	*45*	*48*	*25*	*217*	*33*	*10*	
	3/29/02	1,300	*2,520*	*290*	*1,440*	*50*	*250*	
	5/15/02	150	*328*	*42*	*252*	*56*	*100*	
	9/18/02	*274*	*172*	*52*	*217*	*28*	*32*	
	2/19/03	*428*	*162*	*35*	*171*	*24*	*25*	
	6/11/03	*185*	*84*	*31*	*133*	*18*	*26*	
	8/27/03	*91*	*154*	*29*	*161*	*43*	*23*	501
Target		111	22,184	1,700	13,500	187	554	
MW-2	4/2/98	11	17	14	87	<1	9	
	1/25/99	19	12	2	21	67	5	
	12/8/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-2	6/21/00	68	721	385	2,090	53	153	
	9/25/00	103	1,270	396	2,030	2	102	
	2/27/01	74	190	60	301	*10*	50	
	4/23/01	78	524	183	1,010	*51*	79	
	7/19/01	76	320	150	730	39	69	
	10/9/01	167	481	185	931	*50*	60	
	3/28/02	180	608	310	1,590	*54*	102	
	5/14/02	194	651	340	1,810	119	176	
	9/18/02	258	862	444	2,120	288	228	
	2/19/03	149	480	121	585	39	122	
	6/11/03	184	705	161	1,040	123	89	
	8/27/03	137	553	154	905	150	99	1,978
Target		19	12	5	21	67	5	
MW-3	4/2/98	15	24	9	117	<1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/8/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-3	6/21/00	<1	1	<1	<1	2	<5	
	9/25/00	<1	1	<1	<1	2	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<3	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/28/02	1	2	1	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/18/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
MW-4	4/2/98	15,700	2,570	27,600	13,300	5,820	882	
	1/25/99							
	12/8/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-4	6/21/00	Product Measured						
	9/25/00	20,500	31,200	2,500	15,500	4,650	2,500	
	2/27/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
MW-4R	3/29/02	21,100	17,600	*1,260*	*7,700*	6,300	1,000	
	5/15/02	31,900	37,200	*2,920*	*17,900*	6,480	1,100	
	9/18/02	23,700	27,500	*2,260*	*11,300*	2,900	700	
	2/20/03	12,400	17,900	*1,670*	*9,230*	1,540	520	
	6/11/03	5,300	11,300	*1,290*	*7,360*	869	496	
	8/27/03	13,100	21,800	*1,980*	*11,900*	922	631	80,333
Target		74	14,775	10,344	147,734	592	369	

GROUNDWATER SAMPLING
SB-6872-07/28/89-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 9/15/2003
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-5	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	Dry Well, Not Sampled						
MWR-5	3/26/02	4,410	100	220	1,150	3,950	500	
	5/14/02	4,140	100	190	1,200	2,990	500	
	9/17/02	8,880	200	580	2,100	7,500	500	
	2/19/03	8,060	175	425	1,540	9,460	300	
	6/11/03	3,820	96	256	788	4,640	201	
	8/26/03	2,990	68	160	526	2,320	106	
MW-6	4/2/98	39,600	2,460	41,100	12,400	18,400	561	
	1/25/99	6,920	9,600	1,080	7,460	1,810	495	
	12/9/99	10,200	11,000	600	5,000	6,800	1,000	
	4/4/00	21,100	33,400	2,000	10,300	10,000	314	
	6/21/00	21,800	18,000	1,080	6,320	8,320	500	
	9/25/00	41,000	41,600	2,400	13,200	15,600	2,500	
	4/23/01	2,000	*1,370*	*100*	2,770	2,510	500	
	7/19/01	4,280	4,900	280	4,280	5,200	500	
	10/9/01	Dry Well, Not Sampled						
MWR-6R	3/26/02	226,000	301,000	280,000	276,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	276,000	5,110,000	2,000	
	9/17/02	226,000	301,000	280,000	276,000	5,110,000	2,000	
	2/20/03	18,400	30,700	3,200	16,300	16,900	1,100	
	6/11/03	13,700	18,700	2,080	11,200	11,600	1,010	
	8/27/03	24,800	31,900	2,500	12,300	16,000	985	69,485
Target		97	9,600	1,080	7,460	163	482	
MW-7	4/2/98	2,750	1,630	10,500	7,610	63	468	
	1/25/99	2,200	9,350	1,280	7,440	119	430	
	12/9/00	1,300	7,050	1,050	6,500	100	400	
	4/4/00	680	2,270	315	2,160	49	160	
	6/21/00	1,050	4,550	442	2,690	66	234	
	9/25/00	3,670	11,200	1,540	8,360	265	259	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	7/19/01	226,000	301,000	280,000	276,000	5,110,000	2,000	
	10/9/01	Dry Well, Not Sampled						
MW-7R	3/26/02	3,020	7,140	475	3,560	50	250	
	5/15/02	15,700	41,500	4,130	21,800	400	860	
	9/18/02	12,400	28,400	2,180	11,300	285	615	
	2/20/03	6,790	16,200	1,350	7,490	*100*	500	
	6/11/03	2,200	8,300	955	5,490	*55*	400	
	8/27/03	8,440	19,700	2,070	12,400	1,540	522	44,672
Target		111	9,380	1,280	7,440	110	430	
MW-8	4/2/98	11,000	722	15,900	6,520	188	35,500	
	1/25/99							
	12/9/00	32,500	39,000	2,500	13,500	93,000	2,500	
	4/4/00	44,700	60,000	3,250	17,400	164,000	681	
	6/21/00	27,400	25,500	1,329	7,880	105,000	681	
	9/25/00	43,900	61,500	3,700	19,700	69,000	2,500	
	2/27/01	24,300	31,000	*1,900*	*10,500*	40,000	5,000	
	4/23/01	28,100	33,700	*1,840*	*10,600*	67,800	1,000	
	7/19/01	30,300	37,800	*1,950*	*11,500*	99,100	2,500	
	10/9/01	24,750	37,050	*2,150*	*11,900*	30,850	2,500	
	3/26/02	21,000	34,100	*2,250*	*11,900*	18,000	2,500	
	5/15/02	29,700	47,200	*3,000*	*17,300*	40,400	5,000	
	9/18/02	25,300	33,200	*1,840*	*9,660*	45,600	500	
	2/20/03	12,700	17,900	*1,280*	*6,930*	13,600	500	
	6/11/03	6,100	11,300	*1,680*	*5,950*	11,300	554	
	8/26/03	226,000	301,000	280,000	276,000	5,110,000	2,000	6,197,000
Target		111	22,164	15,515	221,843	887	554	
MW-9	4/2/98	9	12	4	54	<1	2	
	1/25/99	6	3	<1	9	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-9R	3/26/02	110	89	97	552	39	93	
	5/14/02	150	63	32	250	104	68	
	9/17/02	238	36	54	244	30	70	
	2/19/03	137	27	27	110	45	38	
	6/11/03	109	38	30	139	52	50	
	8/26/03	68	31	21	91	38	59	

GROUNDWATER SAMPLING

SB-6872-07/29/99-REB
Crossroads Grocery
650 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 9/15/2003
Site ID # 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-10	4/2/99	132	48	484	224	1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	<1	<1	<1	<1	4	<5	
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	<1	<1	<1	<1	<1	<5	
	9/25/00	<1	<1	<1	<1	<1	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<1	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	4	1	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/16/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
MW-11	4/2/99	<1	1,090	312	5,090	<1	272	
	1/25/99	24	106	189	825	10	731	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-11	6/21/00	17	20	37	268	43	28	
	9/25/00	39	101	284	1,260	20	109	
	2/27/01	72	46	9	131	13	12	
	4/23/01	33	45	122	690	49	99	
	7/19/01	13	150	257	1,250	16	143	
	10/9/01	18	84	139	785	34	86	
	3/26/02	15,300	32,100	3,100	15,800	500	2,500	
	5/15/02	3,770	12,000	2,020	10,100	430	710	
	2/19/03	244	822	216	1,700	15	350	
	6/11/03	173	889	496	2,800	54	408	
	8/26/03	150	637	401	2,250	58	290	3,766
Target		24	106	189	825	10	389	
MW-12	4/2/99	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
MW-13	4/2/99	<1	130	78	434	1,850	25	
	1/25/99	1,810	26	38	382	2,810	154	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-13R	3/26/02	6,740	3,040	840	3,250	1,020	600	
	5/15/02	10,000	4,660	1,310	5,060	1,600	350	
	9/16/02	13,000	5,540	1,280	5,240	3,600	1,000	
	2/19/03	6,160	2,030	500	2,280	2,320	250	
	6/11/03	4,050	1,350	559	2,360	2,160	321	
	8/27/03	4,500	1,010	433	1,840	1,050	271	9,104
Target		10	28	38	382	134	83	
MW-14	4/2/99	150	149	501	921	1	80	
	1/25/99	17	21	60	334	7	452	
	12/9/99	16	6	20	190	77	20	
	4/4/00	28	64	78	586	10	89	
	6/21/00	24	40	35	330	46	51	
	9/25/00	25	145	90	682	8	87	
	4/23/01	66	334	116	1,090	88	144	
	7/19/01	169	392	240	1,380	79	269	
	10/9/01	Well Buried, Not Sampled						-
MW-14R	3/26/02	53	22	5	94	6	12	
	5/14/02	34	22	1	68	16	24	
	9/17/02	69	4	10	61	5	18	
	2/19/03	42	3	4	14	1	5	
	6/11/03	32	33	13	77	3	9	
	8/26/03	9	1	1	5	1	5	22
Target		10	21	50	334	7	83	
MW-15	4/2/99	<5	<5	<5	<5	<1	3	
	1/25/99	Not Sampled						
	12/9/99	Well Buried, Not Sampled						
	4/4/00	Well Buried, Not Sampled						
	6/21/00	Well Buried, Not Sampled						
	10/9/01	Well Buried, Not Sampled						
Total Mass								6,535,181
Target								550,387
Initial Mass above SSTL								12,294,113
% Reduction								51.4%

APPENDIX I: LABORATORY REPORTS

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

9/ 6/03 **CASE NARRATIVE**

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: CROSSROADS
Project Number: .
Laboratory Project Number: 345070.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Sample Identification	Lab Number	Collection Date
MW-1D	03-A135954	8/26/03
MWR-3	03-A135955	8/26/03
MW-12	03-A135956	8/26/03
MWR-5	03-A135957	8/26/03
MWR-9	03-A135958	8/26/03
MW-14R	03-A135959	8/26/03
MWR-11	03-A135960	8/26/03
MWR-2	03-A135961	8/27/03
MW-13R	03-A135962	8/27/03
MWR-1A	03-A135963	8/27/03
MW-7R	03-A135964	8/27/03
MWR-4R	03-A135965	8/27/03
MW-4R	03-A135966	8/27/03
MWR-1	03-A135967	8/27/03

A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste effective 09/30/99-12/31/03.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

NELAC/Florida certification number E87358 for analysis of environmental water, soil/hazardous waste, and drinking water effective 07/01/99-06/30/04.

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: Roxanne L Connor Report Date: 9/ 6/03

Ashley Morris, Lab Director
Michael H. Dunn, M.S., QA/QC Director
Johnny A. Mitchell, Operations Manager Organics
Eric S. Smith, Assistant Technical Director
Roxanne L. Connor, Technical Services
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

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ANALYTICAL TESTING CORPORATION

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135954
Sample ID: MW-~~1D~~ 10
Sample Type: Water
Site ID:

Date Collected: 8/26/03
Time Collected: 16:55
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	1.00	1.0	9/ 4/03	19:44	D.Ramey	8021B	7283
Ethylbenzene	ND	ug/L	1.0	1.0	9/ 4/03	19:44	D.Ramey	8021B	7283
Toluene	ND	ug/L	1.0	1.0	9/ 4/03	19:44	D.Ramey	8021B	7283
Xylenes (Total)	ND	ug/L	1.0	1.0	9/ 4/03	19:44	D.Ramey	8021B	7283
Methyl-t-butylether	ND	ug/L	1.0	1.0	9/ 4/03	19:44	D.Ramey	8021B	7283
Naphthalene	ND	ug/L	5.0	1.0	9/ 4/03	19:44	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	77.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135955
Sample ID: MWR-3
Sample Type: Water
Site ID:

Date Collected: 8/26/03
Time Collected: 17:15
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	1.00	1.0	9/ 4/03	20:16	D.Ramey	8021B	7283
Ethylbenzene	ND	ug/L	1.0	1.0	9/ 4/03	20:16	D.Ramey	8021B	7283
Toluene	ND	ug/L	1.0	1.0	9/ 4/03	20:16	D.Ramey	8021B	7283
Xylenes (Total)	ND	ug/L	1.0	1.0	9/ 4/03	20:16	D.Ramey	8021B	7283
Methyl-t-butylether	ND	ug/L	1.0	1.0	9/ 4/03	20:16	D.Ramey	8021B	7283
Naphthalene	ND	ug/L	5.0	1.0	9/ 4/03	20:16	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	101.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135956
Sample ID: MW-12
Sample Type: Water
Site ID:

Date Collected: 8/26/03
Time Collected: 17:45
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	1.00	1.0	9/ 4/03	20:48	D.Ramey	8021B	7283
Ethylbenzene	ND	ug/L	1.0	1.0	9/ 4/03	20:48	D.Ramey	8021B	7283
Toluene	ND	ug/L	1.0	1.0	9/ 4/03	20:48	D.Ramey	8021B	7283
Xylenes (Total)	ND	ug/L	1.0	1.0	9/ 4/03	20:48	D.Ramey	8021B	7283
Methyl-t-butylether	ND	ug/L	1.0	1.0	9/ 4/03	20:48	D.Ramey	8021B	7283
Naphthalene	ND	ug/L	5.0	1.0	9/ 4/03	20:48	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	71.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135957
Sample ID: MWR-5
Sample Type: Water
Site ID:

Date Collected: 8/26/03
Time Collected: 18:11
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	2990	ug/L	20.0	20.0	9/ 4/03	21:19	D.Ramey	8021B	7283
Ethylbenzene	160.	ug/L	20.0	20.0	9/ 4/03	21:19	D.Ramey	8021B	7283
Toluene	68.0	ug/L	20.0	20.0	9/ 4/03	21:19	D.Ramey	8021B	7283
Xylenes (Total)	526.	ug/L	20.0	20.0	9/ 4/03	21:19	D.Ramey	8021B	7283
Methyl-t-butylether	2320	ug/L	20.0	20.0	9/ 4/03	21:19	D.Ramey	8021B	7283
Naphthalene	106.	ug/L	100.	20.0	9/ 4/03	21:19	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	75.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135958
Sample ID: MWR-9
Sample Type: Water
Site ID:

Date Collected: 8/26/03
Time Collected: 18:38
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	68.3	ug/L	1.00	1.0	9/ 4/03	21:51	D.Ramey	8021B	7283
Ethylbenzene	21.1	ug/L	1.0	1.0	9/ 4/03	21:51	D.Ramey	8021B	7283
Toluene	31.0	ug/L	1.0	1.0	9/ 4/03	21:51	D.Ramey	8021B	7283
Xylenes (Total)	90.7	ug/L	1.0	1.0	9/ 4/03	21:51	D.Ramey	8021B	7283
Methyl-t-butylether	37.8	ug/L	1.0	1.0	9/ 4/03	21:51	D.Ramey	8021B	7283
Naphthalene	58.6	ug/L	5.0	1.0	9/ 4/03	21:51	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	131. #	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
BETX surrogate elevated due to sample matrix.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135959
Sample ID: MW-14R
Sample Type: Water
Site ID:

Date Collected: 8/26/03
Time Collected: 19:00
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	9.10	ug/L	1.00	1.0	9/ 4/03	22:23	D.Ramey	8021B	7283
Ethylbenzene	1.1	ug/L	1.0	1.0	9/ 4/03	22:23	D.Ramey	8021B	7283
Toluene	ND	ug/L	1.0	1.0	9/ 4/03	22:23	D.Ramey	8021B	7283
Xylenes (Total)	5.0	ug/L	1.0	1.0	9/ 4/03	22:23	D.Ramey	8021B	7283
Methyl-t-butylether	ND	ug/L	1.0	1.0	9/ 4/03	22:23	D.Ramey	8021B	7283
Naphthalene	ND	ug/L	5.0	1.0	9/ 4/03	22:23	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	74.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135960
Sample ID: MWR-11
Sample Type: Water
Site ID:

Date Collected: 8/26/03
Time Collected: 19:20
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	150.	ug/L	1.00	1.0	9/ 4/03	22:55	D.Ramey	8021B	7283
Ethylbenzene	401.	ug/L	10.0	10.0	9/ 5/03	13:27	D.Ramey	8021B	2082
Toluene	637.	ug/L	10.0	10.0	9/ 5/03	13:27	D.Ramey	8021B	2082
Xylenes (Total)	2250	ug/L	10.0	10.0	9/ 5/03	13:27	D.Ramey	8021B	2082
Methyl-t-butylether	58.3	ug/L	1.0	1.0	9/ 4/03	22:55	D.Ramey	8021B	7283
Naphthalene	290.	ug/L	50.0	10.0	9/ 5/03	13:27	D.Ramey	8021B	2082

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	113.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135961
Sample ID: MWR-2
Sample Type: Water
Site ID:

Date Collected: 8/27/03
Time Collected: 10:36
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	137.	ug/L	1.00	1.0	9/ 4/03	23:27	D.Ramey	8021B	7283
Ethylbenzene	154.	ug/L	1.0	1.0	9/ 4/03	23:27	D.Ramey	8021B	7283
Toluene	583.	ug/L	5.0	5.0	9/ 5/03	13:59	D.Ramey	8021B	2082
Xylenes (Total)	905.	ug/L	5.0	5.0	9/ 5/03	13:59	D.Ramey	8021B	2082
Methyl-t-butylether	99.5	ug/L	1.0	1.0	9/ 4/03	23:27	D.Ramey	8021B	7283
Naphthalene	98.5	ug/L	5.0	1.0	9/ 4/03	23:27	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	116.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135962
Sample ID: MW-13R
Sample Type: Water
Site ID:

Date Collected: 8/27/03
Time Collected: 11:07
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	4500	ug/L	40.0	40.0	9/ 6/03	10:25	D.Ramey	8021B	2964
Ethylbenzene	433.	ug/L	10.0	10.0	9/ 4/03	23:59	D.Ramey	8021B	7283
Toluene	1010	ug/L	10.0	10.0	9/ 4/03	23:59	D.Ramey	8021B	7283
Xylenes (Total)	1840	ug/L	10.0	10.0	9/ 4/03	23:59	D.Ramey	8021B	7283
Methyl-t-butylether	1050	ug/L	10.0	10.0	9/ 4/03	23:59	D.Ramey	8021B	7283
Naphthalene	271.	ug/L	50.0	10.0	9/ 4/03	23:59	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	89.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135963
Sample ID: MWR-1A
Sample Type: Water
Site ID:

Date Collected: 8/27/03
Time Collected: 12:05
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	90.9	ug/L	1.00	1.0	9/ 5/03	1:34	D.Ramey	8021B	7283
Ethylbenzene	29.0	ug/L	1.0	1.0	9/ 5/03	1:34	D.Ramey	8021B	7283
Toluene	154.	ug/L	1.0	1.0	9/ 5/03	1:34	D.Ramey	8021B	7283
Xylenes (Total)	161.	ug/L	1.0	1.0	9/ 5/03	1:34	D.Ramey	8021B	7283
Methyl-t-butylether	42.9	ug/L	1.0	1.0	9/ 5/03	1:34	D.Ramey	8021B	7283
Naphthalene	23.3	ug/L	5.0	1.0	9/ 5/03	1:34	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	79.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135964
Sample ID: MW-7R
Sample Type: Water
Site ID:

Date Collected: 8/27/03
Time Collected: 12:20
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	8440	ug/L	100.	100.	9/ 5/03	15:03	D.Ramey	8021B	2082
Ethylbenzene	2070	ug/L	20.0	20.0	9/ 5/03	2:06	D.Ramey	8021B	7283
Toluene	19700	ug/L	100.	100.	9/ 5/03	15:03	D.Ramey	8021B	2082
Xylenes (Total)	12400	ug/L	100.	100.	9/ 5/03	15:03	D.Ramey	8021B	2082
Methyl-t-butylether	1540	ug/L	20.0	20.0	9/ 5/03	2:06	D.Ramey	8021B	7283
Naphthalene	522.	ug/L	100.	20.0	9/ 5/03	2:06	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	97.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135965
Sample ID: MWR-4R
Sample Type: Water
Site ID:

Date Collected: 8/27/03
Time Collected: 12:45
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	24800	ug/L	200.	200.	9/ 5/03	15:35	D.Ramey	8021B	2082
Ethylbenzene	2500	ug/L	50.0	50.0	9/ 5/03	2:38	D.Ramey	8021B	7283
Toluene	31900	ug/L	200.	200.	9/ 5/03	15:35	D.Ramey	8021B	2082
Xylenes (Total)	12300	ug/L	50.0	50.0	9/ 5/03	2:38	D.Ramey	8021B	7283
Methyl-t-butylether	16000	ug/L	200.	200.	9/ 5/03	15:35	D.Ramey	8021B	2082
Naphthalene	985.	ug/L	250.	50.0	9/ 5/03	2:38	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	102.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135966
Sample ID: MW-4R
Sample Type: Water
Site ID:

Date Collected: 8/27/03
Time Collected: 13:15
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	13100	ug/L	200.	200.	9/ 5/03	17:42	D.Ramey	8021B	2082
Ethylbenzene	1980	ug/L	10.0	10.0	9/ 5/03	3:10	D.Ramey	8021B	7283
Toluene	21800	ug/L	200.	200.	9/ 5/03	17:42	D.Ramey	8021B	2082
Xylenes (Total)	11900	ug/L	200.	200.	9/ 5/03	17:42	D.Ramey	8021B	2082
Methyl-t-butylether	922.	ug/L	10.0	10.0	9/ 5/03	3:10	D.Ramey	8021B	7283
Naphthalene	631.	ug/L	50.0	10.0	9/ 5/03	3:10	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	71.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: CROSSROADS
Sampler: TRAVIS CRAVEN

Lab Number: 03-A135967
Sample ID: MWR-1
Sample Type: Water
Site ID:

Date Collected: 8/27/03
Time Collected: 14:03
Date Received: 8/30/03
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	37200	ug/L	400.	400.	9/ 5/03	16:38	D.Ramey	8021B	2082
Ethylbenzene	3740	ug/L	100.	100.	9/ 5/03	3:42	D.Ramey	8021B	7283
Toluene	45800	ug/L	400.	400.	9/ 5/03	16:38	D.Ramey	8021B	2082
Xylenes (Total)	18800	ug/L	100.	100.	9/ 5/03	3:42	D.Ramey	8021B	7283
Methyl-t-butylether	32200	ug/L	400.	400.	9/ 5/03	16:38	D.Ramey	8021B	2082
Naphthalene	1560	ug/L	500.	100.	9/ 5/03	3:42	D.Ramey	8021B	7283

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	99.	69. - 129.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number:
Project Name: CROSSROADS
Page: 1
Laboratory Receipt Date: 8/30/03

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
UST ANALYSIS								
Methyl-t-butylether	mg/l	0.922	1.38	0.500	92	60. - 138.	7283	03-A135966
Naphthalene	mg/l	0.631	1.04	0.500	82	48. - 145.	7283	03-A135966
BTEX/GRO Surr., a,a,a-TFT	% Recovery				156	69 - 129	7283	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
UST PARAMETERS						
Methyl-t-butylether	mg/l	1.38	1.38	0.00	24.	7283
Naphthalene	mg/l	1.04	1.12	7.41	38.	7283
BTEX/GRO Surr., a,a,a-TFT	% Recovery		146.			7283

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
UST PARAMETERS						
Benzene	mg/l	0.100	0.105	105	74 - 120	2082
Benzene	mg/l	0.100	0.101	101	74 - 120	7283

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number:
Project Name: CROSSROADS
Page: 2
Laboratory Receipt Date: 8/30/03

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Benzene	mg/l	0.100	0.0992	99	74 - 120	2964
Toluene	mg/l	0.100	0.106	106	73 - 118	2082
Toluene	mg/l	0.100	0.101	101	73 - 118	7283
Ethylbenzene	mg/l	0.100	0.104	104	72 - 118	2082
Ethylbenzene	mg/l	0.100	0.0990	99	72 - 118	7283
Xylenes (Total)	mg/l	0.200	0.205	102	72 - 116	2082
Xylenes (Total)	mg/l	0.200	0.197	98	72 - 116	7283
Methyl-t-butylether	mg/l	0.100	0.105	105	64 - 124	2082
Methyl-t-butylether	mg/l	0.100	0.100	100	64 - 124	7283
Naphthalene	mg/l	0.100	0.0971	97	54 - 138	2082
Naphthalene	mg/l	0.100	0.0951	95	54 - 138	7283
BTEX/GRO Surr., a,a,a-TFT	% Recovery			80	69 - 129	2082
BTEX/GRO Surr., a,a,a-TFT	% Recovery			98	69 - 129	7283
BTEX/GRO Surr., a,a,a-TFT	% Recovery			92	69 - 129	2964

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

UST PARAMETERS

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number:
Project Name: CROSSROADS
Page: 3
Laboratory Receipt Date: 8/30/03

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Benzene	< 0.00060	mg/l	7283	9/ 4/03	18:40
Benzene	< 0.00060	mg/l	2082	9/ 5/03	11:40
Benzene	< 0.00060	mg/l	2964	9/ 6/03	9:55
Toluene	< 0.0006	mg/l	7283	9/ 4/03	18:40
Toluene	0.0008	mg/l	2082	9/ 5/03	11:40
Ethylbenzene	< 0.0006	mg/l	7283	9/ 4/03	18:40
Ethylbenzene	< 0.0006	mg/l	2082	9/ 5/03	11:40
Xylenes (Total)	< 0.0010	mg/l	7283	9/ 4/03	18:40
Xylenes (Total)	< 0.0010	mg/l	2082	9/ 5/03	11:40
Methyl-t-butylether	< 0.0006	mg/l	7283	9/ 4/03	18:40
Methyl-t-butylether	< 0.0006	mg/l	2082	9/ 5/03	11:40
Naphthalene	< 0.0016	mg/l	7283	9/ 4/03	18:40
Naphthalene	< 0.0016	mg/l	2082	9/ 5/03	11:40
BTEX/GRO Surr., a,a,a-TFT	81.	% Recovery	7283	9/ 4/03	18:40
BTEX/GRO Surr., a,a,a-TFT	98.	% Recovery	2082	9/ 5/03	11:40
BTEX/GRO Surr., a,a,a-TFT	101.	% Recovery	2964	9/ 6/03	9:55

End of Report for Project 345070

Pg. 1 of 2

TestAmerica
ANALYTICAL TESTING CORPORATION

345070

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Rick Smith Client #: 2432
Address: 145 Morrill Ave Project Name: Cosscoats
City/State/Zip Code: Decatur, GA. 30030 Project #:
Project Manager: Site/Location ID: State: S.C.
Telephone Number: (404) 371-9332 Fax: Report To: SAME
Sampler Name: (Print Name) Travis Craven Invoice To: SAME
Sampler Signature: Quote #: PO#:

TAT: ✓ Standard; ___ Rush (surcharges may apply)
Date Needed: 9/5/03
Fax Results: Y N

QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other
Preservation & # of Containers: HNO_3, HCl, NaOH, H_2SO_4, Methanol, None, Other (Specify)
Analyze For: 8021B - BTEX, MTBE NAPTH

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other	8021B - BTEX, MTBE NAPTH	REMARKS
MW-10	8/26	4:55	G		GW		2						✓	135954
MWR-3	8/26	5:15	G		GW		2						✓	55
MW-12	8/26	5:45	G		GW		2						✓	56
MWR-5	8/26	6:11	G		GW		2						✓	57
MWR-9	8/26	6:38	G		GW		2						✓	58
MW-14R	8/26	7:00	G		GW		2						✓	59
MWR-11	8/26	7:20	G		GW		2						✓	60
MWR-2	8/27	10:36	G		GW		2						✓	61
MW-13R	8/27	11:07	G		GW		2						✓	62
MWR-1A	8/27	12:55	G		GW		2						✓	63

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	8/29	9:50	[signature]	8/29	9:50
[signature]	8/29	1800	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment: 838166512168 FedEx to TA - Nashville

pg. 2 of 2

TestAmerica
ANALYTICAL TESTING CORPORATION

345070

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Rick Smith Client #: 2432
Address: 145 Merrill Ave.
City/State/Zip Code: Decatur, GA, 30030
Project Manager:
Telephone Number: (404) 371-9332 Fax:
Sampler Name: (Print Name) Travis Craven
Sampler Signature: [signature]

Project Name: Crossroads
Project #:
Site/Location ID: State: S.C.
Report To: SAME
Invoice To: SAME
Quote #: PO#:

TAT ✓ Standard
___ Rush (surcharges may apply)
Date Needed: 9/5/03
Fax Results: Y N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: 8021B - BTEX, MBE, NAPTH									REMARKS
MW-7R	8/27	12:20	G		GW		2						✓									135964
MWR-4R	8/27	12:45	G		GW		2						✓									65
MW-4R	8/27	1:15	G		GW		2						✓									66
[illegible]	[illegible]				[illegible]		[illegible]						[illegible]									
MWR-1	8/27	2:03	G		GW		2						✓									135967

Special Instructions:

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	8/29	9:50	[signature]	8/29	9:50
[signature]	8/29	1800			

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM BC# (2432)

Client: SMITH MONT./RICK SMITH

Cooler Received On: 8/30/03 And Opened On: 8/30/03 By: Ben Wright

(Signature)

1. Temperature of Cooler when opened 3.0 Degrees Celsius
2. Were custody seals on outside of cooler?.....(YES)...NO....NA
   a. If yes, how many, what kind and where: 2-TAPE-FRONT
3. Were custody seals on containers and intact?.....(NO)...YES...NA
4. Were the seals intact, signed, and dated correctly?.....(YES)....NO...NA
5. Were custody papers inside cooler?.....(YES)....NO...NA
6. Were custody papers properly filled out (ink,signed,etc)?.....(YES)....NO...NA
7. Did you sign the custody papers in the appropriate place?.....(YES)...NO...NA
8. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite Other None
9. Was sufficient ice used (if appropriate)?.....(YES)..NO...NA
10. Did all containers arrive in good condition(unbroken)?.....(YES)..NO...NA
11. Were all container labels complete (#,date,signed,pres,etc)?.....(YES)..NO...NA
12. Did all container labels and tags agree with custody papers?.....(YES)..NO...NA
13. Were correct containers used for the analysis requested?.....(YES)..NO...NA
14. a. Were VOA vials received?.....(YES)..NO...NA
    b. Was there any observable head space present in any VOA vial?.....(NO)..YES...NA
15. Was sufficient amount of sample sent in each container?.....(YES)...NO...NA
16. Were correct preservatives used?.....(YES)..NO...NA
    If not, record standard ID of preservative used here_____
17. Was residual chlorine present?.....NO...YES...(NA)
18. See attached for resolution of non-conformance:

(Fed-Ex) UPS Velocity Airborne Route Off-street Misc.

Sample august 2003

GROUNDWATER SAMPLING

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742
Sampled on

Location	Well Depth (ft)	Depth to Water, ft.	Water Column, ft.	Casing Volume, gal.	Casing Volume	Collected Volume	Time	Temp. °C	pH SU	DO mg/L	Turbidity
MW-10 2"	42.0	28.80	13.2	2.2	Initial		4:37	21.4	5.12		Cloudy
					First	3.5	4:43	20.5	4.95		Muddy
					Second	3.5	4:50	21.0	4.89	2.39	Muddy
					Final						
MWR-3 2"	40.0	26.67	13.3	2.2	Initial		5:06	20.8	3.79		Clear
					First	2.1	5:09	19.5	3.63		Clear
					Final	2.1	5:12	19.5	3.76	1.24	Clear
MW-12 2"	11.6	8.03	3.6	0.6	Initial		5:31	21.3	4.68		Clear
					First	0.8	5:36	19.4	4.71	3.92	Cloudy
					Final	dry					
MWR-5 2"	34.0	11.70	22.3	3.6	Initial		5:54	20.0	5.32		Clear
					First	3.8	6:00	18.2	5.40		Clear
					Final	3.8	6:07	18.0	5.41	1.09	Clear
MWR-9 2"	45.0	26.00	19.0	3.1	Initial		6:20	21.2	4.75		Clear
					First	3.2	6:27	19.9	4.57		Clear
					Final	3.2	6:34	19.9	4.71	1.03	Clear
MW-14R 2"	35.0	13.09	21.9	3.6	Initial		6:48	18.9	4.72		Cloudy
					First	3.7	6:55	18.1	4.80	1.78	Clear
					Second						
					Final						
MWR-11 2"	40.0	18.31	21.7	3.5	Initial		7:11	18.3	4.42		Clear
					First	3.5	7:16	17.9	4.46	1.08	Clear
					Final						
MWR-2 2"	40.0	26.41	13.6	2.2	Initial		10:29	20.8	4.43		Cloudy
					First	2.1	10:32	20.3	4.37	1.39	Clear
					Second						
					Final						
MW-13R 2"	35.0	12.59	22.4	3.7	Initial		10:50	20.1	4.96		Cloudy
					First	3.8	10:56	19.2	5.14		Clear
					Final	3.8	11:03	18.9	5.29	1.19	Clear

GROUNDWATER SAMPLING

SB-8672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742
Sampled on

Location	Well Depth (ft)	Depth to Water, ft.	Water Column, ft.	Casing Volume, gal.	Casing Volume	Collected Volume	Time	Temp. °C	pH SU	DO mg/L	Turbidity
MWR-1A 2"	70.0	29.30	40.7	6.6	Initial		11:33	21.3	5.73		Clear
					First	6.3	11:49	20.5	5.66	1.98	Clear
					Final						
MW-7R 2"	45.0	27.30	17.7	2.9	Initial		12:09	22.5	4.44		Muddy
					First	2.4	12:12	21.0	4.44		Clear
					Second	2.4	12:16	21.0	4.50	1.00	Clear
					Final						
MWR-4R 2"	45.0	24.74	20.3	3.3	Initial		1:02	23.0	4.63		Clear
					First	2.8	1:07	18.8	4.88		Clear
					Final	2.8	1:12	19.0	5.02	1.19	Clear
MW-4R 2"	35.0	17.75	17.3	2.8	Initial		1:02	23.0	4.63		Clear
					First	2.8	1:07	18.8	4.88		Clear
					Final	2.8	1:12	19.0	5.02	1.19	Clear
MW-8 2"	43.0	27.76	15.2	2.5	Initial						
					First	Product 7"					
					Final						
MWR-1 2"	45.0	28.04	17.0	2.8	Initial		1:51	20.7	4.80		Clear
					First	2.7	1:50	19.9	4.72	1.12	Clear
					Second						
					Final						

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
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December 17, 2003

Karen Doran, Project Manager
SCDHEC, UST Program
2600 Bull St.
Columbia, SC 29201

Dear Ms. Doran:

Included are the results from the additional testing of material submitted on October 2, 2003 from the 06742, F&BI 310020 project.

The additional testing completed at Friedman and Bruya, Inc. (F&BI) included testing of the sample MW-8 for paraffin, isoparaffin, aromatice, naphthene, and olefin (PIANO) constituents using a modification of ASTM Method D5134-92. This method has been modified to include the use of a mass spectrometer and has been extended to include the analysis of a wider boiling range of compounds. The results of this testing are also enclosed.

In addition, as requested, we have reviewed the reports issued by F&BI on June 14, 2002 and October 23, 2003. These reports consisted of analytical data generated for the product samples MW-8, MWR-1, and MWR-4R. The purpose of this review was to provide a comparison of the material found in the samples MW-8, MWR-1, and MWR-4R. Our findings are provided below.

Based on the data generated, the material present in the samples MW-8, MWR-1, and MWR-4R is indicative of gasoline. The general composition of this material indicates that the gasoline present in these samples has undergone little to no degradation. It should also be noted that the samples contained the oxygenate methyl *t*-butyl ether (MTBE). The sample MW-8 also appeared to contain the organometallic additive methylcyclopentadienyl manganese tricarbonyl (MMT), which became available in 1958 and was phased out of use by the mid-1990's.

The results for selected constituents from the PIANO analysis of the samples MW-8, MWR-1, and MWR-4R are provided in Table 1. For comparison, included in

81 tech

Table 1 are levels of *n*-butane, *n*-pentane, isooctane, benzene, toluene, ethylbenzene, and the xylenes in a "Typical" undegraded gasoline. [1]

Table 1. Selected Constituents from the PIANO Analysis (w/w%)

Sample ID	Date Analyzed	*n*-Butane	*n*-Pentane	Isooctane	Benzene	Toluene	Ethyl-benzene	Xylenes
MW-8	11/22/03	0.21	0.79	4.5	1.4	5.7	2.0	8.7
MWR-1	06/05/02	0.78	1.4	2.3	0.93	4.9	1.7	7.4
MWR-4R	06/05/02	1.2	1.7	2.4	0.99	4.6	1.6	6.9
Typical		3.9-4.7	5.8-10.9	0.32-4.6	0.12-3.5	2.7-22	0.36-2.9	3.2-8.3

As shown in Table 1, the highly volatile constituents *n*-butane and *n*-pentane were identified in the sample MW-8. When fuel is released to the environment these highly volatile constituents readily migrate away from the source area and become dispersed. The presence of these constituents in the sample MW-8 indicates that some of the gasoline present could be due to an ongoing release.

Comparison of the results of samples previously taken at the site, however, shows that the *n*-butane level at the site has historically been three times that present in the sample MW-8. This suggests that the *n*-butane found at this location could also be due to a historic release.

Continued monitoring at the MW-8 location is recommended using the PIANO analysis. This data can be used to measure the rate loss of specific constituents, such as *n*-butane, at the site. This information may be useful in further characterizing the period of release of the fuel present.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson, Chemist

Enclosures
SCD1217R.DOC

[1] "Selection of Representative TPH Fractions Based on Fate and Transport Considerations - Total Petroleum Hydrocarbon Criteria Working Group Series Volume 3", J.B. Gustafson, J.G. Tell and D. Orem, Amherst Scientific Publishers, Amherst, MA, 1997, ISBN 1-884-940-12-9.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/17/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Analyzed: 11/22/03

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

Laboratory ID 310020-01
Client ID MW-8

Compound	Weight Percent
Propane	<0.01
Methanol	<0.01
Isobutane	0.02
2-Methyl-1-propene	<0.01
Ethanol	<0.01
n-Butane	0.21
t-2-Butene	0.01
c-2-Butene	0.01
Isopropanol	<0.01
3-Methyl-1-butene	0.02
Isopentane	1.56
tert-Butanol	<0.01
1-Pentene	0.08
2-Methyl-1-butene	0.11
n-Propanol	<0.01
n-Pentane	0.79
t-2-Pentene	0.24
c-2-Pentene	0.14
2-Methyl-2-butene	0.34
MTBE	0.13
sec-Butanol	<0.01
4-Methyl-1-pentene	0.03
Isobutanol	<0.01
2,3-Dimethylbutane	0.78
Cyclopentane	0.10
2-Methylpentane	1.76
DIPE	<0.01
3-Methylpentane	1.25
n-Butanol	<0.01
1-Hexene	<0.01
ETBE	<0.01

Date of Report: 12/17/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Analyzed: 11/22/03

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED

Results Reported as % by Weight

Laboratory ID 310020-01
Client ID MW-8

Compound	Weight Percent
n-Hexane	1.35
t-2-Hexene	0.21
2-Methyl-1-pentene	0.13
2-Methyl-2-pentene	0.16
c-2-Hexene	0.11
2,2-Dimethylpentane	0.11
2,4-Dimethylpentane	1.00
Methylcyclopentane	1.00
2,2,3-Trimethylbutane	0.04
Benzene	1.43
1-Methylcyclopentene	0.25
TAME	0.01
3,3-Dimethylpentane	0.18
Cyclohexane	0.11
2-Methylhexane	1.23
2,3-Dimethylpentane	2.26
1,1-Dimethylcyclopentane	0.02
3-Methylhexane	1.35
c-1,3-Dimethylcyclopentane	0.32
3-Ethylpentane	0.13
Isooctane	4.53
t-1,2-Dimethylcyclopentane	0.14
1-Heptene	0.04
n-Heptane	0.99
t-3-Heptene	0.04
c-3-Heptene	0.05
t-2-Heptene	0.10
c-2-Heptene	0.06
2,2-Dimethylhexane	0.06
2,5-Dimethylhexane	0.82
Methylcyclohexane	0.21
2,4-Dimethylhexane	0.83

Date of Report: 12/17/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Analyzed: 11/22/03

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

Laboratory ID 310020-01
Client ID MW-8

Compound	Weight Percent
Ethylcyclopentane	0.37
t-1,c-2,4-Trimethylcyclopentane	0.22
t-1,c-2,3-Trimethylcyclopentane	0.20
2,3,4-Trimethylpentane	2.11
Toluene	5.69
2,3-Dimethylhexane	2.06
2-Methylheptane	0.55
3-Methylheptane	0.76
4-Methylheptane	0.24
3-Ethylhexane	0.12
1-Octene	0.01
1,2,3-Trimethylcyclopentane	0.05
t-1,2-Dimethylcyclohexane	0.21
n-Octane	0.49
1-Ethyl-1-methylcyclopentane	0.05
c-2-Octene	0.09
c-1,2-Dimethylcyclohexane	0.05
Isopropylcyclopentane	0.02
2,5-Dimethylheptane	0.22
3,5-Dimethylheptane	0.05
n-Propylcyclopentane	0.06
Ethylbenzene	1.97
2,3-Dimethylheptane	0.10
3,4-Dimethylheptane	0.05
2-Methyloctane	0.22
m-Xylene	3.88
p-Xylene	2.11
3-Methyloctane	0.32
1-Nonene	0.08
3,3-Diethylpentane	0.04
4-Nonene	0.01
o-Xylene	2.72

Date of Report: 12/17/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Analyzed: 11/22/03

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

Laboratory ID 310020-01
Client ID MW-8

Compound	Weight Percent
n-Nonane	0.24
Isobutylcyclopentane	0.01
t-2-Nonene+c-2-Nonene	<0.01
Isopropylbenzene	0.36
3,3-Dimethyloctane	0.10
n-Butylcyclopentane	0.03
n-Propylbenzene	0.93
2,3-Dimethyloctane	0.04
1-Methyl-3-ethylbenzene	2.32
1-Methyl-4-ethylbenzene	1.27
2-Methylnonane	0.10
3-Ethyloctane	0.04
3-Methylnonane	0.15
1,3,5-Trimethylbenzene	1.39
1-Methyl-2-ethylbenzene	1.12
1,2,4-Trimethylbenzene	3.52
tert-Butylbenzene	<0.01
n-Decane	0.18
Isobutylbenzene	0.10
Isopropylcyclohexane	<0.01
sec-Butylbenzene	0.10
1-Methyl-3-isopropylbenzene	0.29
sec-Butylcyclohexane	<0.01
1-Methyl-4-isopropylbenzene	0.07
1,2,3-Trimethylbenzene	1.12
Indan	0.58
1-Methyl-3-n-propylbenzene	0.79
1-Methyl-4-n-propylbenzene	0.47
n-Butylbenzene	0.29
1,3-Dimethyl-5-ethylbenzene	0.90
1,2-Diethylbenzene	0.11
1-Methyl-2-n-propylbenzene	0.35

Date of Report: 12/17/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Analyzed: 11/22/03

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED

Results Reported as % by Weight

Laboratory ID 310020-01
Client ID MW-8

Compound	Weight Percent
1,4-Dimethyl-2-ethylbenzene	0.61
1,2-Dimethyl-4-ethylbenzene	0.91
1,3-Dimethyl-2-ethylbenzene	0.10
1,2-Dimethyl-3-ethylbenzene	0.22
n-Undecane	0.10
1,2,4,5-Tetramethylbenzene	0.69
2-Methylbutylbenzene	0.08
1-tert-Butyl-2-methylbenzene	<0.01
n-Pentylbenzene	0.06
Methylindan	0.25
1-tert-Butyl-3,5-dimethylbenzene	<0.01
1-tert-Butyl-4-ethylbenzene	<0.01
n-Dodecane	0.17
1,3,5-Triethylbenzene	<0.01
1,2,4-Triethylbenzene	<0.01
Naphthalene	0.92
n-Hexylbenzene	0.04
2-Methylnaphthalene	0.57
n-Tridecane	0.15
1-Methylnaphthalene	0.30
n-Tetradecane	0.08
n-Pentadecane	<0.01

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/17/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Analyzed: 11/22/03

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

PIANO SUMMARY

Laboratory ID 310020-01
Client ID MW-8

	Weight Percent
Total Identified Compounds	74.21
Oxygenated Compounds	0.14
Hydrocarbon Compounds	74.07
Unidentified Compounds	25.79
Total	100.00

	Paraffins	Isoparaffins	Aromatics	Naphthenes	Olefins	Total
C3	<0.01					<0.01
C4	0.21	0.02			0.02	0.26
C5	0.79	1.56		0.10	0.93	3.37
C6	1.35	3.78	1.43	1.11	0.88	8.57
C7	0.99	6.31	5.69	1.06	0.29	14.34
C8	0.49	12.08	10.67	0.87	0.10	24.22
C9	0.24	1.00	12.60	0.04	0.09	13.98
C10	0.18	0.43	7.16	<0.01		7.78
C11	0.10		1.01			1.11
C12	0.17		0.04			0.21
C13	0.15					0.15
C14	0.08					0.08
C15	<0.01					<0.01
Total	4.78	25.19	38.61	3.18	2.32	74.07

KD

310020

KJ 10/02/03

C03

SAMPLE CHAIN OF CUSTODY

Page # ____ of ____

Send Report To: Karen Doran

Company: SC DHEC UST Program

Address: 2600 Bull St

City, State, ZIP: Columbia, SC 29201

Phone # 803 896 6586 Fax # 803 896 6245

SAMPLERS (signature): Karen McDoran

PROJECT NAME/NO. 06742

PO #

REMARKS

RECEIVED
DEC 23 2003

TURNAROUND TIME
☑ Standard (2 Weeks)
☐ RUSH ____
Rush charges authorized by: ____

SAMPLE DISPOSAL
☑ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	UNDERGROUND SANALYSES REQUESTED TANK PROGRAM: TPH-Diesel	TPH-Gasoline	BTEX by 8021	VOCs by 8260	SVOCs by 8270	HFS	PIANO analysis					Notes
MW-8	01	9/30/03	1140	petroleum	1						X	X					1 small bottle
MW-1R	02 AB	9/30/03	1200	groundwater/petroleum	2						X	X					1 small 1 large bottle
												KMD					

RECEIVED
OCT 31 2003
UNDERGROUND STORAGE TANK PROGRAM

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Karen McDoran	Karen Doran	SC DHEC - UST	10/1/03	0930
Received by: Nhan Phan	Nhan Phan	F & BI	10/02/03	9:30
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

Nov-17-2003 01:12pm From-UST PROGRAM 803 898 4330 T-882 P.002/002 F-233

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

October 23, 2003

Karen Doran, Project Manager
SCDHEC, UST Program
2600 Bull St.
Columbia, SC 29201

Dear Ms. Doran:

Included are the results from the testing of material submitted on October 2, 2003 from the 06742, F&BI 310020 project. The product and product/water samples submitted for forensic evaluation arrived in good condition. Upon arrival, the samples MW-8 and MW-1R were placed in a refrigerator maintained at 4°C until removed for sample processing.

The samples MW-8 and MW-1R were extracted and analyzed using a gas chromatograph with a flame ionization detector (GC/FID) and an electron capture detector (ECD). The data generated yielded information on the boiling range and general chemical composition of the material present. The GC/FID and GC/ECD traces are enclosed. A GC/FID trace of a standard consisting of normal alkanes is also provided for reference purposes.

As requested, we have also reviewed the report issued by Friedman and Bruya, Inc. (F&B) on June 14, 2002 regarding your Hot Spot 2040, #06742 project. This report consisted of analytical results generated for the product samples MWR-1 and MWR-4. The purpose of this review was to provide a comparison of the material present in the samples MW-8, MW-1R and in the samples MWR-1 and MWR-4.

Based on the data generated, the material present in the samples MW-8, MW-1R, MWR-1, and MWR-4 is consistent with gasoline. The general chemical composition of this fuel indicates that it has undergone little to no degradation. Under the site conditions provided, we estimate that the extent of degradation in this fuel is consistent with releases that occurred within the last 10 years.

It should also be noted that the organic manganese additive methylcyclopentadienyl manganese tricarbonyl (MMT) was tentatively identified in the sample MW-8. This additive became available in 1958 and was phased out use by the mid-1990's. The

apparent presence of MMT indicates that at least a portion of the fuel present in the sample MW-8 may be related to a historic release or releases. Additional tests are available to confirm the presence of and quantify this analyte, if warranted.

In order to provide a comparison of the detailed chemical composition of the material present in the samples, we recommend the GC/MS testing of the samples MW-8 and MW-1R for paraffin, isoparaffin, aromatic, naphthene, and olefin (PIANO) constituents using a modification of ASTM Method D5134-92. We also recommend continued monitoring at MW-8, MW-1R, MWR-1, and MWR-4 locations using the PIANO analysis. This data can be used to measure the rate loss of specific constituents, such as *n*-butane, at the site. This information may be useful in further characterizing the period of release of the fuel present.

Please contact us if additional consultation is needed by our firm in the interpretation of the analytical results provided. We appreciate this opportunity to be of service to you and hope you will call if you should have any questions. We will hold your samples for 30 days before disposal unless directed otherwise.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson
Chemist

Enclosures
SCD1023R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/23/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Extracted: 10/07/03
Date Analyzed: 10/13/03

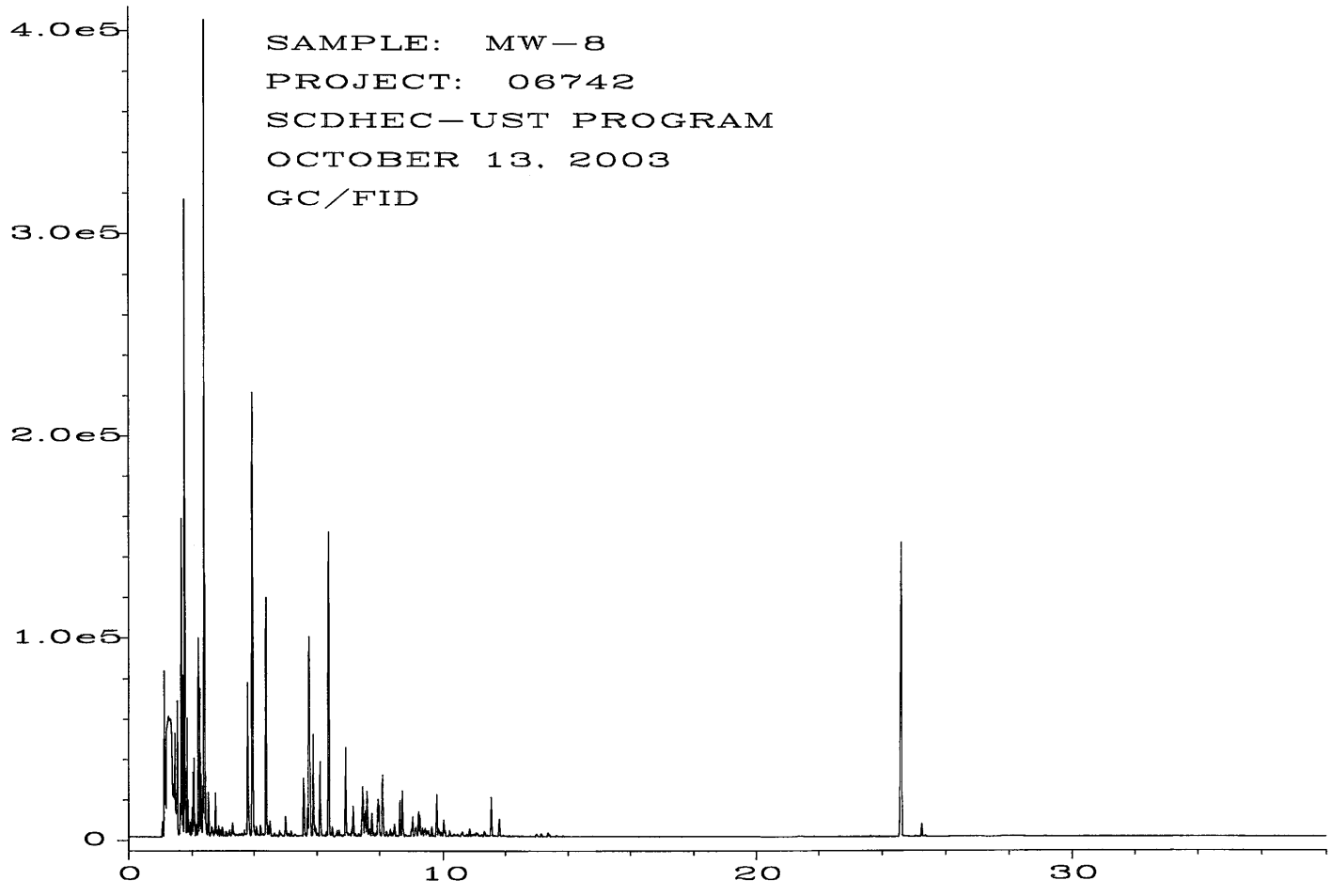
RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID) AND ELECTRON CAPTURE DETECTOR (ECD)

Sample ID	GC Characterization
MW-8	The GC trace using the flame ionization detector (FID) showed the presence of low boiling compounds. The patterns displayed by these peaks are indicative of gasoline. The low boiling compounds appear as a ragged pattern of peaks eluting from *n*-C_7 to *n*-C_{13} showing a maximum near *n*-C_8. This correlates with a temperature range of approximately 100°C to 240°C with a maximum near 130°C. Within this range, the GC/FID trace showed the presence of peaks, at varying levels, that are indicative of toluene, ethylbenzene, the xylenes, C3-benzenes, and methylnaphthalenes. These compounds are characteristic of the constituents commonly found in gasoline. The relative abundance of the volatile and semivolatile constituents present indicates that little to no degradation has occurred to the fuel. The GC/ECD trace of the sample MW-8 shows the presence of a single peak eluting before 12 minutes. The retention time of this peak indicates that the organic manganese additive methylcyclopentadienyl manganese tricarbonyl (MMT) may also be present in the sample. The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis. There is a second surrogate present that is seen on the GC/ECD trace at about 26 minutes which is dibutyl chlorendate.

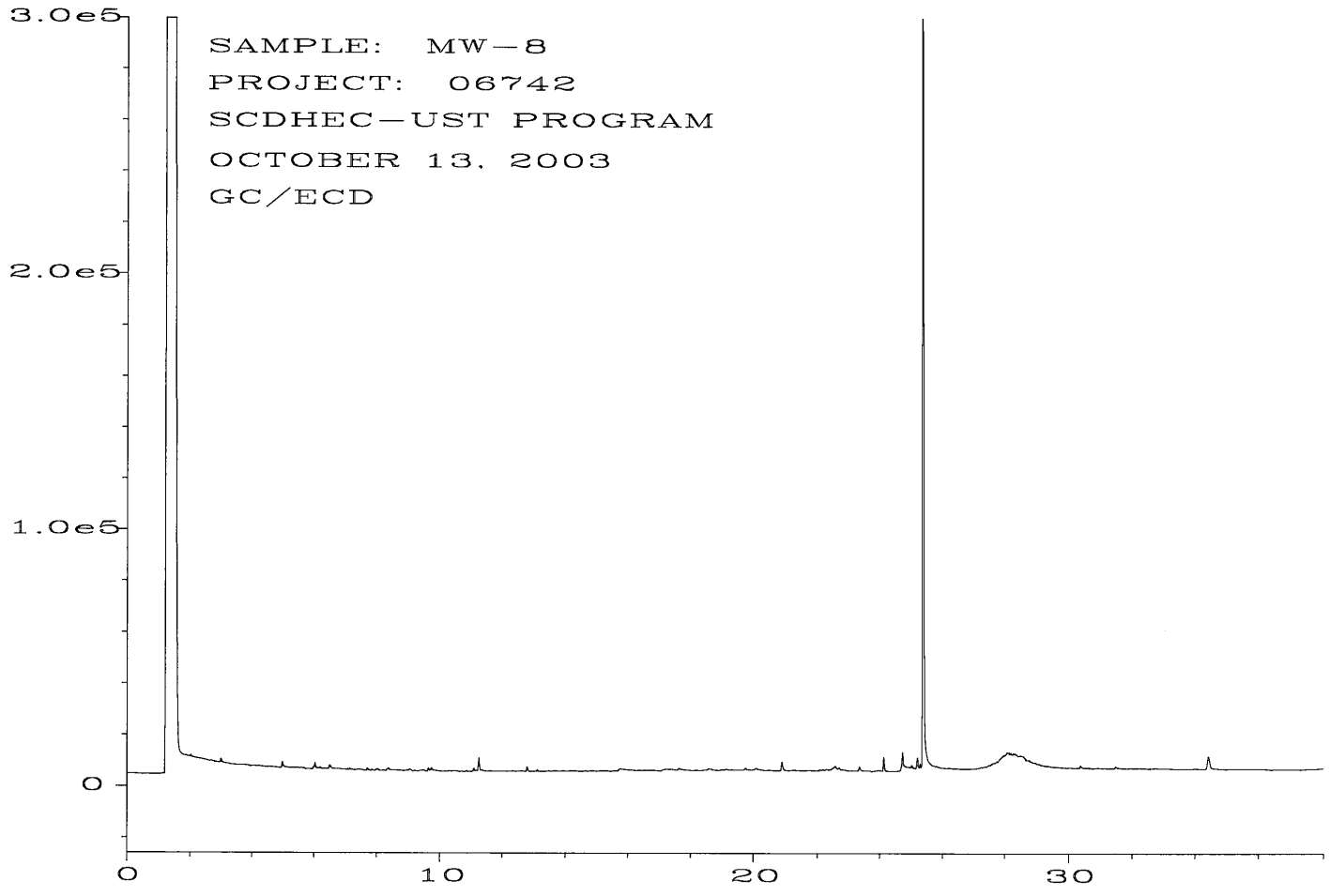
Date of Report: 10/23/03
Date Received: 10/02/03
Project: 06742, F&BI 310020
Date Extracted: 10/07/03
Date Analyzed: 10/13/03

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID) AND ELECTRON CAPTURE DETECTOR (ECD)

Sample ID	GC Characterization
MW-1R	The GC trace using the flame ionization detector (FID) showed the presence of low boiling compounds. The patterns displayed by these peaks are indicative of gasoline. The low boiling compounds appear as a ragged pattern of peaks eluting from *n*-C_7 to *n*-C_{13} showing a maximum near *n*-C_8. This correlates with a temperature range of approximately 100°C to 240°C with a maximum near 130°C. Within this range, the GC/FID trace showed the presence of peaks, at varying levels, that are indicative of toluene, ethylbenzene, the xylenes, C3-benzenes, and methylnaphthalenes. These compounds are characteristic of the constituents commonly found in gasoline. The relative abundance of the volatile and semivolatile constituents present indicates that little to no degradation has occurred to the fuel. The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis. There is a second surrogate present that is seen on the GC/ECD trace at about 26 minutes which is dibutyl chlorendate.



Sig. 1 in C:\HPCHEM\1\DATA\10-13-03\004F1101.D



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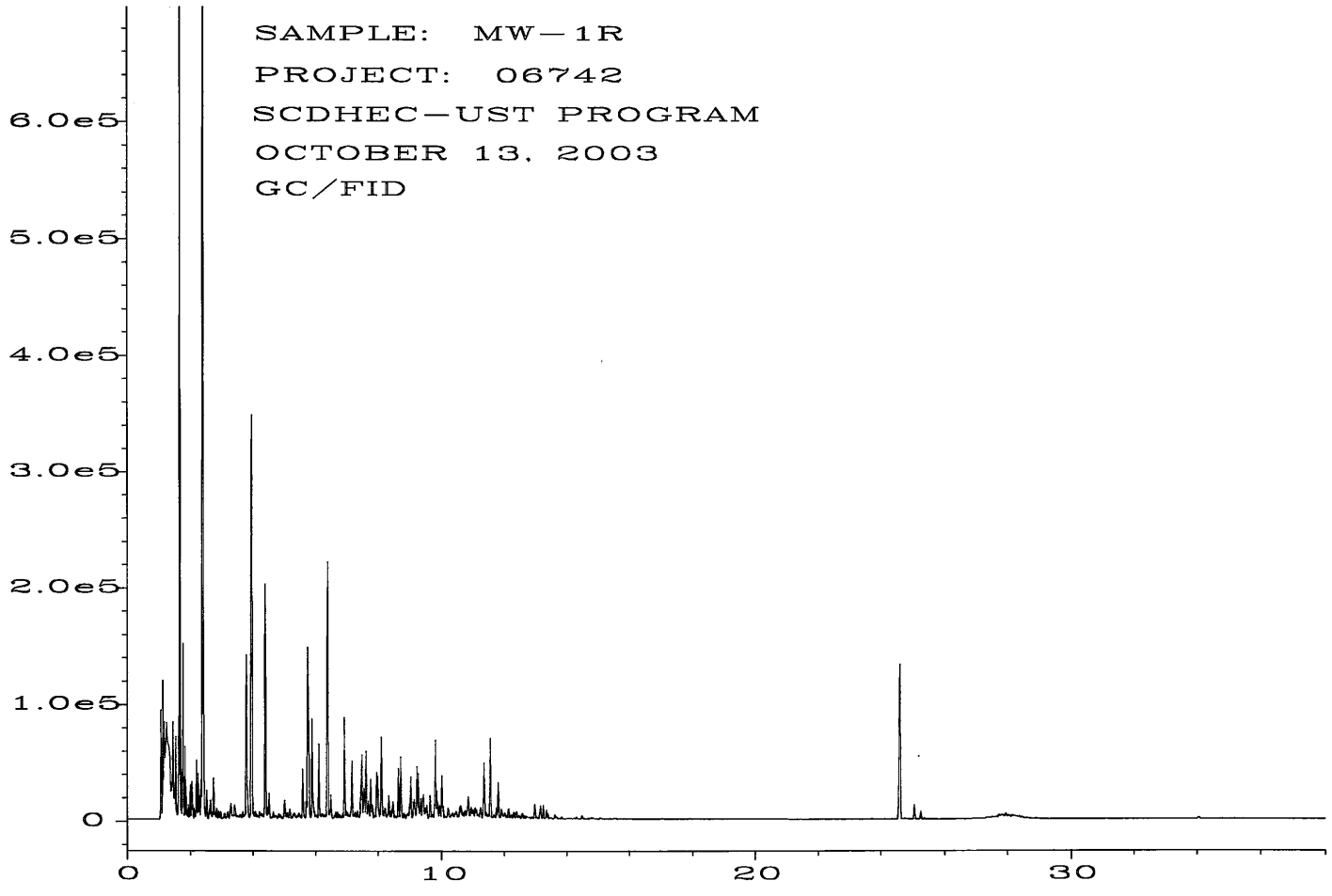

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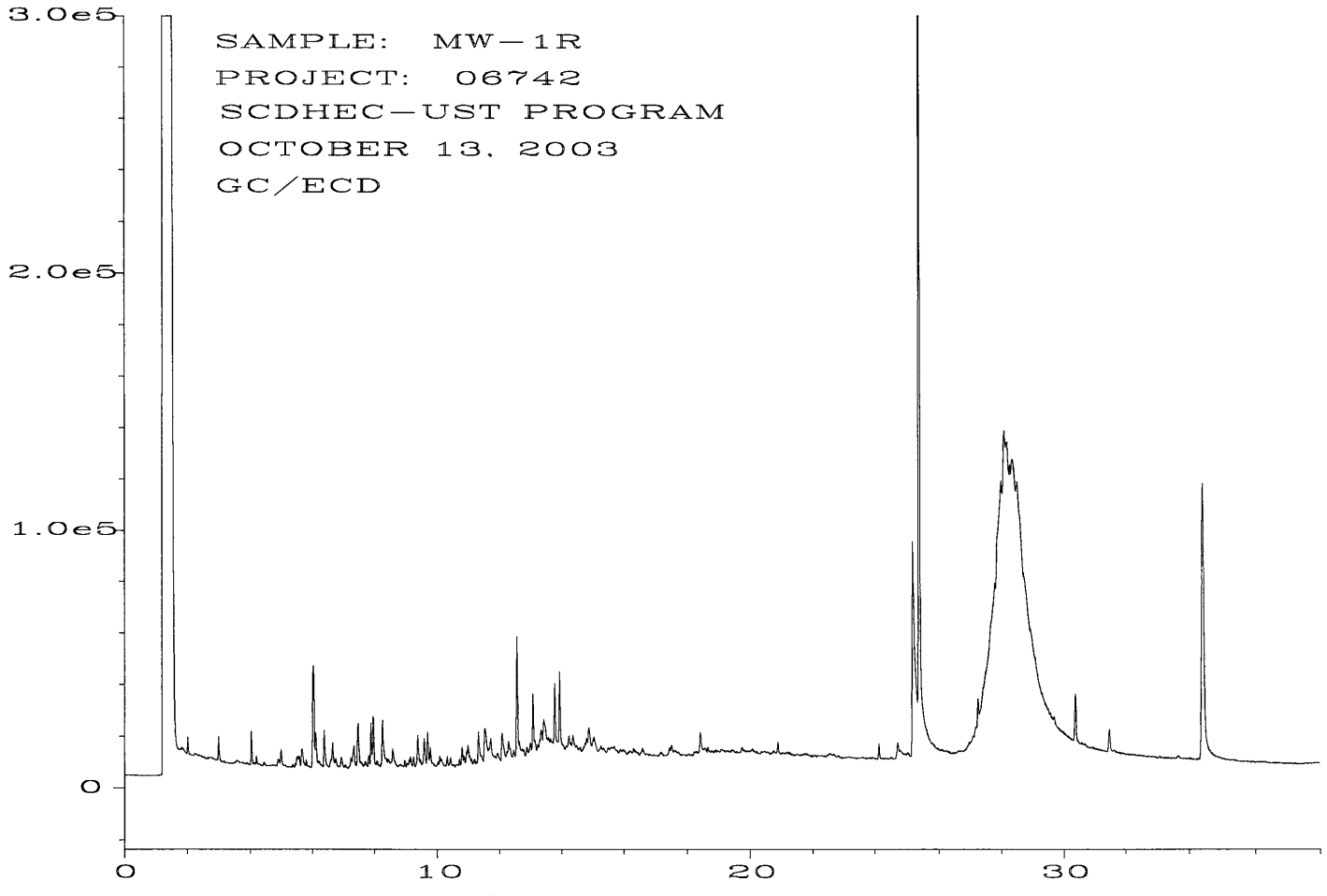

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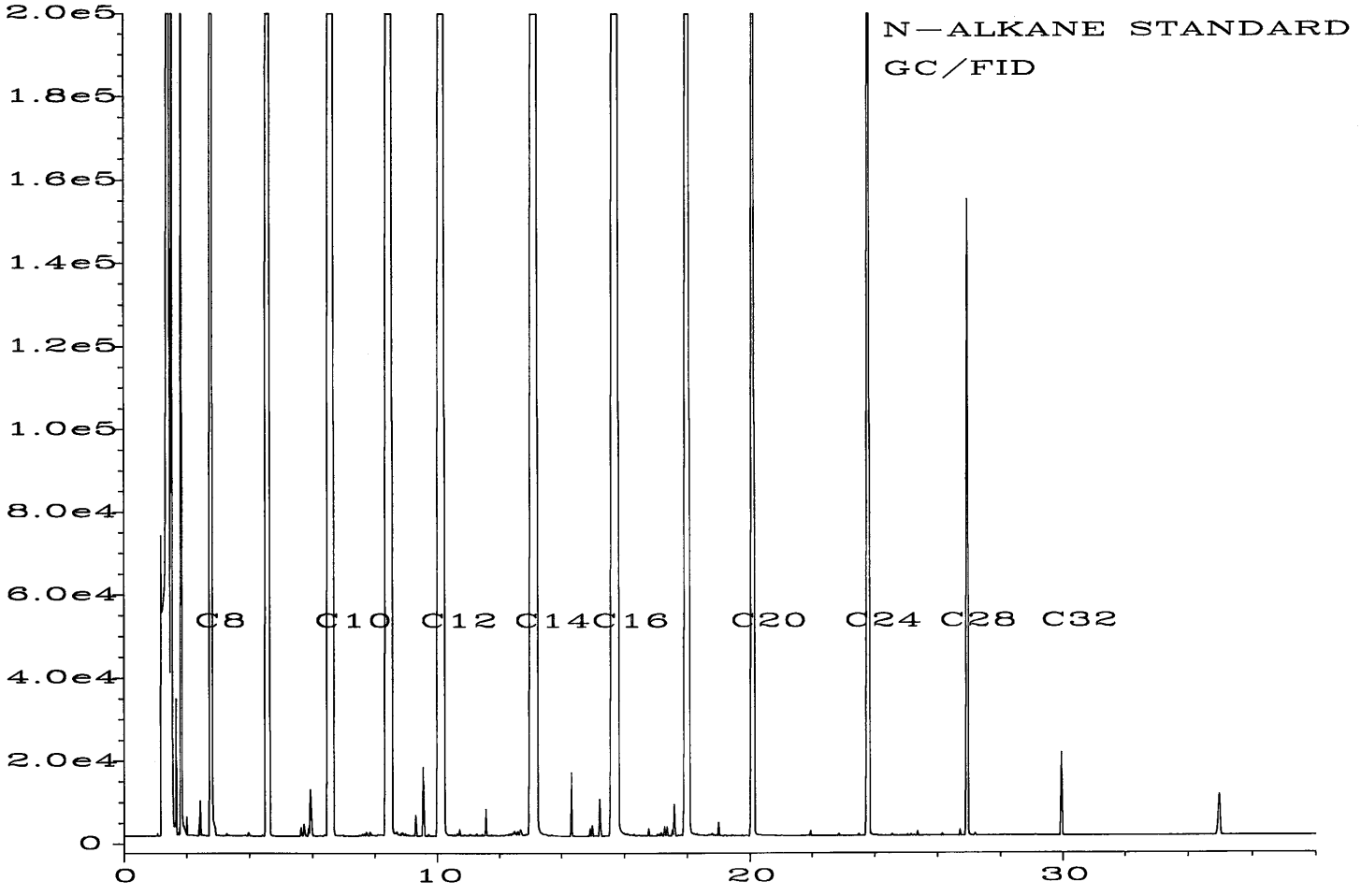
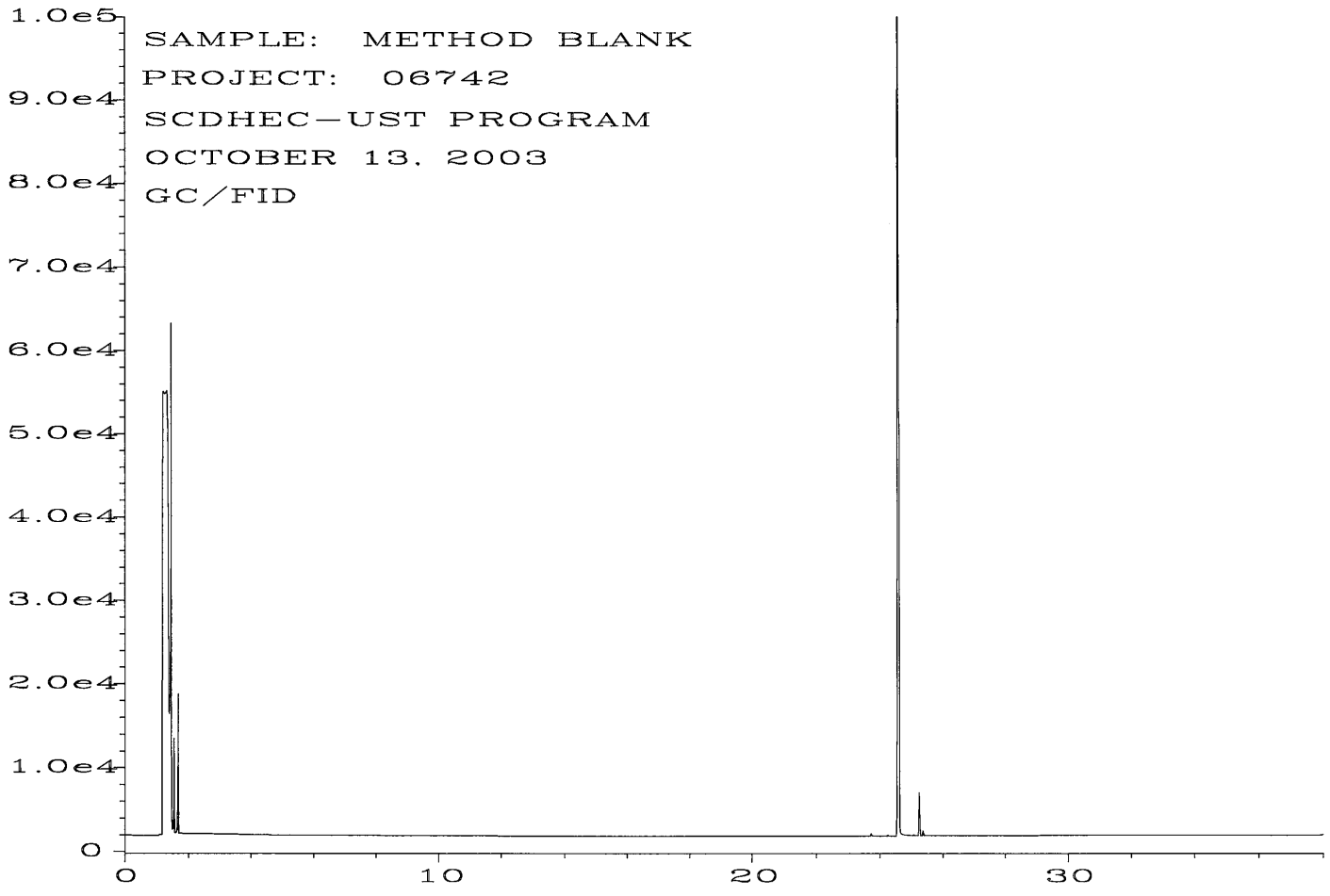
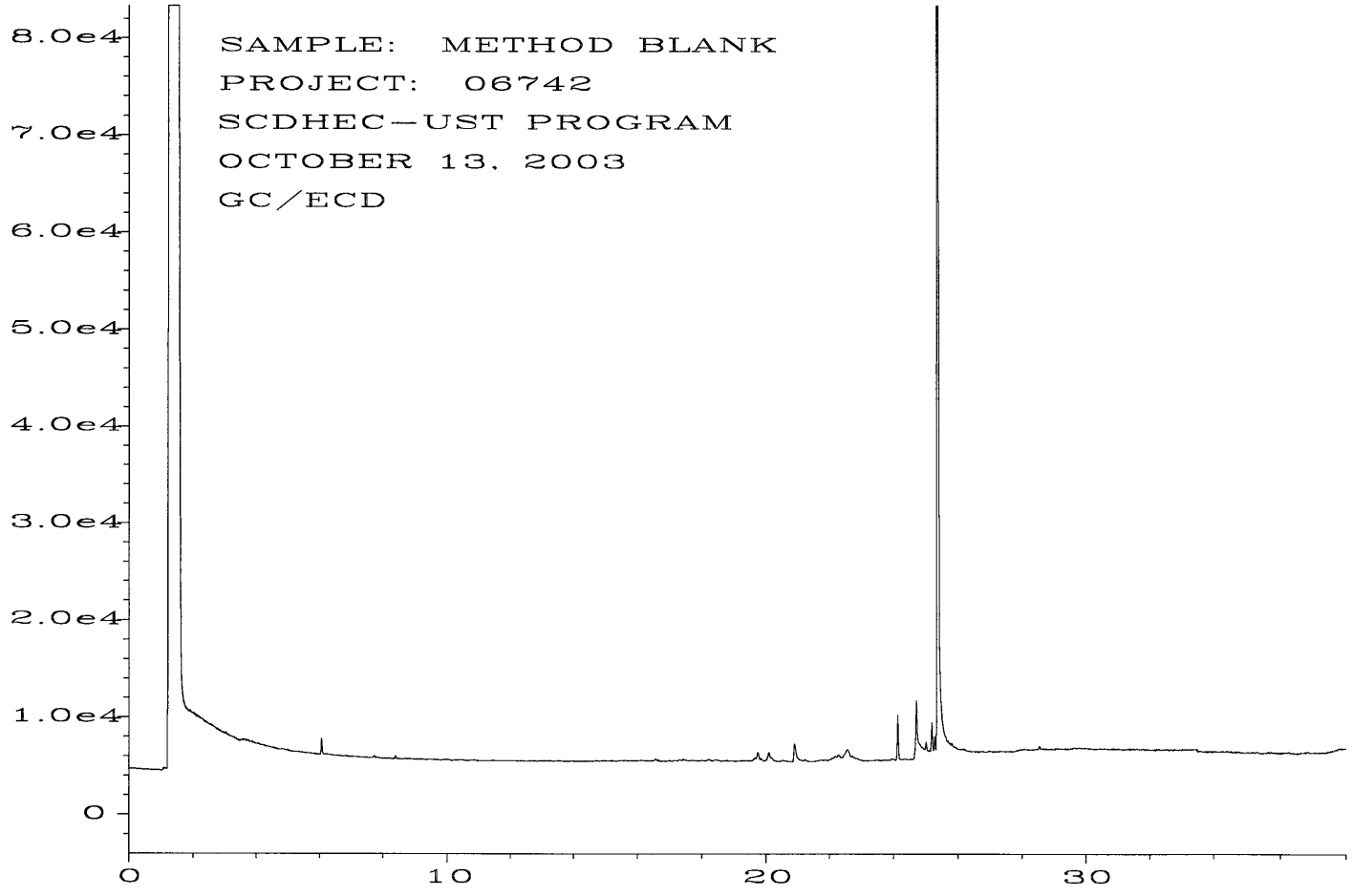


Sig. 1 in C:\HPCHEM\1\DATA\10—13—03\100F0801.D



Sig. 1 in C:\HPCHEM\1\DATA\10-13-03\002F0701.D



Sig. 2 in C:\HPCHEM\1\DATA\10-13-03\002R0701.D

310020

SAMPLE CHAIN OF CUSTODY

KJ 10/02/03

C03

Send Report To Karen Doran
Company SC DHEC - UST Program
Address 2600 Bull St.
City, State, ZIP Columbia, SC 29201
Phone # 803 896 6586 Fax # 803 896 6245

SAMPLERS (signature) Karen McDoran
PROJECT NAME/NO. 06742 PO #
REMARKS

Page # ____ of ____

TURNAROUND TIME
☑ Standard (2 Weeks)
☐ RUSH ____
Rush charges authorized by: ____

SAMPLE DISPOSAL
☑ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	PLANO analysis				Notes
						ANALYSES REQUESTED										
MW-8	01	9/30/03	1140	petroleum	1						X	X				1 small bottle
MW-1R	02 AB	9/30/03	1200	groundwater/ petroleum	2						X	X				1 small 1 large bottle
												KMD (added 11/1/03)				

RECEIVED
OCT 31 2003
UNDERGROUND STORAGE TANK PROGRAM

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Karen McDoran	Karen Doran	SC DHEC - UST	10/1/03	0930
Received by: Nhan Phan	Nhan Phan	F & BI	10/02/03	9:30
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

05/15/03 08:01am P. 002

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

June 14, 2002

RECEIVED
JUN 2 0 2002
Underground Storage
Tank Program

Debra Thoma, Project Manager
TestAmerica
9440 B Two Notch Rd.
Columbia, SC 29223

Dear Ms. Thoma:

Included are the results from the testing of material submitted on May 31, 2002 from your Hot Spot 2040, #06742 project. The product samples submitted for forensic evaluation arrived in good condition. Upon their arrival, the samples MWR-1 and MWR-4R were assigned our laboratory project number 205250 and were placed in a refrigerator maintained at 4°C until removed for sample processing.

The samples MWR-1 and MWR-4R were diluted and analyzed using a gas chromatograph with a flame ionization detector (GC/FID) and an electron capture detector (ECD). The data generated yielded information on the boiling range and general chemical composition of the material present. The GC/FID and GC/ECD traces are enclosed. A GC/FID trace of a standard consisting of normal alkanes is also provided for reference purposes.

In addition, the samples MWR-1 and MWR-4R were analyzed for paraffin, isoparaffin, aromatic, naphthene, and olefin (PIANO) constituents using a modification of ASTM Method D5134-92. This method has been modified to include the use of a mass spectrometer and has been extended to include the analysis of a wider boiling range of compounds. The results of this testing are also enclosed.

The results for selected constituents from the PIANO analysis of the MWR-1 and MWR-4R are provided in Table 1. For comparison, included in Table 1 are levels of *n*-butane, *n*-pentane, isooctane, benzene, toluene, ethylbenzene, and the xylenes in a "Typical" undegraded gasoline.[1] It should also be noted that the results indicate that the samples MWR-1 and MWR-4R contain the ether MTBE at 0.05% and 0.03% (w/w), respectively.

[1] "Selection of Representative TPH Fractions Based on Fate and Transport Considerations - Total Petroleum Hydrocarbon Criteria Working Group Series Volume 3", J.B. Gustafson, J.G. Tell and D. Orem, Amherst Scientific Publishers, Amherst, MA, 1997, ISBN 1-884-940-12-9

Table 1. Selected Constituents from the PIANO Analysis (w/w%)

Sample ID	*n*-Butane	*n*-Pentane	Isooctane	Benzene	Toluene	Ethylbenzene	Xylenes
MWR-1	0.78	1.4	2.3	0.93	4.9	1.7	7.4
MWR-4R	1.2	1.7	2.4	0.99	4.6	1.6	6.9
Typical	3.9-4.7	5.8-10.9	0.32-4.6	0.12-3.5	2.7-22	0.36-2.9	3.2-8.3

As shown in Table 1, the samples MWR-1 and MWR-4R contain *n*-butane at 0.78% and 1.2% (w/w), respectively, and *n*-pentane at 1.4% and 1.7% (w/w), respectively. The presence of these highly volatile constituents in the samples MWR-1 and MWR-4R indicates that at least a portion of the gasoline present is relatively undegraded. Under a moderate to moderately low rate of weathering, this level of degradation is characteristic of releases which occurred within the last 10 years.

Please contact us if additional consultation is needed by our firm in the interpretation of the analytical results provided. We appreciate this opportunity to be of service to you and hope you will call if you should have any questions. We will hold your samples for 30 days before disposal unless directed otherwise.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson
Chemist

Enclosures
NAA0614R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Extracted: 06/05/02
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID) AND ELECTRON CAPTURE DETECTOR (ECD)

Sample ID	GC Characterization
MWR-1	The GC trace using the flame ionization detector (FID) showed the presence of low boiling compounds. The patterns displayed by these peaks are indicative of gasoline. The low boiling compounds appear as a ragged pattern of peaks eluting from *n*-C_7 to *n*-C_{13} showing a maximum near *n*-C_8. This correlates with a temperature range of approximately 100°C to 240°C with a maximum near 130°C. Within this range, the GC/FID trace showed the presence of peaks, at varying levels, that are indicative of toluene, ethylbenzene, the xylenes, C3-benzenes, and methylnaphthalenes. These compounds are characteristic of the constituents commonly found in gasoline. The relative abundance of the volatile and semivolatile constituents present indicates that little to no degradation has occurred to the fuel. The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis. There is a second surrogate present that is seen on the GC/ECD trace at about 26 minutes which is dibutyl chlorendate.

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Extracted: 06/05/02
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID) AND ELECTRON CAPTURE DETECTOR (ECD)

Sample ID	GC Characterization
MWR-4R	The GC trace using the flame ionization detector (FID) showed the presence of low boiling compounds. The patterns displayed by these peaks are indicative of gasoline. The low boiling compounds appear as a ragged pattern of peaks eluting from *n*-C_7 to *n*-C_{13} showing a maximum near *n*-C_8. This correlates with a temperature range of approximately 100°C to 240°C with a maximum near 130°C. Within this range, the GC/FID trace showed the presence of peaks, at varying levels, that are indicative of toluene, ethylbenzene, the xylenes, C3-benzenes, and methylnaphthalenes. These compounds are characteristic of the constituents commonly found in gasoline. The relative abundance of the volatile and semivolatile constituents present indicates that little to no degradation has occurred to the fuel. The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis. There is a second surrogate present that is seen on the GC/ECD trace at about 26 minutes which is dibutyl chlorendate.

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED

Results Reported as % by Weight

Laboratory ID 205250-01
Client ID MWR-1

Compound	Weight Percent
Propane	<0.01
Methanol	<0.01
Isobutane	0.15
2-Methyl-1-propene	0.03
Ethanol	<0.01
n-Butane	0.78
t-2-Butene	0.07
c-2-Butene	0.06
Isopropanol	<0.01
3-Methyl-1-butene	0.05
Isopentane	2.55
tert-Butanol	<0.01
1-Pentene	0.17
2-Methyl-1-butene	0.16
n-Propanol	<0.01
n-Pentane	1.43
t-2-Pentene	0.44
c-2-Pentene	0.25
2-Methyl-2-butene	0.51
MTBE	0.05
sec-Butanol	<0.01
4-Methyl-1-pentene	0.04
Isobutanol	<0.01
2,3-Dimethylbutane	0.69
Cyclopentane	0.18
2-Methylpentane	2.08
DIPE	s<0.01
3-Methylpentane	1.42
n-Butanol	<0.01
1-Hexene	<0.01
ETBE	<0.01

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

Laboratory ID 205250-01
Client ID MWR-1

Compound	Weight Percent
n-Hexane	1.43
t-2-Hexene	0.27
2-Methyl-1-pentene	0.17
2-Methyl-2-pentene	0.18
c-2-Hexene	0.08
2,2-Dimethylpentane	0.07
2,4-Dimethylpentane	0.53
Methylcyclopentane	1.07
2,2,3-Trimethylbutane	0.03
Benzene	0.93
1-Methylcyclopentene	0.29
TAME	<0.01
3,3-Dimethylpentane	0.15
Cyclohexane	0.17
2-Methylhexane	1.20
2,3-Dimethylpentane	1.10
1,1-Dimethylcyclopentane	0.02
3-Methylhexane	1.32
c-1,3-Dimethylcyclopentane	0.41
3-Ethylpentane	0.12
Isooctane	2.27
t-1,2-Dimethylcyclopentane	0.25
1-Heptene	0.06
n-Heptane	0.93
t-3-Heptene	0.09
c-3-Heptene	0.18
t-2-Heptene	0.06
c-2-Heptene	0.07
2,2-Dimethylhexane	0.06
2,5-Dimethylhexane	0.46
Methylcyclohexane	0.44
2,4-Dimethylhexane	0.51

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

Laboratory ID 205250-01
Client ID MWR-1

Compound	Weight Percent
Ethylcyclopentane	0.33
t-1,c-2,4-Trimethylcyclopentane	0.25
t-1,c-2,3-Trimethylcyclopentane	0.30
2,3,4-Trimethylpentane	1.06
Toluene	4.93
2,3-Dimethylhexane	1.12
2-Methylheptane	0.66
3-Methylheptane	0.80
4-Methylheptane	0.26
3-Ethylhexane	0.12
1-Octene	0.02
1,2,3-Trimethylcyclopentane	0.07
t-1,2-Dimethylcyclohexane	0.36
n-Octane	0.53
1-Ethyl-1-methylcyclopentane	0.06
c-2-Octene	0.14
c-1,2-Dimethylcyclohexane	0.08
Isopropylcyclopentane	0.03
2,5-Dimethylheptane	0.27
3,5-Dimethylheptane	0.06
n-Propylcyclopentane	0.07
Ethylbenzene	1.67
2,3-Dimethylheptane	0.08
3,4-Dimethylheptane	0.06
2-Methyloctane	0.34
m-Xylene	1.68
p-Xylene	3.44
3-Methyloctane	0.43
1-Nonene	<0.01
3,3-Diethylpentane	0.06
4-Nonene	0.03
o-Xylene	2.30

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED

Results Reported as % by Weight

Laboratory ID 205250-01
Client ID MWR-1

Compound	Weight Percent
n-Nonane	0.34
Isobutylcyclopentane	0.01
t-2-Nonene+c-2-Nonene	<0.01
Isopropylbenzene	0.26
3,3-Dimethyloctane	0.06
n-Butylcyclopentane	0.05
n-Propylbenzene	0.74
2,3-Dimethyloctane	0.06
1-Methyl-3-ethylbenzene	2.24
1-Methyl-4-ethylbenzene	1.05
2-Methylnonane	0.18
3-Ethyloctane	0.06
3-Methylnonane	0.24
1,3,5-Trimethylbenzene	1.22
1-Methyl-2-ethylbenzene	0.92
1,2,4-Trimethylbenzene	3.38
tert-Butylbenzene	<0.01
n-Decane	0.26
Isobutylbenzene	0.09
Isopropylcyclohexane	<0.01
sec-Butylbenzene	0.09
1-Methyl-3-isopropylbenzene	0.16
sec-Butylcyclohexane	<0.01
1-Methyl-4-isopropylbenzene	0.07
1,2,3-Trimethylbenzene	0.95
Indan	0.57
1-Methyl-3-n-propylbenzene	0.74
1-Methyl-4-n-propylbenzene	0.44
n-Butylbenzene	0.33
1,3-Dimethyl-5-ethylbenzene	0.82
1,2-Diethylbenzene	0.10
1-Methyl-2-n-propylbenzene	0.26

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

Laboratory ID 205250-01
Client ID MWR-1

Compound	Weight Percent
1,4-Dimethyl-2-ethylbenzene	0.54
1,2-Dimethyl-4-ethylbenzene	0.82
1,3-Dimethyl-2-ethylbenzene	0.10
1,2-Dimethyl-3-ethylbenzene	0.07
n-Undecane	0.21
1,2,4,5-Tetramethylbenzene	0.50
2-Methylbutylbenzene	0.03
1-tert-Butyl-2-methylbenzene	<0.01
n-Pentylbenzene	0.12
Methylindan	0.37
1-tert-Butyl-3,5-dimethylbenzene	<0.01
1-tert-Butyl-4-ethylbenzene	<0.01
n-Dodecane	0.20
1,3,5-Triethylbenzene	<0.01
1,2,4-Triethylbenzene	<0.01
Naphthalene	1.19
n-Hexylbenzene	0.05
2-Methylnaphthalene	0.81
n-Tridecane	0.24
1-Methylnaphthalene	0.42
n-Tetradecane	0.07
n-Pentadecane	0.01

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

PIANO SUMMARY

Laboratory ID 205250-01
Client ID MWR-1

	Weight Percent
Total Identified Compounds	69.09
Oxygenated Compounds	0.05
Hydrocarbon Compounds	69.04
Unidentified Compounds	30.91
Total	100.00

	Paraffins	Isoparaffins	Aromatics	Naphthenes	Olefins	Total
C3	<0.01					<0.01
C4	0.78	0.15			0.16	1.09
C5	1.43	2.55		0.18	1.61	5.77
C6	1.43	4.19	0.93	1.53	0.70	8.78
C7	0.93	4.52	4.93	1.46	0.46	12.31
C8	0.53	7.30	9.08	1.21	0.16	18.28
C9	0.34	1.31	11.34	0.06	0.03	13.08
C10	0.26	0.60	6.71	<0.01		7.57
C11	0.21		1.38			1.58
C12	0.20		0.05			0.24
C13	0.24					0.24
C14	0.07					0.07
C15	0.01					0.01
Total	6.44	20.62	34.42	4.43	3.12	69.04

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED

Results Reported as % by Weight

Laboratory ID 205250-02
Client ID MWR-4R

Compound	Weight Percent
Propane	<0.01
Methanol	<0.01
Isobutane	0.27
2-Methyl-1-propene	0.07
Ethanol	<0.01
n-Butane	1.23
t-2-Butene	0.13
c-2-Butene	0.11
Isopropanol	<0.01
3-Methyl-1-butene	0.06
Isopentane	3.14
tert-Butanol	<0.01
1-Pentene	0.22
2-Methyl-1-butene	0.34
n-Propanol	<0.01
n-Pentane	1.70
t-2-Pentene	0.53
c-2-Pentene	0.32
2-Methyl-2-butene	0.75
MTBE	0.03
sec-Butanol	<0.01
4-Methyl-1-pentene	0.05
Isobutanol	<0.01
2,3-Dimethylbutane	0.78
Cyclopentane	0.23
2-Methylpentane	2.28
DIPE	<0.01
3-Methylpentane	1.61
n-Butanol	<0.01
1-Hexene	<0.01
ETBE	<0.01

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

Laboratory ID 205250-02
Client ID MWR-4R

Compound	Weight Percent
n-Hexane	1.62
t-2-Hexene	0.32
2-Methyl-1-pentene	0.21
2-Methyl-2-pentene	0.19
c-2-Hexene	0.21
2,2-Dimethylpentane	0.08
2,4-Dimethylpentane	0.60
Methylcyclopentane	1.19
2,2,3-Trimethylbutane	0.03
Benzene	0.99
1-Methylcyclopentene	0.38
TAME	<0.01
3,3-Dimethylpentane	0.18
Cyclohexane	0.19
2-Methylhexane	1.29
2,3-Dimethylpentane	1.17
1,1-Dimethylcyclopentane	0.02
3-Methylhexane	1.40
c-1,3-Dimethylcyclopentane	0.45
3-Ethylpentane	0.12
Isooctane	2.36
t-1,2-Dimethylcyclopentane	0.31
1-Heptene	0.07
n-Heptane	0.90
t-3-Heptene	0.07
c-3-Heptene	0.19
t-2-Heptene	0.06
c-2-Heptene	0.08
2,2-Dimethylhexane	0.05
2,5-Dimethylhexane	0.45
Methylcyclohexane	0.44
2,4-Dimethylhexane	0.48

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

Laboratory ID 205250-02
Client ID MWR-4R

Compound	Weight Percent
Ethylcyclopentane	0.33
t-1,c-2,4-Trimethylcyclopentane	0.28
t-1,c-2,3-Trimethylcyclopentane	0.31
2,3,4-Trimethylpentane	1.08
Toluene	4.57
2,3-Dimethylhexane	1.16
2-Methylheptane	0.64
3-Methylheptane	0.80
4-Methylheptane	0.25
3-Ethylhexane	0.12
1-Octene	0.02
1,2,3-Trimethylcyclopentane	0.07
t-1,2-Dimethylcyclohexane	0.39
n-Octane	0.51
1-Ethyl-1-methylcyclopentane	0.07
c-2-Octene	0.16
c-1,2-Dimethylcyclohexane	0.08
Isopropylcyclopentane	0.02
2,5-Dimethylheptane	0.24
3,5-Dimethylheptane	0.06
n-Propylcyclopentane	0.08
Ethylbenzene	1.59
2,3-Dimethylheptane	0.08
3,4-Dimethylheptane	0.05
2-Methyloctane	0.26
m-Xylene	1.53
p-Xylene	3.22
3-Methyloctane	0.41
1-Nonene	<0.01
3,3-Diethylpentane	0.06
4-Nonene	0.02
o-Xylene	2.11

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED

Results Reported as % by Weight

Laboratory ID 205250-02
Client ID MWR-4R

Compound	Weight Percent
n-Nonane	0.32
Isobutylcyclopentane	0.01
t-2-Nonene+c-2-Nonene	<0.01
Isopropylbenzene	0.23
3,3-Dimethyloctane	0.05
n-Butylcyclopentane	0.05
n-Propylbenzene	0.70
2,3-Dimethyloctane	0.06
1-Methyl-3-ethylbenzene	2.10
1-Methyl-4-ethylbenzene	0.96
2-Methylnonane	0.17
3-Ethyloctane	0.06
3-Methylnonane	0.22
1,3,5-Trimethylbenzene	1.15
1-Methyl-2-ethylbenzene	0.85
1,2,4-Trimethylbenzene	3.21
tert-Butylbenzene	<0.01
n-Decane	0.22
Isobutylbenzene	0.08
Isopropylcyclohexane	<0.01
sec-Butylbenzene	0.08
1-Methyl-3-isopropylbenzene	0.13
sec-Butylcyclohexane	<0.01
1-Methyl-4-isopropylbenzene	0.07
1,2,3-Trimethylbenzene	0.92
Indan	0.56
1-Methyl-3-n-propylbenzene	0.73
1-Methyl-4-n-propylbenzene	0.43
n-Butylbenzene	0.32
1,3-Dimethyl-5-ethylbenzene	0.82
1,2-Diethylbenzene	0.10
1-Methyl-2-n-propylbenzene	0.26

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Analyzed: 06/05/02

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

Laboratory ID 205250-02
Client ID MWR-4R

Compound	Weight Percent
1,4-Dimethyl-2-ethylbenzene	0.54
1,2-Dimethyl-4-ethylbenzene	0.83
1,3-Dimethyl-2-ethylbenzene	0.10
1,2-Dimethyl-3-ethylbenzene	0.07
n-Undecane	0.20
1,2,4,5-Tetramethylbenzene	0.48
2-Methylbutylbenzene	0.03
1-tert-Butyl-2-methylbenzene	<0.01
n-Pentylbenzene	0.12
Methylindan	0.36
1-tert-Butyl-3,5-dimethylbenzene	<0.01
1-tert-Butyl-4-ethylbenzene	<0.01
n-Dodecane	0.19
1,3,5-Triethylbenzene	<0.01
1,2,4-Triethylbenzene	<0.01
Naphthalene	1.15
n-Hexylbenzene	0.06
2-Methylnaphthalene	0.76
n-Tridecane	0.24
1-Methylnaphthalene	0.37
n-Tetradecane	0.07
n-Pentadecane	0.02

Date of Report: 06/14/02
Date Received: 05/31/02
Project: Hot Spot 2040, #06742
Date Analyzed: 06/05/02

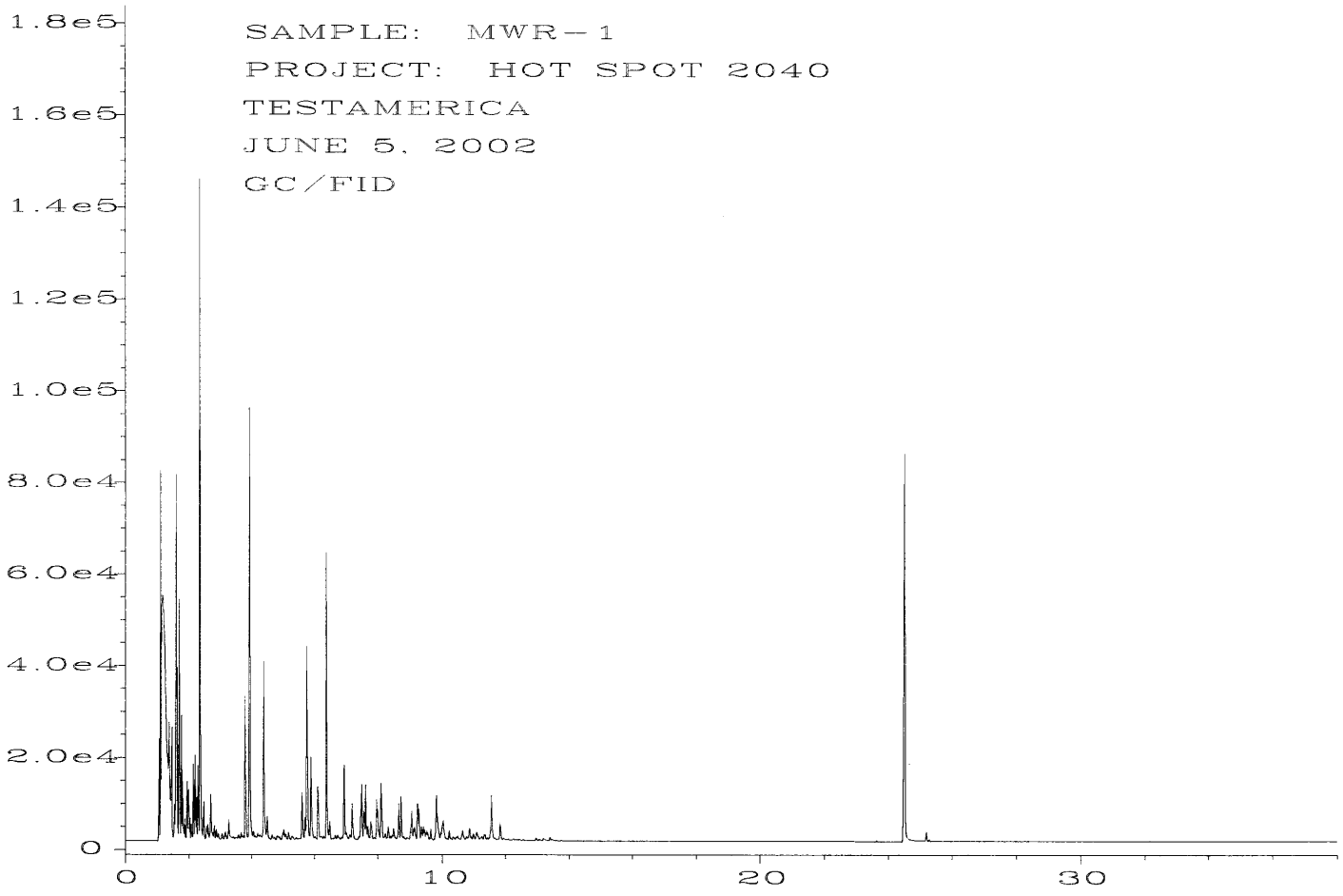
RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PARAFFINS, ISOPARAFFINS, OLEFINS, NAPHTHENES, AND AROMATICS USING ASTM D5134-92 MODIFIED
Results Reported as % by Weight

PIANO SUMMARY

Laboratory ID 205250-02
Client ID MWR-4R

	Weight Percent
Total Identified Compounds	70.99
Oxygenated Compounds	0.03
Hydrocarbon Compounds	70.97
Unidentified Compounds	29.01
Total	100.00

	Paraffins	Isoparaffins	Aromatics	Naphthenes	Olefins	Total
C3	<0.01					<0.01
C4	1.23	0.27			0.31	1.82
C5	1.70	3.14		0.23	2.26	7.32
C6	1.62	4.67	0.99	1.77	0.93	9.97
C7	0.90	4.88	4.57	1.57	0.47	12.38
C8	0.51	7.39	8.46	1.31	0.18	17.84
C9	0.32	1.17	10.68	0.06	0.02	12.25
C10	0.22	0.55	6.55	<0.01		7.32
C11	0.20		1.28			1.49
C12	0.19		0.06			0.25
C13	0.24					0.24
C14	0.07					0.07
C15	0.02					0.02
Total	7.21	22.07	32.58	4.93	4.18	70.97



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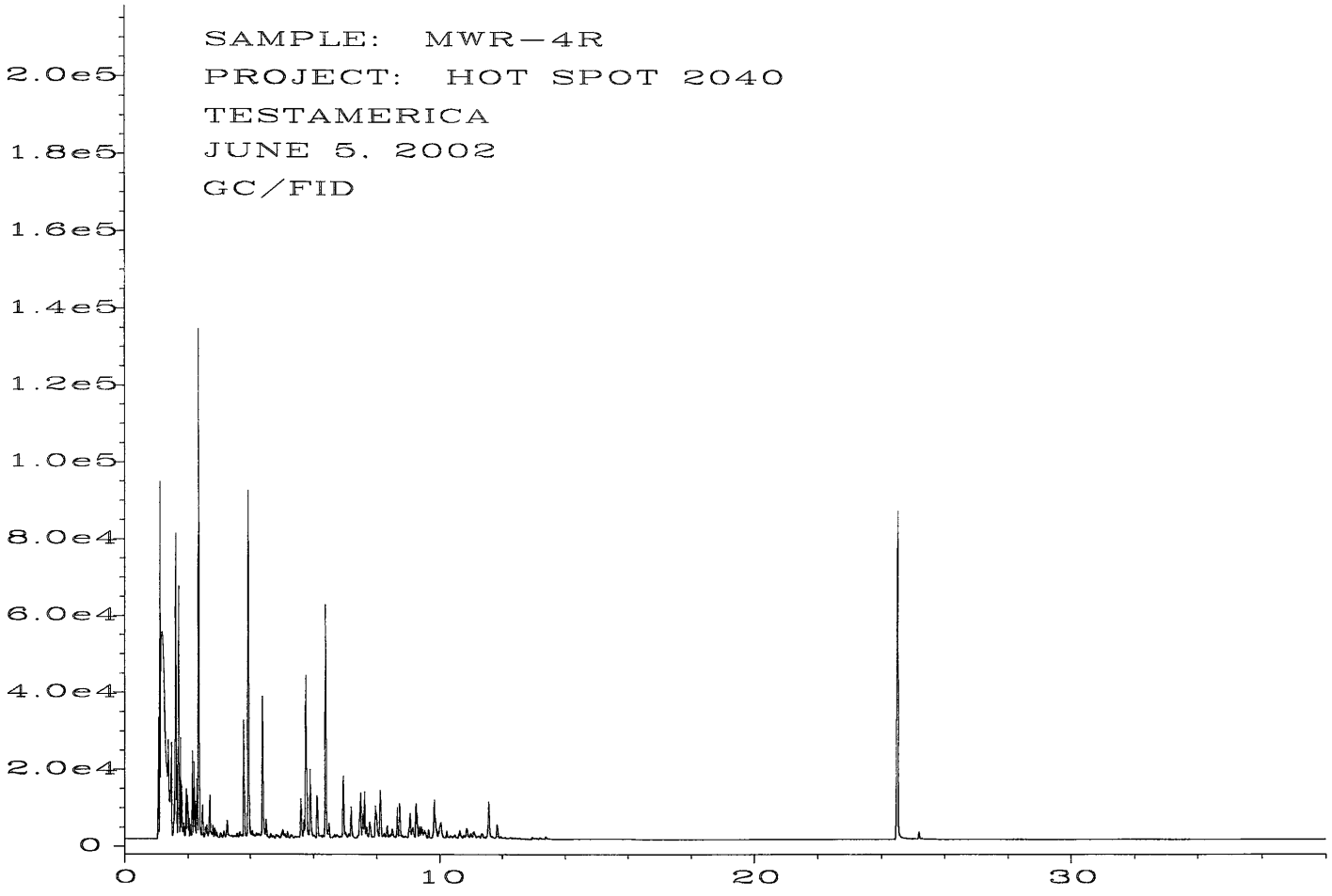

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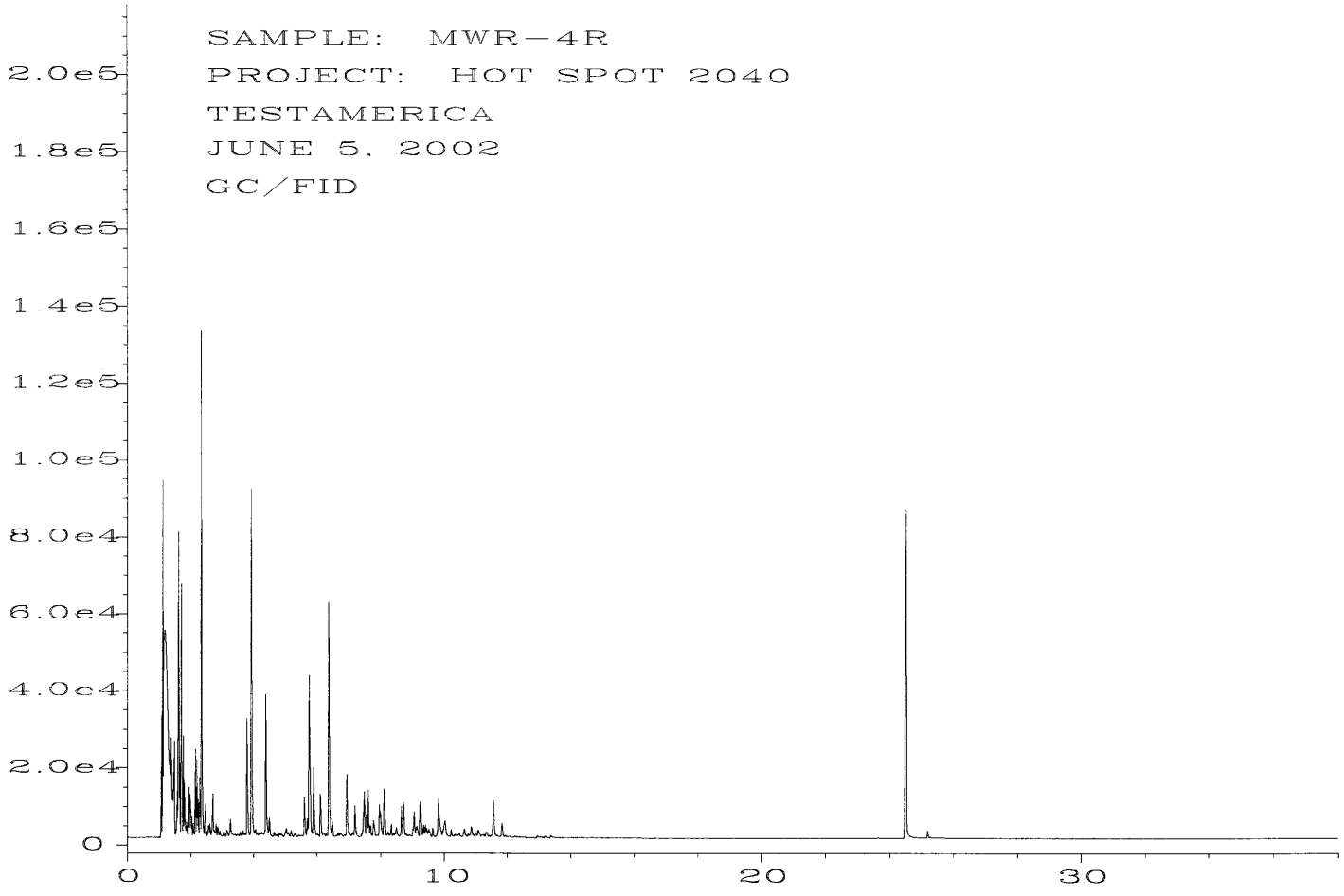

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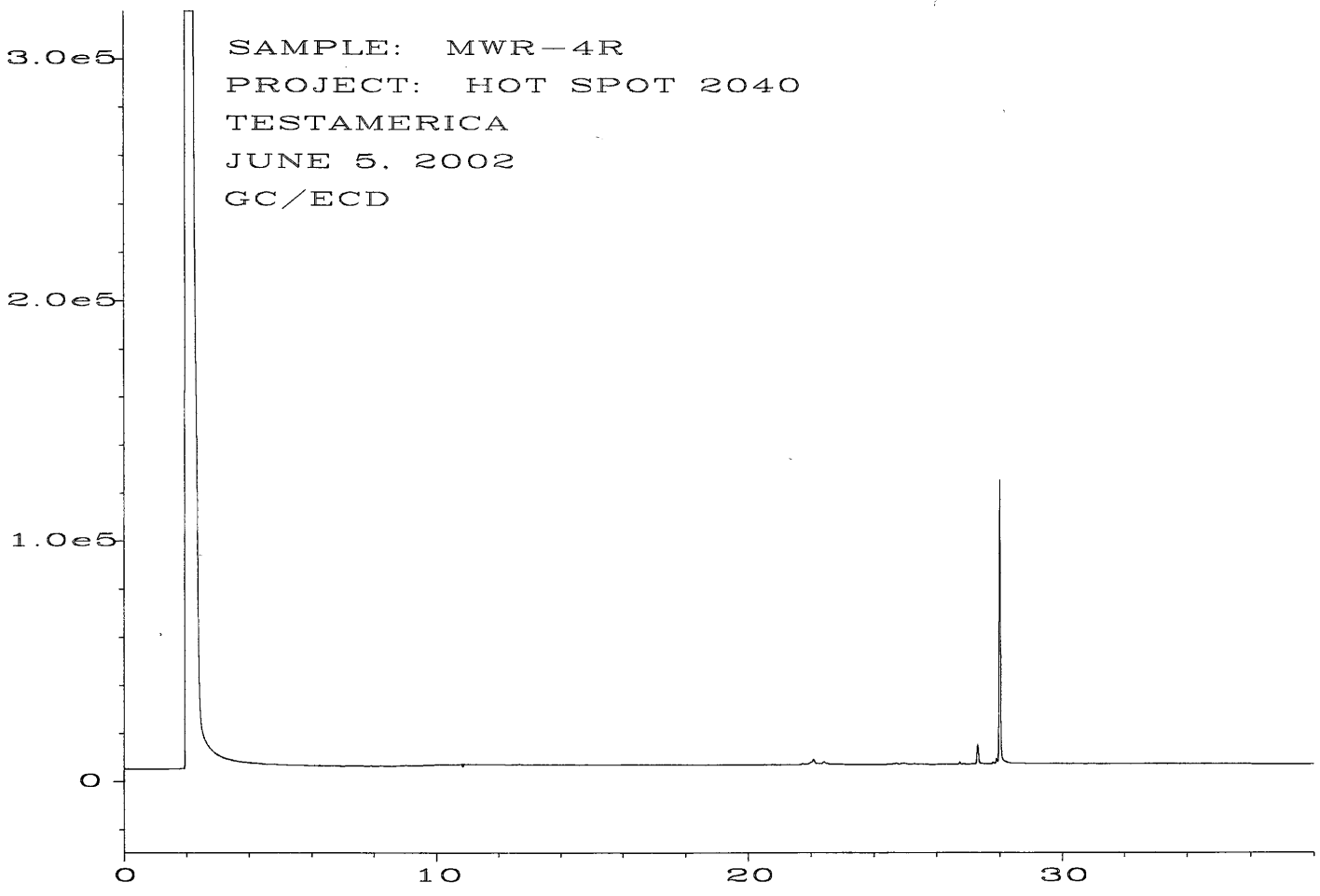

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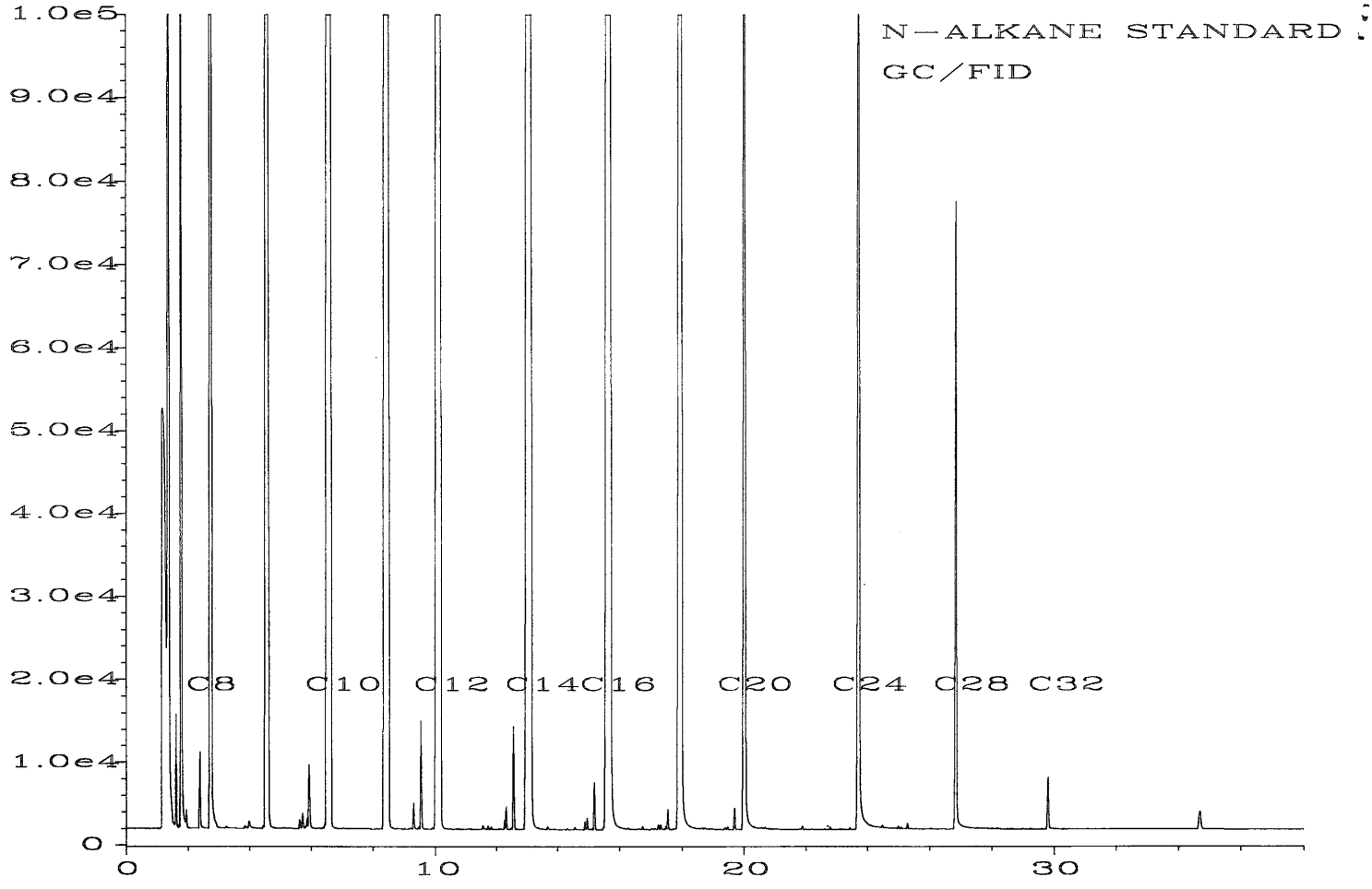

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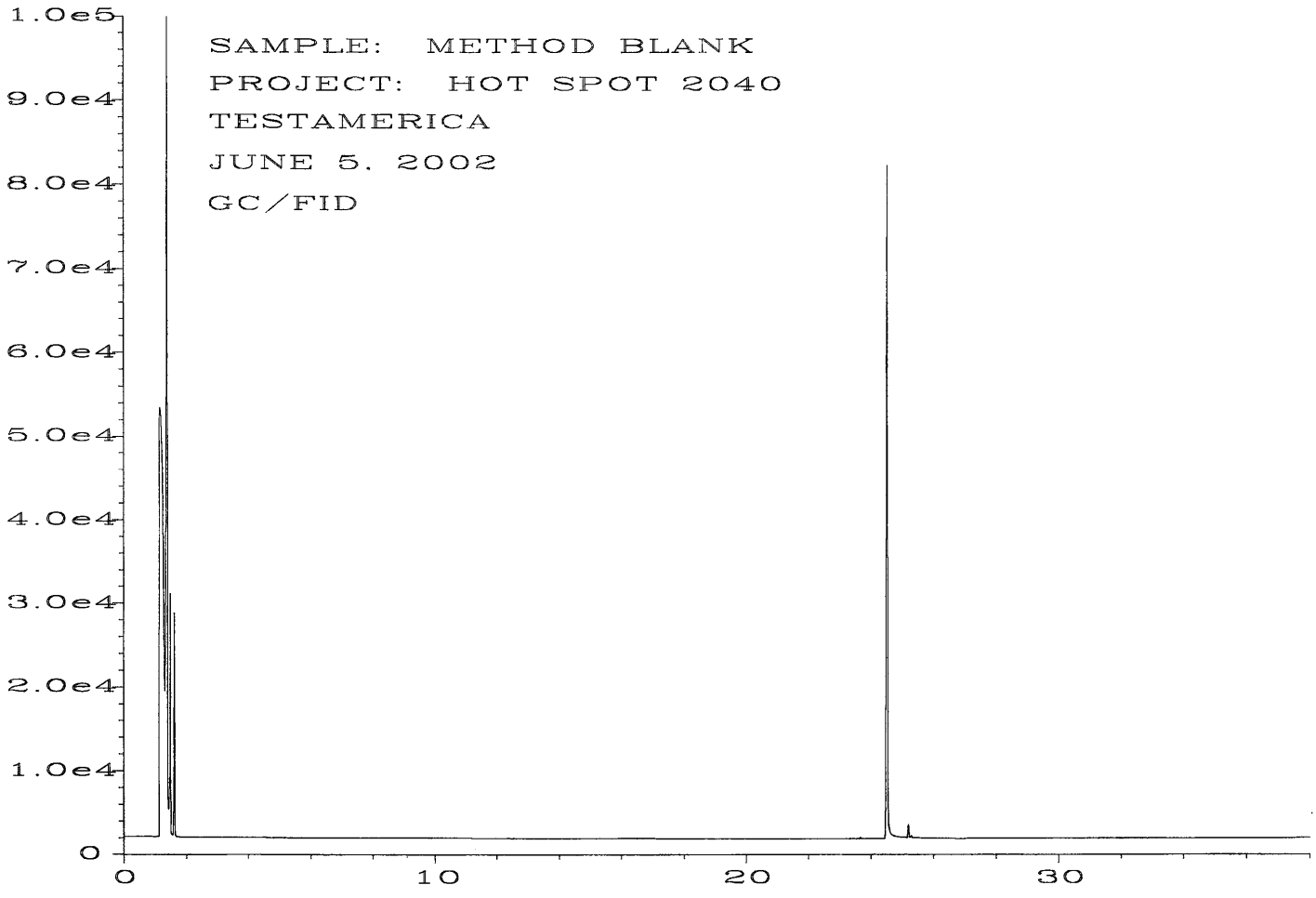

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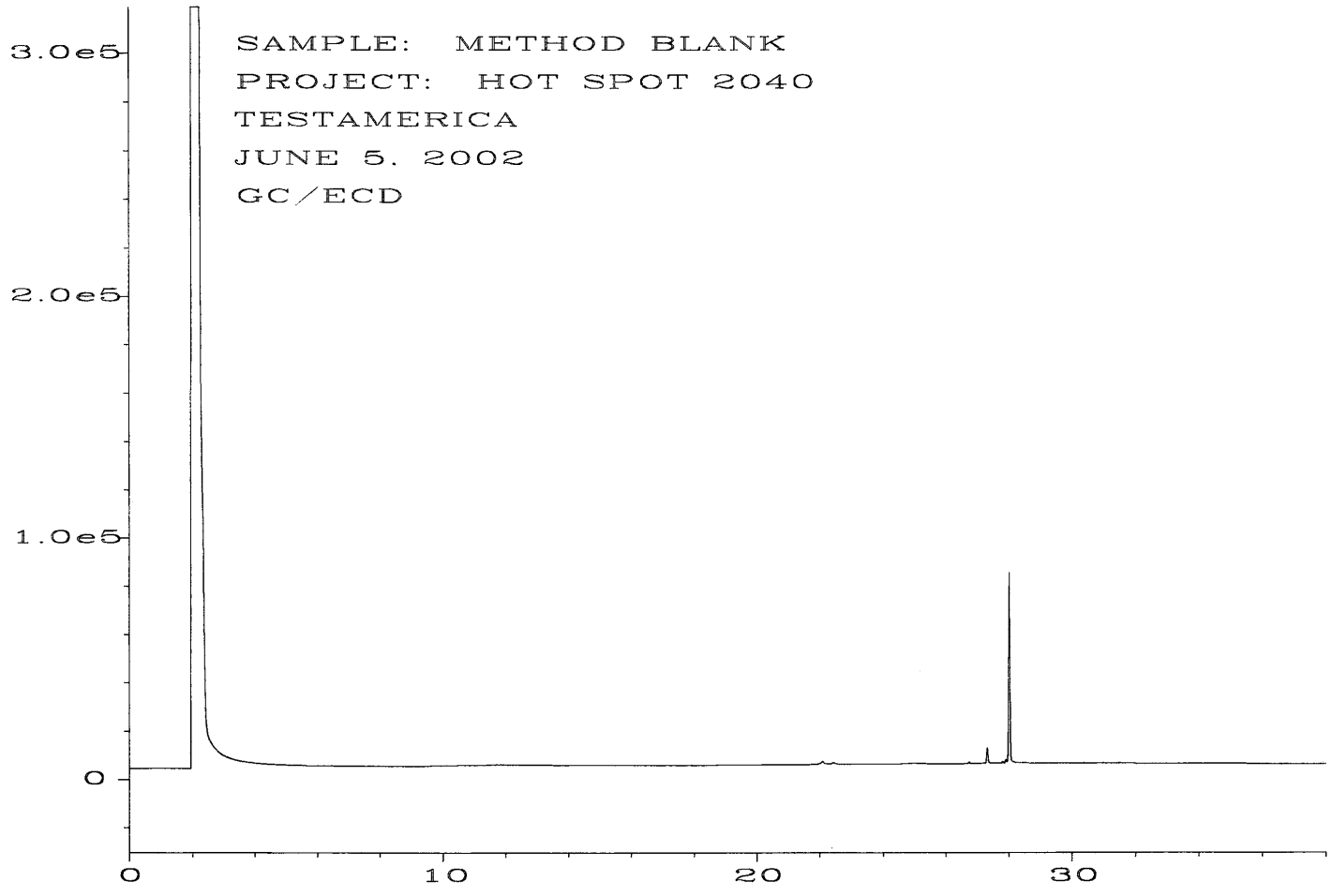

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205250

FAX CHAIN TO COLUMBIA

RD 5-31-02 B05

TestAmerica INCORPORATED

Division/Laboratory Name 1 803 865-5503

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

Compliance Monitoring

Client Name: Test America

Client #:

Address: 9440 B Two Notch Rd

City/State/Zip Code: Columbia, SC 29223

Project Manager: R Miner (client)

Telephone Number: 803-865-5500 Fax: 865-5506

Sampler Name: (Print Name) B Faller

Sampler Signature:

Project Name: Hot Spot 2040

Project #: 06742

Site/Location ID: Oconee Co. State: SC

Report To: Debra Thoma

Invoice To:

Quote #: PO#: 179220

TAT: ✓ Standard ___ Rush (surcharges may apply)

Date Needed: 6/11/02

Fax Results: (Y) N

CA# 15090

QC Deliverables: ___ None ___ Level 2 (Batch QC) ___ Level 3 ___ Level 4 Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None (✓)	Other (Specify)	Analyze For: Piano vapor migration (finger printing)										REMARKS
MWR-1	5/30/02	1210	G		Product						X		X										
MWR-4R	5/30/02	1245	G		Product						X		X										

Special Instructions: Fed Ex# 826195654961

Relinquished By	Date	Time	Received By	Date	Time
K Moore	5/30/02	1615	S. Oh	5/31/02	9A
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

LABORATORY COMMENTS:

Init Lab Temp:

Rec Lab Temp:

Custody Seals: Y N N/A

Bottles Supplied by TestAmerica: Y N

Method of Shipment:

SMITH

Monitoring & Maintenance Engineering, Inc.

July 5, 2004

Mr.Joel Padgett
Department of Health and Environmental Control
UST Management Division
2600 Bull Street
Columbia, South Carolina 29201-1708

RECEIVED
JUL 0 8 2004
UNDERGROUND STORAGE
TANK PROGRAM

Re: Quarterly Monitoring Report; Site #06742
Cross Roads Grocery; Oconee County, South Carolina

Dear Ms. Doran,

As required, Smith Monitoring & Maintenance Engineering, Inc. (SMME) has completed groundwater sampling activities in compliance with condition number 7 of the referenced bid specification. The monitoring wells were sampled on June 16, 2004.

Static water levels and total well depths were measured to the nearest 0.01 foot, based on top of casing elevations previously established in EMC's assessment of May of 1998. Dissolved oxygen concentrations were measured prior to level measurement and well sampling to minimize errors due to aeration of the water in the well screen.

All wells were purged and sampled with a decontaminated 12-volt DC, low volume, centrifugal pump. The wells were purged until at least one standing well volume had been removed and the pH and temperature of the water had stabilized to within a 10 percent difference. The groundwater sampling parameters for each well were recorded in the attached groundwater sampling field tables.

The groundwater samples were recovered through the use of low-volume pumping. The water sample was then apportioned into the pre-labeled sample containers, which contained the appropriate preservatives according to U.S. EPA standards. Required sample volumes, containers, sample preservatives, and holding times followed guidelines stipulated in Appendix A of the EISOPQAM.

The sample bottles were labeled with all data required by the EISOPQAM and placed in iced containers for storage to maintain not more than 5 degrees Celsius temperature. Static water level measurements and well sampling were conducted in sequence from the least contaminated well to the most contaminated well.

Chain-of-custody procedures used for this assessment conformed to the EISOPQAM, Section 3. The chain-of-custody forms were used to record and document all times and changes of possession of the samples. The chain-of-custody form documents the project name; sample number; name and signature of sample personnel and the field supervisor, the sampling location, date, and collection time, type of sample, container type, sample media, and the number of containers for a given sample.

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296

82-tch

Groundwater elevations (see Groundwater Elevation Table 1), measured prior to groundwater sampling, were used to construct a water table contour map, which is included as Figure 1. Groundwater elevations were calculated by subtracting the depth-to-water measurement from the Top-of-Casing (TOC) elevation previously measured. At this time, the exact gradient is not determinate since the casing elevations for the new wells are unknown. Based upon prior site experience groundwater flow direction is generally toward the south.

Figure 2 shows the benzene isopleth, based on the latest sampling. A summary of recorded sampling events is provided in Table 3: Actual Concentrations. Laboratory analytical data sheets are provided in Attachment I. Table 2: Report Concentrations is provided as a summary of the analytical data using the SSTLs in summing the site score, for billing purposes.

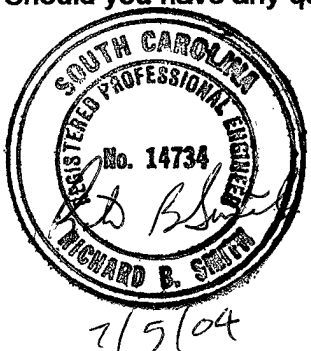
Progress of Corrective Action

The groundwater treatment system, as described in the approved Corrective Action Plan, was installed and started operation on January 11, 2000. Problems due to freezing temperatures caused a temporary shutdown during late January of 2000. The treatment system was shut-down, temporarily, during the fall and winter 2001/2002 due to significant product reoccurrence and injection line destruction due to site clearing activities. System injection lines were repaired and product reduced.

SMME is awaiting guidance from the Regulatory Section concerning the source of the product found at MW-8 and impacting the remediation of the site. The biostimulation trailer has been shut-down since type of process is not effective on such significant quantities of product. The system has been removed from the site and returned to Savannah for repairs and modifications.

We are currently reviewing options to recover the vast amounts of floating product now found on the site. Since testing by DHEC has found that the product formation is from a new source, SMME will wait until the contaminant source is determined and repaired. Product measurements can then be taken and a quantity estimated prior to providing DHEC with the costs associated with product recovery and additional site treatment.

Should you have any questions, please contact the undersigned.



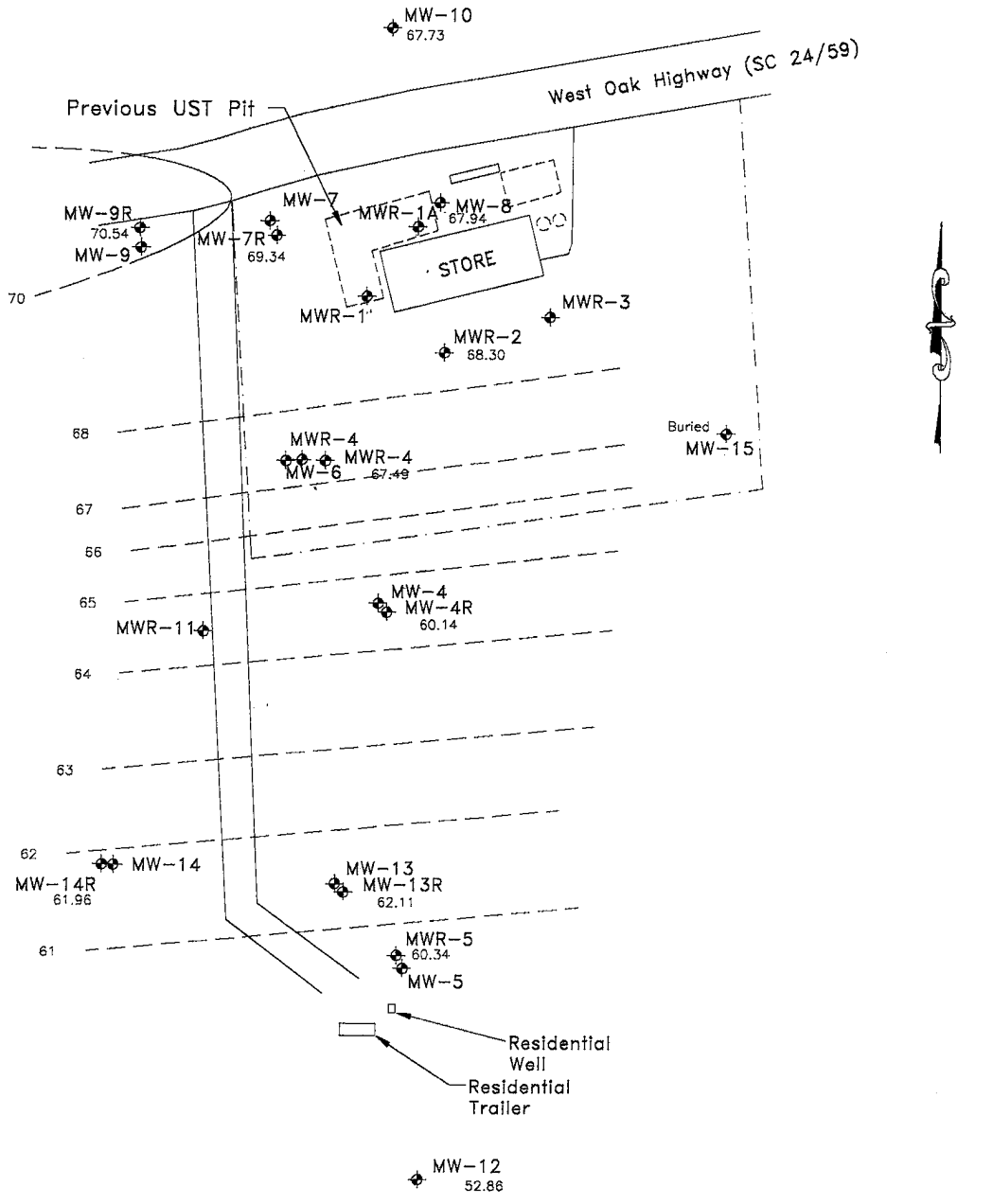
Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer
S.C. Reg.: 14734

Certificate of Authorization: # C01435

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296

FIGURES



Richard Smith, SMME6/26/2004 12:18 PMoconee june 2004.dwg

South Carolina DHEC
2600 Bull Street
Columbia, South Carolina

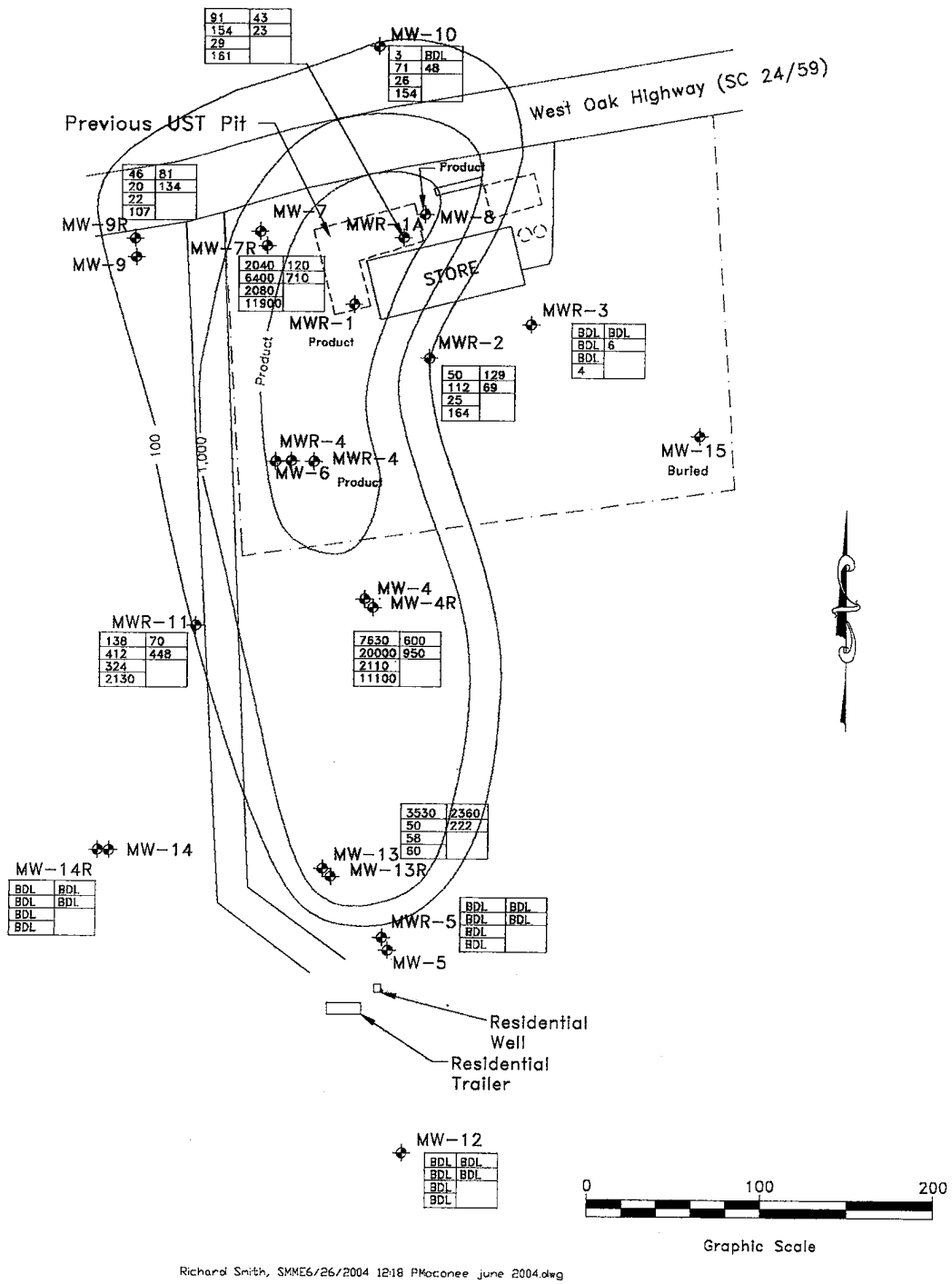
SMME Smith Monitoring & Maintenance Engineering, Inc.
Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance
145 Merrill Avenue Decatur, Georgia 30030
Telephone: (404) 371-9332

PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: June 26, 2004

Potentiometric Surface Map
June 14, 2004
Cross Roads Grocery
Oconee County, South Carolina

oconee june 2004.dwg

FIGURE
1



Richard Smith, SMME6/26/2004 12:18 PMoconee june 2004.dwg

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PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: June 26, 2004

Benzene Isopleth
June 14, 2004
Cross Roads Grocery
Oconee County, South Carolina

oconee june 2004.dwg

FIGURE
2

TABLES

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery
Site ID#: 6742
As of: 6/25/2004

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	0.00	-	30.0	28.47	28.45	99.04	0.02	70.59
MW-1	12/10/99			29.8	29.60		99.04		
2"	4/4/00			29.8	Dry		99.04		
MWR-1	6/20/00			45.0	35.20	34.93		0.27	
	9/25/00	0.39	20.1	45.0	37.05	37.05		0.00	
	2/27/01		18.5	45.0	39.05	39.05		0.00	
	7/19/01			45.0	37.90	36.70		1.20	
	10/9/01			45.0	38.91	38.89		0.02	
	3/26/02			45.0	39.42	39.35		0.07	
	5/15/02			45.0	39.42	39.95		2.50	
	2/20/03	1.49	18.7	45.0	39.20	0.00		0.00	
	6/11/03	1.08	19.7	45.0	28.30	0.00		0.00	
	8/26/03	1.12	19.9	45.0	28.04	0.00		0.00	
	6/14/04			45.0	31.49	31.50		0.01	
	4/2/98	0.00	-	40.0	31.50	28.66	99.01	2.84	69.92
MW-1A	12/10/99			38.4	38.32	35.32	99.01	3.00	63.24
2"	4/4/00			38.4		-1.10	99.01	1.10	
MWR-1A	6/20/00	1.01	21.8	70.0	35.95	35.95	98.70	0.00	62.75
	9/25/00			70.0	37.43	37.43	98.70	0.00	61.27
	2/27/01	1.01	18.8	70.0	39.58		98.70		59.12
	4/23/01	1.04	19.4	70.0	38.35		98.70		60.35
	7/19/01	1.09	21.5	70.0	38.20		98.70		60.50
	10/9/01	1.22	20.8	70.0	40.80		98.70		57.90
	3/26/02	1.49	20.9	70.0	41.95		98.70		56.75
	5/15/02	1.12	19.8	70.0	40.20		98.70		58.50
	9/22/02	1.24	20.9	70.0	41.48		98.70		57.22
	2/19/03	1.32	18.7	70.0	34.40		98.70		64.30
	6/11/03	1.19	21.7	70.0	31.25		98.70		67.45
	8/26/03	1.98	20.5	70.0	29.30		98.70		69.40
	1/6/00	Er	19.3	70.0	32.09		98.70		66.61
	4/2/98	6.24	18.7	30.0	26.98	-	97.77	-	70.79
MW-2	12/10/99			29.3	29.22		97.77		
2"	4/4/00	0.48		29.3	29.22		97.77		Dry
MWR-2	6/20/00	1.23	22.3	40.0	33.23		97.40		64.17
	9/25/00	0.30	18.9	40.0	35.17		97.40		62.23
	2/27/01	1.01	17.9	40.0	36.92		97.40		60.48
	4/23/01	1.03	21.6	40.0	35.60		97.40		61.80
	7/19/01	1.27	22.7	40.0	35.21		97.40		62.19
	10/9/01	1.32	17.6	40.0	36.85		97.40		60.55
	3/26/02	1.15	18.9	40.0	37.20		97.40		60.20
	5/15/02	1.28	19.3	40.0	35.89		97.40		61.51
	9/22/02	1.33	18.8	40.0	36.63		97.40		60.77
	2/19/03	1.19	18.7	40.0	31.05		97.40		66.35
	6/11/03	1.38	18.3	40.0	26.89		97.40		70.51
	8/26/03	1.39	20.3	40.0	26.41		97.40		70.99
	6/14/04	Er	18.6	40.0	29.10		97.40		68.30
	4/2/98	7.07	18.0	30.0	27.30	-	96.77	-	69.47
MW-3	12/10/99			29.0	28.97		96.77		
2"	4/4/00			29.0	28.94		96.77		Dry
MWR-3	6/20/00	2.65	22.6	40.0	33.40				
	9/25/00	1.43	19.0	40.0	35.32				
	2/27/01	1.70	17.5	40.0	37.11				
	4/23/01	1.59	21.4	40.0	35.84				
	7/19/01	1.95	22.2	40.0	35.33				
	10/9/01	1.31	17.6	40.0	37.00				
	3/26/02	1.31	19.4	40.0	37.34				
	5/14/02	1.98	18.2	40.0	36.00				
	9/22/02	1.29	19.6	40.0	36.64				
	2/19/03	1.25	18.1	40.0	31.12				
	6/11/03	1.29	21.1	40.0	27.18				
	8/26/03	1.24	19.5	40.0	26.67				
	6/14/04	Er	19.3	40.0	29.56				
	4/2/98	3.84	-	25.0	21.45	-	90.10	-	68.65
MW-4	12/10/99			27.4	27.13		90.10		
2"	4/4/00			27.4			90.10		Dry
MWR-4	6/20/00			40.0	30.43	-	92.97	0.01	62.55
	9/25/00	0.47	18.6	40.0	32.34	-	92.97	0.00	60.63
	2/27/01			40.0	35.85	-	92.97	1.00	57.97
	4/23/01			40.0	33.69	-	92.97	1.00	60.13
	7/19/01			40.0	32.77	-	92.97	0.50	60.63
	10/9/01			40.0	40.00	-	92.97	2.50	55.10
MW-4R	3/26/02	1.27	17.1	35.0	27.98	-	85.07		57.09
	5/15/02	1.06	17.7	35.0	26.60	-	85.07		58.47
	9/22/02	1.40	18.4	35.0	27.73	-	85.07		57.34
	2/20/03	1.12	17.1	35.0	21.72	-	85.07		63.35
	6/11/03	1.36	17.9	35.0	17.59	-	85.07		67.48
	8/26/03	1.19	19.0	35.0	17.75	-	85.07		67.32
	6/14/04	Er	18.7	35.0	24.93	-	85.07		60.14

GROUNDWATER ELEVATION

SB-6672-07/28/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery
Site ID#: 6742
As of: 6/25/2004

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	5.86	14.1	20.0	12.40	-	74.74	-	62.34
MW-5	12/10/99			20.0	16.93		74.74		57.81
2"	4/4/00	4.74	16.8	20.0	12.45		74.74		62.29
	6/20/00	1.75		20.0	16.86		74.74		57.88
	9/25/00			20.0	dry		74.74		#VALUE!
	2/27/01			20.0	dry		74.74		#VALUE!
	4/23/01	1.16	15.7	20.0	17.35		74.74		57.39
	7/19/01	4.48		20.0	18.37		74.74		56.37
	10/9/01	dry		20.0	dry		74.74		#VALUE!
MWR-5	3/26/02	1.30	18.4	34.0	19.59		74.29		54.70
	5/14/02	1.37	16.2	34.0	18.77		74.29		55.52
	9/22/02	1.30	18.0	34.0	20.50		74.29		53.79
	2/19/03	3.92	17.1	34.0	14.20		74.29		60.09
	6/11/03	1.21	18.0	34.0	10.93		74.29		63.36
	8/26/03	1.09	18.0	34.0	11.70		74.29		62.59
	6/14/04	Er	18.1	34.0	13.95		74.29		60.34
	4/2/98	0.86	17.8	35.0	23.35	-	92.67	-	69.32
MW-6	12/10/99			35.0	30.35		92.67		62.32
2"	4/4/00	0.18	18.0	35.0	29.88		92.67		62.79
	6/20/00	1.14	24.5	35.0	30.05		92.67		62.62
	9/25/00	0.33	18.6	35.0	32.05		92.67		60.62
	2/27/01			35.0	Dry		92.67		#VALUE!
	4/23/01	1.15	20.2	35.0	32.03		92.67		60.64
	7/19/01	1.09	19.5	35.0	32.02		92.67		60.65
	10/9/01	dry		35.0	dry		92.67		#VALUE!
MWR-4R	3/26/02			45.0	36.04		94.97	1.00	59.78
	5/15/02			45.0	36.79		94.97	0.50	58.61
	9/22/02			45.0	36.23		94.97	0.50	59.17
	2/20/03	1.97	17.5	45.0	28.19		94.97	0.00	66.78
	6/11/03	1.10	18.6	45.0	24.24		94.97	0.00	70.73
	8/26/03	1.04	19.8	45.0	24.74		94.97	0.00	70.23
	6/14/04			45.0	29.61		94.97	2.50	67.49
	4/2/98	5.18	21.7	39.0	27.06	-	97.68	-	70.62
MW-7	12/10/99			39.0	33.90		97.68		63.78
2"	4/4/00	0.04	17.8	39.0	33.76		97.68		63.92
	6/20/00	0.81	26.8	39.0	33.59		97.68		64.09
	9/25/00	0.31	20.0	39.0	35.55		97.68		62.13
	2/27/01			39.0	Dry		97.68		#VALUE!
	4/23/01			39.0	Dry		97.68		#VALUE!
	7/19/01			37.0	36.21		97.68	0.85	61.47
	10/9/01			37.0	dry		97.68		#VALUE!
MW-7R	3/26/02	1.69	20.5	45.0	38.10		100.06		61.96
	5/15/02	1.21	20.0	45.0	36.80		100.06		63.26
	9/22/02	1.16	20.7	45.0	37.44		100.06		62.62
	2/20/03	1.22	19.3	45.0	32.30		100.06		67.76
	6/11/03	1.11	20.3	45.0	30.15		100.06		69.91
	8/26/03	1.00	21.0	45.0	27.30		100.06		72.76
	6/14/04	Er	17.9	45.0	30.72		100.06		69.34
	4/2/98	3.83	19.7	45.0	28.87	-	99.10	-	70.23
MW-8	12/10/99			43.0	35.82		99.10		63.28
2"	4/4/00	0.15	17.1	43.0	35.74		99.10		63.36
	6/20/00	0.99	23.3	43.0	35.50		99.10		63.60
	9/25/00	0.37	19.7	43.0	37.40		99.10		61.70
	2/27/01	0.94	19.0	43.0	39.34		99.10		59.76
	4/23/01	1.09	21.0	43.0	38.06		99.10		61.04
	7/19/01	1.12	22.0	43.0	37.44		99.10		61.66
	10/9/01	1.13	19.5	43.0	38.00		99.10		61.10
	3/26/02	1.19	19.9	43.0	39.54		99.10		59.56
	5/15/02	1.09	20.4	43.0	38.26		99.10		60.84
	9/22/02	1.18	22.0	43.0	38.75		99.10		60.35
	2/20/03	1.10	19.4	43.0	33.69		99.10		65.41
	6/11/03	1.09	20.8	43.0	28.75		99.10		70.35
	8/26/03			43.0	27.76		99.10	0.58	71.84
	6/14/04			43.0	33.71		99.10	3.00	67.94
	4/2/98	5.45	18.7	32.0	23.94	-	96.47	-	72.53
MW-9	12/10/99			30.6	30.42		96.47		
2"	4/4/00			30.6			96.47		Dry
	6/20/00			30.6			96.47		Dry
	9/25/00			30.6			96.47		Dry
	2/27/01			30.6			96.47		Dry
	4/23/01			30.6			96.47		Dry
	7/19/01			30.6			96.47		Dry
	10/9/01			30.6			96.47		Dry
MW-9R	3/26/02	1.17	19.7	45.0	36.04		98.24		62.20
	5/14/02	1.17	18.1	45.0	34.70		98.24		63.54
	9/22/02	1.20	19.1	45.0	36.52		98.24		61.72
	2/19/03	1.09	18.3	45.0	29.86		98.24		68.38
	6/11/03	1.56	19.5	45.0	25.38		98.24		72.86
	8/26/03	1.03	19.9	45.0	26.00		98.24		72.24
	6/14/04	Er	19.3	45.0	27.70		98.24		70.54

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery
Site ID #: 6742
As of: 6/25/2004

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	7.27	20.7	42.0	29.77	-	99.89	-	70.12
MW-10	12/10/99			42.0	36.21		99.89		63.68
2"	4/4/00	4.59	18.2	42.0	36.22		99.89		63.67
	6/20/00	5.09	20.5	42.0	35.84		99.89		64.05
	9/25/00	4.82	19.3	42.0	37.78		99.89		62.11
	2/27/01	5.15	17.4	42.0	39.68		99.89		60.21
	4/23/01	5.19	18.7	42.0	38.46		99.89		61.43
	7/19/01	4.84	20.3	42.0	37.74		99.89		62.15
	10/8/01	2.48	19.1	42.0	39.45		99.89		60.44
	3/26/02	2.69	18.8	42.0	39.93		99.89		59.96
	5/14/02	2.90	18.5	42.0	38.63		99.89		61.26
	9/22/02	4.79	18.8	42.0	39.04		99.89		60.85
	2/19/03	3.59	17.8	42.0	34.13		99.89		65.76
	6/11/03	3.37	20.2	42.0	20.27		99.89		79.62
	8/26/03	2.39	21.0	42.0	28.80		99.89		71.09
	6/14/04	Er	19.5	42.0	32.16		99.89		67.73
	4/2/98	3.03	18.7	25.0	17.84	-	86.57	-	68.73
MW-11	12/10/99			25.0	24.64		86.57		
2"	4/4/00	1.04		25.0	24.43		86.57		
MWR-11	6/20/00	1.10	20.5	40.0	25.11				
	9/25/00	0.41	17.8	40.0	27.03				
	2/27/01	1.39	16.9	40.0	28.35				
	4/23/01	1.07	18.9	40.0	26.55				
	7/19/01	1.17	20.1	40.0	27.03				
	10/8/01	1.19	17.6	40.0	28.38				
	3/29/02	1.29	19.1	40.0	28.04				
	5/15/02	1.36	17.1	40.0	27.50				
	9/22/02	NM	NM	40.0	28.72				
	2/19/03	0.92	17.0	40.0	22.40				
	6/11/03	1.15	18.1	40.0	18.75				
	8/26/03	1.08	17.9	40.0	18.31				
	6/14/04	Er	18.1	40.0	21.86				
	4/2/98	8.28	20.4	12.0	6.97	-	62.71	-	55.74
MW-12	12/10/99			12.0	10.94		62.71		51.77
2"	4/4/00			12.0			62.71		Dry
	6/20/00			12.0			62.71		Dry
	9/25/00			12.0			62.71	Can't	Locate
	2/27/01			12.0			62.71	Can't	Locate
	4/23/01	5.89	15.4	12.0	10.72		62.71		51.99
	7/19/01			11.6	dry		62.71		
	10/8/01			11.6	dry		62.71		
	3/26/02			11.6	dry		62.71		
	5/14/02			11.6	11.33		62.71		51.38
	9/22/02			11.6	dry		62.71		
	2/19/03	6.97	12.8	11.6	7.90		62.71		54.81
	6/11/03	5.29	16.8	11.6	6.85		62.71		55.86
	8/26/03	3.92	19.4	11.6	8.03		62.71		54.68
	6/14/04	Er	16.2	11.6	9.85		62.71		52.86
	4/2/98	4.79	14.7	20.0	10.89	-	75.50	-	64.61
MW-13	12/10/99			20.0	17.51		75.50		57.99
2"	4/4/00	0.43	16.1	20.0	16.02		75.50		59.48
	6/20/00			20.0					Dry
	9/25/00			20.0					Dry
	2/27/01			20.0					Dry
	4/23/01			20.0					Dry
	7/19/01			20.0					Dry
	10/8/01			20.0					Dry
MW-13R	3/26/02	2.25	18.4	35.0	21.20		76.70		55.50
	5/15/02	1.36	18.6	35.0	20.20		76.70		56.50
	9/22/02	1.25	18.0	35.0	21.90		76.70		54.80
	2/19/03	1.43	17.6	35.0	15.56		76.70		61.14
	6/11/03	1.29	18.3	35.0	11.66		76.70		65.04
	8/26/03	1.19	18.9	35.0	12.59		76.70		64.11
	6/14/04	Er	19.1	35.0	14.59		76.70		62.11
	4/2/98	5.54	18.5	23.0	11.99	-	78.38	-	66.39
MW-14	12/10/99			23.0	19.12		78.38		59.26
2"	4/4/00	1.00	18.3	23.0	17.83		78.38		60.55
	6/20/00	1.11	24.2	23.0	19.00		78.38		59.38
	9/25/00	0.39	18.9	23.0	21.00		78.38		57.38
	2/27/01			22.0	dry		78.38		#VALUE!
	4/23/01	1.10	18.7	22.0	19.95		78.38		58.43
	7/19/01	1.21	18.7	22.0	20.97		78.38		57.41
	10/9/01			22.0	dry		78.38		#VALUE!
MW-14R	3/26/02	2.19	18.8	35.0	22.05		77.75		55.70
	5/15/02	4.83	17.8	35.0	21.05		77.75		56.70
	9/22/02	3.49	17.8	35.0	22.75		77.75		55.00
	2/19/03	3.50	16.9	35.0	16.63		77.75		61.12
	6/11/03	1.23	17.9	35.0	12.56		77.75		65.19
	8/26/03	1.78	18.1	35.0	13.09		77.75		64.66
	6/14/04	Er	17.9	35.0	15.79		77.75		61.96
	4/2/98	9.89	18.0	35.0	23.65		92.54	-	68.89
MW-15	12/10/99					Well Buried			
2"	4/4/00					Well Buried			

GROUNDWATER SAMPLING
05-6672-07/29/00-REB
Crossroads Grocery
650 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 6/25/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-1	4/2/98							
	1/25/99	28,200	37,200	2,760	19,500	24,600	4,750	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-1	6/20/00	Product Measured						
	9/25/00	51,500	66,000	3,900	20,200	78,500	2,500	
	2/27/01	29,800	31,100	*2,750*	*19,500*	34,600	5,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/18/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	24,500	24,200	*2,750*	*19,500*	27,900	600	
	6/11/03	19,200	24,900	*2,750*	*19,500*	28,600	805	
	8/27/03	37,200	45,800	3,740	*19,500*	32,200	1,580	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	2,760	19,500	887	554	
MW-1A	4/2/98							
	1/25/99	33,700	39,300	1,700	13,500	193,000	5,000	
	12/9/99							
	4/4/00							
MWR-1A	6/21/00	825	22,164	1,700	13,500	338	554	
	9/25/00	1,280	*22,164*	*1,700*	*13,500*	730	*554*	
	2/27/01	*111*	*22,164*	*1,700*	*13,500*	*187*	*554*	
	4/23/01	*111*	*22,164*	*1,700*	*13,500*	*187*	*554*	
	7/19/01	*111*	*22,164*	*1,700*	*13,500*	*187*	*554*	
	10/9/01	452	*22,164*	*1,700*	*13,500*	*187*	*554*	
	3/26/02	1,300	*22,164*	*1,700*	*13,500*	*187*	*554*	
	5/15/02	160	*22,164*	*1,700*	*13,500*	*187*	*554*	
	9/18/02	274	*22,164*	*1,700*	*13,500*	*187*	*554*	
	2/19/03	428	*22,164*	*1,700*	*13,500*	*187*	*554*	
	6/11/03	185	*22,164*	*1,700*	*13,500*	*187*	*554*	
	8/27/03	*111*	*22,164*	*1,700*	*13,500*	*187*	*554*	
	6/14/04	*111*	*22,164*	*1,700*	*13,500*	*187*	*554*	38,216
Target		111	22,164	1,700	13,500	187	554	
MW-2	4/2/98	11	17	14	87	<1	9	
	1/25/99	19	12	2	21	67	5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-2	6/20/00	68	721	395	2,030	*67*	153	
	9/25/00	103	1,270	396	2,030	*67*	102	
	2/27/01	74	190	60	301	*67*	50	
	4/23/01	78	524	183	1,010	*67*	79	
	7/19/01	76	320	150	730	*67*	69	
	10/9/01	157	481	185	931	*67*	60	
	3/26/02	180	808	310	1,560	*67*	102	
	5/15/02	194	851	340	1,810	119	170	
	9/18/02	268	862	444	2,120	268	228	
	2/19/03	149	480	121	595	*67*	122	
	6/11/03	184	705	181	1,040	123	69	
	8/27/03	137	563	154	905	100	99	
	6/14/04	60	112	25	164	129	69	549
Target		19	12	5	21	67	5	
MW-3	4/2/98	15	24	9	117	<1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-3	6/20/00	<1	1	<1	3	2	<5	
	9/25/00	<1	1	<1	3	2	<5	
	2/27/01	<1	1	<1	3	<1	<5	
	4/23/01	<1	1	<1	3	<1	<5	
	7/19/01	1	1	1	3	1	5	
	10/9/01	1	1	1	3	1	5	
	3/26/02	1	1	2	3	1	5	
	5/14/02	1	1	1	3	1	5	
	9/17/02	1	1	1	3	1	5	
	2/19/03	1	1	1	3	1	5	
	6/11/03	1	1	1	3	1	5	
	8/26/03	1	1	1	3	1	5	
	6/14/04	1	1	1	3	1	5	
MW-4	4/2/98	15,700	2,570	27,800	13,300	5,820	882	
	1/25/99							
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-4	6/20/00	Product Measured						
	9/25/00	20,600	31,200	*10,344*	*147,734*	4,650	2,500	
	2/27/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
MW-4R	3/26/02	21,100	17,600	*10,344*	*147,734*	6,300	1,000	
	5/15/02	31,900	37,200	*10,344*	*147,734*	6,400	1,100	
	9/18/02	23,700	27,500	*10,344*	*147,734*	2,900	700	
	2/19/03	12,400	17,900	*10,344*	*147,734*	1,640	520	
	6/11/03	5,300	*14,775*	*10,344*	*147,734*	900	498	
	8/27/03	13,100	21,800	*10,344*	*147,734*	922	631	
	6/14/04	7,630	20,000	*10,344*	*147,734*	600	950	187,258
Target		74	14,775	10,344	147,734	592	369	

GROUNDWATER SAMPLING
98-0672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Coonee County, South Carolina

Site Name: Crossroads Grocery — As of: 6/25/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethyb.	Xylenes	MTBE	Naphthalene	
MW-5	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	Dry Well, Not Sampled						
MWR-5	3/26/02	4,410	1	220	1,150	3,960	5	
	5/14/02	4,140	1	190	1,200	2,990	5	
	9/17/02	8,800	200	680	2,100	7,500	500	
	2/19/03	8,080	176	425	1,540	9,460	300	
	6/11/03	3,820	96	256	766	4,640	201	
	8/26/03	2,990	68	160	626	2,320	106	
	6/14/04	1	1	1	3	1	5	
MW-6	4/2/98	39,600	2,460	41,100	12,400	16,400	661	
	1/25/99	6,920	9,600	1,080	7,460	1,810	496	
	12/9/99	10,200	11,000	800	5,000	6,800	1,000	
	4/4/00	21,100	33,400	2,000	10,300	<10000	482	
	6/21/00	21,800	18,000	1,080	7,460	6,320	500	
	9/25/00	41,000	41,600	2,400	13,200	16,600	2,500	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	2,000	9,600	1,080	7,460	2,510	500	
	7/19/01	4,820	9,600	1,080	7,460	5,200	500	
	10/9/01	Dry Well, Not Sampled						
MWR-6R	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/18/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/19/03	19,400	30,700	3,200	16,300	16,900	1,100	
	6/11/03	13,700	16,700	2,080	11,200	11,600	1,010	
	8/27/03	24,800	31,900	2,500	12,300	16,000	995	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		97	9,600	1,080	7,460	163	482	
MW-7	4/2/98	2,760	1,630	10,500	7,610	63	498	
	1/25/99	2,200	9,380	1,280	7,440	110	430	
	12/9/99	1,300	7,050	1,050	6,500	100	400	
	4/4/00	680	9,380	1,280	7,440	110	430	
	6/21/00	1,050	9,380	1,280	7,440	110	430	
	9/25/00	3,670	11,200	1,540	8,390	205	430	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-7R	3/26/02	3,020	9,380	1,280	7,440	110	430	
	5/15/02	15,700	41,500	4,130	21,800	400	900	
	9/18/02	12,400	25,400	2,180	11,300	295	615	
	2/19/03	6,790	16,200	1,360	7,460	110	500	
	6/11/03	2,200	9,380	1,280	7,440	110	430	
	8/27/03	8,440	9,380	19,700	12,400	1,540	522	
	6/14/04	2,040	9,380	2,080	11,900	120	710	26,210
Target		111	9,380	1,280	7,440	110	430	
MW-8	4/2/98	11,000	722	15,900	6,520	188	35,500	
	1/25/99							
	12/9/99	32,500	39,000	2,600	13,500	93,000	2,500	
	4/4/00	44,700	60,000	15,515	221,643	164,000	681	
	6/21/00	27,400	25,500	15,515	221,643	105,000	681	
	9/25/00	43,000	61,500	15,515	221,643	68,000	2,500	
	2/27/01	24,300	31,000	15,515	221,643	40,000	5,000	
	4/23/01	28,100	33,700	15,515	221,643	87,800	1,000	
	7/19/01	30,300	37,800	15,515	221,643	99,100	2,500	
	10/9/01	24,750	37,050	15,515	221,643	30,950	2,500	
	3/26/02	21,000	34,100	15,515	221,643	19,000	2,500	
	5/15/02	29,700	47,200	15,515	221,643	40,400	5,000	
	9/18/02	25,300	33,200	15,515	221,643	45,600	600	
	2/19/03	12,700	22,164	15,515	221,643	13,600	600	
	6/11/03	6,100	22,164	15,515	221,643	11,300	554	
	8/26/03	226,000	301,000	280,000	278,000	5,110,000	2,000	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	15,515	221,643	887	554	
MW-9	4/2/98	9	12	4	54	<1	2	
	1/25/99	6	3	<1	9	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-9R	3/26/02	110	99	97	552	39	93	
	5/14/02	150	63	32	260	104	68	
	9/17/02	238	36	54	244	30	70	
	2/19/03	137	27	27	110	45	36	
	6/11/03	108	36	30	130	52	60	
	8/26/03	68	31	21	91	28	59	
	6/14/04	46	20	22	107	81	134	

GROUNDWATER SAMPLING
98-6672-07/29/98-REB
Crossroads Grocery
950 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 6/25/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-10	4/2/98	132	48	464	224	1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	<1	<1	<1	<1	4	<5	
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	<1	<1	<1	<1	<1	<5	
	9/25/00	<1	<1	<1	<3	<1	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<1	<1	<5	
	7/19/01	1	1	1	1	1	6	
	10/9/01	1	1	1	1	1	6	
	3/26/02	1	1	4	1	1	6	
	5/14/02	1	1	1	1	1	6	
	9/17/02	1	1	1	1	1	6	
	2/19/03	1	1	1	1	1	6	
	6/11/03	1	1	1	1	1	6	
	8/26/03	1	1	1	1	1	6	
	6/14/04	3	71	26	154	1	46	
MW-11	4/2/98	<1	1,000	312	5,000	<1	272	
	1/25/99	24	106	189	825	10	731	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-11	6/20/00	24	106	189	825	43	369	
	9/25/00	39	106	264	1,260	20	369	
	2/27/01	72	106	189	825	13	369	
	4/23/01	33	106	189	825	49	369	
	7/19/01	24	160	257	1,250	16	369	
	10/9/01	24	106	189	825	34	369	
	3/26/02	15,300	32,100	3,100	15,600	500	2,500	
	5/15/02	3,770	12,000	2,020	10,100	430	710	
	2/19/03	244	822	216	1,700	15	380	
	6/11/03	173	669	406	2,600	54	409	
	8/26/03	150	537	401	2,260	56	369	
	6/14/04	136	412	324	2,130	70	446	3,522
Target		24	106	189	825	10	369	
MW-12	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Could not locate						
	2/27/01	Could not locate						
	4/23/01	1	1	1	3	1	5	
	7/19/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
	2/19/03	1	1	1	3	1	5	
	6/11/03	1	1	1	3	1	5	
	8/26/03	1	1	1	3	1	5	
	6/14/04	1	1	1	3	1	5	
MW-13	4/2/98	<1	130	78	434	1,950	25	
	1/25/99	1,810	26	38	382	2,810	154	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-13R	3/26/02	6,740	3,040	640	3,250	1,020	600	
	5/15/02	10,000	4,660	1,310	5,000	1,600	360	
	9/18/02	13,000	5,540	1,280	5,240	3,600	1,000	
	2/19/03	6,160	2,030	500	2,280	2,320	250	
	6/11/03	4,000	1,360	559	2,380	2,160	321	
	8/27/03	4,600	1,010	433	1,840	1,000	271	
	6/14/04	3,630	50	66	60	2,360	222	6,380
Target		10	26	38	382	134	83	
MW-14	4/2/98	950	149	501	921	1	80	
	1/25/99	17	21	60	334	7	452	
	12/9/99	16	6	20	190	77	20	
	4/4/00	29	64	76	586	<10	89	
	6/21/00	24	40	50	334	46	83	
	9/25/00	25	146	90	682	8	87	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	86	334	116	1,090	88	144	
	7/19/01	169	392	249	1,380	76	209	
	10/9/01	Dry Well, Not Sampled						
MW-14R	3/26/02	53	22	50	334	7	83	
	5/15/02	34	22	50	334	16	83	
	9/17/02	89	21	50	334	7	83	
	2/19/03	42	21	50	334	7	83	
	6/11/03	32	33	50	334	7	83	
	8/26/03	10	21	50	334	7	83	
	6/14/04	10	21	50	334	7	83	505
Target		10	21	50	334	7	83	
MW-15	4/2/98	<5	<5	<5	<5	<1	3	
	1/25/99	Not Sampled						
	12/9/99	Well Buried; Not Sampled						
	4/4/00	Well Buried; Not Sampled						
	6/20/00	Well Buried; Not Sampled						
	9/25/00	Well Buried; Not Sampled						
	2/27/01	Well Buried; Not Sampled						
	4/23/01	Well Buried; Not Sampled						
	10/9/01	Well Buried; Not Sampled						
Total Mass								18,853,640
Target								559,387
Initial Mass above SSTL								12,294,113
% Reduction								-48.8%

GROUNDWATER SAMPLING
SB-6672-0725/99-REB
Crossroads Grocery
650 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 6/25/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
	4/2/98							
MW-1	1/25/99	28,200	37,200	2,750	19,500	24,600	4,750	Product
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-1	6/21/00	Product Measured						
	9/25/00	51,600	58,000	3,900	20,200	78,500	2,600	
	2/27/01	29,800	31,100	*2,300*	*13,200*	34,600	5,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/17/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	24,600	24,200	*1,880*	*9,890*	27,900	600	
	6/11/03	19,200	24,900	*1,930*	*10,400*	28,600	805	
	8/27/03	37,200	45,800	3,740	*18,800*	32,200	1,560	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	2,750	19,500	667	554	
	4/2/98							
MW-1A	1/25/99	33,700	39,300	1,700	13,500	193,000	5,000	
	12/9/99							
	4/4/00							
Target		111	22,164	1,700	13,500	187	554	
	6/21/00	825	1,460	116	796	338	<50	
MWR-1A	9/25/00	1,280	3,160	570	3,520	730	250	
	2/27/01	*47*	*102*	*39*	*417*	*31*	*60*	
	4/23/01	*24*	*22*	*20*	*130*	*14*	*29*	
	7/19/01	*28*	*23*	*33*	*168*	*19*	*40*	
	10/9/01	*45*	*48*	*25*	*217*	*33*	*10*	
	3/26/02	1,300	2,520	290	*1,440*	*50*	*250*	
	5/15/02	*150*	*329*	*42*	*282*	*58*	*100*	
	9/18/02	*274*	*172*	*52*	*217*	*28*	*32*	
	2/19/03	*428*	*162*	*35*	*171*	*24*	*25*	
	6/11/03	*185*	*84*	*31*	*133*	*16*	*26*	
	8/27/03	*91*	*154*	*29*	*161*	*43*	*33*	
	6/14/04	*4*	*1*	*1*	*6*	*4*	*9*	27
Target		111	22,164	1,700	13,500	187	554	
	4/2/98	11	17	14	87	<1	9	
MW-2	1/25/99	19	12	2	21	67	6	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-2	6/21/00	68	721	386	2,090	53	153	
	9/25/00	103	1,270	396	2,030	2	192	
	2/27/01	74	190	60	301	*10*	50	
	4/23/01	78	524	183	1,010	*61*	79	
	7/19/01	76	320	150	730	*39*	69	
	10/9/01	167	481	185	931	*50*	60	
	3/26/02	180	808	310	1,560	*84*	102	
	5/14/02	194	651	340	1,810	119	170	
	9/18/02	258	892	444	2,120	288	228	
	2/19/03	149	480	121	595	39	122	
	6/11/03	184	705	181	1,040	123	69	
	8/27/03	137	583	154	905	100	99	
	6/14/04	60	112	25	164	129	69	549
Target		19	12	5	21	67	6	
	4/2/98	15	24	9	117	<1	11	
MW-3	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-3	6/21/00	<1	1	<1	<1	2	<5	
	9/25/00	<1	1	<1	<1	2	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<3	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	2	1	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/18/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	1	1	1	4	1	6	
	4/2/98	15,700	2,570	27,600	13,300	5,820	882	
MW-4	1/25/99							
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-4	6/21/00	Product Measured						
	9/25/00	20,500	31,200	2,500	15,500	4,660	2,500	
	2/27/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	3/26/02	21,100	17,600	*1,260*	*7,700*	6,300	1,000	
MW-4R	5/15/02	31,900	37,200	*2,920*	*17,900*	6,400	1,100	
	9/18/02	23,700	27,500	*2,260*	*11,300*	2,900	700	
	2/20/03	12,400	17,900	*1,670*	*9,230*	1,540	520	
	6/11/03	5,300	11,300	*1,290*	*7,360*	869	495	
	8/27/03	13,100	21,800	*1,950*	*11,900*	922	631	
	6/14/04	7,630	20,000	*2,110*	*11,100*	600	950	42,390
Target		74	14,776	10,344	147,734	662	369	

GROUNDWATER SAMPLING
SB-6672-07/23/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 6/25/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-5	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	Dry Well, Not Sampled						
MWR-5	3/26/02	4,410	100	220	1,150	3,950	500	
	5/14/02	4,140	100	190	1,200	2,990	500	
	9/17/02	8,850	200	660	2,100	7,500	500	
	2/19/03	8,080	175	425	1,540	9,460	300	
	6/11/03	3,820	98	256	786	4,640	201	
	8/26/03	2,990	68	160	526	2,320	106	
	6/14/04	1	1	1	3	1	5	
MW-6	4/2/98	39,600	2,460	41,100	12,400	16,400	561	
	1/25/99	6,920	9,600	1,080	7,460	1,810	495	
	12/9/99	10,200	11,000	800	5,000	6,800	1,000	
	4/4/00	21,100	33,400	2,000	10,300	10,000	314	
	6/21/00	21,800	18,000	1,080	6,320	8,320	500	
	9/25/00	41,000	41,800	2,400	13,200	15,600	2,500	
	4/23/01	2,000	*1,370*	*100*	2,770	2,510	500	
	7/19/01	4,280	*4,900*	*290*	*4,250*	5,200	500	
	10/9/01	Dry Well, Not Sampled						
MWR-6R	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/17/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	19,400	30,700	3,200	16,300	16,900	1,100	
	6/11/03	13,700	16,700	2,080	11,200	11,600	1,010	
	8/27/03	24,800	31,900	2,500	12,300	16,000	985	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		97	9,600	1,090	7,460	163	482	
MW-7	4/2/98	2,780	1,620	10,500	7,510	63	468	
	1/25/99	2,200	9,360	1,280	7,440	110	430	
	12/9/00	1,300	7,050	1,050	6,500	100	400	
	4/4/00	680	2,270	315	2,180	49	160	
	6/21/00	1,050	4,550	442	2,690	66	234	
	9/25/00	3,670	11,200	1,540	8,380	205	250	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	Dry Well, Not Sampled						
MW-7R	3/26/02	3,020	7,140	475	3,660	50	250	
	5/15/02	15,700	41,500	4,130	21,800	400	860	
	9/18/02	12,400	26,400	2,160	11,300	265	615	
	2/20/03	6,780	16,200	1,350	7,450	*100*	500	
	6/11/03	2,200	8,300	955	5,490	*55*	400	
	8/27/03	8,440	19,700	2,070	12,400	1,540	522	
	6/14/04	2,040	6,400	2,080	11,900	120	710	23,250
Target		111	9,360	1,280	7,440	110	430	
MW-8	4/2/98	11,000	722	15,900	6,520	188	35,500	
	1/25/99							
	12/9/00	32,500	39,000	2,500	13,500	93,000	2,500	
	4/4/00	44,700	60,000	3,250	17,400	154,000	681	
	6/21/00	27,400	25,500	1,320	7,860	105,000	681	
	9/25/00	43,500	61,500	3,700	19,700	68,000	2,500	
	2/27/01	24,300	31,000	*1,900*	*10,600*	40,000	5,000	
	4/23/01	28,100	33,700	*1,840*	*10,600*	87,800	1,000	
	7/19/01	30,300	37,800	*1,950*	*11,600*	99,100	2,500	
	10/9/01	24,750	37,050	*2,150*	*11,900*	30,850	2,500	
	3/26/02	21,000	34,100	*2,250*	*11,900*	19,000	2,500	
	5/15/02	29,700	47,200	*3,000*	*17,300*	40,400	5,000	
	9/18/02	25,300	33,200	*1,840*	*9,660*	45,600	600	
	2/20/03	12,700	17,900	*1,280*	*6,930*	13,600	500	
	6/11/03	6,100	11,300	*1,880*	*5,950*	11,300	554	
	8/26/03	226,000	301,000	280,000	278,000	5,110,000	2,000	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	15,515	221,643	887	554	
MW-9	4/2/98	9	12	4	54	<1	2	
	1/25/99	6	3	<1	9	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-9R	3/26/02	110	99	97	552	39	93	
	5/14/02	150	63	32	293	104	68	
	9/17/02	238	38	64	244	30	70	
	2/19/03	137	27	27	110	45	36	
	6/11/03	108	36	30	130	52	60	
	8/26/03	68	31	21	91	38	59	
	6/14/04	46	20	22	107	81	134	

GROUNDWATER SAMPLING
SB-6672-07/29/99-REB
Crossroads Grocery
950 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery
Site ID #: 6742
As of: 9/25/2004

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-10	4/2/98	132	48	464	224	1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	<1	<1	<1	<1	4	<5	
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	<1	<1	<1	<1	<1	<5	
	9/25/00	<1	<1	<1	<1	<1	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<1	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	4	1	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/18/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	3	71	26	154	1	46	
MW-11	4/2/98	<1	1,090	312	5,090	<1	272	
	1/25/99	24	106	169	825	10	731	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-11	6/21/00	17	20	37	208	43	28	
	9/25/00	39	101	264	1,260	20	109	
	2/27/01	72	*40*	*9*	*131*	13	*12*	
	4/23/01	33	*45*	122	*690*	49	*99*	
	7/19/01	13	150	257	1,250	16	143	
	10/9/01	18	*84*	*139*	786	34	*86*	
	3/26/02	15,300	32,100	3,100	15,600	500	2,600	
	5/15/02	3,770	12,000	2,020	10,100	430	710	
	2/19/03	244	822	216	1,700	15	380	
	6/11/03	173	689	496	2,600	54	408	
	8/26/03	150	637	401	2,260	58	290	
	6/14/04	138	412	324	2,130	70	448	3,522
Target		24	106	169	825	10	369	
MW-12	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	1	1	1	3	1	5	
MW-13	4/2/98	<1	130	78	434	1,950	25	
	1/25/99	1,810	26	38	362	2,810	154	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-13R	3/26/02	6,740	3,040	840	3,250	1,020	500	
	5/15/02	10,000	4,660	1,310	5,000	1,600	350	
	9/18/02	13,000	5,540	1,280	5,240	3,600	1,000	
	2/19/03	6,160	2,030	500	2,280	2,320	250	
	6/11/03	4,090	1,350	559	2,380	2,160	321	
	8/27/03	4,500	1,010	433	1,840	1,050	271	
	6/14/04	3,530	50	98	60	2,300	222	6,280
Target		10	26	38	362	134	83	
MW-14	4/2/98	150	149	501	921	1	80	
	1/25/99	17	21	60	334	7	452	
	12/9/99	16	6	20	190	77	20	
	4/4/00	29	54	76	696	10	89	
	6/21/00	24	40	35	330	48	51	
	9/25/00	25	145	90	682	8	87	
	4/23/01	86	334	116	1,090	89	144	
	7/19/01	169	392	249	1,360	76	209	
	10/9/01	Well Buried, Not Sampled						
MW-14R	3/26/02	53	22	5	84	6	12	
	5/14/02	34	22	1	88	16	24	
	9/17/02	89	4	10	61	5	15	
	2/19/03	42	3	4	14	1	5	
	6/11/03	32	33	13	77	3	9	
	8/26/03	9	1	1	5	1	5	
	6/14/04	1	1	1	3	1	5	12
Target		10	21	50	334	7	83	
MW-15	4/2/98	<5	<5	<5	<5	<1	3	
	1/25/99	Not Sampled						
	12/9/99	Well Buried, Not Sampled						
	4/4/00	Well Buried, Not Sampled						
	6/21/00	Well Buried, Not Sampled						
	10/9/01	Well Buried, Not Sampled						
Total Mass								18,697,030
Target								559,387
Initial Mass above SSTL								12,294,113
% Reduction								-47.3%

Sample june 2004

GROUNDWATER SAMPLING

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742
Sampled on

Location	Well Depth (ft)	Depth to Water, ft.	Water Column, ft.	Casing Volume, gal.	Casing Volume	Collected Volume	Time	Temp. °C	pH SU	DO mg/L	Turbidity
MW-10 2"	42.0	32.16	9.8	1.6	Initial		15:43	21.5	8.10		Cloudy
					First	1.6	15:46	19.5	7.60		Clear
					Second						
					Final						
MWR-3 2"	40.0	29.56	10.4	1.7	Initial		16:26	20.3	6.60		Clear
					First	1.7	16:30	19.3	6.30		Clear
					Final						
MW-12 2"	11.6	9.85	1.8	0.3	Initial		16:50	17.2	7.00		Clear
					First	0.3	16:55	16.2	6.80		Clear
					Final						
MWR-5 2"	34.0	13.95	20.1	3.3	Initial		17:09	17.8	6.90		Cloudy
					First	3.3	17:20	18.1	6.90		Cloudy
					Final						
MWR-9 2"	45.0	27.70	17.3	2.8	Initial		17:23	19.5	6.80		Clear
					First	2.8	17:30	19.3	6.60		Clear
					Final						
MW-14R 2"	35.0	15.79	19.2	3.1	Initial		17:43	18.4	7.10		Clear
					First	3.1	17:50	17.9	6.90		Clear
					Second						
					Final						
MWR-11 2"	40.0	21.66	18.3	3.0	Initial		18:12	18.4	6.80		Clear
					First	3.0	18:15	18.1	6.80		Clear
					Final						
MWR-2 2"	40.0	29.10	10.9	1.8	Initial		18:22	18.0	6.70		Clear
					First	1.8	18:30	18.6	6.20		Clear
					Second						
					Final						
MW-13R 2"	35.0	14.59	20.4	3.3	Initial		18:42	19.0	6.30		Clear
					First	3.3	18:50	19.1	6.50		Clear
					Final						

GROUNDWATER SAMPLING

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742
Sampled on

Location	Well Depth (ft)	Depth to Water, ft.	Water Column, ft.	Casing Volume, gal.	Casing Volume	Collected Volume	Time	Temp. °C	pH SU	DO mg/L	Turbidity
MWR-1A 2"	70.0	32.09	37.9	6.2	Initial		19:06	19.4	6.20		Clear
					First	6.2	19:15	19.3	6.60		Clear
					Final						
MW-7R 2"	45.0	30.72	14.3	2.3	Initial		19:29	18.5	6.70		Clear
					First	2.3	19:35	18.9	7.10		Clear
					Second						
					Final						
MWR-4R 2"	45.0	29.61	15.4	2.5	Initial						
					First	2.50' Product					
					Final						
MW-4R 2"	35.0	24.93	10.1	1.6	Initial		19:47	19.3	6.60		Clear
					First	1.6	19:55	18.7	6.50		Clear
					Final						
MWR-1 2"	45.0	31.49	13.5	2.2	Initial						
					First	0.01' Product					
					Second						
					Final						
MW-8 2"	43.0	33.71	9.3	1.5	Initial						
					First	3.00' Product					
					Final						

APPENDIX I: LABORATORY REPORTS

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

6/24/04

CASE NARRATIVE

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: OCONEE CO.
Project Number: .
Laboratory Project Number: 379221.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Sample Identification	Lab Number	Collection Date
MW-10	04-A93205	6/14/04
MWR-3	04-A93206	6/14/04
MW-12	04-A93207	6/14/04
MWR-5	04-A93208	6/14/04
MWR-9	04-A93209	6/14/04
MW-14R	04-A93210	6/14/04
MWR-11	04-A93211	6/14/04
MWR-2	04-A93212	6/14/04
MW-13R	04-A93213	6/14/04
MWR-1A	04-A93214	6/14/04
MW-7R	04-A93215	6/14/04
MW-4R	04-A93216	6/14/04

A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste.
NELAC/Florida certification number E87358 for analysis of environmental water,

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Sample Identification	Lab Number	Collection Date

soil/hazardous waste, and drinking water effective 07/01/99-06/30/05.

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 6/24/04

Johnny A. Mitchell, Operations Manager
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Technical Services
Eric S. Smith, QA/QC Director
Gail A. Lage, Technical Services
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Technical Services

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: OCONEE CO.
Sampler: RICK SMITH

Lab Number: 04-A93205
Sample ID: MW-10
Sample Type: Water
Site ID:

Date Collected: 6/14/04
Time Collected: 15:50
Date Received: 6/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	3.40	ug/L	1.00	1.0	6/19/04	1:29	F.Gundi	8021B	28
Ethylbenzene	25.8	ug/L	1.0	1.0	6/19/04	1:29	F.Gundi	8021B	28
Toluene	70.8	ug/L	1.0	1.0	6/19/04	1:29	F.Gundi	8021B	28
Xylenes (Total)	154.	ug/L	3.0	1.0	6/19/04	1:29	F.Gundi	8021B	28
Methyl-t-butylether	ND	ug/L	1.0	1.0	6/19/04	1:29	F.Gundi	8021B	28
Naphthalene	48.1	ug/L	5.0	1.0	6/19/04	1:29	F.Gundi	8021B	28

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	95.	70. - 124.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: OCONEE CO.
Sampler: RICK SMITH

Lab Number: 04-A93206
Sample ID: MWR-3
Sample Type: Water
Site ID:

Date Collected: 6/14/04
Time Collected: 16:30
Date Received: 6/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	1.00	1.0	6/19/04	1:59	F.Gundi	8021B	28
Ethylbenzene	ND	ug/L	1.0	1.0	6/19/04	1:59	F.Gundi	8021B	28
Toluene	1.4	ug/L	1.0	1.0	6/19/04	1:59	F.Gundi	8021B	28
Xylenes (Total)	3.7	ug/L	3.0	1.0	6/19/04	1:59	F.Gundi	8021B	28
Methyl-t-butylether	ND	ug/L	1.0	1.0	6/19/04	1:59	F.Gundi	8021B	28
Naphthalene	5.8	ug/L	5.0	1.0	6/19/04	1:59	F.Gundi	8021B	28

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	96.	70. - 124.

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RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: OCONEE CO.
Sampler: RICK SMITH

Lab Number: 04-A93207
Sample ID: MW-12
Sample Type: Water
Site ID:

Date Collected: 6/14/04
Time Collected: 16:55
Date Received: 6/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	1.00	1.0	6/19/04	2:31	F.Gundi	8021B	28
Ethylbenzene	ND	ug/L	1.0	1.0	6/19/04	2:31	F.Gundi	8021B	28
Toluene	ND	ug/L	1.0	1.0	6/19/04	2:31	F.Gundi	8021B	28
Xylenes (Total)	ND	ug/L	3.0	1.0	6/19/04	2:31	F.Gundi	8021B	28
Methyl-t-butylether	ND	ug/L	1.0	1.0	6/19/04	2:31	F.Gundi	8021B	28
Naphthalene	ND	ug/L	5.0	1.0	6/19/04	2:31	F.Gundi	8021B	28

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	95.	70. - 124.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: OCONEE CO.
Sampler: RICK SMITH

Lab Number: 04-A93208
Sample ID: MWR-5
Sample Type: Water
Site ID:

Date Collected: 6/14/04
Time Collected: 17:20
Date Received: 6/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	1.00	1.0	6/19/04	3:02	F.Gundi	8021B	28
Ethylbenzene	ND	ug/L	1.0	1.0	6/19/04	3:02	F.Gundi	8021B	28
Toluene	ND	ug/L	1.0	1.0	6/19/04	3:02	F.Gundi	8021B	28
Xylenes (Total)	ND	ug/L	3.0	1.0	6/19/04	3:02	F.Gundi	8021B	28
Methyl-t-butylether	ND	ug/L	1.0	1.0	6/19/04	3:02	F.Gundi	8021B	28
Naphthalene	ND	ug/L	5.0	1.0	6/19/04	3:02	F.Gundi	8021B	28

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	94.	70. - 124.

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E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

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ANALYTICAL REPORT

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RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: OCONEE CO.
Sampler: RICK SMITH

Lab Number: 04-A93209
Sample ID: MWR-9
Sample Type: Water
Site ID:

Date Collected: 6/14/04
Time Collected: 17:30
Date Received: 6/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	46.0	ug/L	10.0	10.0	6/19/04	3:33	F.Gundi	8021B	28
Ethylbenzene	22.0	ug/L	10.0	10.0	6/19/04	3:33	F.Gundi	8021B	28
Toluene	20.0	ug/L	10.0	10.0	6/19/04	3:33	F.Gundi	8021B	28
Xylenes (Total)	107.	ug/L	30.0	10.0	6/19/04	3:33	F.Gundi	8021B	28
Methyl-t-butylether	81.0	ug/L	10.0	10.0	6/19/04	3:33	F.Gundi	8021B	28
Naphthalene	134.	ug/L	50.0	10.0	6/19/04	3:33	F.Gundi	8021B	28

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	103.	70. - 124.

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ANALYTICAL REPORT

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RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: OCONEE CO.
Sampler: RICK SMITH

Lab Number: 04-A93210
Sample ID: MW-14R
Sample Type: Water
Site ID:

Date Collected: 6/14/04
Time Collected: 17:50
Date Received: 6/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	ND	ug/L	1.00	1.0	6/19/04	4:03	F.Gundi	8021B	28
Ethylbenzene	ND	ug/L	1.0	1.0	6/19/04	4:03	F.Gundi	8021B	28
Toluene	ND	ug/L	1.0	1.0	6/19/04	4:03	F.Gundi	8021B	28
Xylenes (Total)	ND	ug/L	3.0	1.0	6/19/04	4:03	F.Gundi	8021B	28
Methyl-t-butylether	ND	ug/L	1.0	1.0	6/19/04	4:03	F.Gundi	8021B	28
Naphthalene	ND	ug/L	5.0	1.0	6/19/04	4:03	F.Gundi	8021B	28

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	97.	70. - 124.

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SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: OCONEE CO.
Sampler: RICK SMITH

Lab Number: 04-A93211
Sample ID: MWR-11
Sample Type: Water
Site ID:

Date Collected: 6/14/04
Time Collected: 18:15
Date Received: 6/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	138.	ug/L	20.0	20.0	6/19/04	4:35	F.Gundi	8021B	28
Ethylbenzene	324.	ug/L	20.0	20.0	6/19/04	4:35	F.Gundi	8021B	28
Toluene	412.	ug/L	20.0	20.0	6/19/04	4:35	F.Gundi	8021B	28
Xylenes (Total)	2130	ug/L	60.0	20.0	6/19/04	4:35	F.Gundi	8021B	28
Methyl-t-butylether	70.0	ug/L	20.0	20.0	6/19/04	4:35	F.Gundi	8021B	28
Naphthalene	448.	ug/L	100.	20.0	6/19/04	4:35	F.Gundi	8021B	28

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	102.	70. - 124.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: OCONEE CO.
Sampler: RICK SMITH

Lab Number: 04-A93212
Sample ID: MWR-2
Sample Type: Water
Site ID:

Date Collected: 6/14/04
Time Collected: 18:30
Date Received: 6/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	50.0	ug/L	1.00	1.0	6/19/04	5:06	F.Gundi	8021B	28
Ethylbenzene	25.4	ug/L	1.0	1.0	6/19/04	5:06	F.Gundi	8021B	28
Toluene	112.	ug/L	1.0	1.0	6/19/04	5:06	F.Gundi	8021B	28
Xylenes (Total)	164.	ug/L	3.0	1.0	6/19/04	5:06	F.Gundi	8021B	28
Methyl-t-butylether	129.	ug/L	1.0	1.0	6/19/04	5:06	F.Gundi	8021B	28
Naphthalene	69.1	ug/L	5.0	1.0	6/19/04	5:06	F.Gundi	8021B	28

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	97.	70. - 124.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: OCONEE CO.
Sampler: RICK SMITH

Lab Number: 04-A93213
Sample ID: MW-13R
Sample Type: Water
Site ID:

Date Collected: 6/14/04
Time Collected: 18:50
Date Received: 6/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	3530	ug/L	20.0	20.0	6/22/04	9:44	F.Gundi	8021B	6257
Ethylbenzene	58.0	ug/L	20.0	20.0	6/22/04	9:44	F.Gundi	8021B	6257
Toluene	50.0	ug/L	20.0	20.0	6/22/04	9:44	F.Gundi	8021B	6257
Xylenes (Total)	ND	ug/L	60.0	20.0	6/22/04	9:44	F.Gundi	8021B	6257
Methyl-t-butylether	2360	ug/L	20.0	20.0	6/22/04	9:44	F.Gundi	8021B	6257
Naphthalene	222.	ug/L	100.	20.0	6/22/04	9:44	F.Gundi	8021B	6257

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	106.	70. - 124.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: OCONEE CO.
Sampler: RICK SMITH

Lab Number: 04-A93214
Sample ID: MWR-1A
Sample Type: Water
Site ID:

Date Collected: 6/14/04
Time Collected: 19:15
Date Received: 6/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	4.00	ug/L	1.00	1.0	6/22/04	10:46	F.Gundi	8021B	6257
Ethylbenzene	1.0	ug/L	1.0	1.0	6/22/04	10:46	F.Gundi	8021B	6257
Toluene	ND	ug/L	1.0	1.0	6/22/04	10:46	F.Gundi	8021B	6257
Xylenes (Total)	8.1	ug/L	3.0	1.0	6/22/04	10:46	F.Gundi	8021B	6257
Methyl-t-butylether	3.8	ug/L	1.0	1.0	6/22/04	10:46	F.Gundi	8021B	6257
Naphthalene	8.7	ug/L	5.0	1.0	6/22/04	10:46	F.Gundi	8021B	6257

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	94.	70. - 124.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: OCONEE CO.
Sampler: RICK SMITH

Lab Number: 04-A93215
Sample ID: MW-7R
Sample Type: Water
Site ID:

Date Collected: 6/14/04
Time Collected: 19:35
Date Received: 6/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	2040	ug/L	50.0	50.0	6/19/04	6:38	F.Gundi	8021B	28
Ethylbenzene	2080	ug/L	50.0	50.0	6/19/04	6:38	F.Gundi	8021B	28
Toluene	6400	ug/L	100.	100.	6/22/04	11:17	F.Gundi	8021B	6257
Xylenes (Total)	11900	ug/L	150.	50.0	6/19/04	6:38	F.Gundi	8021B	28
Methyl-t-butylether	120.	ug/L	50.0	50.0	6/19/04	6:38	F.Gundi	8021B	28
Naphthalene	710.	ug/L	250.	50.0	6/19/04	6:38	F.Gundi	8021B	28

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	96.	70. - 124.

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ANALYTICAL REPORT

SMITH MONITOR. & MAIN. ENG.INC 2432
RICHARD SMITH
145 MERRILL AVENUE
DECATUR, GA 30030

Project:
Project Name: OCONEE CO.
Sampler: RICK SMITH

Lab Number: 04-A93216
Sample ID: MW-4R
Sample Type: Water
Site ID:

Date Collected: 6/14/04
Time Collected: 19:55
Date Received: 6/17/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzene	7630	ug/L	100.	100.	6/22/04	11:47	F.Gundi	8021B	6257
Ethylbenzene	2110	ug/L	100.	100.	6/22/04	11:47	F.Gundi	8021B	6257
Toluene	20000	ug/L	100.	100.	6/22/04	11:47	F.Gundi	8021B	6257
Xylenes (Total)	11100	ug/L	300.	100.	6/22/04	11:47	F.Gundi	8021B	6257
Methyl-t-butylether	600.	ug/L	100.	100.	6/22/04	11:47	F.Gundi	8021B	6257
Naphthalene	950.	ug/L	500.	100.	6/22/04	11:47	F.Gundi	8021B	6257

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	106.	70. - 124.

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ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number:
Project Name: OCONEE CO.
Page: 1
Laboratory Receipt Date: 6/17/04

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
UST ANALYSIS								
Benzene	mg/l	< 0.00100	0.0496	0.0500	99	53. - 159.	28	04-A93206
Toluene	mg/l	0.0014	0.0503	0.0500	98	54. - 156.	28	04-A93206
Ethylbenzene	mg/l	< 0.0010	0.0493	0.0500	99	50. - 159.	28	04-A93206
Xylenes (Total)	mg/l	0.0037	0.0995	0.100	96	53. - 151.	28	04-A93206
Methyl-t-butylether	mg/l	< 0.0010	0.0435	0.0500	87	36. - 158.	28	04-A93206
Naphthalene	mg/l	0.0058	0.0433	0.0500	75	10. - 191.	28	04-A93206
BTEX/GRO Surr., a,a,a-TFT	% Recovery				103	70 - 124	28	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
UST PARAMETERS						
Benzene	mg/l	0.0496	0.0535	7.57	21.	28
Toluene	mg/l	0.0503	0.0540	7.09	25.	28
Ethylbenzene	mg/l	0.0493	0.0527	6.67	25.	28
Xylenes (Total)	mg/l	0.0995	0.106	6.33	24.	28
Methyl-t-butylether	mg/l	0.0435	0.0488	11.48	24.	28
Naphthalene	mg/l	0.0433	0.0499	14.16	39.	28
BTEX/GRO Surr., a,a,a-TFT	% Recovery		105.			28

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number:
Project Name: OCONEE CO.
Page: 2
Laboratory Receipt Date: 6/17/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
UST PARAMETERS						
Benzene	mg/l	0.100	0.101	101	76 - 118	28
Benzene	mg/l	0.100	0.0957	96	76 - 118	6257
Toluene	mg/l	0.100	0.0984	98	72 - 119	28
Toluene	mg/l	0.100	0.0942	94	72 - 119	6257
Ethylbenzene	mg/l	0.100	0.0976	98	72 - 119	28
Ethylbenzene	mg/l	0.100	0.0935	94	72 - 119	6257
Xylenes (Total)	mg/l	0.200	0.194	97	71 - 123	28
Xylenes (Total)	mg/l	0.200	0.187	94	71 - 123	6257
Methyl-t-butylether	mg/l	0.100	0.0943	94	63 - 120	28
Methyl-t-butylether	mg/l	0.100	0.0879	88	63 - 120	6257
Naphthalene	mg/l	0.100	0.0932	93	44 - 150	28
Naphthalene	mg/l	0.100	0.0952	95	44 - 150	6257
BTEX/GRO Surr., a,a,a-TFT	% Recovery			104	70 - 124	28
BTEX/GRO Surr., a,a,a-TFT	% Recovery			101	70 - 124	6257

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

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PROJECT QUALITY CONTROL DATA
Project Number:
Project Name: OCONEE CO.
Page: 3
Laboratory Receipt Date: 6/17/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
Benzene	< 0.00071	mg/l	28	6/19/04	0:57
Benzene	< 0.00071	mg/l	6257	6/22/04	7:10
Toluene	< 0.0007	mg/l	28	6/19/04	0:57
Toluene	< 0.0007	mg/l	6257	6/22/04	7:10
Ethylbenzene	< 0.0008	mg/l	28	6/19/04	0:57
Ethylbenzene	< 0.0008	mg/l	6257	6/22/04	7:10
Xylenes (Total)	< 0.0018	mg/l	28	6/19/04	0:57
Xylenes (Total)	< 0.0018	mg/l	6257	6/22/04	7:10
Methyl-t-butylether	< 0.0008	mg/l	28	6/19/04	0:57
Methyl-t-butylether	< 0.0008	mg/l	6257	6/22/04	7:10
Naphthalene	< 0.0008	mg/l	28	6/19/04	0:57
Naphthalene	< 0.0008	mg/l	6257	6/22/04	7:10
BTEX/GRO Surr., a,a,a-TFT	96.	% Recovery	28	6/19/04	0:57
BTEX/GRO Surr., a,a,a-TFT	91.	% Recovery	6257	6/22/04	7:10

End of Report for Project 379221

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM **BC#**

Client Name : SMME

Cooler Received/Opened On: 6/17/04 **Accessioned By:** Mark Beasley

M. Beasley
Log-in Personnel Signature

1. **Temperature of Cooler when triaged:** 5.8 **Degrees Celsius**
2. **Were custody seals on outside of cooler?**..... (YES)...NO....NA
   a. **If yes, how many, what kind and where:** 1 Front
3. **Were custody seals on containers and intact?**..... (NO)..YES...NA
4. **Were the seals intact, signed, and dated correctly?**..... (YES)...NO...NA
5. **Were custody papers inside cooler?**..... (YES)...NO...NA
6. **Were custody papers properly filled out (ink, signed, etc)?**..... (YES)...NO...NA
7. **Did you sign the custody papers in the appropriate place?**..... (YES)...NO...NA
8. **What kind of packing material used?** (Bubblewrap) Peanuts Vermiculite Other None
9. **Cooling process:** (Ice) Ice-pack Ice (direct contact) Dry ice Other None
10. **Did all containers arrive in good condition (unbroken)?**..... (YES)..NO...NA
11. **Were all container labels complete (#, date, signed, pres., etc)?**..... (YES)...NO...NA
12. **Did all container labels and tags agree with custody papers?**..... (YES)...NO...NA
13. **Were correct containers used for the analysis requested?**..... (YES)..NO...NA
14. a. **Were VOA vials received?**..... (YES)...NO...NA
    b. **Was there any observable head space present in any VOA vial?**..... (NO)..YES...NA
15. **Was sufficient amount of sample sent in each container?**..... (YES)..NO...NA
16. **Were correct preservatives used?**..... (YES)...NO...NA

    If not, record standard ID of preservative used here_____
17. **Was residual chlorine present?**..... (NO)..YES...NA
18. **Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below:**

UPS	Velocity	Airborne	Route	Off-street	Fedex	Misc.
3791						

19. **If a Non-Conformance exists, see attached or comments below:**

TestAmerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC
ATLANTA SERVICE CE **379221**

1/2

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring Yes

Client Name: SMME Client #: 2626
Address: 145 Merrill Avenue
City/State/Zip Code: Decatur GA 30030
Project Manager: Rick Smith
Telephone Number: 404 371 9332 Fax: 373 3296
Sampler Name: (Print Name) Rick Smith email: RickSmme@mindspring.com
Sampler Signature: Rick Smith

Project Name: Oconee Co.
Project #:
Site/Location ID: Westminster State: SC
Report To: Rick Smith
Invoice To: Bobby Smith
Quote #: PO#:

TAT: ✓ Standard; ___ Rush (surcharges may apply)
Date Needed: 6/24/04
Fax Results: (Y) N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX MTBE NAPHTHALENE	REMARKS
MW 10	6/24	1550	G		GW		3						✓	93205
2 MWR 3		1630											✓	06
MW 12		1655											✓	07
4 MWR 5		1720											✓	08
MWR 9		1730											✓	09
6 ~~MWR 14~~ MW 14R		1750											✓	10
MWR 11		1815											✓	11
8 MWR ~~8~~ 2		1830											✓	12
MW 13R		1850											✓	13
10 MWR 1A		1915											✓	93214

QC Deliverables: ~~X~~ None; ✓ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: ___

Special Instructions:

	Date	Time		Date	Time
Relinquished By: Rick Smith	6/16	1830	Received By: MG	6/17/04	8:00
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 5.8
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

TestAmerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTEF

379221

2/2.

To assist us in using the proper analytical methods,
is this work being conducted for regulatory purposes?
Compliance Monitoring Yes

Client Name: Smme Client #: 2626

Address:

City/State/Zip Code:

Project Manager:

Telephone Number: Fax:

Sampler Name: (Print Name)

Sampler Signature:

Project Name: Oconee Co.

Project #:

Site/Location ID: State:

Report To:

Invoice To:

Quote #: PO#:

TAT
✓ Standard
___ Rush (surcharges may apply)

Date Needed: 6/24

Fax Results: (Y) N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX MTBE Naphthalene	QC Deliverables	REMARKS
~~MWR 2~~															
~~MW 13R~~															
MW 7R	6/14	1935	G		GW		3								93215
MW 4R	6/14	1955	G		GW		3								93216

QC Deliverables
✓ None
✓ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:

	Date	Time		Date	Time
Relinquished By: Kyle Smith	6/16	1830	Received By: [illegible]	6/17/14	8:40
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

SMITH

Monitoring & Maintenance Engineering, Inc.

July 5, 2004

RECEIVED
SEP 2 8 2004
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Joel Padgett
Department of Health and Environmental Control
UST Management Division
2600 Bull Street
Columbia, South Carolina 29201-1708

Re: Quarterly Monitoring Report; Site #06742
Cross Roads Grocery; Oconee County, South Carolina

Dear Ms. Doran,

As required, Smith Monitoring & Maintenance Engineering, Inc. (SMME) has completed groundwater sampling activities in compliance with condition number 7 of the referenced bid specification. The monitoring wells were sampled on June 16, 2004.

Static water levels and total well depths were measured to the nearest 0.01 foot, based on top of casing elevations previously established in EMC's assessment of May of 1998. Dissolved oxygen concentrations were measured prior to level measurement and well sampling to minimize errors due to aeration of the water in the well screen.

All wells were purged and sampled with a decontaminated 12-volt DC, low volume, centrifugal pump. The wells were purged until at least one standing well volume had been removed and the pH and temperature of the water had stabilized to within a 10 percent difference. The groundwater sampling parameters for each well were recorded in the attached groundwater sampling field tables.

The groundwater samples were recovered through the use of low-volume pumping. The water sample was then apportioned into the pre-labeled sample containers, which contained the appropriate preservatives according to U.S. EPA standards. Required sample volumes, containers, sample preservatives, and holding times followed guidelines stipulated in Appendix A of the EISOPQAM.

The sample bottles were labeled with all data required by the EISOPQAM and placed in iced containers for storage to maintain not more than 5 degrees Celsius temperature. Static water level measurements and well sampling were conducted in sequence from the least contaminated well to the most contaminated well.

Chain-of-custody procedures used for this assessment conformed to the EISOPQAM, Section 3. The chain-of-custody forms were used to record and document all times and changes of possession of the samples. The chain-of-custody form documents the project name; sample number; name and signature of sample personnel and the field supervisor, the sampling location, date, and collection time, type of sample, container type, sample media, and the number of containers for a given sample.

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296

83 tech

Groundwater elevations (see Groundwater Elevation Table 1), measured prior to groundwater sampling, were used to construct a water table contour map, which is included as Figure 1. Groundwater elevations were calculated by subtracting the depth-to-water measurement from the Top-of-Casing (TOC) elevation previously measured. At this time, the exact gradient is not determinate since the casing elevations for the new wells are unknown. Based upon prior site experience groundwater flow direction is generally toward the south.

Figure 2 shows the benzene isopleth, based on the latest sampling. A summary of recorded sampling events is provided in Table 3: Actual Concentrations. Laboratory analytical data sheets are provided in Attachment I. Table 2: Report Concentrations is provided as a summary of the analytical data using the SSTLs in summing the site score, for billing purposes.

Progress of Corrective Action

The groundwater treatment system, as described in the approved Corrective Action Plan, was installed and started operation on January 11, 2000. Problems due to freezing temperatures caused a temporary shutdown during late January of 2000. The treatment system was shut-down, temporarily, during the fall and winter 2001/2002 due to significant product reoccurrence and injection line destruction due to site clearing activities. System injection lines were repaired and product reduced.

SMME is awaiting guidance from the Regulatory Section concerning the source of the product found at MW-8 and impacting the remediation of the site. The biostimulation trailer has been shut-down since this type of process is not effective on such significant quantities of product. The system has been removed from the site and returned to Savannah for repairs and modifications.

We are currently reviewing options to recover the vast amounts of floating product now found on the site. Since testing by DHEC has found that the product formation is from a new source, SMME will wait until the contaminant source is determined and repaired. Product measurements can then be taken and a quantity estimated prior to providing DHEC with the costs associated with product recovery and additional site treatment.

Should you have any questions, please contact the undersigned.

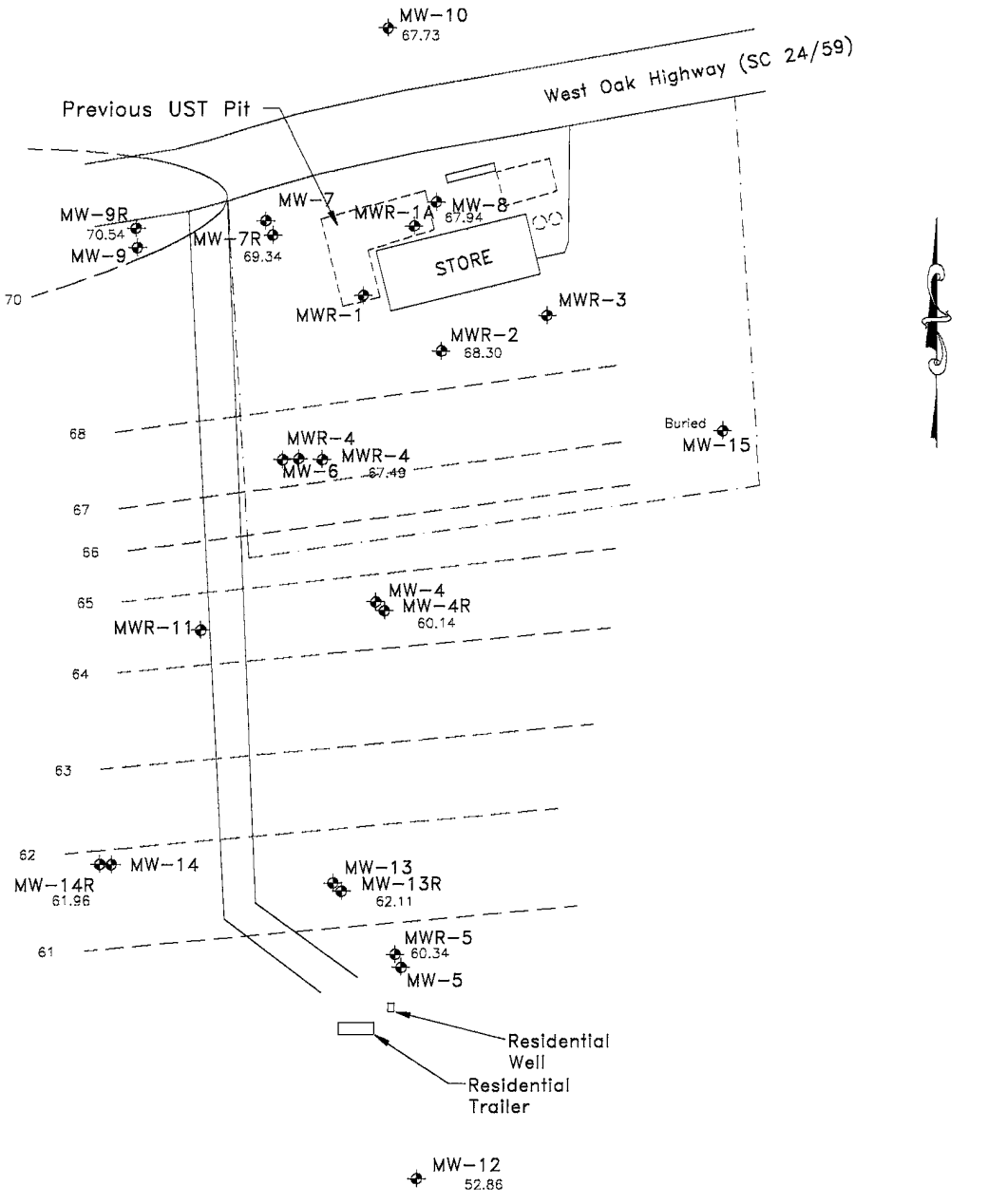
Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer
S.C. Reg.: 14734

Certificate of Authorization: # C01435

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296

FIGURES



Richard Smith, SMME6/26/2004 12:18 PMoconee june 2004.dwg

South Carolina DHEC
2600 Bull Street
Columbia, South Carolina

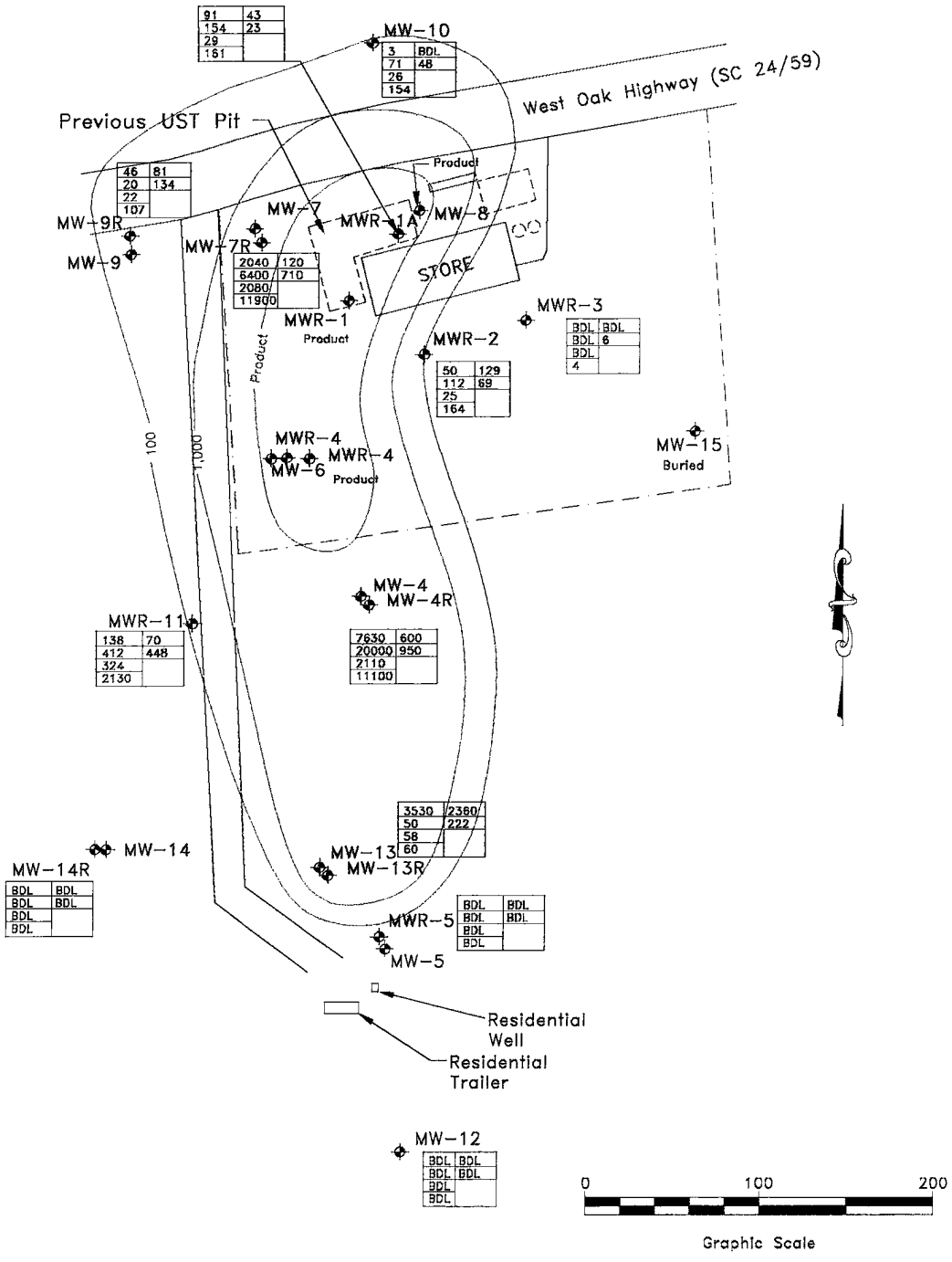
SMME Smith Monitoring & Maintenance Engineering, Inc.
Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance
145 Merrill Avenue Decatur, Georgia 30030
Telephone: (404) 371-9332

PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: June 26, 2004

Potentiometric Surface Map
June 14, 2004
Cross Roads Grocery
Oconee County, South Carolina

oconee june 2004.dwg

FIGURE
1



Richard Smith, SMME6/26/2004 12:18 PMoconee june 2004.dwg

South Carolina DHEC
2600 Bull Street
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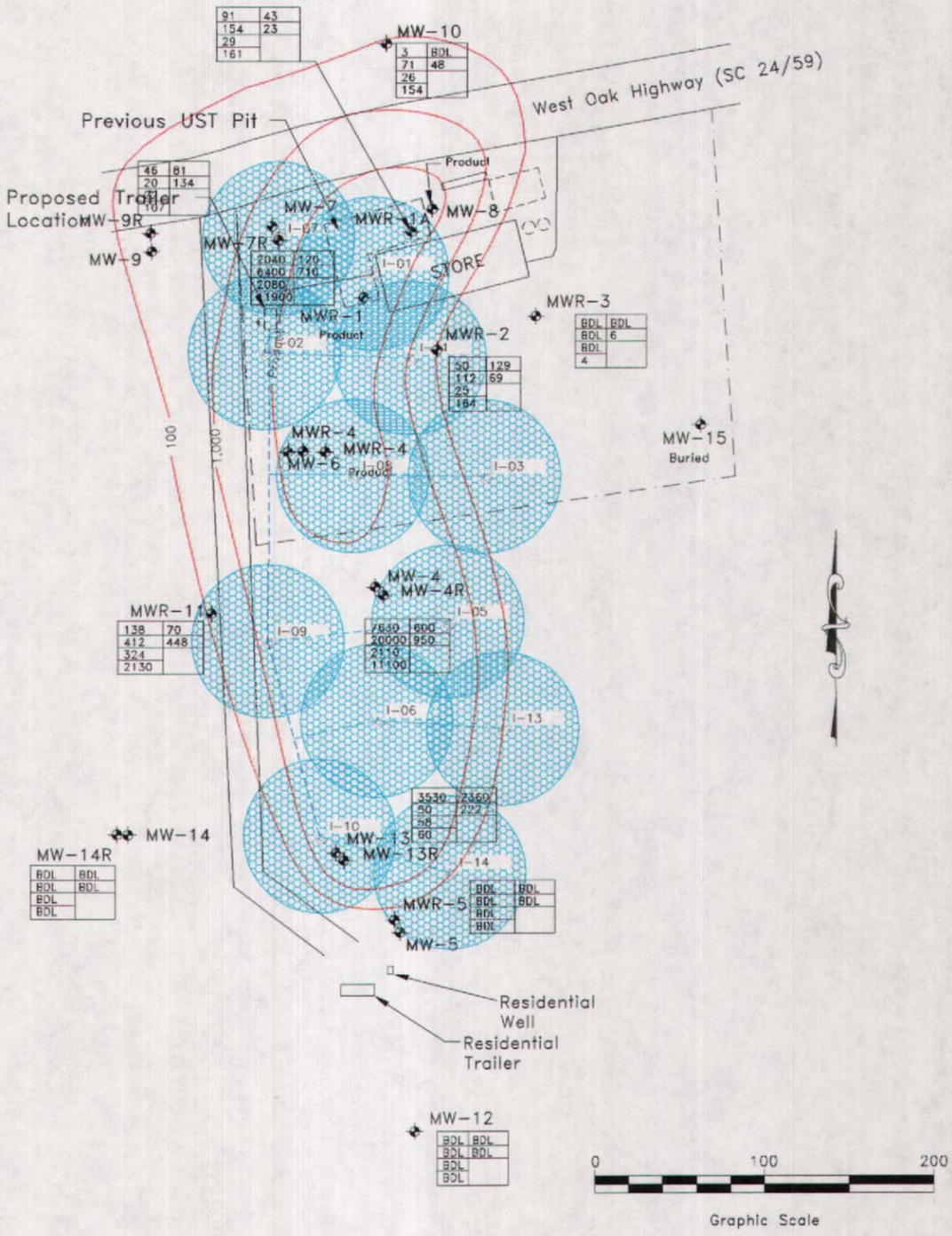
145 Merrill Avenue Decatur, Georgia 30030
Telephone: (404) 371-9332

PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: June 26, 2004

Benzene Isopleth
June 14, 2004
Cross Roads Grocery
Oconee County, South Carolina

oconee june 2004.dwg

FIGURE
2



Richard Smith, SMME6/26/2004 12:18 PMaconee june 2004.dwg

South Carolina DHEC
2600 Bull Street
Columbia, South Carolina

SMME Smith Monitoring & Maintenance Engineering, Inc.
Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance
145 Merrill Avenue Decatur, Georgia 30030
Telephone: (404) 371-9332

PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: Sept. 15, 2003

Injection Well Locations

Cross Roads Grocery
Oconee County, South Carolina

aconee august 2003.dwg

FIGURE 3

TABLES

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 9/27/2004
Site ID # 6742

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	0.00	-	30.0	28.47	28.45	99.04	0.02	70.59
MW-1	12/10/99			29.8	29.60		99.04		
2"	4/4/00			29.8	Dry		99.04		
MWR-1	6/20/00			45.0	35.20	34.93		0.27	
	9/25/00	0.39	20.1	45.0	37.05	37.05		0.00	
	2/27/01		18.5	45.0	39.05	39.05		0.00	
	7/19/01			45.0	37.90	36.70		1.20	
	10/9/01			45.0	38.91	38.89		0.02	
	3/26/02			45.0	39.42	39.35		0.07	
	5/15/02			45.0	39.42	39.95		2.50	
	2/20/03	1.49	18.7	45.0	39.20	0.00		0.00	
	6/11/03	1.08	19.7	45.0	28.30	0.00		0.00	
	8/26/03	1.12	19.9	45.0	28.04	0.00		0.00	
	6/14/04			45.0	31.49	31.50		0.01	
	4/2/98	0.00	-	40.0	31.50	28.66	99.01	2.84	69.92
MW-1A	12/10/99			38.4	38.32	35.32	99.01	3.00	63.24
2"	4/4/00			38.4		-1.10	99.01	1.10	
MWR-1A	6/20/00	1.01	21.8	70.0	35.95	35.95	98.70	0.00	62.75
	9/25/00			70.0	37.43	37.43	98.70	0.00	61.27
	2/27/01	1.01	18.8	70.0	39.58		98.70		59.12
	4/23/01	1.04	19.4	70.0	38.35		98.70		60.35
	7/19/01	1.09	21.5	70.0	38.20		98.70		60.50
	10/9/01	1.22	20.8	70.0	40.80		98.70		57.90
	3/26/02	1.49	20.9	70.0	41.95		98.70		56.75
	5/15/02	1.12	19.8	70.0	40.20		98.70		58.50
	9/22/02	1.24	20.9	70.0	41.48		98.70		57.22
	2/19/03	1.32	18.7	70.0	34.40		98.70		64.30
	6/11/03	1.19	21.7	70.0	31.25		98.70		67.45
	8/26/03	1.98	20.5	70.0	29.30		98.70		69.40
	1/6/00	Er	19.3	70.0	32.09		98.70		66.61
	4/2/98	6.24	18.7	30.0	26.98	-	97.77	-	70.79
MW-2	12/10/99			29.3	29.22		97.77		
2"	4/4/00	0.48		29.3	29.22		97.77		Dry
MWR-2	6/20/00	1.23	22.3	40.0	33.23		97.40		64.17
	9/25/00	0.30	18.9	40.0	35.17		97.40		62.23
	2/27/01	1.01	17.9	40.0	36.92		97.40		60.48
	4/23/01	1.03	21.6	40.0	35.60		97.40		61.80
	7/19/01	1.27	22.7	40.0	35.21		97.40		62.19
	10/9/01	1.32	17.6	40.0	36.85		97.40		60.55
	3/26/02	1.15	18.9	40.0	37.20		97.40		60.20
	5/15/02	1.28	19.3	40.0	35.89		97.40		61.51
	9/22/02	1.33	18.8	40.0	36.63		97.40		60.77
	2/19/03	1.19	18.7	40.0	31.05		97.40		66.35
	6/11/03	1.38	18.3	40.0	26.89		97.40		70.51
	8/26/03	1.39	20.3	40.0	26.41		97.40		70.99
	6/14/04	Er	18.6	40.0	29.10		97.40		68.30
	4/2/98	7.07	18.0	30.0	27.30	-	96.77	-	69.47
MW-3	12/10/99			29.0	28.97		96.77		
2"	4/4/00			29.0	28.94		96.77		Dry
MWR-3	6/20/00	2.65	22.6	40.0	33.40				
	9/25/00	1.43	19.0	40.0	35.32				
	2/27/01	1.70	17.5	40.0	37.11				
	4/23/01	1.59	21.4	40.0	35.84				
	7/19/01	1.95	22.2	40.0	35.33				
	10/9/01	1.31	17.6	40.0	37.00				
	3/26/02	1.31	19.4	40.0	37.34				
	5/14/02	1.98	18.2	40.0	36.00				
	9/22/02	1.29	19.6	40.0	36.64				
	2/19/03	1.25	18.1	40.0	31.12				
	6/11/03	1.29	21.1	40.0	27.18				
	8/26/03	1.24	19.5	40.0	26.67				
	6/14/04	Er	19.3	40.0	29.56				

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742

As of: 9/27/2004

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	3.84	-	25.0	21.45	-	90.10	-	68.65
MW-4	12/10/99			27.4	27.13		90.10		
2"	4/4/00			27.4			90.10		Dry
MWR-4	6/20/00			40.0	30.43	-	92.97	0.01	62.55
	9/25/00	0.47	18.6	40.0	32.34	-	92.97	0.00	60.63
	2/27/01			40.0	35.85	-	92.97	1.00	57.97
	4/23/01			40.0	33.69	-	92.97	1.00	60.13
	7/19/01			40.0	32.77	-	92.97	0.50	60.63
	10/9/01			40.0	40.00	-	92.97	2.50	55.10
MW-4R	3/26/02	1.27	17.1	35.0	27.98	-	85.07		57.09
	5/15/02	1.06	17.7	35.0	26.60	-	85.07		58.47
	9/22/02	1.40	18.4	35.0	27.73	-	85.07		57.34
	2/20/03	1.12	17.1	35.0	21.72	-	85.07		63.35
	6/11/03	1.36	17.9	35.0	17.59	-	85.07		67.48
	8/26/03	1.19	19.0	35.0	17.75	-	85.07		67.32
	6/14/04	Er	18.7	35.0	24.93	-	85.07		60.14
	4/2/98	5.86	14.1	20.0	12.40	-	74.74	-	62.34
MW-5	12/10/99			20.0	16.93		74.74		57.81
2"	4/4/00	4.74	16.8	20.0	12.45		74.74		62.29
	6/20/00	1.75		20.0	16.86		74.74		57.88
	9/25/00			20.0	dry		74.74		#VALUE!
	2/27/01			20.0	dry		74.74		#VALUE!
	4/23/01	1.16	15.7	20.0	17.35		74.74		57.39
	7/19/01	4.48		20.0	18.37		74.74		56.37
	10/9/01	dry		20.0	dry		74.74		#VALUE!
MWR-5	3/26/02	1.30	18.4	34.0	19.59		74.29		54.70
	5/14/02	1.37	16.2	34.0	18.77		74.29		55.52
	9/22/02	1.30	18.0	34.0	20.50		74.29		53.79
	2/19/03	3.92	17.1	34.0	14.20		74.29		60.09
	6/11/03	1.21	18.0	34.0	10.93		74.29		63.36
	8/26/03	1.09	18.0	34.0	11.70		74.29		62.59
	6/14/04	Er	18.1	34.0	13.95		74.29		60.34
	4/2/98	0.66	17.6	35.0	23.35	-	92.67	-	69.32
MW-6	12/10/99			35.0	30.35		92.67		62.32
2"	4/4/00	0.18	18.0	35.0	29.88		92.67		62.79
	6/20/00	1.14	24.5	35.0	30.05		92.67		62.62
	9/25/00	0.33	18.6	35.0	32.05		92.67		60.62
	2/27/01			35.0	Dry		92.67		#VALUE!
	4/23/01	1.15	20.2	35.0	32.03		92.67		60.64
	7/19/01	1.09	19.5	35.0	32.02		92.67		60.65
	10/9/01	dry		35.0	dry		92.67		#VALUE!
MWR-4R	3/26/02			45.0	36.04		94.97	1.00	59.78
	5/15/02			45.0	36.79		94.97	0.50	58.61
	9/22/02			45.0	36.23		94.97	0.50	59.17
	2/20/03	1.97	17.5	45.0	28.19		94.97	0.00	66.78
	6/11/03	1.10	18.6	45.0	24.24		94.97	0.00	70.73
	8/26/03	1.04	19.8	45.0	24.74		94.97	0.00	70.23
	6/14/04			45.0	29.61		94.97	2.50	67.49
	4/2/98	5.16	21.7	39.0	27.06	-	97.68	-	70.62
MW-7	12/10/99			39.0	33.90		97.68		63.78
2"	4/4/00	0.04	17.8	39.0	33.78		97.68		63.92
	6/20/00	0.81	26.8	39.0	33.59		97.68		64.09
	9/25/00	0.31	20.0	39.0	35.55		97.68		62.13
	2/27/01			39.0	Dry		97.68		#VALUE!
	4/23/01			39.0	Dry		97.68		#VALUE!
	7/19/01			37.0	36.21		97.68	0.85	61.47
	10/9/01			37.0	dry		97.68		#VALUE!
MW-7R	3/26/02	1.89	20.5	45.0	38.10		100.06		61.96
	5/15/02	1.21	20.0	45.0	36.86		100.06		63.20
	9/22/02	1.16	20.7	45.0	37.44		100.06		62.62
	2/20/03	1.22	19.3	45.0	32.30		100.06		67.76
	6/11/03	1.11	20.3	45.0	30.15		100.06		69.91
	8/26/03	1.00	21.0	45.0	27.30		100.06		72.76
	6/14/04	Er	17.9	45.0	30.72		100.06		69.34

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742

As of: 9/27/2004

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	3.83	19.7	45.0	26.87	-	99.10	-	70.23
MW-8	12/10/99			43.0	35.82		99.10		63.28
2"	4/4/00	0.15	17.1	43.0	35.74		99.10		63.36
	6/20/00	0.99	23.3	43.0	35.50		99.10		63.60
	9/25/00	0.37	19.7	43.0	37.40		99.10		61.70
	2/27/01	0.94	19.0	43.0	39.34		99.10		59.76
	4/23/01	1.09	21.0	43.0	38.06		99.10		61.04
	7/19/01	1.12	22.0	43.0	37.44		99.10		61.66
	10/9/01	1.13	19.5	43.0	38.00		99.10		61.10
	3/26/02	1.19	19.9	43.0	39.54		99.10		59.56
	5/15/02	1.09	20.4	43.0	38.26		99.10		60.84
	9/22/02	1.18	22.0	43.0	38.75		99.10		60.35
	2/20/03	1.10	19.4	43.0	33.69		99.10		65.41
	6/11/03	1.09	20.8	43.0	28.75		99.10		70.35
	8/26/03			43.0	27.76		99.10	0.58	71.84
	6/14/04			43.0	33.71		99.10	3.00	67.94
	4/2/98	5.45	18.7	32.0	23.94	-	96.47	-	72.53
MW-9	12/10/99			30.6	30.42		96.47		
2"	4/4/00			30.6			96.47		Dry
	6/20/00			30.6			96.47		Dry
	9/25/00			30.6			96.47		Dry
	2/27/01			30.6			96.47		Dry
	4/23/01			30.6			96.47		Dry
	7/19/01			30.6			96.47		Dry
	10/9/01			30.6			96.47		Dry
MW-9R	3/26/02	1.17	19.7	45.0	36.04		98.24		62.20
	5/14/02	1.17	18.1	45.0	34.70		98.24		63.54
	9/22/02	1.20	19.1	45.0	36.52		98.24		61.72
	2/19/03	1.09	18.3	45.0	29.86		98.24		68.38
	6/11/03	1.56	19.5	45.0	25.38		98.24		72.86
	8/26/03	1.03	19.9	45.0	26.00		98.24		72.24
	6/14/04	Er	19.3	45.0	27.70		98.24		70.54
	4/2/98	7.27	20.7	42.0	29.77	-	99.89	-	70.12
MW-10	12/10/99			42.0	36.21		99.89		63.68
2"	4/4/00	4.59	18.2	42.0	36.22		99.89		63.67
	6/20/00	5.09	20.5	42.0	35.84		99.89		64.05
	9/25/00	4.82	19.3	42.0	37.78		99.89		62.11
	2/27/01	5.15	17.4	42.0	39.68		99.89		60.21
	4/23/01	5.19	18.7	42.0	38.46		99.89		61.43
	7/19/01	4.84	20.3	42.0	37.74		99.89		62.15
	10/8/01	2.48	19.1	42.0	39.45		99.89		60.44
	3/26/02	2.89	18.8	42.0	39.93		99.89		59.96
	5/14/02	2.90	18.5	42.0	38.63		99.89		61.26
	9/22/02	4.79	18.8	42.0	39.04		99.89		60.85
	2/19/03	3.59	17.8	42.0	34.13		99.89		65.76
	6/11/03	3.37	20.2	42.0	20.27		99.89		79.62
	8/26/03	2.39	21.0	42.0	28.80		99.89		71.09
	6/14/04	Er	19.5	42.0	32.16		99.89		67.73
	4/2/98	3.03	18.7	25.0	17.84	-	86.57	-	68.73
MW-11	12/10/99			25.0	24.64		86.57		
2"	4/4/00	1.04		25.0	24.43		86.57		
MWR-11	6/20/00	1.10	20.5	40.0	25.11				
	9/25/00	0.41	17.8	40.0	27.03				
	2/27/01	1.39	16.9	40.0	28.35				
	4/23/01	1.07	18.9	40.0	26.55				
	7/19/01	1.17	20.1	40.0	27.03				
	10/9/01	1.19	17.6	40.0	28.38				
	3/29/02	1.29	19.1	40.0	28.94				
	5/15/02	1.36	17.1	40.0	27.50				
	9/22/02	NM	NM	40.0	28.72				
	2/19/03	0.92	17.0	40.0	22.40				
	6/11/03	1.15	18.1	40.0	18.75				
	8/26/03	1.08	17.9	40.0	18.31				
	6/14/04	Er	18.1	40.0	21.66				

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742

As of: 9/27/2004

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	8.28	20.4	12.0	6.97	-	62.71	-	55.74
MW-12	12/10/99			12.0	10.94		62.71		51.77
2"	4/4/00			12.0			62.71		Dry
	6/20/00			12.0			62.71		Dry
	9/25/00			12.0			62.71	Can't	Locate
	2/27/01			12.0			62.71	Can't	Locate
	4/23/01	5.89	15.4	12.0	10.72		62.71		51.99
	7/19/01			11.6	dry		62.71		
	10/9/01			11.6	dry		62.71		
	3/26/02			11.6	dry		62.71		
	5/14/02			11.6	11.33		62.71		51.38
	9/22/02			11.6	dry		62.71		
	2/19/03	6.97	12.8	11.6	7.90		62.71		54.81
	6/11/03	5.29	16.8	11.6	6.85		62.71		55.86
	8/26/03	3.92	19.4	11.6	8.03		62.71		54.68
	6/14/04	Er	16.2	11.6	9.85		62.71		52.86
	4/2/98	4.79	14.7	20.0	10.89	-	75.50	-	64.61
MW-13	12/10/99			20.0	17.51		75.50		57.99
2"	4/4/00	0.43	16.1	20.0	16.02		75.50		59.48
	6/20/00			20.0					Dry
	9/25/00			20.0					Dry
	2/27/01			20.0					Dry
	4/23/01			20.0					Dry
	7/19/01			20.0					Dry
	10/9/01			20.0					Dry
MW-13R	3/26/02	2.25	18.4	35.0	21.20		76.70		55.50
	5/15/02	1.36	18.6	35.0	20.20		76.70		56.50
	9/22/02	1.25	18.0	35.0	21.90		76.70		54.80
	2/19/03	1.43	17.6	35.0	15.56		76.70		61.14
	6/11/03	1.29	18.3	35.0	11.66		76.70		65.04
	8/26/03	1.19	18.9	35.0	12.59		76.70		64.11
	6/14/04	Er	19.1	35.0	14.59		76.70		62.11
	4/2/98	5.54	18.5	23.0	11.99	-	78.38	-	66.39
MW-14	12/10/99			23.0	19.12		78.38		59.26
2"	4/4/00	1.00	18.3	23.0	17.83		78.38		60.55
	6/20/00	1.11	24.2	23.0	19.00		78.38		59.38
	9/25/00	0.39	18.9	23.0	21.00		78.38		57.38
	2/27/01			22.0	dry		78.38		#VALUE!
	4/23/01	1.10	18.7	22.0	19.95		78.38		58.43
	7/19/01	1.21	18.7	22.0	20.97		78.38		57.41
	10/9/01			22.0	dry		78.38		#VALUE!
MW-14R	3/26/02	2.19	18.8	35.0	22.05		77.75		55.70
	5/15/02	4.83	17.6	35.0	21.05		77.75		56.70
	9/22/02	3.49	17.8	35.0	22.75		77.75		55.00
	2/19/03	3.50	16.9	35.0	16.63		77.75		61.12
	6/11/03	1.23	17.9	35.0	12.56		77.75		65.19
	8/26/03	1.78	18.1	35.0	13.09		77.75		64.66
	6/14/04	Er	17.9	35.0	15.79		77.75		61.96
	4/2/98	9.89	18.0	35.0	23.65		92.54	-	68.89
MW-15	12/10/99					Well Buried			
2"	4/4/00					Well Buried			

GROUNDWATER SAMPLING
SS-6672-07/25/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 9/27/2004
Site ID # 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-1	4/2/98							
	1/25/99	28,200	37,200	2,750	19,500	24,600	4,750	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-1	6/20/00	Product Measured						
	9/25/00	51,500	58,000	3,900	20,200	78,500	2,500	
	2/27/01	29,800	31,100	2,750	19,500	34,600	5,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/18/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	24,600	24,200	2,750	19,500	27,900	600	
	6/11/03	19,200	24,900	2,750	19,500	28,600	605	
	8/27/03	37,200	45,800	3,740	19,500	32,200	1,560	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	2,750	19,500	887	554	
MW-1A	4/2/98							
	1/25/99	33,700	39,300	1,700	13,500	193,000	5,000	
	12/9/99							
	4/4/00							
MWR-1A	6/21/00	625	22,164	1,700	13,500	338	554	
	9/25/00	1,280	22,164	1,700	13,500	730	554	
	2/27/01	111	22,164	1,700	13,500	187	554	
	4/23/01	111	22,164	1,700	13,500	187	554	
	7/19/01	111	22,164	1,700	13,500	187	554	
	10/9/01	452	22,164	1,700	13,500	187	554	
	3/26/02	1,300	22,164	1,700	13,500	187	554	
	5/15/02	150	22,164	1,700	13,500	187	554	
	9/18/02	274	22,164	1,700	13,500	187	554	
	2/19/03	428	22,164	1,700	13,500	187	554	
	6/11/03	195	22,164	1,700	13,500	187	554	
	8/27/03	111	22,164	1,700	13,500	187	554	
	6/14/04	111	22,164	1,700	13,500	187	554	38,216
Target		111	22,164	1,700	13,500	187	554	
MW-2	4/2/98	11	17	14	87	<1	9	
	1/25/99	19	12	2	21	67	5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-2	6/20/00	68	721	395	2,090	67	153	
	9/25/00	103	1,270	396	2,030	67	102	
	2/27/01	74	190	63	301	67	53	
	4/23/01	78	524	183	1,010	67	79	
	7/19/01	76	320	153	730	67	69	
	10/9/01	157	481	195	931	67	60	
	3/26/02	180	808	310	1,590	67	102	
	5/15/02	194	651	340	1,810	119	170	
	9/18/02	268	882	444	2,120	268	228	
	2/19/03	149	480	121	595	67	122	
	6/11/03	184	705	181	1,040	123	59	
	8/27/03	137	583	154	905	100	99	
	6/14/04	60	112	25	164	129	69	549
Target		19	12	5	21	67	5	
MW-3	4/2/98	15	24	9	117	<1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-3	6/20/00	<1	1	<1	3	2	<5	
	9/25/00	<1	1	<1	3	2	<5	
	2/27/01	<1	1	<1	3	<1	<5	
	4/23/01	<1	1	<1	3	<1	<5	
	7/19/01	1	1	1	3	1	5	
	10/9/01	1	1	1	3	1	5	
	3/26/02	1	1	2	3	1	5	
	5/14/02	1	1	1	3	1	5	
	9/17/02	1	1	1	3	1	5	
	2/19/03	1	1	1	3	1	5	
	6/11/03	1	1	1	3	1	5	
	8/26/03	1	1	1	3	1	5	
	6/14/04	1	1	1	3	1	5	
MW-4	4/2/98	15,700	2,570	27,600	13,300	5,620	882	
	1/25/99							
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-4	6/20/00	Product Measured						
	9/25/00	20,500	31,200	10,344	147,734	4,660	2,500	
	2/27/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
MW-4R	3/26/02	21,100	17,600	10,344	147,734	6,300	1,000	
	5/15/02	31,900	37,200	10,344	147,734	6,400	1,100	
	9/18/02	23,700	27,500	10,344	147,734	2,900	700	
	2/19/03	12,400	17,900	10,344	147,734	1,540	520	
	6/11/03	5,300	14,775	10,344	147,734	869	496	
	8/27/03	13,100	21,800	10,344	147,734	922	631	
	6/14/04	7,630	20,000	10,344	147,734	600	950	197,258
Target		74	14,775	10,344	147,734	592	369	

GROUNDWATER SAMPLING
SB-6872-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
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Site Name: Crossroads Grocery — As of: 9/27/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-5	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	Dry Well, Not Sampled						
MWR-5	3/26/02	4,410	1	220	1,150	3,950	5	
	5/14/02	4,140	1	190	1,200	2,990	5	
	9/17/02	8,890	200	580	2,100	7,500	500	
	2/19/03	8,080	175	425	1,540	9,460	300	
	6/11/03	3,820	98	256	786	4,540	201	
	8/26/03	2,990	68	160	526	2,320	106	
	6/14/04	1	1	1	3	1	5	
MW-6	4/2/98	39,600	2,460	41,100	12,400	16,400	561	
	1/25/99	6,920	9,600	1,080	7,460	1,810	495	
	12/9/99	10,200	11,000	800	5,000	6,800	1,000	
	4/4/00	21,100	33,400	2,000	10,300	<10000	482	
	6/21/00	21,800	18,000	*1,080*	*7,460*	8,320	500	
	9/25/00	41,000	41,600	2,400	13,200	15,600	2,500	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	2,000	*9,600*	*1,080*	*7,460*	2,510	500	
	7/19/01	4,820	*9,600*	*1,080*	*7,460*	5,200	500	
	10/9/01	Dry Well, Not Sampled						
MWR-4R	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/18/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/19/03	19,400	30,700	3,200	16,300	16,900	1,100	
	6/11/03	13,700	16,700	2,080	11,200	11,600	1,010	
	8/27/03	24,800	31,900	2,500	12,300	16,000	985	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		97	9,600	1,080	7,460	183	482	
MW-7	4/2/98	2,780	1,630	10,500	7,610	63	468	
	1/25/99	2,200	9,360	1,280	7,440	110	430	
	12/9/99	1,300	7,050	1,050	6,500	100	400	
	4/4/00	680	*9,360*	*1,280*	*7,440*	*110*	*430*	
	6/21/00	1,050	*9,360*	*1,280*	*7,440*	*110*	*430*	
	9/25/00	3,670	11,200	1,540	8,380	205	*430*	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-7R	3/26/02	3,020	*9,360*	*1,280*	*7,440*	*110*	*430*	
	5/15/02	15,700	41,600	4,130	21,800	400	860	
	9/18/02	12,400	26,400	2,180	11,300	265	615	
	2/19/03	6,750	16,200	1,350	7,460	*110*	500	
	6/11/03	2,200	*9,360*	*1,280*	*7,440*	*110*	*430*	
	8/27/03	8,440	*9,360*	19,700	12,400	1,540	522	
	6/14/04	2,040	*9,360*	2,080	11,900	120	710	26,210
Target		111	9,360	1,280	7,440	110	430	
MW-8	4/2/98	11,000	722	15,900	6,520	188	35,600	
	1/25/99							
	12/9/99	32,500	39,000	2,500	13,500	93,000	2,500	
	4/4/00	44,700	60,000	*15,515*	*221,643*	164,000	681	
	6/21/00	27,400	25,500	*15,515*	*221,643*	105,000	681	
	9/25/00	43,900	61,500	*15,515*	*221,643*	68,000	2,500	
	2/27/01	24,300	31,000	*15,515*	*221,643*	40,000	5,000	
	4/23/01	28,100	33,700	*15,515*	*221,643*	87,800	1,000	
	7/19/01	30,300	37,800	*15,515*	*221,643*	99,100	2,500	
	10/9/01	24,750	37,050	*15,515*	*221,643*	30,850	2,500	
	3/26/02	21,000	34,100	*15,515*	*221,643*	19,000	2,500	
	5/15/02	29,700	47,200	*15,515*	*221,643*	40,400	5,000	
	9/18/02	25,300	33,200	*15,515*	*221,643*	45,600	500	
	2/19/03	12,700	*22,164*	*15,515*	*221,643*	13,600	500	
	6/11/03	6,100	*22,164*	*15,515*	*221,643*	11,300	*554*	
	8/26/03	226,000	301,000	280,000	278,000	5,110,000	2,000	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	*22,164*	*15,515*	*221,643*	897	*554*	
MW-9	4/2/98	9	12	4	54	<1	2	
	1/25/99	6	3	<1	9	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-9R	3/26/02	110	99	97	562	39	93	
	5/14/02	150	63	32	250	104	68	
	9/17/02	238	36	54	244	30	70	
	2/19/03	137	27	27	110	45	36	
	6/11/03	108	36	30	130	52	50	
	8/26/03	68	31	21	91	38	59	
	6/14/04	46	20	22	107	81	134	

GROUNDWATER SAMPLING
98-6872-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 9/27/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-10	4/2/98	132	48	464	224	1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	<1	<1	<1	<1	4	<5	
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	<1	<1	<1	<1	<1	<5	
	9/25/00	<1	<1	<1	<3	<1	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<1	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	1	4	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/17/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	3	71	26	164	1	48	
MW-11	4/2/98	<1	1,090	312	5,090	<1	272	
	1/25/99	24	106	189	825	10	731	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-11	6/20/00	24	106	189	825	43	369	
	9/25/00	39	106	264	1,260	20	369	
	2/27/01	72	106	189	825	13	369	
	4/23/01	33	106	189	825	49	369	
	7/19/01	24	150	257	1,250	16	369	
	10/9/01	24	106	189	825	34	369	
	3/26/02	16,300	32,100	3,100	15,600	500	2,500	
	5/15/02	3,770	12,000	2,020	10,100	430	710	
	2/19/03	244	822	216	1,700	15	380	
	6/11/03	173	889	496	2,600	54	408	
	8/26/03	150	637	401	2,250	68	369	
	6/14/04	138	412	324	2,130	70	448	3,522
Target		24	106	189	825	10	369	
MW-12	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Could not locate						
	2/27/01	Could not locate						
	4/23/01	1	1	1	3	1	5	
	7/19/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
	2/19/03	1	1	1	3	1	5	
	6/11/03	1	1	1	3	1	5	
	8/26/03	1	1	1	3	1	5	
	6/14/04	1	1	1	3	1	5	
MW-13	4/2/98	<1	130	78	434	1,950	25	
	1/25/99	1,810	26	38	382	2,810	154	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-13R	3/26/02	6,740	3,040	840	3,250	1,020	500	
	5/15/02	10,000	4,660	1,310	5,060	1,600	360	
	9/18/02	13,000	5,540	1,260	5,240	3,600	1,000	
	2/19/03	6,160	2,030	500	2,280	2,320	260	
	6/11/03	4,090	1,350	559	2,380	2,160	321	
	8/27/03	4,500	1,010	433	1,840	1,050	271	
	6/14/04	3,630	50	58	60	2,360	222	6,380
Target		10	26	38	382	134	83	
MW-14	4/2/98	160	149	601	921	1	80	
	1/25/99	17	21	60	334	7	452	
	12/9/99	16	6	20	100	77	20	
	4/4/00	29	64	76	586	<10	89	
	6/21/00	24	40	50	334	48	83	
	9/25/00	25	145	90	682	8	87	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	86	334	116	1,050	68	144	
	7/19/01	169	392	249	1,390	76	209	
	10/9/01	Dry Well, Not Sampled						
MW-14R	3/26/02	53	22	50	334	7	83	
	5/15/02	34	22	50	334	16	83	
	9/17/02	89	21	50	334	7	83	
	2/19/03	42	21	50	334	7	83	
	6/11/03	32	33	50	334	7	83	
	8/26/03	10	21	50	334	7	83	
	6/14/04	10	21	50	334	7	83	505
Target		10	21	50	334	7	83	
MW-15	4/2/98	<5	<5	<5	<5	<1	3	
	1/25/99	Not Sampled						
	12/9/99	Well Buried; Not Sampled						
	4/4/00	Well Buried; Not Sampled						
	6/20/00	Well Buried; Not Sampled						
	9/25/00	Well Buried; Not Sampled						
	2/27/01	Well Buried; Not Sampled						
	4/23/01	Well Buried; Not Sampled						
	10/9/01	Well Buried; Not Sampled						
Total Mass								18,853,640
Target								559,397
Initial Mass above SSTL								12,294,113
% Reduction								-48.8%

GROUNDWATER SAMPLING
SB-6672-07/28/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 9/27/2004
Site ID # 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
	4/2/98							Product
MW-1	1/25/99	28,200	37,200	2,750	19,500	24,600	4,750	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-1	6/21/00	Product Measured						
	9/25/00	51,500	56,000	3,900	20,200	78,500	2,500	
	2/27/01	29,800	31,100	*2,300*	*13,200*	34,600	5,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/17/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	24,500	24,200	*1,880*	*9,890*	27,900	600	
	6/11/03	19,200	24,900	*1,930*	*10,400*	28,600	805	
	8/27/03	37,200	45,800	3,740	*18,800*	32,200	1,560	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,184	2,750	19,500	887	554	
	4/2/98							
MW-1A	1/25/99	33,700	39,300	1,700	13,500	193,000	5,000	
	12/9/99							
	4/4/00							
Target		111	22,184	1,700	13,500	187	554	
	6/21/00	825	1,460	116	716	338	<50	
MWR-1A	9/25/00	1,280	3,160	570	3,520	730	250	
	2/27/01	*47*	*102*	*39*	*417*	*31*	*60*	
	4/23/01	*24*	*22*	*20*	*130*	*14*	*29*	
	7/19/01	*28*	*23*	*33*	*168*	*19*	*40*	
	10/9/01	*45*	*48*	*25*	*217*	*33*	*10*	
	3/29/02	1,300	*2,520*	*290*	*1,440*	*50*	*250*	
	5/15/02	150	*328*	*42*	*252*	*56*	*100*	
	9/18/02	274	*172*	*52*	*217*	*28*	32	
	2/19/03	428	*162*	*35*	*171*	*24*	*25*	
	6/11/03	185	*84*	*31*	*133*	*16*	*26*	
	8/27/03	*91*	*154*	*29*	*161*	*43*	*23*	
	6/14/04	*4*	*1*	*1*	*8*	*4*	*9*	27
Target		111	22,184	1,700	13,500	187	554	
	4/2/98	11	17	14	87	<1	9	
MW-2	1/25/99	19	12	2	21	67	5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-2	6/21/00	68	721	385	2,090	53	153	
	9/25/00	103	1,270	396	2,030	2	102	
	2/27/01	74	190	60	301	*10*	50	
	4/23/01	78	524	183	1,010	*51*	79	
	7/19/01	76	320	150	730	39	69	
	10/9/01	167	481	185	931	*50*	60	
	3/26/02	180	808	310	1,590	*54*	102	
	5/14/02	194	651	340	1,810	119	170	
	9/18/02	258	862	444	2,120	288	228	
	2/19/03	149	480	121	595	39	122	
	6/11/03	184	705	181	1,040	123	59	
	8/27/03	137	583	154	905	100	99	
	6/14/04	50	112	25	164	129	69	549
Target		19	12	5	21	67	5	
	4/2/98	15	24	9	117	<1	11	
MW-3	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-3	6/21/00	<1	1	<1	<1	2	<5	
	9/25/00	<1	1	<1	<1	2	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<3	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	2	1	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/18/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	1	1	1	4	1	6	

GROUNDWATER SAMPLING
SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 9/27/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-4	4/2/98	15,700	2,570	27,600	13,300	5,820	882	
	1/25/99							
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-4	6/21/00	Product Measured						
	9/25/00	20,500	31,200	2,500	15,500	4,650	2,500	
	2/27/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
MW-4R	3/26/02	21,100	17,600	*1,260*	*7,700*	6,300	1,000	
	5/15/02	31,900	37,200	*2,920*	*17,900*	6,400	1,100	
	9/18/02	23,700	27,500	*2,260*	*11,300*	2,900	700	
	2/20/03	12,400	17,900	*1,670*	*9,230*	1,540	520	
	6/11/03	5,300	11,300	*1,290*	*7,360*	869	486	
	8/27/03	13,100	21,800	*1,980*	*11,900*	922	631	
	6/14/04	7,630	20,000	*2,110*	*11,100*	600	950	42,380
Target		74	14,775	10,344	147,734	592	369	
MW-5	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	Dry Well, Not Sampled						
MWR-5	3/26/02	4,410	100	220	1,150	3,950	500	
	5/14/02	4,140	100	190	1,200	2,990	500	
	9/17/02	8,890	200	580	2,100	7,500	500	
	2/19/03	8,080	175	425	1,540	9,460	300	
	6/11/03	3,820	96	256	786	4,640	201	
	8/26/03	2,990	68	160	526	2,320	106	
	6/14/04	1	1	1	3	1	5	
MW-6	4/2/98	39,600	2,460	41,100	12,400	18,400	561	
	1/25/99	6,820	9,600	1,080	7,460	1,810	495	
	12/9/99	10,200	11,000	800	5,000	6,800	1,000	
	4/4/00	21,100	33,400	2,000	10,300	10,000	314	
	6/21/00	21,800	18,000	1,080	6,320	8,320	500	
	9/25/00	41,000	41,600	2,400	13,200	15,600	2,500	
	4/23/01	2,000	*1,370*	*100*	2,770	2,510	500	
	7/19/01	4,280	*4,900*	*290*	*4,280*	5,200	500	
	10/9/01	Dry Well, Not Sampled						-
MWR-4R	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/17/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	19,400	30,700	3,200	16,300	16,900	1,100	
	6/11/03	13,700	16,700	2,080	11,200	11,600	1,010	
	8/27/03	24,800	31,900	2,500	12,300	16,000	985	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		97	9,600	1,080	7,460	163	482	
MW-7	4/2/98	2,780	1,630	10,500	7,610	63	468	
	1/25/99	2,200	9,360	1,280	7,440	110	430	
	12/8/00	1,300	7,050	1,050	6,500	100	400	
	4/4/00	680	2,270	315	2,180	49	160	
	6/21/00	1,050	4,550	442	2,690	66	234	
	9/25/00	3,670	11,200	1,540	8,380	205	250	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	Dry Well, Not Sampled						
MW-7R	3/26/02	3,020	7,140	475	3,560	50	250	
	5/15/02	15,700	41,500	4,130	21,800	400	860	
	9/18/02	12,400	26,400	2,180	11,300	265	615	
	2/20/03	6,790	16,200	1,350	7,450	*100*	500	
	6/11/03	2,200	8,300	955	5,490	*55*	400	
	8/27/03	8,440	19,700	2,070	12,400	1,540	522	
	6/14/04	2,040	6,400	2,080	11,900	120	710	23,250
Target		111	9,360	1,280	7,440	110	430	

GROUNDWATER SAMPLING
SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 9/27/2004
Site ID # 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-8	4/2/98	11,000	722	15,900	6,520	188	35,500	
	1/25/99							
	12/9/00	32,500	39,000	2,500	13,500	93,000	2,500	
	4/4/00	44,700	60,000	3,250	17,400	164,000	681	
	6/21/00	27,400	25,500	1,320	7,360	105,000	681	
	9/25/00	43,900	61,500	3,700	19,700	68,000	2,500	
	2/27/01	24,300	31,000	*1,900*	*10,800*	40,000	5,000	
	4/23/01	28,100	33,700	*1,840*	*10,600*	87,800	1,000	
	7/19/01	30,300	37,800	*1,950*	*11,600*	99,100	2,500	
	10/9/01	24,750	37,050	*2,150*	*11,900*	30,850	2,500	
	3/26/02	21,000	34,100	*2,250*	*11,900*	19,000	2,500	
	5/15/02	29,700	47,200	*3,000*	*17,300*	40,400	5,000	
	9/18/02	25,300	33,200	*1,840*	*9,660*	45,600	500	
	2/20/03	12,700	17,800	*1,280*	*6,930*	13,600	500	
	6/11/03	6,100	11,300	*1,880*	*5,950*	11,300	554	
	8/26/03	226,000	301,000	280,000	278,000	5,110,000	2,000	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	15,515	221,843	887	554	
MW-9	4/2/98	9	12	4	54	<1	2	
	1/25/99	6	3	<1	9	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-9R	3/26/02	110	99	97	552	39	93	
	5/14/02	150	63	32	250	104	68	
	9/17/02	238	36	54	244	30	70	
	2/19/03	137	27	27	110	45	36	
	6/11/03	108	36	30	130	52	50	
	8/26/03	68	31	21	91	38	59	
	6/14/04	46	20	22	107	81	134	
MW-10	4/2/98	132	48	464	224	1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	<1	<1	<1	<1	4	<5	
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	<1	<1	<1	<1	<1	<5	
	9/25/00	<1	<1	<1	<1	<1	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<1	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	4	1	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/18/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	3	71	26	154	1	48	
MW-11	4/2/99	<1	1,090	312	5,090	<1	272	
	1/25/99	24	106	189	825	10	731	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-11	6/21/00	17	20	37	288	43	28	
	9/25/00	39	101	264	1,260	20	109	
	2/27/01	72	*40*	*9*	*131*	13	*12*	
	4/23/01	33	*45*	*122*	*690*	49	*99*	
	7/19/01	13	150	257	1,250	16	143	
	10/9/01	18	*84*	*139*	*785*	34	*86*	
	3/26/02	15,300	32,100	3,100	15,600	500	2,500	
	5/15/02	3,770	12,000	2,020	10,100	430	710	
	2/19/03	244	822	216	1,700	15	380	
	6/11/03	173	889	496	2,600	54	408	
	8/26/03	150	637	401	2,250	58	290	
	6/14/04	138	412	324	2,130	70	448	3,522
Target		24	106	189	825	10	369	

GROUNDWATER SAMPLING
SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 9/27/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb							Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene		
	4/2/98	<1	<1	<1	<1	<1	<5		
MW-12	1/25/99	<1	<1	<1	<1	<1	<5		
	12/9/99	Dry Well, Not Sampled							
	4/4/00	Dry Well, Not Sampled							
	6/21/00	Dry Well, Not Sampled							
	9/25/00	Dry Well, Not Sampled							
	4/23/01	1	1	1	1	1	5		
	7/19/01	Dry Well, Not Sampled							
	10/9/01	Dry Well, Not Sampled							
	2/19/03	1	1	1	1	1	5		
	6/11/03	1	1	1	1	1	5		
	8/26/03	1	1	1	1	1	5		
	6/14/04	1	1	1	3	1	5		
	4/2/98	<1	130	78	434	1,950	25		
MW-13	1/25/99	1,810	26	38	382	2,810	154		
	12/9/99	Dry Well, Not Sampled							
	4/4/00	Dry Well, Not Sampled							
	6/21/00	Dry Well, Not Sampled							
	9/25/00	Dry Well, Not Sampled							
	2/27/01	Dry Well, Not Sampled							
	4/23/01	Dry Well, Not Sampled							
	10/9/01	Dry Well, Not Sampled							
MW-13R	3/26/02	6,740	3,040	840	3,250	1,020	500		
	5/15/02	10,000	4,660	1,310	5,060	1,600	350		
	9/18/02	13,000	5,540	1,280	5,240	3,600	1,000		
	2/19/03	6,160	2,030	500	2,280	2,320	250		
	6/11/03	4,090	1,350	559	2,380	2,160	321		
	8/27/03	4,500	1,010	433	1,840	1,050	271		
	6/14/04	3,530	50	58	60	2,360	222		6,280
Target		10	26	38	382	134	83		
	4/2/98	150	149	501	921	1	80		
MW-14	1/25/99	17	21	50	334	7	452		
	12/9/99	16	6	20	190	77	20		
	4/4/00	29	64	76	586	10	89		
	6/21/00	24	40	35	330	48	51		
	9/25/00	25	145	90	682	8	87		
	4/23/01	86	334	116	1,090	88	144		
	7/19/01	169	392	249	1,380	76	209		
	10/9/01	Well Buried, Not Sampled							-
MW-14R	3/26/02	53	22	5	94	6	12		
	5/14/02	34	22	1	88	16	24		
	9/17/02	89	4	10	61	5	15		
	2/19/03	42	3	4	14	1	5		
	6/11/03	32	33	13	77	3	9		
	8/26/03	9	1	1	5	1	5		
	6/14/04	1	1	1	3	1	5		12
Target		10	21	50	334	7	83		
	4/2/98	<5	<5	<5	<5	<1	3		
MW-15	1/25/99	Not Sampled							
	12/9/99	Well Buried, Not Sampled							
	4/4/00	Well Buried, Not Sampled							
	6/21/00	Well Buried, Not Sampled							
	10/9/01	Well Buried, Not Sampled							
Total Mass									18,667,030
Target									559,387
Initial Mass above SSTL									12,294,113
% Reduction									-47.3%

SMITH

Monitoring & Maintenance Engineering, Inc.

December 7, 2004

RECEIVED

DEC 13 2004

UNDERGROUND STORAGE TANK PROGRAM

Mr. Joel Padgett
Department of Health and Environmental Control
UST Management Division
2600 Bull Street
Columbia, South Carolina 29201-1708

Re: Quarterly Monitoring Report; Site #06742
Cross Roads Grocery; Oconee County, South Carolina

Dear Mr. Padgett,

As required, Smith Monitoring & Maintenance Engineering, Inc. (SMME) has completed groundwater sampling activities in compliance with condition number 7 of the referenced bid specification. The monitoring wells were sampled on October 21, 2004.

Static water levels and total well depths were measured to the nearest 0.01-foot, based on top of casing elevations previously established in EMC's assessment of May of 1998. Dissolved oxygen concentrations were measured prior to level measurement and well sampling to minimize errors due to aeration of the water in the well screen.

All wells were purged and sampled with a decontaminated 12-volt DC, low volume, centrifugal pump. The wells were purged until at least one standing well volume had been removed and the pH and temperature of the water had stabilized to within a 10 percent difference. The groundwater sampling parameters for each well were recorded in the attached groundwater sampling field tables.

The groundwater samples were recovered through the use of low-volume pumping. The water sample was then apportioned into the pre-labeled sample containers, which contained the appropriate preservatives according to U.S. EPA standards. Required sample volumes, containers, sample preservatives, and holding times followed guidelines stipulated in Appendix A of the EISOPQAM.

The sample bottles were labeled with all data required by the EISOPQAM and placed in iced containers for storage to maintain not more than 5 degrees Celsius temperature. Static water level measurements and well sampling were conducted in sequence from the least contaminated well to the most contaminated well.

Chain-of-custody procedures used for this assessment conformed to the EISOPQAM, Section 3. The chain-of-custody forms were used to record and document all times and changes of possession of the samples. The chain-of-custody form documents the project name; sample number; name and signature of sample personnel and the field supervisor, the sampling location, date, and collection time, type of sample, container type, sample media, and the number of containers for a given sample.

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296

84 tech

Groundwater elevations (see Groundwater Elevation Table 1), measured prior to groundwater sampling, were used to construct a water table contour map, which is included as Figure 1. Groundwater elevations were calculated by subtracting the depth-to-water measurement from the Top-of-Casing (TOC) elevation previously measured. At this time, the exact gradient is not determinate since the casing elevations for the new wells are unknown. Based upon prior site experience groundwater flow direction is generally toward the south.

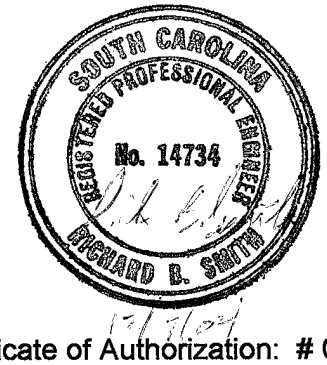
Figure 2 shows the benzene isopleth, based on the latest sampling. A summary of recorded sampling events is provided in Table 3: Actual Concentrations. A laboratory analytical data summary sheet is provided in Attachment I. The lab's final report will be forwarded, separately, when it becomes available. Table 2: Report Concentrations is provided as a summary of the analytical data using the SSTLs in summing the site score, for billing purposes.

Progress of Corrective Action

The groundwater treatment system, as described in the approved Corrective Action Plan, was installed and started operation on January 11, 2000. Problems due to freezing temperatures caused a temporary shutdown during late January of 2000. The treatment system was shutdown, temporarily, during the fall and winter 2001/2002 due to significant product reoccurrence and injection line destruction due to site clearing activities. System injection lines were repaired and product reduced.

Product gauging has again indicated a significant increase in product volume. Original product thickness stated in our contract was 0.05' at MW-4 and 2.49' in MW-8. SMME conducted two vacuum recovery events, early during the corrective action. Although, no data still exists concerning the amount of product recovered, most recoveries have amassed 150 to 250 gallons of fuel. So, over the two events we probably recovered 300 to 500 gallons, total. Following these events, the site was sampled by SMME and samples split with a representative of SCDHEC. This sampling confirmed the removal of product and SMME billed and was paid for a total of 75% of the contract amount. Shortly thereafter, product began to reoccur in MWR-1 and MWR-4 (none detected in MW-8). Since both of these wells were hydraulically down gradient of the known source area, there was reason, at that time, to suspect an additional release. SMME purchased and installed two product recovery pumps. This effort removed approximately 200 gallons of product. The primary issue, at this time, is the reoccurrence of product in MW-8, which is the most up gradient well on the site and closest to the fueling operation. The last measurement taken, in this well, indicated product at 32.80' from top of casing and no water tone before intercepting the well bottom at 43.0'. Therefore, MW-8 currently contains four times the product thickness originally contracted. Continued corrective action at this site will require additional efforts to locate the source of the additional fuel and long-term product recovery. This is well beyond the scope of the State's contract with this firm.

Should you have any questions, please contact the undersigned.



Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer
S.C. Reg.: 14734

Certificate of Authorization: # C01435

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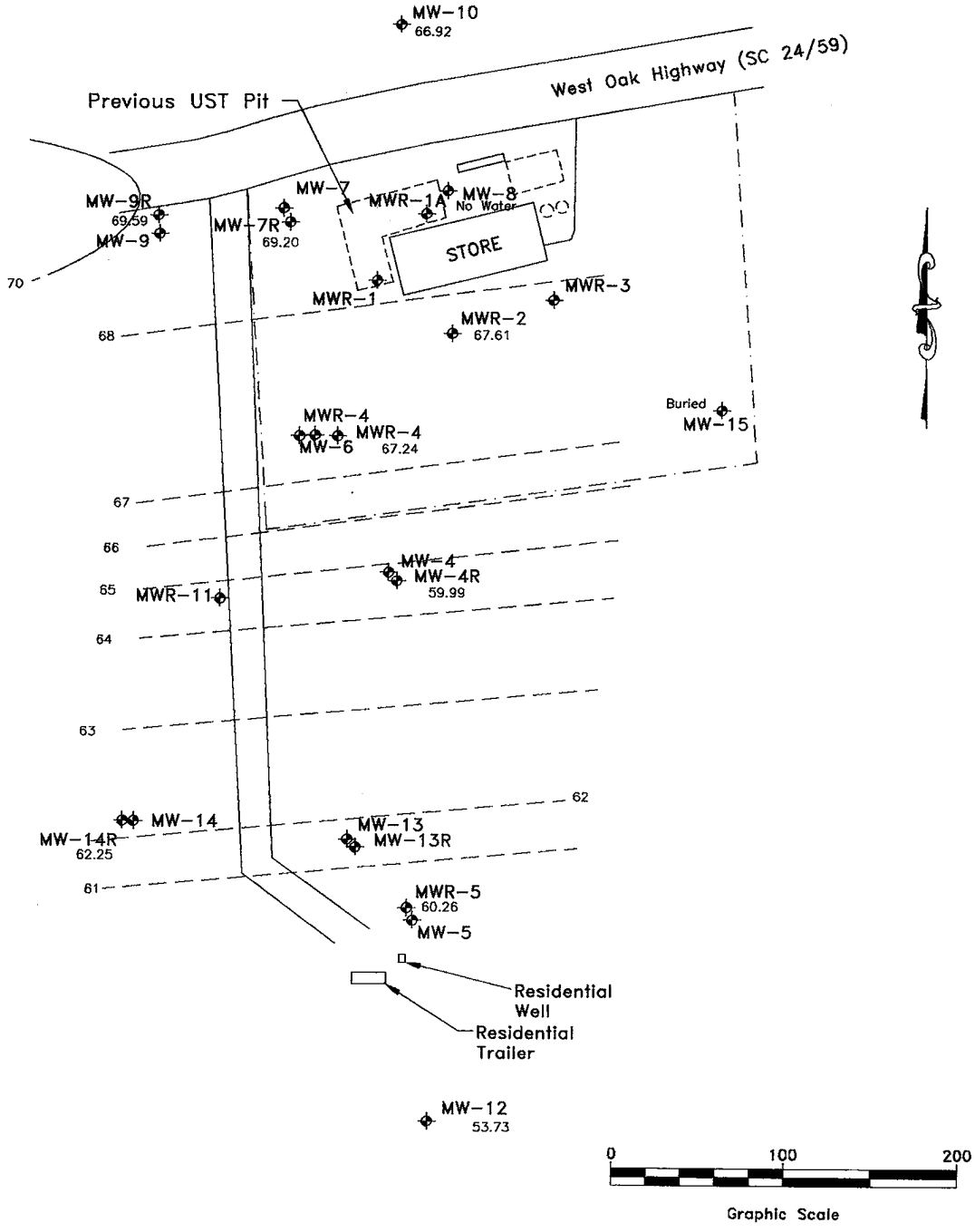
DEC 13 2004
UNDERGROUND STORAGE
TANK PROGRAM

FIGURES



Rick Smith, SMME12/4/2004 1:09 PMoconee oct 2004.dwg

South Carolina DHEC
2600 Bull Street
Columbia, South Carolina

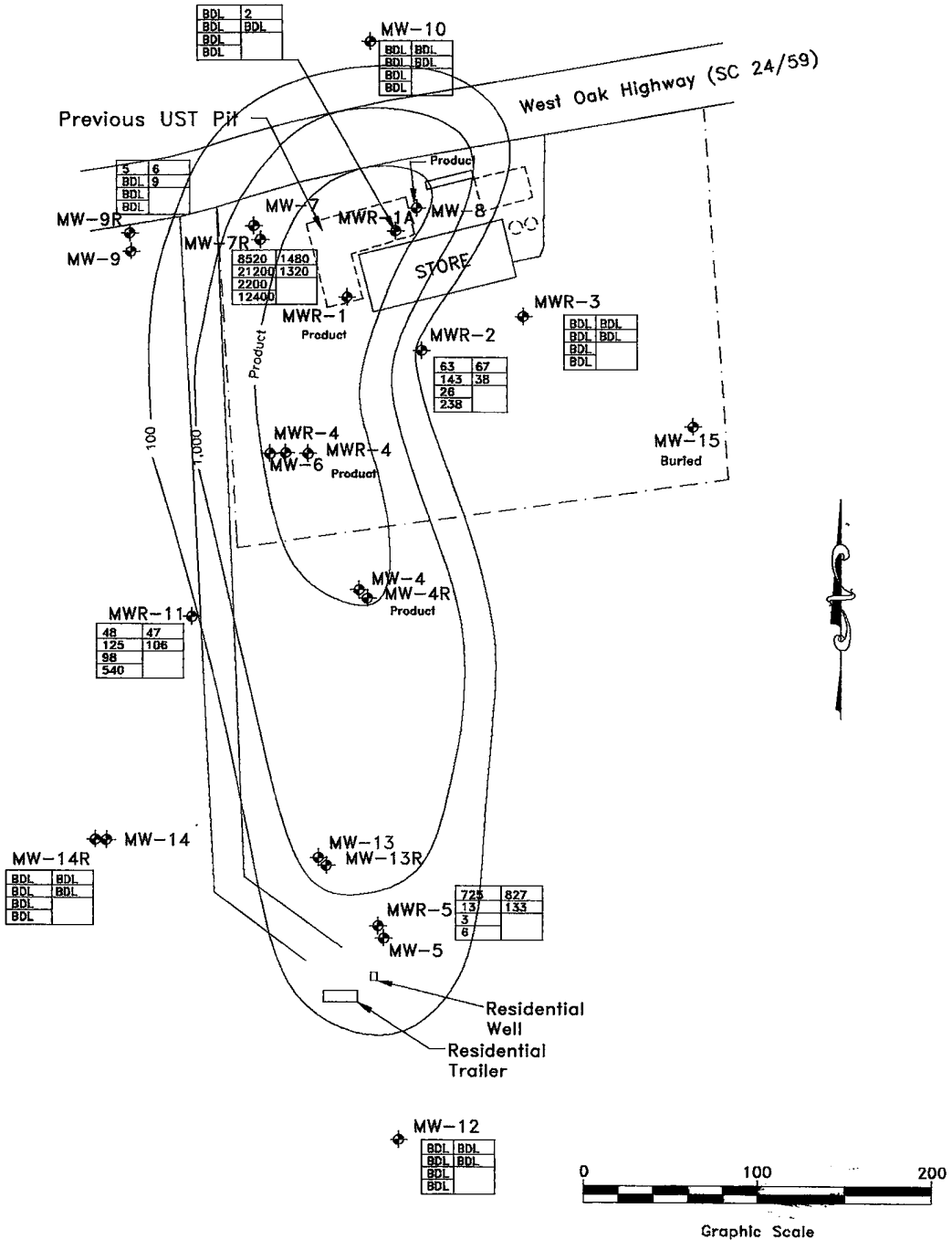
SMME Smith Monitoring & Maintenance Engineering, Inc.
Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance
145 Merrill Avenue Decatur, Georgia 30030
Telephone: (404) 371-9332

PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: December 4, 2004

Potentiometric Surface Map
October 21, 2004
Cross Roads Grocery
Oconee County, South Carolina

oconee dec 2004.dwg

FIGURE
1



Rick Smith, SMME12/4/2004 1:09 PMoconee oct 2004.dwg

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145 Merrill Avenue Decatur, Georgia 30030
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PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: December 4, 2004

Benzene Isopleth
October 21, 2004
Cross Roads Grocery
Oconee County, South Carolina

oconee dec 2004.dwg

FIGURE
2

TABLES

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery
Site ID # 6742

As of: 11/29/2004

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	0.00	-	30.0	28.47	28.45	99.04	0.02	70.59
MW-1	12/10/99			29.8	29.60		99.04		
2"	4/4/00			29.8	Dry		99.04		
MWR-1	6/20/00			45.0	35.20	34.93		0.27	
	9/25/00	0.39	20.1	45.0	37.05	37.05		0.00	
	2/27/01		18.5	45.0	39.05	39.05		0.00	
	7/19/01			45.0	37.90	36.70		1.20	
	10/9/01			45.0	38.91	38.89		0.02	
	3/26/02			45.0	39.42	39.35		0.07	
	5/15/02			45.0	39.42	39.95		2.50	
	2/20/03	1.49	18.7	45.0	39.20	0.00		0.00	
	6/11/03	1.08	19.7	45.0	28.30	0.00		0.00	
	8/26/03	1.12	19.9	45.0	28.04	0.00		0.00	
	6/14/04			45.0	31.49	31.50		0.01	
	10/21/04			45.0	32.05	31.50		0.01	
	4/2/98	0.00	-	40.0	31.50	28.66	99.01	2.84	69.92
MW-1A	12/10/99			38.4	38.32	35.32	99.01	3.00	63.24
2"	4/4/00			38.4		-1.10	99.01	1.10	
MWR-1A	6/20/00	1.01	21.8	70.0	35.95	35.95	98.70	0.00	62.75
	9/25/00			70.0	37.43	37.43	98.70	0.00	61.27
	2/27/01	1.01	18.8	70.0	39.58		98.70		59.12
	4/23/01	1.04	19.4	70.0	38.35		98.70		60.35
	7/19/01	1.09	21.5	70.0	38.20		98.70		60.50
	10/9/01	1.22	20.8	70.0	40.80		98.70		57.90
	3/26/02	1.49	20.9	70.0	41.95		98.70		56.75
	5/15/02	1.12	19.8	70.0	40.20		98.70		58.50
	9/22/02	1.24	20.9	70.0	41.48		98.70		57.22
	2/19/03	1.32	18.7	70.0	34.40		98.70		64.30
	6/11/03	1.19	21.7	70.0	31.25		98.70		67.45
	8/26/03	1.98	20.5	70.0	29.30		98.70		69.40
	6/14/04	Er	19.3	70.0	32.09		98.70		66.61
	10/21/04	5.00	18.8	70.0	32.42		98.70		66.28
	4/2/98	6.24	18.7	30.0	26.98	-	97.77	-	70.79
MW-2	12/10/99			29.3	29.22		97.77		
2"	4/4/00	0.48		29.3	29.22		97.77		Dry
MWR-2	6/20/00	1.23	22.3	40.0	33.23		97.40		64.17
	9/25/00	0.30	18.9	40.0	35.17		97.40		62.23
	2/27/01	1.01	17.9	40.0	36.92		97.40		60.48
	4/23/01	1.03	21.6	40.0	35.60		97.40		61.80
	7/19/01	1.27	22.7	40.0	35.21		97.40		62.19
	10/9/01	1.32	17.6	40.0	36.85		97.40		60.55
	3/26/02	1.15	18.9	40.0	37.20		97.40		60.20
	5/15/02	1.28	19.3	40.0	35.89		97.40		61.51
	9/22/02	1.33	18.8	40.0	36.63		97.40		60.77
	2/19/03	1.19	18.7	40.0	31.05		97.40		66.35
	6/11/03	1.38	18.3	40.0	26.89		97.40		70.51
	8/26/03	1.39	20.3	40.0	26.41		97.40		70.99
	6/14/04	Er	18.6	40.0	29.10		97.40		68.30
	10/21/04	4.40	19.1	40.0	29.79		97.40		67.61
	4/2/98	7.07	18.0	30.0	27.30	-	96.77	-	69.47
MW-3	12/10/99			29.0	28.97		96.77		
2"	4/4/00			29.0	28.94		96.77		Dry
MWR-3	6/20/00	2.65	22.6	40.0	33.40				
	9/25/00	1.43	19.0	40.0	35.32				
	2/27/01	1.70	17.5	40.0	37.11				
	4/23/01	1.59	21.4	40.0	35.84				
	7/19/01	1.95	22.2	40.0	35.33				
	10/9/01	1.31	17.6	40.0	37.00				
	3/26/02	1.31	19.4	40.0	37.34				
	5/14/02	1.98	18.2	40.0	36.00				
	9/22/02	1.29	19.6	40.0	36.64				
	2/19/03	1.25	18.1	40.0	31.12				
	6/11/03	1.29	21.1	40.0	27.18				
	8/26/03	1.24	19.5	40.0	26.67				
	6/14/04	Er	19.3	40.0	29.56				
	10/21/04	4.30	18.0	40.0	30.39				

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742

As of: 11/29/2004

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	3.84	-	25.0	21.45	-	90.10	-	68.65
MW-4	12/10/99			27.4	27.13		90.10		
2"	4/4/00			27.4			90.10		Dry
MWR-4	6/20/00			40.0	30.43	-	92.97	0.01	62.55
	9/25/00	0.47	18.6	40.0	32.34	-	92.97	0.00	60.63
	2/27/01			40.0	35.85	-	92.97	1.00	57.97
	4/23/01			40.0	33.69	-	92.97	1.00	60.13
	7/19/01			40.0	32.77	-	92.97	0.50	60.63
	10/9/01			40.0	40.00	-	92.97	2.50	55.10
MW-4R	3/26/02	1.27	17.1	35.0	27.98	-	85.07		57.09
	5/15/02	1.06	17.7	35.0	26.60	-	85.07		58.47
	9/22/02	1.40	18.4	35.0	27.73	-	85.07		57.34
	2/20/03	1.12	17.1	35.0	21.72	-	85.07		63.35
	6/11/03	1.36	17.9	35.0	17.59	-	85.07		67.48
	8/26/03	1.19	19.0	35.0	17.75	-	85.07		67.32
	6/14/04	Er	18.7	35.0	24.93	-	85.07		60.14
	10/21/04			35.0	25.09	-	85.07	0.01	59.99
	4/2/98	5.86	14.1	20.0	12.40	-	74.74	-	62.34
MW-5	12/10/99			20.0	16.93		74.74		57.81
2"	4/4/00	4.74	16.8	20.0	12.45		74.74		62.29
	6/20/00	1.75		20.0	16.86		74.74		57.88
	9/25/00			20.0	dry		74.74		#VALUE!
	2/27/01			20.0	dry		74.74		#VALUE!
	4/23/01	1.16	15.7	20.0	17.35		74.74		57.39
	7/19/01	4.48		20.0	18.37		74.74		56.37
	10/9/01	dry		20.0	dry		74.74		#VALUE!
MWR-5	3/26/02	1.30	18.4	34.0	19.59		74.29		54.70
	5/14/02	1.37	16.2	34.0	18.77		74.29		55.52
	9/22/02	1.30	18.0	34.0	20.50		74.29		53.79
	2/19/03	3.92	17.1	34.0	14.20		74.29		60.09
	6/11/03	1.21	18.0	34.0	10.93		74.29		63.36
	8/26/03	1.09	18.0	34.0	11.70		74.29		62.59
	6/14/04	Er	18.1	34.0	13.95		74.29		60.34
	10/21/04	6.80	18.7	34.0	14.03		74.29		60.26
	4/2/98	0.66	17.6	35.0	23.35	-	92.67	-	69.32
MW-6	12/10/99			35.0	30.35		92.67		62.32
2"	4/4/00	0.18	18.0	35.0	29.88		92.67		62.79
	6/20/00	1.14	24.5	35.0	30.05		92.67		62.62
	9/25/00	0.33	18.6	35.0	32.05		92.67		60.62
	2/27/01			35.0	Dry		92.67		#VALUE!
	4/23/01	1.15	20.2	35.0	32.03		92.67		60.64
	7/19/01	1.09	19.5	35.0	32.02		92.67		60.65
	10/9/01	dry		35.0	dry		92.67		#VALUE!
MWR-4R	3/26/02			45.0	36.04		94.97	1.00	59.78
	5/15/02			45.0	36.79		94.97	0.50	58.61
	9/22/02			45.0	36.23		94.97	0.50	59.17
	2/20/03	1.97	17.5	45.0	28.19		94.97	0.00	66.78
	6/11/03	1.10	18.6	45.0	24.24		94.97	0.00	70.73
	8/26/03	1.04	19.8	45.0	24.74		94.97	0.00	70.23
	6/14/04			45.0	29.61		94.97	2.50	67.49
	10/21/04			45.0	28.75		94.97	1.20	67.24
	4/2/98	5.18	21.7	39.0	27.06	-	97.68	-	70.62
MW-7	12/10/99			39.0	33.90		97.68		63.78
2"	4/4/00	0.04	17.8	39.0	33.76		97.68		63.92
	6/20/00	0.81	26.8	39.0	33.59		97.68		64.09
	9/25/00	0.31	20.0	39.0	35.55		97.68		62.13
	2/27/01			39.0	Dry		97.68		#VALUE!
	4/23/01			39.0	Dry		97.68		#VALUE!
	7/19/01			37.0	36.21		97.68	0.65	61.47
	10/9/01			37.0	dry		97.68		#VALUE!
MW-7R	3/26/02	1.89	20.5	45.0	38.10		100.06		61.96
	5/15/02	1.21	20.0	45.0	36.86		100.06		63.20
	9/22/02	1.16	20.7	45.0	37.44		100.06		62.62
	2/20/03	1.22	19.3	45.0	32.30		100.06		67.76
	6/11/03	1.11	20.3	45.0	30.15		100.06		69.91
	8/26/03	1.00	21.0	45.0	27.30		100.06		72.76
	6/14/04	Er	17.9	45.0	30.72		100.06		69.34
	10/21/04	5.40	19.0	45.0	30.86		100.06		69.20

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742

As of: 11/29/2004

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	3.83	19.7	45.0	28.87	-	99.10	-	70.23
MW-8	12/10/99			43.0	35.82		99.10		63.28
2"	4/4/00	0.15	17.1	43.0	35.74		99.10		63.36
	6/20/00	0.99	23.3	43.0	35.50		99.10		63.60
	9/25/00	0.37	19.7	43.0	37.40		99.10		61.70
	2/27/01	0.94	19.0	43.0	39.34		99.10		59.76
	4/23/01	1.09	21.0	43.0	38.06		99.10		61.04
	7/19/01	1.12	22.0	43.0	37.44		99.10		61.66
	10/9/01	1.13	19.5	43.0	38.00		99.10		61.10
	3/26/02	1.19	19.9	43.0	39.54		99.10		59.56
	5/15/02	1.09	20.4	43.0	38.26		99.10		60.84
	9/22/02	1.18	22.0	43.0	38.75		99.10		60.35
	2/20/03	1.10	19.4	43.0	33.69		99.10		65.41
	6/11/03	1.09	20.8	43.0	28.75		99.10		70.35
	8/26/03			43.0	27.76		99.10	0.58	71.84
	6/14/04			43.0	33.71		99.10	3.00	67.94
	10/21/04			43.0	No Water Detected		99.10	10.20	#VALUE!
	4/2/98	5.45	18.7	32.0	23.94	-	96.47	-	72.53
MW-9	12/10/99			30.6	30.42		96.47		
2"	4/4/00			30.6			96.47		Dry
	6/20/00			30.6			96.47		Dry
	9/25/00			30.6			96.47		Dry
	2/27/01			30.6			96.47		Dry
	4/23/01			30.6			96.47		Dry
	7/19/01			30.6			96.47		Dry
	10/9/01			30.6			96.47		Dry
MW-9R	3/26/02	1.17	19.7	45.0	36.04		98.24		62.20
	5/14/02	1.17	18.1	45.0	34.70		98.24		63.54
	9/22/02	1.20	19.1	45.0	36.52		98.24		61.72
	2/19/03	1.09	18.3	45.0	29.86		98.24		68.38
	6/11/03	1.56	19.5	45.0	25.38		98.24		72.86
	8/26/03	1.03	19.9	45.0	26.00		98.24		72.24
	6/14/04	Er	19.3	45.0	27.70		98.24		70.54
	10/21/04	5.40	19.2	45.0	28.65		98.24		69.59
	4/2/98	7.27	20.7	42.0	29.77	-	99.89	-	70.12
MW-10	12/10/99			42.0	36.21		99.89		63.68
2"	4/4/00	4.59	18.2	42.0	36.22		99.89		63.67
	6/20/00	5.09	20.5	42.0	35.84		99.89		64.05
	9/25/00	4.82	19.3	42.0	37.78		99.89		62.11
	2/27/01	5.15	17.4	42.0	39.68		99.89		60.21
	4/23/01	5.19	18.7	42.0	38.46		99.89		61.43
	7/19/01	4.84	20.3	42.0	37.74		99.89		62.15
	10/8/01	2.48	19.1	42.0	39.45		99.89		60.44
	3/26/02	2.69	18.8	42.0	39.93		99.89		59.96
	5/14/02	2.90	18.5	42.0	38.63		99.89		61.26
	9/22/02	4.79	18.8	42.0	39.04		99.89		60.85
	2/19/03	3.59	17.8	42.0	34.13		99.89		65.76
	6/11/03	3.37	20.2	42.0	20.27		99.89		79.62
	8/26/03	2.39	21.0	42.0	28.80		99.89		71.09
	6/14/04	Er	19.5	42.0	32.16		99.89		67.73
	10/21/04	6.80	17.8	42.0	32.97		99.89		66.92
	4/2/98	3.03	18.7	25.0	17.84	-	86.57	-	68.73
MW-11	12/10/99			25.0	24.64		86.57		
2"	4/4/00	1.04		25.0	24.43		86.57		
MWR-11	6/20/00	1.10	20.5	40.0	25.11				
	9/25/00	0.41	17.8	40.0	27.03				
	2/27/01	1.39	16.9	40.0	28.35				
	4/23/01	1.07	18.9	40.0	26.55				
	7/19/01	1.17	20.1	40.0	27.03				
	10/9/01	1.19	17.6	40.0	28.38				
	3/29/02	1.29	19.1	40.0	28.94				
	5/15/02	1.36	17.1	40.0	27.50				
	9/22/02	NM	NM	40.0	28.72				
	2/19/03	0.92	17.0	40.0	22.40				
	6/11/03	1.15	18.1	40.0	18.75				
	8/26/03	1.08	17.9	40.0	18.31				
	6/14/04	Er	18.1	40.0	21.66				
	10/21/04	5.80	19.3	40.0	21.61				

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742

As of: 11/29/2004

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/96	8.28	20.4	12.0	6.97	-	62.71	-	55.74
MW-12	12/10/99			12.0	10.94		62.71		51.77
2"	4/4/00			12.0			62.71		Dry
	6/20/00			12.0			62.71		Dry
	9/25/00			12.0			62.71	Can't	Locate
	2/27/01			12.0			62.71	Can't	Locate
	4/23/01	5.89	15.4	12.0	10.72		62.71		51.99
	7/19/01			11.6	dry		62.71		
	10/9/01			11.6	dry		62.71		
	3/26/02			11.6	dry		62.71		
	5/14/02			11.6	11.33		62.71		51.38
	9/22/02			11.6	dry		62.71		
	2/19/03	6.97	12.8	11.6	7.90		62.71		54.81
	6/11/03	5.29	16.8	11.6	6.85		62.71		55.86
	8/26/03	3.92	19.4	11.6	8.03		62.71		54.68
	6/14/04	Er	16.2	11.6	9.85		62.71		52.86
	10/21/04	11.50	18.3	11.6	8.98		62.71		53.73
	4/2/96	4.79	14.7	20.0	10.89	-	75.50	-	64.61
MW-13	12/10/99			20.0	17.51		75.50		57.99
2"	4/4/00	0.43	16.1	20.0	16.02		75.50		59.48
	6/20/00			20.0					Dry
	9/25/00			20.0					Dry
	2/27/01			20.0					Dry
	4/23/01			20.0					Dry
	7/19/01			20.0					Dry
	10/9/01			20.0					Dry
MW-13R	3/26/02	2.25	18.4	35.0	21.20		76.70		55.50
	5/15/02	1.36	18.6	35.0	20.20		76.70		56.50
	9/22/02	1.25	18.0	35.0	21.90		76.70		54.80
	2/19/03	1.43	17.6	35.0	15.56		76.70		61.14
	6/11/03	1.29	18.3	35.0	11.66		76.70		65.04
	8/26/03	1.19	18.9	35.0	12.59		76.70		64.11
	6/14/04	Er	19.1	35.0	14.59		76.70		62.11
	10/21/04	Well Not Found							
	4/2/96	5.54	18.5	23.0	11.99	-	78.38	-	66.39
MW-14	12/10/99			23.0	19.12		78.38		59.26
2"	4/4/00	1.00	18.3	23.0	17.83		78.38		60.55
	6/20/00	1.11	24.2	23.0	19.00		78.38		59.38
	9/25/00	0.39	18.9	23.0	21.00		78.38		57.38
	2/27/01			22.0	dry		78.38		#VALUE!
	4/23/01	1.10	18.7	22.0	19.95		78.38		58.43
	7/19/01	1.21	18.7	22.0	20.97		78.38		57.41
	10/9/01			22.0	dry		78.38		#VALUE!
MW-14R	3/26/02	2.19	18.8	35.0	22.05		77.75		55.70
	5/15/02	4.83	17.6	35.0	21.05		77.75		56.70
	9/22/02	3.49	17.8	35.0	22.75		77.75		55.00
	2/19/03	3.50	16.9	35.0	16.63		77.75		61.12
	6/11/03	1.23	17.9	35.0	12.56		77.75		65.19
	8/26/03	1.78	18.1	35.0	13.09		77.75		64.66
	6/14/04	Er	17.9	35.0	15.79		77.75		61.96
	10/21/04	9.90	20.5	35.0	15.50		77.75		62.25
	4/2/96	9.89	18.0	35.0	23.65		92.54	-	68.89
MW-15	12/10/99					Well Buried			
2"	4/4/00					Well Buried			

SB-6972-07/29/99-RRB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery
Site ID #: 6742
As of: 11/29/2004

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-1	4/2/98							
	1/25/99	28,200	37,200	2,750	19,500	24,800	4,750	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-1	6/20/00	Product Measured						
	9/25/00	51,500	56,000	3,900	20,200	78,500	2,500	
	2/27/01	29,800	31,100	2,750	19,500	34,600	5,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/18/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	24,500	24,200	2,750	19,500	27,900	600	
	6/11/03	19,200	24,900	2,750	19,500	28,800	805	
	8/27/03	37,200	45,800	3,740	19,500	32,200	1,560	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	2,750	19,500	887	554	
MW-1A	4/2/98							
	1/25/99	33,700	39,300	1,700	13,500	193,000	5,000	
	12/9/99							
	4/4/00							
MWR-1A	6/21/00	825	22,164	1,700	13,500	338	554	
	9/25/00	1,280	22,164	1,700	13,500	730	554	
	2/27/01	111	22,164	1,700	13,500	187	554	
	4/23/01	111	22,164	1,700	13,500	187	554	
	7/19/01	111	22,164	1,700	13,500	187	554	
	10/9/01	452	22,164	1,700	13,500	187	554	
	3/26/02	1,300	22,164	1,700	13,500	187	554	
	5/15/02	150	22,164	1,700	13,500	187	554	
	9/18/02	274	22,164	1,700	13,500	187	554	
	2/19/03	428	22,164	1,700	13,500	187	554	
	6/11/03	185	22,164	1,700	13,500	187	554	
	8/27/03	111	22,164	1,700	13,500	187	554	
	6/14/04	111	22,164	1,700	13,500	187	554	
	10/21/04	111	22,164	1,700	13,500	187	554	38,216
Target		111	22,164	1,700	13,500	187	554	
MW-2	4/2/98	11	17	14	87	<1	9	
	1/25/99	19	12	2	21	67	5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-2	6/20/00	68	721	386	2,090	67	153	
	9/25/00	103	1,270	396	2,030	67	102	
	2/27/01	74	190	60	301	67	50	
	4/23/01	78	524	183	1,010	67	79	
	7/19/01	76	320	150	730	67	69	
	10/9/01	167	481	185	931	67	80	
	3/26/02	180	808	310	1,590	67	102	
	5/15/02	194	651	340	1,810	119	170	
	9/18/02	258	862	444	2,120	288	228	
	2/19/03	149	480	121	595	67	122	
	6/11/03	184	705	181	1,040	123	59	
	8/27/03	137	583	154	905	100	99	
	6/14/04	50	112	25	164	129	69	
	10/21/04	63	143	26	238	67	38	575
Target		19	12	5	21	67	5	
MW-3	4/2/98	15	24	9	117	<1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-3	6/20/00	<1	1	<1	3	2	<5	
	9/25/00	<1	1	<1	3	2	<5	
	2/27/01	<1	1	<1	3	<1	<5	
	4/23/01	<1	1	<1	3	<1	<5	
	7/19/01	1	1	1	3	1	5	
	10/9/01	1	1	1	3	1	5	
	3/26/02	1	1	2	3	1	5	
	5/14/02	1	1	1	3	1	5	
	9/17/02	1	1	1	3	1	5	
	2/19/03	1	1	1	3	1	5	
	6/11/03	1	1	1	3	1	5	
	8/26/03	1	1	1	3	1	5	
	6/14/04	1	1	1	3	1	5	
	10/21/04	1	1	1	3	1	5	
MW-4	4/2/98	15,700	2,570	27,600	13,300	5,820	882	
	1/25/99							
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-4	6/20/00	Product Measured						
	9/25/00	20,500	31,200	10,344	147,734	4,650	2,500	
	2/27/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
MW-4R	3/26/02	21,100	17,600	10,344	147,734	6,300	1,000	
	5/15/02	31,900	37,200	10,344	147,734	6,400	1,100	
	9/18/02	23,700	27,500	10,344	147,734	2,900	700	
	2/19/03	12,400	17,900	10,344	147,734	1,540	520	
	6/11/03	5,300	14,775	10,344	147,734	868	496	
	8/27/03	13,100	21,800	10,344	147,734	822	631	
	6/14/04	7,530	20,000	10,344	147,734	600	950	
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		74	14,775	10,344	147,734	592	369	

Cumulative Summary
SB-6672-07/26/99-RSB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 11/29/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-5	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	Dry Well, Not Sampled						
MWR-5	3/26/02	4,410	1	220	1,150	3,950	5	
	5/14/02	4,140	1	190	1,200	2,990	5	
	9/17/02	8,890	200	580	2,100	7,500	500	
	2/19/03	8,080	175	425	1,540	9,460	300	
	6/11/03	3,820	96	256	786	4,640	201	
	8/26/03	2,990	68	160	526	2,320	106	
	6/14/04	1	1	1	3	1	5	
	10/21/04	725	13	3	6	827	133	
MW-6	4/2/98	39,600	2,460	41,100	12,400	16,400	561	
	1/25/99	6,920	9,800	1,080	7,460	1,810	495	
	12/9/99	10,200	11,000	800	5,000	6,800	1,000	
	4/4/00	21,100	33,400	2,000	10,300	<10000	482	
	6/21/00	21,800	18,000	1,080	7,460	8,320	500	
	9/25/00	41,000	41,600	2,400	13,200	15,600	2,500	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	2,000	9,600	1,080	7,460	2,510	500	
	7/19/01	4,820	9,600	1,080	7,460	5,290	500	
	10/9/01	Dry Well, Not Sampled						
MWR-6R	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/18/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/19/03	19,400	30,700	3,290	18,300	16,900	1,100	
	6/11/03	13,700	18,700	2,080	11,200	11,600	1,010	
	8/27/03	24,800	31,900	2,500	12,300	15,000	985	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		97	9,600	1,080	7,460	153	482	
MW-7	4/2/98	2,780	1,830	10,500	7,810	63	466	
	1/25/99	2,200	9,360	1,280	7,440	110	430	
	12/9/99	1,300	7,050	1,050	6,500	100	400	
	4/4/00	680	9,360	1,280	7,440	110	430	
	6/21/00	1,050	9,360	1,280	7,440	110	430	
	9/25/00	3,670	11,200	1,540	8,380	205	430	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-7R	3/26/02	3,020	9,360	1,280	7,440	110	430	
	5/15/02	15,700	41,500	4,130	21,800	400	860	
	9/18/02	12,400	26,400	2,180	11,300	295	615	
	2/19/03	8,790	16,200	1,350	7,450	110	500	
	6/11/03	2,200	9,360	1,280	7,440	110	430	
	8/27/03	8,440	9,360	10,700	12,400	1,540	522	
	6/14/04	2,040	9,360	2,080	11,900	120	710	
	10/21/04	8,520	21,200	2,200	12,400	1,480	1,320	47,120
Target		111	9,360	1,280	7,440	110	430	
MW-8	4/2/98	11,000	722	15,900	6,520	188	35,500	
	1/25/99							
	12/9/99	32,500	38,000	2,500	13,500	93,000	2,500	
	4/4/00	44,700	60,000	15,515	221,643	164,000	681	
	6/21/00	27,400	25,500	15,515	221,643	105,000	681	
	9/25/00	43,900	61,500	15,515	221,643	68,000	2,500	
	2/27/01	24,300	31,000	15,515	221,643	40,000	5,000	
	4/23/01	28,100	33,700	15,515	221,643	87,800	1,000	
	7/19/01	30,300	37,800	15,515	221,643	99,100	2,500	
	10/9/01	24,750	37,050	15,515	221,643	30,850	2,500	
	3/26/02	21,000	34,100	15,515	221,643	19,000	2,500	
	5/15/02	29,700	47,200	15,515	221,643	40,400	5,000	
	9/18/02	25,300	33,200	15,515	221,643	45,800	500	
	2/19/03	12,700	22,164	15,515	221,643	13,600	500	
	6/11/03	6,100	22,164	15,515	221,643	11,300	554	
	8/26/03	226,000	301,000	280,000	278,000	5,110,000	2,000	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	15,515	221,643	887	554	
MW-9	4/2/98	9	12	4	54	<1	2	
	1/25/99	6	3	<1	9	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-9R	3/26/02	110	98	97	552	39	93	
	5/14/02	150	63	32	250	104	68	
	9/17/02	238	38	54	244	30	70	
	2/19/03	137	27	27	110	45	36	
	6/11/03	108	36	30	130	52	50	
	8/25/03	68	31	21	91	38	59	
	6/14/04	48	20	22	107	81	134	
	10/21/04	5	1	1	3	6	9	

GROUNDWATER SAMPLING
SB-9972-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 11/29/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-10	4/2/98	132	48	464	224	1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	<1	<1	<1	<1	4	<5	
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	<1	<1	<1	<1	<1	<5	
	9/25/00	<1	<1	<1	<3	<1	<5	
	3/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<1	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	1	4	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/17/02	1	1	1	1	1	5	
	2/18/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	3	71	26	154	1	48	
	10/21/04	1	1	1	3	1	5	
MW-11	4/2/98	<1	1,090	312	5,090	<1	272	
	1/25/99	24	106	189	825	10	731	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-11	6/20/00	24	106	189	825	43	369	
	9/25/00	39	106	264	1,260	20	369	
	2/27/01	72	106	189	825	13	369	
	4/23/01	33	106	189	825	49	369	
	7/19/01	24	150	257	1,250	16	369	
	10/9/01	24	106	189	825	34	369	
	3/26/02	15,300	32,100	3,100	15,600	500	2,500	
	5/15/02	3,770	12,000	2,020	10,100	430	710	
	2/19/03	244	822	216	1,700	15	380	
	6/11/03	173	869	496	2,600	54	408	
	8/26/03	150	637	401	2,250	58	369	
	6/14/04	138	412	324	2,130	70	448	
	10/21/04	48	125	98	540	47	106	964
Target		24	106	189	825	10	369	
MW-12	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Could not locate						
	2/27/01	Could not locate						
	4/23/01	1	1	1	3	1	5	
	7/19/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
	2/19/03	1	1	1	3	1	5	
	6/11/03	1	1	1	3	1	5	
	8/26/03	1	1	1	3	1	5	
	6/14/04	1	1	1	3	1	5	
	10/21/04	1	1	1	3	1	5	
MW-13	4/2/98	<1	130	78	434	1,950	25	
	1/25/99	1,810	26	38	382	2,810	154	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-13R	3/26/02	8,740	3,040	840	3,250	1,020	500	
	5/15/02	10,000	4,660	1,310	5,060	1,600	350	
	9/18/02	13,000	5,540	1,280	5,240	3,600	1,000	
	2/19/03	6,160	2,030	500	2,280	2,320	250	
	6/11/03	4,090	1,350	559	2,380	2,160	321	
	8/27/03	4,500	1,010	433	1,840	1,050	271	
	6/14/04	3,630	50	58	60	2,360	222	6,380
Target		10	28	38	382	134	83	
MW-14	4/2/98	150	149	501	921	1	80	
	1/25/99	17	21	50	334	7	452	
	12/9/99	18	8	20	190	77	20	
	4/4/00	29	84	76	586	<10	89	
	6/21/00	24	40	50	334	48	83	
	9/25/00	25	145	90	682	8	87	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	86	334	116	1,090	88	144	
	7/19/01	169	392	249	1,380	76	209	
	10/9/01	Dry Well, Not Sampled						
MW-14R	3/26/02	53	22	50	334	7	83	
	5/15/02	34	22	50	334	16	83	
	9/17/02	89	21	50	334	7	83	
	2/19/03	42	21	50	334	7	83	
	6/11/03	32	33	50	334	7	83	
	8/26/03	10	21	50	334	7	83	
	6/14/04	10	21	50	334	7	83	
	10/21/04	10	21	50	334	7	83	505
Target		10	21	50	334	7	83	
MW-15	4/2/98	<5	<5	<5	<5	<1	3	
	1/25/99	Not Sampled						
	12/9/99	Well Buried; Not Sampled						
	4/4/00	Well Buried; Not Sampled						
	6/20/00	Well Buried; Not Sampled						
	9/25/00	Well Buried; Not Sampled						
	2/27/01	Well Buried; Not Sampled						
	4/23/01	Well Buried; Not Sampled						
	10/9/01	Well Buried; Not Sampled						
Total Mass								24,881,760
Target								559,387
Initial Mass above SSTL								12,294,113
% Reduction								-97.8%

GROUNDWATER SAMPLING
SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 11/29/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
	4/2/98							Product
MW-1	1/25/99	28,200	37,200	2,750	19,500	24,600	4,750	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-1	6/21/00	Product Measured						
	9/25/00	51,500	56,000	3,900	20,200	78,500	2,500	
	2/27/01	29,800	31,100	*2,300*	*13,200*	34,600	5,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/17/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	24,500	24,200	*1,880*	*9,890*	27,900	600	
	6/11/03	19,200	24,900	*1,930*	*10,400*	28,600	805	
	8/27/03	37,200	45,800	3,740	*18,800*	32,200	1,560	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/19/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	2,750	19,500	887	554	
	4/2/98							
MW-1A	1/25/99	33,700	39,300	1,700	13,500	193,000	5,000	
	12/9/99							
	4/4/00							
Target		111	22,164	1,700	13,500	187	554	
	6/21/00	825	1,460	116	716	338	<50	
MWR-1A	9/25/00	1,280	3,160	570	3,520	730	250	
	2/27/01	*47*	*102*	*39*	*417*	*31*	*60*	
	4/23/01	*24*	*22*	*20*	*130*	*14*	*29*	
	7/19/01	*28*	*23*	*33*	*168*	*19*	*40*	
	10/9/01	*45*	*48*	25	*217*	*33*	*10*	
	3/29/02	1,300	*2,520*	*290*	*1,440*	*50*	*250*	
	5/15/02	150	*328*	*42*	252	*56*	*100*	
	9/18/02	274	*172*	52	*217*	*28*	32	
	2/19/03	428	*162*	35	*171*	*24*	25	
	6/11/03	185	*84*	*31*	*133*	*16*	26	
	8/27/03	*91*	*154*	29	*161*	*43*	23	
	6/14/04	*4*	*1*	*1*	*8*	*4*	*9*	
	10/21/04	*1*	*1*	*1*	*3*	*2*	*5*	13
Target		111	22,164	1,700	13,500	187	554	
	4/2/98	11	17	14	87	<1	9	
MW-2	1/25/99	19	12	2	21	67	5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-2	6/21/00	68	721	385	2,090	53	153	
	9/25/00	103	1,270	396	2,030	2	102	
	2/27/01	74	190	60	301	*10*	50	
	4/23/01	78	524	183	1,010	*51*	79	
	7/19/01	76	320	150	730	*39*	69	
	10/9/01	167	481	185	931	*50*	60	
	3/26/02	160	808	310	1,590	*54*	102	
	5/14/02	194	651	340	1,810	119	170	
	9/18/02	258	862	444	2,120	288	228	
	2/19/03	149	480	121	595	39	122	
	6/11/03	184	705	181	1,040	123	59	
	8/27/03	137	583	154	905	100	99	
	6/14/04	50	112	25	164	129	69	
	10/21/04	63	143	26	238	67	38	575
Target		19	12	5	21	67	5	
	4/2/98	15	24	9	117	<1	11	
MW-3	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-3	6/21/00	<1	1	<1	<1	2	<5	
	9/25/00	<1	1	<1	<1	2	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<3	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	2	1	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/18/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	1	1	1	4	1	6	
	10/21/04	1	1	1	3	1	5	

GROUNDWATER SAMPLING
SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 11/29/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-4	4/2/98	15,700	2,570	27,600	13,300	5,820	882	
	1/25/99							
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-4	6/21/00	Product Measured						
	9/25/00	20,500	31,200	2,500	15,500	4,650	2,500	
	2/27/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
MW-4R	3/26/02	21,100	17,600	*1,260*	*7,700*	6,300	1,000	
	5/15/02	31,900	37,200	*2,920*	*17,900*	6,400	1,100	
	9/18/02	23,700	27,500	*2,260*	*11,300*	2,900	700	
	2/20/03	12,400	17,900	*1,670*	*9,230*	1,540	520	
	6/11/03	5,300	11,300	*1,290*	*7,360*	869	496	
	8/27/03	13,100	21,800	*1,980*	*11,900*	922	631	
	6/14/04	7,630	20,000	*2,110*	*11,100*	600	950	42,390
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		74	14,775	10,344	147,734	592	369	
MW-5	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	Dry Well, Not Sampled						
MWR-5	3/26/02	4,410	100	220	1,150	3,950	500	
	5/14/02	4,140	100	190	1,200	2,990	500	
	9/17/02	8,890	200	580	2,100	7,500	500	
	2/19/03	8,080	175	425	1,540	9,460	300	
	6/11/03	3,820	96	256	786	4,640	201	
	8/26/03	2,990	68	160	526	2,320	106	
	6/14/04	1	1	1	3	1	5	
	10/21/04	725	13	3	6	827	133	
MW-6	4/2/98	39,600	2,460	41,100	12,400	16,400	561	
	1/25/99	6,920	9,600	1,080	7,460	1,810	495	
	12/9/99	10,200	11,000	800	5,000	6,800	1,000	
	4/4/00	21,100	33,400	2,000	10,300	10,000	314	
	6/21/00	21,800	18,000	1,080	6,320	8,320	500	
	9/25/00	41,000	41,600	2,400	13,200	15,600	2,500	
	4/23/01	2,000	*1,370*	*100*	2,770	2,510	500	
	7/19/01	4,280	*4,900*	*290*	*4,280*	5,200	500	
	10/9/01	Dry Well, Not Sampled						-
MWR-4R	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/17/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	19,400	30,700	3,200	16,300	16,900	1,100	
	6/11/03	13,700	16,700	2,080	11,200	11,600	1,010	
	8/27/03	24,800	31,900	2,500	12,300	16,000	985	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		97	9,600	1,080	7,460	163	482	
MW-7	4/2/98	2,780	1,630	10,500	7,610	63	468	
	1/25/99	2,200	9,360	1,280	7,440	110	430	
	12/9/00	1,300	7,050	1,050	6,500	100	400	
	4/4/00	680	2,270	315	2,180	49	160	
	6/21/00	1,050	4,550	442	2,690	66	234	
	9/25/00	3,670	11,200	1,540	8,380	205	250	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	Dry Well, Not Sampled						
MW-7R	3/26/02	3,020	7,140	475	3,560	50	250	
	5/15/02	15,700	41,500	4,130	21,800	400	860	
	9/18/02	12,400	26,400	2,180	11,300	265	615	
	2/20/03	6,790	16,200	1,350	7,450	*100*	500	
	6/11/03	2,200	8,300	955	5,490	*55*	400	
	8/27/03	8,440	19,700	2,070	12,400	1,540	522	
	6/14/04	2,040	6,400	2,080	11,900	120	710	
	10/21/04	8,520	21,200	2,200	12,400	1,460	1,320	47,120
Target		111	9,360	1,280	7,440	110	430	

GROUNDWATER SAMPLING
SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 11/29/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-8	4/2/98	11,000	722	15,900	6,520	188	35,500	
	1/25/99							
	12/9/00	32,500	39,000	2,500	13,500	93,000	2,500	
	4/4/00	44,700	60,000	3,250	17,400	164,000	681	
	6/21/00	27,400	25,500	1,320	7,860	105,000	681	
	9/25/00	43,900	61,500	3,700	19,700	68,000	2,500	
	2/27/01	24,300	31,000	*1,900*	*10,800*	40,000	5,000	
	4/23/01	28,100	33,700	*1,840*	*10,600*	87,800	1,000	
	7/19/01	30,300	37,800	*1,950*	*11,600*	99,100	2,500	
	10/9/01	24,750	37,050	*2,150*	*11,900*	30,850	2,500	
	3/26/02	21,000	34,100	*2,250*	*11,900*	19,000	2,500	
	5/15/02	29,700	47,200	*3,000*	*17,300*	40,400	5,000	
	9/18/02	25,300	33,200	*1,840*	*9,660*	45,600	500	
	2/20/03	12,700	17,900	*1,280*	*6,930*	13,600	500	
	6/11/03	6,100	11,300	*1,880*	*5,950*	11,300	554	
	8/26/03	226,000	301,000	280,000	278,000	5,110,000	2,000	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	15,515	221,643	887	554	
MW-9	4/2/98	9	12	4	54	<1	2	
	1/25/99	6	3	<1	9	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-9R	3/26/02	110	99	97	552	39	93	
	5/14/02	150	63	32	250	104	68	
	9/17/02	238	36	54	244	30	70	
	2/19/03	137	27	27	110	45	36	
	6/11/03	108	36	30	130	52	50	
	8/26/03	68	31	21	91	38	59	
	6/14/04	46	20	22	107	81	134	
	10/21/04	5	1	1	3	6	9	
MW-10	4/2/98	132	48	464	224	1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	<1	<1	<1	<1	4	<5	
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	<1	<1	<1	<1	<1	<5	
	9/25/00	<1	<1	<1	<1	<1	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<1	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	4	1	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/18/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	3	71	26	154	1	48	
	10/21/04	1	1	1	1	1	5	
MW-11	4/2/99	<1	1,090	312	5,090	<1	272	
	1/25/99	24	106	189	825	10	731	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-11	6/21/00	17	20	37	268	43	28	
	9/25/00	39	101	264	1,260	20	109	
	2/27/01	72	*40*	*9*	*131*	13	*12*	
	4/23/01	33	*45*	*122*	*690*	49	*99*	
	7/19/01	13	150	257	1,250	16	143	
	10/9/01	18	*84*	*139*	785	34	*86*	
	3/26/02	15,300	32,100	3,100	15,600	500	2,500	
	5/15/02	3,770	12,000	2,020	10,100	430	710	
	2/19/03	244	822	216	1,700	15	380	
	6/11/03	173	889	496	2,600	54	408	
	8/26/03	150	637	401	2,250	58	290	
	6/14/04	138	412	324	2,130	70	448	
	10/21/04	48	125	98	540	47	106	964
Target		24	106	189	825	10	369	

GROUNDWATER SAMPLING
SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 11/29/2004
Site ID # 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-12	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	1	1	1	3	1	5	
	10/21/04	1	1	1	3	1	5	
MW-13	4/2/98	<1	130	78	434	1,950	25	
	1/25/99	1,810	26	38	382	2,810	154	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-13R	3/26/02	6,740	3,040	840	3,250	1,020	500	
	5/15/02	10,000	4,660	1,310	5,060	1,600	350	
	9/18/02	13,000	5,540	1,280	5,240	3,600	1,000	
	2/19/03	6,160	2,030	500	2,280	2,320	250	
	6/11/03	4,090	1,350	559	2,380	2,160	321	
	8/27/03	4,500	1,010	433	1,840	1,050	271	
	6/14/04	3,530	50	58	60	2,360	222	
	10/21/04	Well Not Accessible						-
Target		10	26	38	382	134	83	
MW-14	4/2/98	150	149	501	921	1	80	
	1/25/99	17	21	50	334	7	452	
	12/9/99	16	6	20	190	77	20	
	4/4/00	29	64	76	586	10	89	
	6/21/00	24	40	35	330	48	51	
	9/25/00	25	145	90	682	8	87	
	4/23/01	86	334	116	1,090	88	144	
	7/19/01	169	392	249	1,380	76	209	
	10/9/01	Well Buried, Not Sampled						-
MW-14R	3/26/02	53	22	5	94	6	12	
	5/14/02	34	22	1	88	16	24	
	9/17/02	89	4	10	61	5	15	
	2/19/03	42	3	4	14	1	5	
	6/11/03	32	33	13	77	3	9	
	8/26/03	9	1	1	5	1	5	
	6/14/04	1	1	1	3	1	5	
	10/21/04	1	1	1	3	1	5	12
Target		10	21	50	334	7	83	
MW-15	4/2/98	<5	<5	<5	<5	<1	3	
	1/25/99	Not Sampled						
	12/9/99	Well Buried, Not Sampled						
	4/4/00	Well Buried, Not Sampled						
	6/21/00	Well Buried, Not Sampled						
	10/9/01	Well Buried, Not Sampled						
Total Mass								24,879,074
Target								559,387
Initial Mass above SSTL								12,294,113
% Reduction								-97.8%

Sample oct 2004

GROUNDWATER SAMPLING

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742
Sampled on 21-Oct

Location	Well Depth (ft)	Depth to Water, ft.	Water Column, ft.	Casing Volume, gal.	Casing Volume	Collected Volume	Time	Temp. °C	pH SU	DO mg/L	Turbidity
MW-10 2"	42.0	32.97	9.0	1.5	Initial		11:52	18.2	6.1	5.5	Clear
					First	1.5	11:57	17.8	5.6	6.8	Clear
					Second						
					Final						
MWR-3 2"	40.0	30.39	9.6	1.6	Initial		12:07	18.2	4.2	4.7	Clear
					First	1.6	12:13	18.0	4.1	4.3	Clear
					Final						
MW-12 2"	11.6	8.98	2.6	0.4	Initial		12:28	18.4	7.9	11.5	Clear
					First	0.4	12:35	18.3	7.6		Clear
					Final						
MWR-5 2"	34.0	14.03	20.0	3.3	Initial		12:46	19.2	7.3	6.8	Clear
					First	3.3	12:52	18.7	7.0		Clear
					Final						
MWR-9 2"	45.0	28.65	16.4	2.7	Initial		12:58	18.8	7.0	3.0	Cloudy
					First	2.7	13:02	19.2	7.0	5.4	Clear
					Final						
MW-14R 2"	35.0	15.50	19.5	3.2	Initial		13:25	20.1	6.7	9.9	Clear
					First	3.2	13:31	20.5	6.9		Clear
					Second						
					Final						
MWR-11 2"	40.0	21.61	18.4	3.0	Initial		13:08	19.0	7.5	5.8	Clear
					First	3.0	13:12	19.3	6.9		Clear
					Final						
MWR-2 2"	40.0	29.79	10.2	1.7	Initial		13:42	18.7	6.0	4.4	Clear
					First	1.7	13:48	19.1	5.9		Clear
					Second						
					Final						
MW-13R 2"	35.0	Well Not Found			Initial						
					First						
					Final						

GROUNDWATER SAMPLING

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742
Sampled on 21-Oct

Location	Well Depth (ft)	Depth to Water, ft.	Water Column, ft.	Casing Volume, gal.	Casing Volume	Collected Volume	Time	Temp. °C	pH SU	DO mg/L	Turbidity
MWR-1A 2"	70.0	32.42	37.6	6.1	Initial		14:37	19.2	7.2	5.0	Clear
					First	6.1	14:42	18.8	7.0		Clear
					Final						
MW-7R 2"	45.0	30.86	14.1	2.3	Initial		15:01	19.4	6.5	5.4	Clear
					First	2.3	15:07	19.0	6.2		Clear
					Second						
					Final						
MWR-4R 2"	45.0	28.75 1.2' Product	16.3	2.7	Initial						
					First						
					Final						
MW-4R 2"	35.0	25.09 0.01' Product	9.9	1.6	Initial						
					First						
					Final						
MWR-1 2"	45.0	32.09 0.01' Product	12.9	2.1	Initial						
					First						
					Second						
					Final						
MW-8 2"	43.0	10.2' Product	43.0	7.0	Initial						
					First						
					Final						

APPENDIX I: LABORATORY REPORTS

SDG	Laboratory I	Project Name	Sample ID	Sampler	Date Receive	Time Re	Date Collect	Time C	Date Report	Sample	Analyte Name	CAS Numb	Method I	Result	Qual	Report	Method	Dilution	Units	Analyst	Date Analyz	Time An	Batch I	Instrument	Matrix	Matrix	LCS %	Blank Result
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	Benzene	71-43-2	8021B	<1.00	U	1	0.19	1	ug/l	I. Ahmed	10/26/2004	20:47	8953	BTEX HP50			99	< 0.19
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	Toluene	108-88-3	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	20:47	8953	BTEX HP50			106	< 0.2
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	20:47	8953	BTEX HP50			102	< 0.2
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	<3.0	U	3	0.6	1	ug/l	I. Ahmed	10/26/2004	20:47	8953	BTEX HP50			99	< 0.6
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	20:47	8953	BTEX HP50			97	< 0.2
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	Naphthalene	91-20-3	8021B	<5.0	U	5	1.5	1	ug/l	I. Ahmed	10/26/2004	20:47	8953	BTEX HP50			174#	< 1.5
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	Benzene	71-43-2	8021B	1		1	0.19	1	ug/l	I. Ahmed	10/26/2004	21:18	8953	BTEX HP50			99	< 0.19
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	Toluene	108-88-3	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	21:18	8953	BTEX HP50			106	< 0.2
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	21:18	8953	BTEX HP50			102	< 0.2
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	<3.0	J	3	0.6	1	ug/l	I. Ahmed	10/26/2004	21:18	8953	BTEX HP50			99	< 0.6
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/26/2004	21:18	8953	BTEX HP50			97	< 0.2
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	Naphthalene	91-20-3	8021B	<5.0	U	5	1.5	1	ug/l	I. Ahmed	10/26/2004	21:18	8953	BTEX HP50			174#	< 1.5
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	Benzene	71-43-2	8021B	<1.00	U	1	0.19	1	ug/l	I. Ahmed	10/26/2004	21:50	8953	BTEX HP50			99	< 0.19
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	Toluene	108-88-3	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	21:50	8953	BTEX HP50			106	< 0.2
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	21:50	8953	BTEX HP50			102	< 0.2
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	<3.0	U	3	0.6	1	ug/l	I. Ahmed	10/26/2004	21:50	8953	BTEX HP50			99	< 0.6
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	21:50	8953	BTEX HP50			97	< 0.2
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	Naphthalene	91-20-3	8021B	<5.0	U	5	1.5	1	ug/l	I. Ahmed	10/26/2004	21:50	8953	BTEX HP50			174#	< 1.5
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	Benzene	71-43-2	8021B	725		10	0.19	10	ug/l	I. Ahmed	10/27/2004	12:31	2163	BTEX HP5	105	0.8	80	< 0.19
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	Toluene	108-88-3	8021B	12.8		1	0.2	1	ug/l	I. Ahmed	10/26/2004	22:22	8953	BTEX HP50			106	< 0.2
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	3.3		1	0.2	1	ug/l	I. Ahmed	10/26/2004	22:22	8953	BTEX HP50			102	< 0.2
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	6.3		3	0.6	1	ug/l	I. Ahmed	10/26/2004	22:22	8953	BTEX HP50			99	< 0.6
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	827		10	0.2	10	ug/l	I. Ahmed	10/27/2004	12:31	2163	BTEX HP5	94	10.23	82	< 0.2
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	Naphthalene	91-20-3	8021B	133		50	1.5	10	ug/l	I. Ahmed	10/27/2004	12:31	2163	BTEX HP5	94	6.08	80	< 1.5
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	Benzene	71-43-2	8021B	4.6		1	0.19	1	ug/l	I. Ahmed	10/27/2004	13:02	2163	BTEX HP5	105	0.8	80	< 0.19
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	Toluene	108-88-3	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/26/2004	22:53	8953	BTEX HP50			106	< 0.2
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/26/2004	22:53	8953	BTEX HP50			102	< 0.2
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	<3.0	J	3	0.6	1	ug/l	I. Ahmed	10/26/2004	22:53	8953	BTEX HP50			99	< 0.6
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	6.4		1	0.2	1	ug/l	I. Ahmed	10/27/2004	13:02	2163	BTEX HP5	94	10.23	82	< 0.2
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	Naphthalene	91-20-3	8021B	0.4		5	1.5	1	ug/l	I. Ahmed	10/27/2004	13:02	2163	BTEX HP5	94	6.08	80	< 1.5
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	Benzene	71-43-2	8021B	47.5		1	0.19	1	ug/l	I. Ahmed	10/26/2004	23:25	8953	BTEX HP50			99	< 0.19
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	Toluene	108-88-3	8021B	125		1	0.2	1	ug/l	I. Ahmed	10/26/2004	23:25	8953	BTEX HP50			106	< 0.2
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	88		1	0.2	1	ug/l	I. Ahmed	10/26/2004	23:25	8953	BTEX HP50			102	< 0.2
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	540		15	0.6	5	ug/l	I. Ahmed	10/27/2004	13:34	2163	BTEX HP5	107	5.82	88	< 0.6
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	48.6		1	0.2	1	ug/l	I. Ahmed	10/26/2004	23:25	8953	BTEX HP50			97	< 0.2
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	Naphthalene	91-20-3	8021B	109		25	1.5	5	ug/l	I. Ahmed	10/27/2004	13:34	2163	BTEX HP5	94	6.08	80	< 1.5
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	Benzene	71-43-2	8021B	<1.00	U	1	0.19	1	ug/l	I. Ahmed	10/26/2004	23:59	8953	BTEX HP50			99	< 0.19
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	Toluene	108-88-3	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/26/2004	23:59	8953	BTEX HP50			106	< 0.2
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/26/2004	23:59	8953	BTEX HP50			102	< 0.2
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	<3.0	J	3	0.6	1	ug/l	I. Ahmed	10/26/2004	23:59	8953	BTEX HP50			99	< 0.6
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	23:59	8953	BTEX HP50			97	< 0.2
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	Naphthalene	91-20-3	8021B	<5.0	J	5	1.5	1	ug/l	I. Ahmed	10/26/2004	23:59	8953	BTEX HP50			174#	< 1.5
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	Benzene	71-43-2	8021B	62.7		1	0.19	1	ug/l	I. Ahmed	10/27/2004	14:05	2163	BTEX HP5	105	0.8	80	< 0.19
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	Toluene	108-88-3	8021B	143		1	0.2	1	ug/l	I. Ahmed	10/27/2004	14:05	2163	BTEX HP5	124	8.19	94	< 0.2
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	26.7		1	0.2	1	ug/l	I. Ahmed	10/27/2004	14:05	2163	BTEX HP5	109	0	86	< 0.2
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	238		3	0.6	1	ug/l	I. Ahmed	10/27/2004	14:05	2163	BTEX HP5	107	5.82	88	< 0.6
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	87		1	0.2	1	ug/l	I. Ahmed	10/27/2004	14:05	2163	BTEX HP5	94	10.23	82	< 0.2
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	Naphthalene	91-20-3	8021B	39.4		5	1.5	1	ug/l	I. Ahmed	10/27/2004	14:05	2163	BTEX HP5	94	6.08	80	< 1.5
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	Benzene	71-43-2	8021B	1.2		1	0.19	1	ug/l	I. Ahmed	10/27/2004	0:59	8953	BTEX HP50			99	< 0.19
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	Toluene	108-88-3	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/27/2004	0:59	8953	BTEX HP50			106	< 0.2
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/27/2004	0:59	8953	BTEX HP50			102	< 0.2
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	<3.0	J	3	0.6	1	ug/l	I. Ahmed	10/27/2004	0:59	8953	BTEX HP50			99	< 0.6
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	2.1		1	0.2	1	ug/l	I. Ahmed	10/27/2004	0:59	8953	BTEX HP50			97	< 0.2
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	Naphthalene	91-20-3	8021B	<5.0	U	5	1.5	1	ug/l	I. Ahmed	10/27/2004	0:59	8953	BTEX HP50			174#	< 1.5
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	Benzene	71-43-2	8021B	8620		200	0.19	200	ug/l	I. Ahmed	10/27/2004	14:37	2163	BTEX HP5	105	0.8	80	< 0.19
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	Toluene	108-88-3	8021B	21200		200	0.2	200	ug/l	I. Ahmed	10/27/2004	14:37	2163	BTEX HP5	124	8.19	94	< 0.2
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	2200		200	0.2	200	ug/l	I. Ahmed	10/27/2004	14:37	2163	BTEX HP5	109	0	86	< 0.2
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	12400		600	0.5	200	ug/l	I. Ahmed	10/27/2004	14:37	2163	BTEX HP5	107	5.82	88	< 0.6
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	1480		200	0.2	200	ug/l	I. Ahmed	10/27/2004	14:37	2163	BTEX HP5	94	10.23	82	< 0.2
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	Naphthalene	91-20-3	8021B	1320		1000	1.5	200	ug/l	I. Ahmed	10/27/2004	14:37	2163	BTEX HP5	94	6.08	80	< 1.5
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					

Kent: I plan to call Richard Smith & suggest he contact you on his contract issue. other thoughts??
Bob

mmo
Call the [illegible]

SMITH
Monitoring & Maintenance Engineering, Inc.

December 21, 2004

RECEIVED
DEC 28 2004
UNDERGROUND STORAGE TANK PROGRAM

Ms. Stacey Gardner, Section Manager
Regulatory Assistance
Underground Storage Tank Program
2600 Bull Street
Columbia, South Carolina 29201-1708

Re: Apparent Evidence on Additional Release; Site #06742
Cross Roads Grocery; Oconee County, South Carolina

Dear Ms. Gardner,

This letter is provided to summarize the rationale for the determination of a new or continued release at the subject site.

During our previous meeting concerning this subject, the State focused on claims that the laboratory results for dating the product were irrelevant. I mentioned, towards the end of this meeting, that product thickness exceeded the initial thickness stated in the RFQ (see attached excerpt) from which SMME prepared its bid. As can be seen in the attached report, current product thickness now exceeds four times the original amounts stated in the RFQ.

SMME has acted with diligence on this site. We have conducted two vacuum recovery events and purchased and installed two product pumps. Together, these efforts netted about 700 gallons of fuel. Representatives of DHEC confirmed the absence of product on this site prior to SMME getting paid 75% of the contract amount, in 2001, by taking split samples.

SMME understands that the State has conducted site inspections and reviewed tank-testing data attempting to confirm that there is no apparent new source. The evidence to the contrary is clear. Whether or not the State has the ability to locate the source does not conclusively prove that it does not exist. Product continues to accumulate in the up-gradient, original source area in volumes exceeding the RFQ.

Should you have any questions, please contact the undersigned.

Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer
S.C. Reg.: 14734

Cc: Joel Padgett; UST Corrective Action Program

Certificate of Authorization: # C01435

145 Merrill Avenue Decatur, Georgia 30030
Phone: 404 371-9332 FAX: 404 373-3296

stacey gardner contract termination

SCANNED

85 kch

TABLE FROM RFQ

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

BID NUMBER: SB-6672-07/29/99-REB

CoC mass in parts per billion (µg/l) based on January 25, 1999, sampling: (CoC may increase or decrease in the future)

Well	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene	Total Mass
MW- 1	28,200	37,200	2,750	19,500	24,600	4,750	117,000
MW- 1A	33,700	39,300	1,700	13,500	193,000	<5000	286,200
MW- 2	19	12	<5	21	67	5	129
MW- 4*	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
MW- 6	6,920	9,600	1,080	7,460	1,810	495	27,365
MW- 7	2,200	9,360	1,280	7,440	110	430	20,820
MW- 8**	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
MW- 11	24	106	189	825	<10	731	1,885
MW- 13	1,810	26	38	382	2,810	154	5,220
MW- 14	17	21	50	334	7	452	881
Initial Mass*	524,890	697,625	567,092	605,462	10,442,414	16,017	12,853,500
SSTL Mass	678	100,392	32,951	418,839	3,044	3,483	559,387
Initial Mass above SSTL	524,212	597,233	534,141	186,623	10,439,370	12,534	12,294,113

* CoC mass may change due to seasonal fluctuations in the groundwater

**Contains free phase product (MW-4 - 0.05 feet, MW- 8 - 2.49 feet), initial mass based on Henry's Law solubility limits.

(1) 25 percent total mass reduction will be achieved when free product has been removed to .01 foot from MW-1, MW-4, MW-6, and MW-8, and one-quarter of the initial BTEX, MTBE, and Naphthalene mass from monitoring wells MW- 1, MW-1A, MW-2, MW-4, MW-6, MW-7, MW-8, MW-11, MW-13, and MW-14 is removed as compared to the SSTLs. The following formula will be used to calculate the percent total mass reduction: total mass above SSTLs from initial sampling less total mass above SSTLs from subsequent sampling divided by total mass above SSTLs from initial sampling. Payment of 10 percent (10%) of the total bid price will be made upon verification (see Specifications item 10 for the method of verification) of at least one-quarter of the total CoC mass above SSTLs is removed.

LATEST SITE ASSESSMENT REPORT

SMITH

Monitoring & Maintenance Engineering, Inc.

December 7, 2004

Mr. Joel Padgett
Department of Health and Environmental Control
UST Management Division
2600 Bull Street
Columbia, South Carolina 29201-1708

Re: Quarterly Monitoring Report; Site #06742
Cross Roads Grocery; Oconee County, South Carolina

Dear Mr. Padgett,

As required, Smith Monitoring & Maintenance Engineering, Inc. (SMME) has completed groundwater sampling activities in compliance with condition number 7 of the referenced bid specification. The monitoring wells were sampled on October 21, 2004.

Static water levels and total well depths were measured to the nearest 0.01-foot, based on top of casing elevations previously established in EMC's assessment of May of 1998. Dissolved oxygen concentrations were measured prior to level measurement and well sampling to minimize errors due to aeration of the water in the well screen.

All wells were purged and sampled with a decontaminated 12-volt DC, low volume, centrifugal pump. The wells were purged until at least one standing well volume had been removed and the pH and temperature of the water had stabilized to within a 10 percent difference. The groundwater sampling parameters for each well were recorded in the attached groundwater sampling field tables.

The groundwater samples were recovered through the use of low-volume pumping. The water sample was then apportioned into the pre-labeled sample containers, which contained the appropriate preservatives according to U.S. EPA standards. Required sample volumes, containers, sample preservatives, and holding times followed guidelines stipulated in Appendix A of the EISOPQAM.

The sample bottles were labeled with all data required by the EISOPQAM and placed in iced containers for storage to maintain not more than 5 degrees Celsius temperature. Static water level measurements and well sampling were conducted in sequence from the least contaminated well to the most contaminated well.

Chain-of-custody procedures used for this assessment conformed to the EISOPQAM, Section 3. The chain-of-custody forms were used to record and document all times and changes of possession of the samples. The chain-of-custody form documents the project name; sample number; name and signature of sample personnel and the field supervisor, the sampling location, date, and collection time, type of sample, container type, sample media, and the number of containers for a given sample.

Groundwater elevations (see Groundwater Elevation Table 1), measured prior to groundwater sampling, were used to construct a water table contour map, which is included as Figure 1. Groundwater elevations were calculated by subtracting the depth-to-water measurement from the Top-of-Casing (TOC) elevation previously measured. At this time, the exact gradient is not determinate since the casing elevations for the new wells are unknown. Based upon prior site experience groundwater flow direction is generally toward the south.

Figure 2 shows the benzene isopleth, based on the latest sampling. A summary of recorded sampling events is provided in Table 3: Actual Concentrations. A laboratory analytical data summary sheet is provided in Attachment I. The lab's final report will be forwarded, separately, when it becomes available. Table 2: Report Concentrations is provided as a summary of the analytical data using the SSTLs in summing the site score, for billing purposes.

Progress of Corrective Action

The groundwater treatment system, as described in the approved Corrective Action Plan, was installed and started operation on January 11, 2000. Problems due to freezing temperatures caused a temporary shutdown during late January of 2000. The treatment system was shutdown, temporarily, during the fall and winter 2001/2002 due to significant product reoccurrence and injection line destruction due to site clearing activities. System injection lines were repaired and product reduced.

Product gauging has again indicated a significant increase in product volume. Original product thickness stated in our contract was 0.05' at MW-4 and 2.49' in MW-8. SMME conducted two vacuum recovery events, early during the corrective action. Although, no data still exists concerning the amount of product recovered, most recoveries have amassed 150 to 250 gallons of fuel. So, over the two events we probably recovered 300 to 500 gallons, total. Following these events, the site was sampled by SMME and samples split with a representative of SCDHEC. This sampling confirmed the removal of product and SMME billed and was paid for a total of 75% of the contract amount. Shortly thereafter, product began to reoccur in MWR-1 and MWR-4 (none detected in MW-8). Since both of these wells were hydraulically down gradient of the known source area, there was reason, at that time, to suspect an additional release. SMME purchased and installed two product recovery pumps. This effort removed approximately 200 gallons of product. The primary issue, at this time, is the reoccurrence of product in MW-8, which is the most up gradient well on the site and closest to the fueling operation. The last measurement taken, in this well, indicated product at 32.80' from top of casing and no water tone before intercepting the well bottom at 43.0'. Therefore, MW-8 currently contains four times the product thickness originally contracted. Continued corrective action at this site will require additional efforts to locate the source of the additional fuel and long-term product recovery. This is well beyond the scope of the State's contract with this firm.

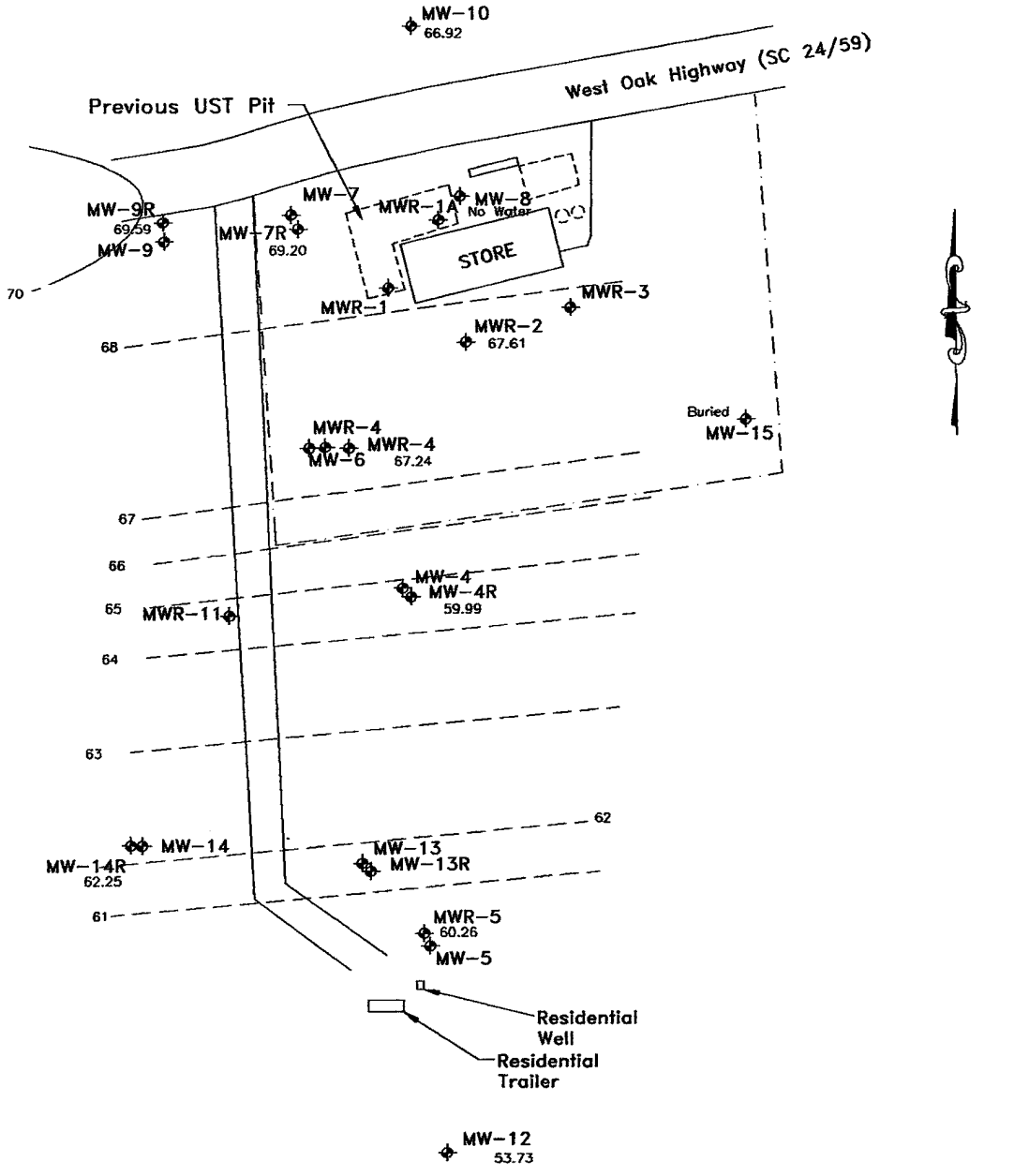
Should you have any questions, please contact the undersigned.

Sincerely,
Smith Monitoring & Maintenance Engineering, Inc.

Richard B. Smith, P.E.
Principal Engineer
S.C. Reg.: 14734

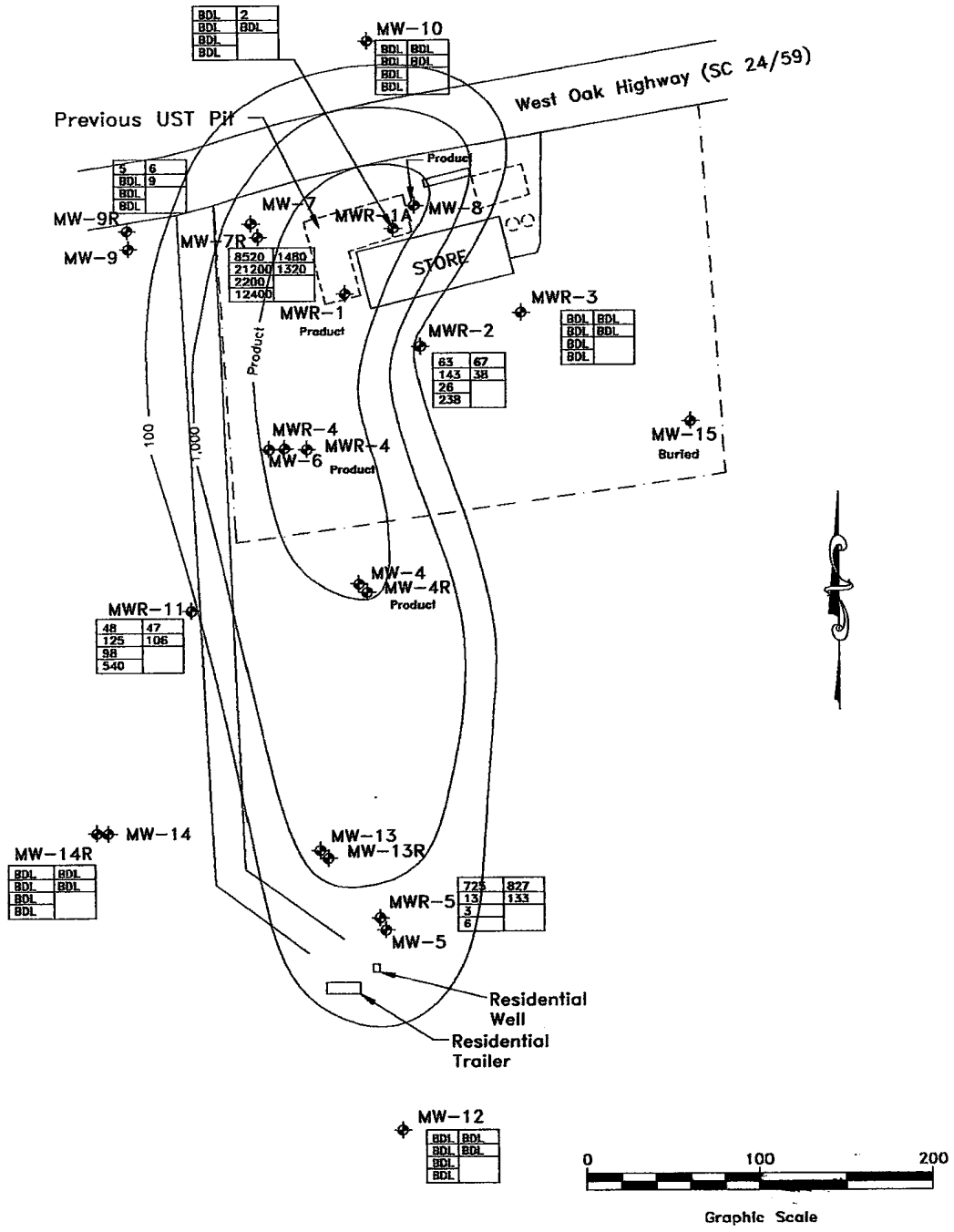
Certificate of Authorization: # C01435

FIGURES



Rick Smith, SMME12/4/2004 1:09 PMoconee oct 2004.dwg

South Carolina DHEC 2600 Bull Street Columbia, South Carolina	SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332	
PROJECT #: / DRAWN BY: RBS SCALE: 1" = 100' / DATE: December 4, 2004	Potentiometric Surface Map October 21, 2004 Cross Roads Grocery Oconee County, South Carolina oconee dec 2004.dwg	FIGURE 1



Rick Smith, SMME12/4/2004 1:09 PMoconee oct 2004.dwg

South Carolina DHEC 2600 Bull Street Columbia, South Carolina		SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332	
PROJECT #:	DRAWN BY: RBS	Benzene Isopleth October 21, 2004 Cross Roads Grocery Oconee County, South Carolina	FIGURE 2
SCALE: 1" = 100'	DATE: December 4, 2004	oconee dec 2004.dwg	

TABLES

GROUNDWATER ELEVATION

SB-66/2-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 11/29/2004
Site ID # 6742

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	0.00	-	30.0	28.47	28.45	99.04	0.02	70.59
MW-1	12/10/99			29.8	29.60		99.04		
2"	4/4/00			29.8	Dry		99.04		
MWR-1	6/20/00			45.0	35.20	34.93		0.27	
	9/25/00	0.39	20.1	45.0	37.05	37.05		0.00	
	2/27/01		18.5	45.0	39.05	39.05		0.00	
	7/19/01			45.0	37.90	36.70		1.20	
	10/9/01			45.0	38.91	38.89		0.02	
	3/26/02			45.0	39.42	39.35		0.07	
	5/15/02			45.0	39.42	39.95		2.50	
	2/20/03	1.49	18.7	45.0	39.20	0.00		0.00	
	6/11/03	1.08	19.7	45.0	28.30	0.00		0.00	
	8/26/03	1.12	19.9	45.0	28.04	0.00		0.00	
	6/14/04			45.0	31.49	31.50		0.01	
	10/21/04			45.0	32.05	31.50		0.01	
	4/2/98	0.00	-	40.0	31.50	28.66	99.01	2.84	69.92
MW-1A	12/10/99			38.4	38.32	35.32	99.01	3.00	63.24
2"	4/4/00			38.4		-1.10	99.01	1.10	
MWR-1A	6/20/00	1.01	21.8	70.0	35.95	35.95	98.70	0.00	62.75
	9/25/00			70.0	37.43	37.43	98.70	0.00	61.27
	2/27/01	1.01	18.8	70.0	39.58		98.70		59.12
	4/23/01	1.04	19.4	70.0	38.35		98.70		60.35
	7/19/01	1.09	21.5	70.0	38.20		98.70		60.50
	10/9/01	1.22	20.8	70.0	40.80		98.70		57.90
	3/26/02	1.49	20.9	70.0	41.95		98.70		56.75
	5/15/02	1.12	19.8	70.0	40.20		98.70		58.50
	9/22/02	1.24	20.9	70.0	41.48		98.70		57.22
	2/19/03	1.32	18.7	70.0	34.40		98.70		64.30
	6/11/03	1.19	21.7	70.0	31.25		98.70		67.45
	8/26/03	1.98	20.5	70.0	29.30		98.70		69.40
	6/14/04	Er	19.3	70.0	32.09		98.70		66.61
	10/21/04	5.00	18.8	70.0	32.42		98.70		66.28
	4/2/98	6.24	18.7	30.0	26.98	-	97.77	-	70.79
MW-2	12/10/99			29.3	29.22		97.77		
2"	4/4/00	0.48		29.3	29.22		97.77		Dry
MWR-2	6/20/00	1.23	22.3	40.0	33.23		97.40		64.17
	9/25/00	0.30	18.9	40.0	35.17		97.40		62.23
	2/27/01	1.01	17.9	40.0	36.92		97.40		60.48
	4/23/01	1.03	21.6	40.0	35.60		97.40		61.80
	7/19/01	1.27	22.7	40.0	35.21		97.40		62.19
	10/9/01	1.32	17.6	40.0	36.85		97.40		60.55
	3/26/02	1.15	18.9	40.0	37.20		97.40		60.20
	5/15/02	1.28	19.3	40.0	35.89		97.40		61.51
	9/22/02	1.33	18.8	40.0	36.63		97.40		60.77
	2/19/03	1.19	18.7	40.0	31.05		97.40		66.35
	6/11/03	1.38	18.3	40.0	26.89		97.40		70.51
	8/26/03	1.39	20.3	40.0	26.41		97.40		70.99
	6/14/04	Er	18.6	40.0	29.10		97.40		68.30
	10/21/04	4.40	19.1	40.0	29.79		97.40		67.61
	4/2/98	7.07	18.0	30.0	27.30	-	96.77	-	69.47
MW-3	12/10/99			29.0	28.97		96.77		
2"	4/4/00			29.0	28.94		96.77		Dry
MWR-3	6/20/00	2.65	22.6	40.0	33.40				
	9/25/00	1.43	19.0	40.0	35.32				
	2/27/01	1.70	17.5	40.0	37.11				
	4/23/01	1.59	21.4	40.0	35.84				
	7/19/01	1.95	22.2	40.0	35.33				
	10/9/01	1.31	17.6	40.0	37.00				
	3/26/02	1.31	19.4	40.0	37.34				
	5/14/02	1.98	18.2	40.0	36.00				
	9/22/02	1.29	19.6	40.0	36.64				
	2/19/03	1.25	18.1	40.0	31.12				
	6/11/03	1.29	21.1	40.0	27.18				
	8/26/03	1.24	19.5	40.0	26.67				
	6/14/04	Er	19.3	40.0	29.56				
	10/21/04	4.30	18.0	40.0	30.39				

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery
Site ID # 6742

As of: 11/29/2004

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	3.84	-	25.0	21.45	-	90.10	-	68.65
MW-4	12/10/99			27.4	27.13		90.10		
2"	4/4/00			27.4			90.10		Dry
MWR-4	6/20/00			40.0	30.43	-	92.97	0.01	62.55
	9/25/00	0.47	18.6	40.0	32.34	-	92.97	0.00	60.63
	2/27/01			40.0	35.85	-	92.97	1.00	57.97
	4/23/01			40.0	33.69	-	92.97	1.00	60.13
	7/19/01			40.0	32.77	-	92.97	0.50	60.63
	10/9/01			40.0	40.00	-	92.97	2.50	55.10
MW-4R	3/26/02	1.27	17.1	35.0	27.98	-	85.07		57.09
	5/15/02	1.06	17.7	35.0	26.60	-	85.07		58.47
	9/22/02	1.40	18.4	35.0	27.73	-	85.07		57.34
	2/20/03	1.12	17.1	35.0	21.72	-	85.07		63.35
	6/11/03	1.36	17.9	35.0	17.59	-	85.07		67.48
	8/26/03	1.19	19.0	35.0	17.75	-	85.07		67.32
	6/14/04	Er	18.7	35.0	24.93	-	85.07		60.14
	10/21/04			35.0	25.09	-	85.07	0.01	59.99
	4/2/98	5.86	14.1	20.0	12.40	-	74.74	-	62.34
MW-5	12/10/99			20.0	16.93		74.74		57.81
2"	4/4/00	4.74	16.8	20.0	12.45		74.74		62.29
	6/20/00	1.75		20.0	16.86		74.74		57.88
	9/25/00			20.0	dry		74.74		#VALUE!
	2/27/01			20.0	dry		74.74		#VALUE!
	4/23/01	1.16	15.7	20.0	17.35		74.74		57.39
	7/19/01	4.48		20.0	18.37		74.74		56.37
	10/9/01	dry		20.0	dry		74.74		#VALUE!
MWR-5	3/26/02	1.30	18.4	34.0	19.59		74.29		54.70
	5/14/02	1.37	16.2	34.0	18.77		74.29		55.52
	9/22/02	1.30	18.0	34.0	20.50		74.29		53.79
	2/19/03	3.92	17.1	34.0	14.20		74.29		60.09
	6/11/03	1.21	18.0	34.0	10.93		74.29		63.36
	8/26/03	1.09	18.0	34.0	11.70		74.29		62.59
	6/14/04	Er	18.1	34.0	13.95		74.29		60.34
	10/21/04	6.80	18.7	34.0	14.03		74.29		60.26
	4/2/98	0.66	17.6	35.0	23.35	-	92.67	-	69.32
MW-6	12/10/99			35.0	30.35		92.67		62.32
2"	4/4/00	0.18	18.0	35.0	29.88		92.67		62.79
	6/20/00	1.14	24.5	35.0	30.05		92.67		62.62
	9/25/00	0.33	18.6	35.0	32.05		92.67		60.62
	2/27/01			35.0	Dry		92.67		#VALUE!
	4/23/01	1.15	20.2	35.0	32.03		92.67		60.64
	7/19/01	1.09	19.5	35.0	32.02		92.67		60.65
	10/9/01	dry		35.0	dry		92.67		#VALUE!
MWR-4R	3/26/02			45.0	36.04		94.97	1.00	59.78
	5/15/02			45.0	36.79		94.97	0.50	58.61
	9/22/02			45.0	36.23		94.97	0.50	59.17
	2/20/03	1.97	17.5	45.0	28.19		94.97	0.00	66.78
	6/11/03	1.10	18.6	45.0	24.24		94.97	0.00	70.73
	8/26/03	1.04	19.8	45.0	24.74		94.97	0.00	70.23
	6/14/04			45.0	29.61		94.97	2.50	67.49
	10/21/04			45.0	28.75		94.97	1.20	67.24
	4/2/98	5.18	21.7	39.0	27.06	-	97.68	-	70.62
MW-7	12/10/99			39.0	33.90		97.68		63.78
2"	4/4/00	0.04	17.8	39.0	33.76		97.68		63.92
	6/20/00	0.81	26.8	39.0	33.59		97.68		64.09
	9/25/00	0.31	20.0	39.0	35.55		97.68		62.13
	2/27/01			39.0	Dry		97.68		#VALUE!
	4/23/01			39.0	Dry		97.68		#VALUE!
	7/19/01			37.0	36.21		97.68	0.65	61.47
	10/9/01			37.0	dry		97.68		#VALUE!
MW-7R	3/26/02	1.89	20.5	45.0	38.10		100.06		61.96
	5/15/02	1.21	20.0	45.0	36.86		100.06		63.20
	9/22/02	1.16	20.7	45.0	37.44		100.06		62.62
	2/20/03	1.22	19.3	45.0	32.30		100.06		67.76
	6/11/03	1.11	20.3	45.0	30.15		100.06		69.91
	8/26/03	1.00	21.0	45.0	27.30		100.06		72.76
	6/14/04	Er	17.9	45.0	30.72		100.06		69.34
	10/21/04	5.40	19.0	45.0	30.86		100.06		69.20

GROUNDWATER ELEVATION

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 11/29/2004
Site ID # 6742

Location	Date	D.O. (mg/L)	Temperature (° Celcius)	Well Depth (ft)	Depth to Water (ft)	Depth to Product(ft)	Well-head Elevation	Product Thickness	Groundwater Elevation
	4/2/98	3.83	19.7	45.0	28.87	-	99.10	-	70.23
MW-8	12/10/99			43.0	35.82		99.10		63.28
2"	4/4/00	0.15	17.1	43.0	35.74		99.10		63.36
	6/20/00	0.99	23.3	43.0	35.50		99.10		63.60
	9/25/00	0.37	19.7	43.0	37.40		99.10		61.70
	2/27/01	0.94	19.0	43.0	39.34		99.10		59.76
	4/23/01	1.09	21.0	43.0	38.06		99.10		61.04
	7/19/01	1.12	22.0	43.0	37.44		99.10		61.66
	10/9/01	1.13	19.5	43.0	38.00		99.10		61.10
	3/26/02	1.19	19.9	43.0	39.54		99.10		59.56
	5/15/02	1.09	20.4	43.0	38.26		99.10		60.84
	9/22/02	1.18	22.0	43.0	38.75		99.10		60.35
	2/20/03	1.10	19.4	43.0	33.69		99.10		65.41
	6/11/03	1.09	20.8	43.0	28.75		99.10		70.35
	8/26/03			43.0	27.76		99.10	0.58	71.84
	6/14/04			43.0	33.71		99.10	3.00	67.94
	10/21/04			43.0	No Water Detected		99.10	10.20	#VALUE!
	4/2/98	5.45	18.7	32.0	23.94	-	96.47	-	72.53
MW-9	12/10/99			30.6	30.42		96.47		
2"	4/4/00			30.6			96.47		Dry
	6/20/00			30.6			96.47		Dry
	9/25/00			30.6			96.47		Dry
	2/27/01			30.6			96.47		Dry
	4/23/01			30.6			96.47		Dry
	7/19/01			30.6			96.47		Dry
	10/9/01			30.6			96.47		Dry
MW-9R	3/26/02	1.17	19.7	45.0	36.04		98.24		62.20
	5/14/02	1.17	18.1	45.0	34.70		98.24		63.54
	9/22/02	1.20	19.1	45.0	36.52		98.24		61.72
	2/19/03	1.09	18.3	45.0	29.86		98.24		68.38
	6/11/03	1.56	19.5	45.0	25.38		98.24		72.86
	8/26/03	1.03	19.9	45.0	26.00		98.24		72.24
	6/14/04	Er	19.3	45.0	27.70		98.24		70.54
	10/21/04	5.40	19.2	45.0	28.65		98.24		69.59
	4/2/98	7.27	20.7	42.0	29.77	-	99.89	-	70.12
MW-10	12/10/99			42.0	36.21		99.89		63.68
2"	4/4/00	4.59	18.2	42.0	36.22		99.89		63.67
	6/20/00	5.09	20.5	42.0	35.84		99.89		64.05
	9/25/00	4.82	19.3	42.0	37.78		99.89		62.11
	2/27/01	5.15	17.4	42.0	39.68		99.89		60.21
	4/23/01	5.19	18.7	42.0	38.46		99.89		61.43
	7/19/01	4.84	20.3	42.0	37.74		99.89		62.15
	10/8/01	2.48	19.1	42.0	39.45		99.89		60.44
	3/26/02	2.69	18.8	42.0	39.93		99.89		59.96
	5/14/02	2.90	18.5	42.0	38.63		99.89		61.26
	9/22/02	4.79	18.8	42.0	39.04		99.89		60.85
	2/19/03	3.59	17.8	42.0	34.13		99.89		65.76
	6/11/03	3.37	20.2	42.0	20.27		99.89		79.62
	8/26/03	2.39	21.0	42.0	28.80		99.89		71.09
	6/14/04	Er	19.5	42.0	32.16		99.89		67.73
	10/21/04	6.80	17.8	42.0	32.97		99.89		66.92
	4/2/98	3.03	18.7	25.0	17.84	-	86.57	-	68.73
MW-11	12/10/99			25.0	24.64		86.57		
2"	4/4/00	1.04		25.0	24.43		86.57		
MWR-11	6/20/00	1.10	20.5	40.0	25.11				
	9/25/00	0.41	17.8	40.0	27.03				
	2/27/01	1.39	16.9	40.0	28.35				
	4/23/01	1.07	18.9	40.0	26.55				
	7/19/01	1.17	20.1	40.0	27.03				
	10/9/01	1.19	17.6	40.0	28.38				
	3/29/02	1.29	19.1	40.0	28.94				
	5/15/02	1.36	17.1	40.0	27.50				
	9/22/02	NM	NM	40.0	28.72				
	2/19/03	0.92	17.0	40.0	22.40				
	6/11/03	1.15	18.1	40.0	18.75				
	8/26/03	1.08	17.9	40.0	18.31				
	6/14/04	Er	18.1	40.0	21.66				
	10/21/04	5.80	19.3	40.0	21.61				

SB-6672-0725/99-REB

Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name	Crossroads Grocery	As of:	11/29/2004
Site ID #	6742		

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-1	4/2/98							
	1/25/99	28,200	37,200	2,750	19,500	24,600	4,750	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-1	6/20/00	Product Measured						
	9/25/00	51,500	56,000	3,900	20,200	78,500	2,500	
	2/27/01	29,800	31,100	2,750	19,500	34,600	5,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/18/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	24,500	24,200	2,750	19,500	27,900	600	
	6/11/03	19,200	24,900	2,750	19,500	28,600	805	
	8/27/03	37,200	45,800	3,740	19,500	32,200	1,560	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	2,750	19,500	887	554	
MW-1A	4/2/98							
	1/25/99	33,700	39,300	1,700	13,500	193,000	5,000	
	12/9/99							
	4/4/00							
MWR-1A	6/21/00	825	22,164	1,700	13,500	338	554	
	9/25/00	1,280	22,164	1,700	13,500	730	554	
	2/27/01	111	22,164	1,700	13,500	187	554	
	4/23/01	111	22,164	1,700	13,500	187	554	
	7/19/01	111	22,164	1,700	13,500	187	554	
	10/9/01	452	22,164	1,700	13,500	187	554	
	3/26/02	1,300	22,164	1,700	13,500	187	554	
	5/15/02	150	22,164	1,700	13,500	187	554	
	9/18/02	274	22,164	1,700	13,500	187	554	
	2/19/03	428	22,164	1,700	13,500	187	554	
	6/11/03	185	22,164	1,700	13,500	187	554	
	8/27/03	111	22,164	1,700	13,500	187	554	
	6/14/04	111	22,164	1,700	13,500	187	554	
	10/21/04	111	22,164	1,700	13,500	187	554	38,216
Target		111	22,164	1,700	13,500	187	554	
MW-2	4/2/98	11	17	14	87	<1	9	
	1/25/99	19	12	2	21	67	5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-2	6/20/00	68	721	385	2,080	67	153	
	9/25/00	103	1,270	398	2,030	67	102	
	2/27/01	74	190	80	301	67	50	
	4/23/01	78	524	183	1,010	67	79	
	7/19/01	76	320	150	730	67	60	
	10/9/01	167	481	185	931	67	60	
	3/26/02	180	808	310	1,560	67	102	
	5/15/02	194	851	340	1,810	119	170	
	9/18/02	258	882	444	2,120	288	228	
	2/19/03	149	480	121	595	67	122	
	6/11/03	184	705	181	1,040	123	58	
	8/27/03	137	583	154	805	100	99	
	6/14/04	50	112	25	164	129	69	
	10/21/04	63	143	28	238	67	38	575
Target		19	12	5	21	67	5	
MW-3	4/2/98	15	24	9	117	<1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-3	6/20/00	<1	1	<1	3	2	<5	
	9/25/00	<1	1	<1	3	2	<5	
	2/27/01	<1	1	<1	3	<1	<5	
	4/23/01	<1	1	<1	3	<1	<5	
	7/19/01	1	1	1	3	1	5	
	10/9/01	1	1	1	3	1	5	
	3/26/02	1	1	2	3	1	5	
	5/14/02	1	1	1	3	1	5	
	9/17/02	1	1	1	3	1	5	
	2/19/03	1	1	1	3	1	5	
	6/11/03	1	1	1	3	1	5	
	8/26/03	1	1	1	3	1	5	
	6/14/04	1	1	1	3	1	5	
	10/21/04	1	1	1	3	1	5	
MW-4	4/2/98	15,700	2,570	27,600	13,300	5,820	882	
	1/25/99							
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-4	6/20/00	Product Measured						
	9/25/00	20,500	31,200	10,344	147,734	4,650	2,500	
	2/27/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
MW-4R	3/26/02	21,100	17,600	10,344	147,734	6,300	1,000	
	5/15/02	31,900	37,200	10,344	147,734	6,400	1,100	
	9/18/02	23,700	27,500	10,344	147,734	2,900	700	
	2/19/03	12,400	17,900	10,344	147,734	1,540	520	
	6/11/03	5,300	14,775	10,344	147,734	869	496	
	8/27/03	13,100	21,800	10,344	147,734	922	631	
	6/14/04	7,630	20,000	10,344	147,734	600	950	
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		74	14,775	10,344	147,734	562	369	

SB-6672-07/29/99-RRB

Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 11/29/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
	4/2/98	<1	<1	<1	<1	<1	<5	
MW-5	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	Dry Well, Not Sampled						
MWR-5	3/26/02	4,410	1	220	1,150	3,950	5	
	5/14/02	4,140	1	190	1,200	2,880	5	
	9/17/02	8,880	200	580	2,100	7,500	500	
	2/19/03	8,080	175	425	1,540	9,460	300	
	6/11/03	3,820	96	256	786	4,640	201	
	8/26/03	2,880	68	160	526	2,320	106	
	6/14/04	1	1	1	3	1	5	
	10/21/04	725	13	3	6	827	133	
	4/2/98	39,600	2,460	41,100	12,400	16,400	561	
MW-6	1/25/99	6,920	9,600	1,080	7,460	1,810	495	
	12/9/99	10,200	11,000	800	5,000	6,800	1,000	
	4/4/00	21,100	33,400	2,000	10,300	<10000	482	
	6/21/00	21,800	18,000	1,080	7,460	8,320	500	
	9/25/00	41,000	41,600	2,400	13,200	15,800	2,500	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	2,000	8,600	1,080	7,460	2,510	500	
	7/19/01	4,820	8,600	1,080	7,460	5,200	500	
	10/9/01	Dry Well, Not Sampled						
MWR-6R	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/18/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/19/03	19,400	30,700	3,200	16,300	16,900	1,100	
	6/11/03	13,700	18,700	2,080	11,200	11,800	1,010	
	8/27/03	24,800	31,900	2,500	12,300	16,000	985	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		97	9,600	1,080	7,460	163	482	
	4/2/98	2,780	1,630	10,500	7,510	63	468	
MW-7	1/25/99	2,200	9,360	1,280	7,440	110	430	
	12/9/99	1,300	7,050	1,050	6,500	100	400	
	4/4/00	680	9,360	1,280	7,440	110	430	
	6/21/00	1,050	9,360	1,280	7,440	110	430	
	9/25/00	3,670	11,200	1,540	8,380	205	430	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-7R	3/26/02	3,020	9,360	1,280	7,440	110	430	
	5/15/02	15,700	41,500	4,130	21,800	400	860	
	9/18/02	12,400	28,400	2,180	11,300	265	615	
	2/19/03	6,790	16,200	1,350	7,450	110	500	
	6/11/03	2,200	9,360	1,280	7,440	110	430	
	8/27/03	8,440	9,360	19,700	12,400	1,540	522	
	6/14/04	2,040	9,360	2,080	11,800	120	710	
	10/21/04	8,520	21,200	2,200	12,400	1,480	1,320	47,120
Target		111	9,360	1,280	7,440	110	430	
	4/2/98	11,000	722	15,900	6,520	100	30,500	
MW-8	1/25/99							
	12/9/99	32,500	39,000	2,500	13,500	93,000	2,500	
	4/4/00	44,700	60,000	15,515	221,643	164,000	681	
	6/21/00	27,400	25,500	15,515	221,643	105,000	681	
	9/25/00	43,900	61,500	15,515	221,643	68,000	2,500	
	2/27/01	24,300	31,000	15,515	221,643	40,000	5,000	
	4/23/01	28,100	33,700	15,515	221,643	87,800	1,000	
	7/19/01	30,300	37,800	15,515	221,643	99,100	2,500	
	10/9/01	24,750	37,050	15,515	221,643	30,850	2,500	
	3/26/02	21,000	34,100	15,515	221,643	19,000	2,500	
	5/15/02	29,700	47,200	15,515	221,643	40,400	5,000	
	9/18/02	25,300	33,200	15,515	221,643	45,600	500	
	2/19/03	12,700	22,164	15,515	221,643	13,600	500	
	6/11/03	6,100	22,164	15,515	221,643	11,300	554	
	8/26/03	226,000	301,000	280,000	278,000	5,110,000	2,000	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	15,515	221,643	887	554	
	4/2/98	9	12	4	54	<1	2	
MW-9	1/25/99	6	3	<1	9	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-9R	3/26/02	110	99	97	552	39	93	
	5/14/02	150	63	32	250	104	68	
	9/17/02	238	36	54	244	30	70	
	2/19/03	137	27	27	110	45	36	
	6/11/03	100	36	30	130	52	50	
	8/25/03	68	31	21	91	38	58	
	6/14/04	46	20	22	107	81	134	
	10/21/04	5	1	1	3	6	9	

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 11/29/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
	4/2/99	132	48	464	224	1	11	
MW-10	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	<1	<1	<1	<1	4	<5	
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	<1	<1	<1	<1	<1	<5	
	9/25/00	<1	<1	<1	<1	<1	<5	
	2/27/01	<1	<1	<1	<1	<1	<5	
	4/23/01	<1	<1	<1	<1	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	1	4	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/17/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	3	71	26	154	1	48	
	10/21/04	1	1	1	3	1	5	
	4/2/99	<1	1,000	312	5,050	<1	272	
MW-11	1/25/99	24	106	189	825	10	731	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MMR-11	6/20/00	24	106	189	825	43	369	
	9/25/00	38	106	264	1,260	20	369	
	2/27/01	72	106	189	825	13	369	
	4/23/01	33	106	189	825	49	369	
	7/19/01	24	150	257	1,250	16	369	
	10/9/01	24	106	189	825	34	369	
	3/26/02	15,300	32,100	3,100	15,600	500	2,500	
	5/15/02	3,770	12,000	2,020	10,100	430	710	
	2/19/03	244	822	216	1,700	15	380	
	6/11/03	173	889	496	2,600	54	408	
	8/26/03	150	637	401	2,250	58	369	
	6/14/04	138	412	334	2,130	70	448	
	10/21/04	48	125	98	540	47	106	954
Target		24	106	189	825	10	369	
	4/2/99	<1	<1	<1	<1	<1	<5	
MW-12	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Could not locate						
	2/27/01	Could not locate						
	4/23/01	1	1	1	3	1	5	
	7/19/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
	2/19/03	1	1	1	3	1	5	
	6/11/03	1	1	1	3	1	5	
	8/26/03	1	1	1	3	1	5	
	6/14/04	1	1	1	3	1	5	
	10/21/04	1	1	1	3	1	5	
	4/2/99	<1	130	78	434	1,950	25	
MW-13	1/25/99	1,810	26	38	382	2,810	154	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/20/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-13R	3/26/02	6,740	3,040	840	3,250	1,020	500	
	5/15/02	10,000	4,660	1,310	5,060	1,800	350	
	9/18/02	13,000	5,540	1,280	5,240	3,800	1,000	
	2/19/03	6,160	2,630	560	2,280	2,320	250	
	6/11/03	4,090	1,350	550	2,380	2,160	321	
	8/27/03	4,500	1,010	433	1,840	1,950	271	
	6/14/04	3,630	50	58	60	2,360	222	6,380
Target		10	26	38	382	134	83	
	4/2/99	150	149	501	921	1	60	
MW-14	1/25/99	17	21	50	334	7	452	
	12/9/99	16	6	20	190	77	20	
	4/4/00	29	64	78	586	<10	89	
	6/21/00	24	40	50	334	48	83	
	9/25/00	25	145	90	682	8	87	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	86	334	116	1,000	88	144	
	7/19/01	169	382	249	1,380	76	209	
	10/9/01	Dry Well, Not Sampled						
MW-14R	3/26/02	53	22	50	334	7	83	
	5/15/02	34	22	50	334	16	83	
	9/17/02	89	21	50	334	7	83	
	2/19/03	42	21	50	334	7	83	
	6/11/03	32	33	50	334	7	83	
	8/26/03	10	21	50	334	7	83	
	6/14/04	10	21	50	334	7	83	
	10/21/04	10	21	50	334	7	83	505
Target		10	21	50	334	7	83	
	4/2/99	<5	<5	<5	<5	<1	3	
MW-15	1/25/99	Not Sampled						
	12/9/99	Well Buried; Not Sampled						
	4/4/00	Well Buried; Not Sampled						
	6/20/00	Well Buried; Not Sampled						
	9/25/00	Well Buried; Not Sampled						
	2/27/01	Well Buried; Not Sampled						
	4/23/01	Well Buried; Not Sampled						
	10/9/01	Well Buried; Not Sampled						

Total Mass		24,881,760
Target		559,387
Initial Mass above SSTL		12,294,113
% Reduction		-97.8%

GROUNDWATER SAMPLING

SB-6672-07/29/99-REB

Crossroads Grocery

850 West Oak Highway

Oconee County, South Carolina

Site Name Crossroads Grocery — As of: 11/29/2004

Site ID # 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
	4/2/98							Product
MW-1	1/25/99	28,200	37,200	2,750	19,500	24,600	4,750	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-1	6/21/00	Product Measured						
	9/25/00	51,500	56,000	3,900	20,200	78,500	2,500	
	2/27/01	29,800	31,100	2,300	*13,200*	34,600	5,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/17/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	24,500	24,200	*1,880*	*9,890*	27,900	600	
	6/11/03	19,200	24,900	*1,930*	*10,400*	28,600	805	
	8/27/03	37,200	45,800	3,740	*18,800*	32,200	1,560	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/19/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	2,750	19,500	887	554	
	4/2/98							
MW-1A	1/25/99	33,700	39,300	1,700	13,500	193,000	5,000	
	12/9/99							
	4/4/00							
Target		111	22,164	1,700	13,500	187	554	
	6/21/00	825	1,460	116	716	338	<50	
MWR-1A	9/25/00	1,280	3,160	570	3,520	730	250	
	2/27/01	*47*	*102*	*39*	*417*	*31*	*60*	
	4/23/01	*24*	*22*	*20*	*130*	*14*	*29*	
	7/19/01	*28*	*23*	*33*	*168*	*19*	*40*	
	10/9/01	*45*	*48*	*25*	*217*	*33*	*10*	
	3/29/02	1,300	*2,520*	*290*	*1,440*	*50*	*250*	
	5/15/02	150	*328*	*42*	*252*	*56*	*100*	
	9/18/02	274	*172*	*52*	*217*	*28*	*32*	
	2/19/03	428	*162*	*35*	*171*	*24*	*25*	
	6/11/03	185	*84*	*31*	*133*	*16*	*26*	
	8/27/03	*91*	*154*	*29*	*161*	*43*	*23*	
	6/14/04	*4*	*1*	*1*	*8*	*4*	*9*	
	10/21/04	*1*	*1*	*1*	3	2	5	13
Target		111	22,164	1,700	13,500	187	554	
	4/2/98	11	17	14	87	<1	9	
MW-2	1/25/99	19	12	2	21	67	5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-2	6/21/00	68	721	385	2,090	53	153	
	9/25/00	103	1,270	396	2,030	2	102	
	2/27/01	74	190	60	301	*10*	50	
	4/23/01	78	524	183	1,010	*51*	79	
	7/19/01	76	320	150	730	*39*	69	
	10/9/01	157	481	185	931	*50*	60	
	3/26/02	180	808	310	1,590	*54*	102	
	5/14/02	194	651	340	1,810	119	170	
	9/18/02	258	862	444	2,120	288	228	
	2/19/03	149	480	121	595	39	122	
	6/11/03	184	705	181	1,040	123	59	
	8/27/03	137	583	154	905	100	99	
	6/14/04	50	112	25	164	129	69	
	10/21/04	63	143	26	238	67	38	575
Target		19	12	5	21	67	5	
	4/2/98	15	24	9	117	<1	11	
MW-3	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-3	6/21/00	<1	1	<1	<1	2	<5	
	9/25/00	<1	1	<1	<1	2	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<3	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	2	1	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/18/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	1	1	1	4	1	6	
	10/21/04	1	1	1	3	1	5	

GROUNDWATER ANALYSIS

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 11/29/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-4	4/2/98	15,700	2,570	27,600	13,300	5,820	882	
	1/25/99							
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-4	6/21/00	Product Measured						
	9/25/00	20,500	31,200	2,500	15,500	4,650	2,500	
	2/27/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	4/23/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
MW-4R	3/26/02	21,100	17,600	*1,260*	*7,700*	6,300	1,000	
	5/15/02	31,900	37,200	*2,920*	*17,900*	6,400	1,100	
	9/18/02	23,700	27,500	*2,260*	*11,300*	2,900	700	
	2/20/03	12,400	17,900	*1,670*	*9,230*	1,540	520	
	6/11/03	5,300	11,300	*1,290*	*7,360*	869	496	
	8/27/03	13,100	21,800	*1,980*	*11,900*	922	631	
	6/14/04	7,630	20,000	*2,110*	*11,100*	600	950	42,390
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		74	14,775	10,344	147,734	592	369	
MW-5	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	Dry Well, Not Sampled						
MWR-5	3/26/02	4,410	100	220	1,150	3,950	500	
	5/14/02	4,140	100	190	1,200	2,990	500	
	9/17/02	8,890	200	580	2,100	7,500	500	
	2/19/03	8,080	175	425	1,540	9,460	300	
	6/11/03	3,820	96	256	786	4,640	201	
	8/26/03	2,990	68	160	526	2,320	106	
	6/14/04	1	1	1	3	1	5	
	10/21/04	725	13	3	6	827	133	
MW-6	4/2/98	39,600	2,460	41,100	12,400	16,400	561	
	1/25/99	6,920	9,600	1,080	7,460	1,810	495	
	12/9/99	10,200	11,000	800	5,000	6,800	1,000	
	4/4/00	21,100	33,400	2,000	10,300	10,000	314	
	6/21/00	21,800	18,000	1,080	6,320	8,320	500	
	9/25/00	41,000	41,600	2,400	13,200	15,600	2,500	
	4/23/01	2,000	*1,370*	*100*	*2,770*	2,510	500	
	7/19/01	4,280	*4,900*	*290*	*4,280*	5,200	500	
	10/9/01	Dry Well, Not Sampled						
MWR-6R	3/26/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	5/14/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	9/17/02	226,000	301,000	280,000	278,000	5,110,000	2,000	
	2/20/03	19,400	30,700	3,200	16,300	16,900	1,100	
	6/11/03	13,700	16,700	2,080	11,200	11,600	1,010	
	8/27/03	24,800	31,900	2,500	12,300	16,000	985	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		97	9,600	1,080	7,460	163	482	
MW-7	4/2/98	2,780	1,630	10,500	7,610	63	468	
	1/25/99	2,200	9,360	1,280	7,440	110	430	
	12/9/00	1,300	7,050	1,050	6,500	100	400	
	4/4/00	680	2,270	315	2,180	49	160	
	6/21/00	1,050	4,550	442	2,690	66	234	
	9/25/00	3,670	11,200	1,540	8,380	205	250	
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	7/19/01	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/9/01	Dry Well, Not Sampled						
MW-7R	3/26/02	3,020	7,140	475	3,560	50	250	
	5/15/02	15,700	41,500	4,130	21,800	400	860	
	9/18/02	12,400	26,400	2,180	11,300	265	615	
	2/20/03	6,790	16,200	1,350	7,450	*100*	500	
	6/11/03	2,200	8,300	955	5,490	*55*	400	
	8/27/03	8,440	19,700	2,070	12,400	1,540	522	
	6/14/04	2,040	6,400	2,080	11,900	120	710	
	10/21/04	8,520	21,200	2,200	12,400	1,480	1,320	47,120
Target		111	9,360	1,280	7,440	110	430	

GROUNDWATER SAMPLING

SB-6672-07/29/99-REB

Crossroads Grocery

850 West Oak Highway

Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 11/29/2004

Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-8	4/2/98	11,000	722	15,900	6,520	188	35,500	
	1/25/99							
	12/9/00	32,500	39,000	2,500	13,500	93,000	2,500	
	4/4/00	44,700	60,000	3,250	17,400	164,000	681	
	6/21/00	27,400	25,500	1,320	7,860	105,000	681	
	9/25/00	43,900	61,500	3,700	19,700	68,000	2,500	
	2/27/01	24,300	31,000	1,900	10,800	40,000	5,000	
	4/23/01	28,100	33,700	1,840	10,600	87,800	1,000	
	7/19/01	30,300	37,800	1,950	11,600	99,100	2,500	
	10/9/01	24,750	37,050	2,150	11,900	30,850	2,500	
	3/26/02	21,000	34,100	2,250	11,900	19,000	2,500	
	5/15/02	29,700	47,200	3,000	17,300	40,400	5,000	
	9/18/02	25,300	33,200	1,840	9,660	45,600	500	
	2/20/03	12,700	17,900	1,280	6,930	13,600	500	
	6/11/03	6,100	11,300	1,880	5,950	11,300	554	
	8/26/03	226,000	301,000	280,000	278,000	5,110,000	2,000	
	6/14/04	226,000	301,000	280,000	278,000	5,110,000	2,000	
	10/21/04	226,000	301,000	280,000	278,000	5,110,000	2,000	6,197,000
Target		111	22,164	15,515	221,643	887	554	
MW-9	4/2/98	9	12	4	54	<1	2	
	1/25/99	6	3	<1	9	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-9R	3/26/02	110	99	97	552	39	93	
	5/14/02	150	63	32	250	104	68	
	9/17/02	238	36	54	244	30	70	
	2/19/03	137	27	27	110	45	36	
	6/11/03	108	36	30	130	52	50	
	8/26/03	68	31	21	91	38	59	
	6/14/04	46	20	22	107	81	134	
	10/21/04	5	1	1	3	6	9	
MW-10	4/2/98	132	48	464	224	1	11	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	<1	<1	<1	<1	4	<5	
	4/4/00	<2	<2	<2	<2	<10	<5	
	6/21/00	<1	<1	<1	<1	<1	<5	
	9/25/00	<1	<1	<1	<1	<1	<5	
	2/27/01	<1	<1	<1	<3	<1	<5	
	4/23/01	<1	<1	<1	<1	<1	<5	
	7/19/01	1	1	1	1	1	5	
	10/9/01	1	1	1	1	1	5	
	3/26/02	1	4	1	1	1	5	
	5/14/02	1	1	1	1	1	5	
	9/18/02	1	1	1	1	1	5	
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	3	71	26	154	1	48	
	10/21/04	1	1	1	1	1	5	
MW-11	4/2/99	<1	1,090	312	5,090	<1	272	
	1/25/99	24	106	189	825	10	731	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
MWR-11	6/21/00	17	20	37	268	43	28	
	9/25/00	39	101	264	1,260	20	109	
	2/27/01	72	40	9	131	13	12	
	4/23/01	33	45	122	690	49	99	
	7/19/01	13	150	257	1,250	16	143	
	10/9/01	18	84	139	785	34	86	
	3/26/02	15,300	32,100	3,100	15,600	500	2,500	
	5/15/02	3,770	12,000	2,020	10,100	430	710	
	2/19/03	244	822	216	1,700	15	380	
	6/11/03	173	889	496	2,600	54	408	
	8/26/03	150	637	401	2,250	58	290	
	6/14/04	138	412	324	2,130	70	448	
	10/21/04	48	125	98	540	47	106	964
Target		24	106	189	825	10	369	

GROUNDWATER SCIENCE, INC.

SB-6672-07/29/99-REB
Crossroads Grocery
850 West Oak Highway
Oconee County, South Carolina

Site Name: Crossroads Grocery — As of: 11/29/2004
Site ID #: 6742

Location	Date	Chemical of Concern, ppb						Total Mass
		Benzene	Toluene	Ethylb.	Xylenes	MTBE	Naphthalene	
MW-12	4/2/98	<1	<1	<1	<1	<1	<5	
	1/25/99	<1	<1	<1	<1	<1	<5	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	4/23/01	1	1	1	1	1	5	
	7/19/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
	2/19/03	1	1	1	1	1	5	
	6/11/03	1	1	1	1	1	5	
	8/26/03	1	1	1	1	1	5	
	6/14/04	1	1	1	3	1	5	
	10/21/04	1	1	1	3	1	5	
MW-13	4/2/98	<1	130	78	434	1,950	25	
	1/25/99	1,810	26	38	382	2,810	154	
	12/9/99	Dry Well, Not Sampled						
	4/4/00	Dry Well, Not Sampled						
	6/21/00	Dry Well, Not Sampled						
	9/25/00	Dry Well, Not Sampled						
	2/27/01	Dry Well, Not Sampled						
	4/23/01	Dry Well, Not Sampled						
	10/9/01	Dry Well, Not Sampled						
MW-13R	3/26/02	6,740	3,040	840	3,250	1,020	500	
	5/15/02	10,000	4,660	1,310	5,060	1,600	350	
	9/18/02	13,000	5,540	1,280	5,240	3,600	1,000	
	2/19/03	6,160	2,030	500	2,280	2,320	250	
	6/11/03	4,090	1,350	559	2,380	2,160	321	
	8/27/03	4,500	1,010	433	1,840	1,050	271	
	6/14/04	3,530	50	58	60	2,360	222	
	10/21/04	Well Not Accessible						-
Target		10	26	38	382	134	83	
MW-14	4/2/98	150	149	501	921	1	80	
	1/25/99	17	21	50	334	7	452	
	12/9/99	16	6	20	190	77	20	
	4/4/00	29	64	76	586	10	89	
	6/21/00	24	40	35	330	48	51	
	9/25/00	25	145	90	682	8	87	
	4/23/01	86	334	116	1,090	88	144	
	7/19/01	169	392	249	1,380	76	209	
	10/9/01	Well Buried, Not Sampled						-
MW-14R	3/26/02	53	22	5	94	6	12	
	5/14/02	34	22	1	88	16	24	
	9/17/02	89	4	10	61	5	15	
	2/19/03	42	3	4	14	1	5	
	6/11/03	32	33	13	77	3	9	
	8/26/03	9	1	1	5	1	5	
	6/14/04	1	1	1	3	1	5	
	10/21/04	1	1	1	3	1	5	12
Target		10	21	50	334	7	83	
MW-15	4/2/98	<5	<5	<5	<5	<1	3	
	1/25/99	Not Sampled						
	12/9/99	Well Buried, Not Sampled						
	4/4/00	Well Buried, Not Sampled						
	6/21/00	Well Buried, Not Sampled						
	10/9/01	Well Buried, Not Sampled						
Total Mass								24,879,074
Target								559,387
Initial Mass above SSTL								12,294,113
% Reduction								-97.8%

APPENDIX I: LABORATORY REPORTS

SDG	Laboratory I	Project Name	Sample ID	Sampler	Date Receiv	Time Re	Date Collect	Time C	Date Reports	Sample	Analyte Name	CAS Numb	Method I	Result	Qual	Report	Method	Dilution	Units	Analyst	Date Analyz	Time An	Batch I	Instrument	Matrix	Matrix	LCS %	Blank Result
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	Benzene	71-43-2	8021B	<1.00	U	1	0.19	1	ug/l	I. Ahmed	10/26/2004	20:47	6883	BTEX HP50				89 < 0.19
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	Toluene	108-88-3	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	20:47	6883	BTEX HP50				102 < 0.2
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	20:47	6883	BTEX HP50				102 < 0.2
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	<3.0	U	3	0.6	1	ug/l	I. Ahmed	10/26/2004	20:47	6883	BTEX HP50				88 < 0.6
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	20:47	6883	BTEX HP50				97 < 0.2
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	Naphthalene	91-20-3	8021B	<5.0	U	5	1.5	1	ug/l	I. Ahmed	10/26/2004	20:47	6883	BTEX HP50			174#	< 1.5
393927	04-A163917	CROSSROADS	MW10	RICK SMITH	10/22/2004	8:45	10/21/2004	12:00	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	Benzene	71-43-2	8021B	1		1	0.19	1	ug/l	I. Ahmed	10/26/2004	21:19	6883	BTEX HP50				89 < 0.19
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	Toluene	108-88-3	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	21:19	6883	BTEX HP50				102 < 0.2
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	21:19	6883	BTEX HP50				102 < 0.2
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	<3.0	J	3	0.6	1	ug/l	I. Ahmed	10/26/2004	21:19	6883	BTEX HP50				88 < 0.6
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/26/2004	21:19	6883	BTEX HP50				97 < 0.2
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	Naphthalene	91-20-3	8021B	<5.0	U	5	1.5	1	ug/l	I. Ahmed	10/26/2004	21:19	6883	BTEX HP50			174#	< 1.5
393927	04-A163918	CROSSROADS	MW3R	RICK SMITH	10/22/2004	8:45	10/21/2004	12:15	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	Benzene	71-43-2	8021B	<1.00	U	1	0.19	1	ug/l	I. Ahmed	10/26/2004	21:50	6883	BTEX HP50				89 < 0.19
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	Toluene	108-88-3	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	21:50	6883	BTEX HP50				102 < 0.2
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	21:50	6883	BTEX HP50				102 < 0.2
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	<3.0	U	3	0.6	1	ug/l	I. Ahmed	10/26/2004	21:50	6883	BTEX HP50				88 < 0.6
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	21:50	6883	BTEX HP50				97 < 0.2
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	Naphthalene	91-20-3	8021B	<5.0	U	5	1.5	1	ug/l	I. Ahmed	10/26/2004	21:50	6883	BTEX HP50			174#	< 1.5
393927	04-A163919	CROSSROADS	MW12	RICK SMITH	10/22/2004	8:45	10/21/2004	12:40	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	Benzene	71-43-2	8021B	725		10	0.19	10	ug/l	I. Ahmed	10/27/2004	12:31	2163	BTEX HP6	105	0.8	80	< 0.19
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	Toluene	108-88-3	8021B	12.8		1	0.2	1	ug/l	I. Ahmed	10/26/2004	22:22	6883	BTEX HP50			109	< 0.2
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	3.3		1	0.2	1	ug/l	I. Ahmed	10/26/2004	22:22	6883	BTEX HP50			102	< 0.2
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	8.3		3	0.6	1	ug/l	I. Ahmed	10/26/2004	22:22	6883	BTEX HP50			88	< 0.6
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	627		10	0.2	10	ug/l	I. Ahmed	10/27/2004	12:31	2163	BTEX HP6	94	10.23	82	< 0.2
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	Naphthalene	91-20-3	8021B	133		50	1.5	10	ug/l	I. Ahmed	10/27/2004	12:31	2163	BTEX HP6	94	9.09	90	< 1.5
393927	04-A163920	CROSSROADS	MWR5	RICK SMITH	10/22/2004	8:45	10/21/2004	12:55	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	Benzene	71-43-2	8021B	4.6		1	0.19	1	ug/l	I. Ahmed	10/27/2004	13:02	2163	BTEX HP6	105	0.8	80	< 0.19
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	Toluene	108-88-3	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/26/2004	22:53	6883	BTEX HP50			109	< 0.2
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/26/2004	22:53	6883	BTEX HP50			102	< 0.2
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	<3.0	J	3	0.6	1	ug/l	I. Ahmed	10/26/2004	22:53	6883	BTEX HP50			88	< 0.6
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	8.4		1	0.2	1	ug/l	I. Ahmed	10/27/2004	13:02	2163	BTEX HP6	94	10.23	82	< 0.2
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	Naphthalene	91-20-3	8021B	8.4		5	1.5	1	ug/l	I. Ahmed	10/27/2004	13:02	2163	BTEX HP6	94	9.09	90	< 1.5
393927	04-A163921	CROSSROADS	MWR9	RICK SMITH	10/22/2004	8:45	10/21/2004	13:05	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	Benzene	71-43-2	8021B	47.5		1	0.19	1	ug/l	I. Ahmed	10/26/2004	23:26	6883	BTEX HP50			89	< 0.19
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	Toluene	108-88-3	8021B	126		1	0.2	1	ug/l	I. Ahmed	10/26/2004	23:26	6883	BTEX HP50			109	< 0.2
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	88		1	0.2	1	ug/l	I. Ahmed	10/26/2004	23:26	6883	BTEX HP50			102	< 0.2
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	540		15	1.8	5	ug/l	I. Ahmed	10/27/2004	13:34	2163	BTEX HP6	107	8.82	88	< 0.6
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	48.6		1	0.2	1	ug/l	I. Ahmed	10/26/2004	23:26	6883	BTEX HP50			97	< 0.2
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	Naphthalene	91-20-3	8021B	109		25	1.5	5	ug/l	I. Ahmed	10/27/2004	13:34	2163	BTEX HP6	94	9.09	90	< 1.5
393927	04-A163922	CROSSROADS	MWR11	RICK SMITH	10/22/2004	8:45	10/21/2004	13:15	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	Benzene	71-43-2	8021B	<1.00	U	1	0.19	1	ug/l	I. Ahmed	10/26/2004	23:58	6883	BTEX HP50			89	< 0.19
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	Toluene	108-88-3	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/26/2004	23:58	6883	BTEX HP50			109	< 0.2
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/26/2004	23:58	6883	BTEX HP50			102	< 0.2
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	<3.0	J	3	0.6	1	ug/l	I. Ahmed	10/26/2004	23:58	6883	BTEX HP50			88	< 0.6
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	<1.0	U	1	0.2	1	ug/l	I. Ahmed	10/26/2004	23:58	6883	BTEX HP50			97	< 0.2
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	Naphthalene	91-20-3	8021B	<5.0	J	5	1.5	1	ug/l	I. Ahmed	10/26/2004	23:58	6883	BTEX HP50			174#	< 1.5
393927	04-A163923	CROSSROADS	MW14R	RICK SMITH	10/22/2004	8:45	10/21/2004	13:35	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	Benzene	71-43-2	8021B	62.7		1	0.19	1	ug/l	I. Ahmed	10/27/2004	14:05	2163	BTEX HP6	105	0.8	80	< 0.19
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	Toluene	108-88-3	8021B	143		1	0.2	1	ug/l	I. Ahmed	10/27/2004	14:05	2163	BTEX HP6	124	8.19	84	< 0.2
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	26.7		1	0.2	1	ug/l	I. Ahmed	10/27/2004	14:05	2163	BTEX HP6	109	0	85	< 0.2
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	298		3	0.6	1	ug/l	I. Ahmed	10/27/2004	14:05	2163	BTEX HP6	107	8.82	88	< 0.6
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	67		1	0.2	1	ug/l	I. Ahmed	10/27/2004	14:05	2163	BTEX HP6	94	10.23	82	< 0.2
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	Naphthalene	91-20-3	8021B	38.4		5	1.5	1	ug/l	I. Ahmed	10/27/2004	14:05	2163	BTEX HP6	94	9.09	90	< 1.5
393927	04-A163924	CROSSROADS	MWR2	RICK SMITH	10/22/2004	8:45	10/21/2004	13:50	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	Benzene	71-43-2	8021B	1.2		1	0.19	1	ug/l	I. Ahmed	10/27/2004	0:59	6883	BTEX HP50			89	< 0.19
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	Toluene	108-88-3	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/27/2004	0:59	6883	BTEX HP50			109	< 0.2
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	<1.0	J	1	0.2	1	ug/l	I. Ahmed	10/27/2004	0:59	6883	BTEX HP50			102	< 0.2
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	<3.0	J	3	0.6	1	ug/l	I. Ahmed	10/27/2004	0:59	6883	BTEX HP50			88	< 0.6
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	2.1		1	0.2	1	ug/l	I. Ahmed	10/27/2004	0:59	6883	BTEX HP50			97	< 0.2
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	Naphthalene	91-20-3	8021B	<5.0	U	5	1.5	1	ug/l	I. Ahmed	10/27/2004	0:59	6883	BTEX HP50			174#	< 1.5
393927	04-A163925	CROSSROADS	MWR1A	RICK SMITH	10/22/2004	8:45	10/21/2004	14:45	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	Benzene	71-43-2	8021B	8520		200	0.19	200	ug/l	I. Ahmed	10/27/2004	14:37	2163	BTEX HP6	105	0.8	80	< 0.19
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	Toluene	108-88-3	8021B	21200		200	0.2	200	ug/l	I. Ahmed	10/27/2004	14:37	2163	BTEX HP6	124	8.19	84	< 0.2
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	Ethylbenzene	100-41-4	8021B	2200		200	0.2	200	ug/l	I. Ahmed	10/27/2004	14:37	2163	BTEX HP6	109	0	85	< 0.2
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	Xylenes (Total)	1330-20-7	8021B	12400		600	0.6	200	ug/l	I. Ahmed	10/27/2004	14:37	2163	BTEX HP6	107	8.82	88	< 0.6
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	Methyl-t-butylether	1634-04-4	8021B	1460		200	0.2	200	ug/l	I. Ahmed	10/27/2004	14:37	2163	BTEX HP6	94	10.23	82	< 0.2
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	Naphthalene	91-20-3	8021B	1320		1000	1.5	200	ug/l	I. Ahmed	10/27/2004	14:37	2163	BTEX HP6	94	9.09	90	< 1.5
393927	04-A163926	CROSSROADS	MW7R	RICK SMITH	10/22/2004	8:45	10/21/2004	15:10	10/28/2004	Water	GRO DATA REVIEW			Completed						M.Dunn	10/28/2004	14:16	2304					

Midlands
Environmental
Consultants, Inc.

December 15, 2005

Mr. Joel Padgett, P.G. Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

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DEC 15 2005
UNDERGROUND STORAGE
TANK PROGRAM

Subject: Aggressive Fluid Vapor Recovery Report
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID #06742; CA #25711
MECI Project Number 05-755

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

Prior to initiation of the Aggressive Fluid Vapor Recovery (AFVR) event conducted by MECI, free phase petroleum product was detected in monitoring wells MWR-1, and MW-8. An aggressive fluid vapor recovery event was conducted on monitoring wells MWR-1 and MW-8 to reduce free phase product concentrations. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. The AFVR event was conducted for a total of 8 hours on December 12, 2005. Free phase petroleum product was not detected in MWR-1, but 0.01 inches was detected in well MW-8 immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 111.08 pounds or approximately 19.19 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 13.88 pounds per hour. Concentrations of off gas produced during the event were recorded at 10,000 parts per million by volume (PPM) for the entire event. These readings were taken before vapors entered the off gas treatment system. Vacuum readings were recorded ranging from 18.0 to 22.0 inches of mercury for the entire event. A complete compilation of measurements recorded is presented in attached Table 1.

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Telephone: (803) 808-2043 • fax: (803) 808-2048

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Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2. Monitoring well locations are depicted on Figure 3.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report is intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Lyle Lee
Staff Geologist

Bryan T. Shane, P.G.
Principal Geologist

Attachments:

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DEC 15 2005

UNDERGROUND STORAGE
TANK PROGRAM

TABLE 1
AFVR MONITORING DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SC
MECI PROJECT NUMBER 05-755
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MWR-1: MW-8	12/12/05	10:00	0.50	22.0	10,000	960	86.40	10.37	5.18
	12/12/05	10:30	0.50	21.0	10,000	970	87.30	10.48	5.24
	12/12/05	11:00	0.50	18.0	10,000	1050	94.50	11.34	5.67
	12/12/05	11:30	0.50	18.0	10,000	1260	113.40	13.61	6.80
	12/12/05	12:00	0.50	18.0	10,000	1270	114.30	13.72	6.86
	12/12/05	12:30	0.50	18.0	10,000	1240	111.60	13.39	6.70
	12/12/05	13:00	0.50	18.0	10,000	1230	110.70	13.28	6.64
	12/12/05	13:30	0.50	18.0	10,000	1260	113.40	13.61	6.80
	12/12/05	14:00	0.50	18.0	10,000	1250	112.50	13.50	6.75
	12/12/05	14:30	0.50	18.0	10,000	1310	117.90	14.15	7.07
	12/12/05	15:00	0.50	18.0	10,000	1290	116.10	13.93	6.97
	12/12/05	15:30	0.50	18.0	10,000	1230	110.70	13.28	6.64
	12/12/05	16:00	0.50	18.0	10,000	1260	113.40	13.61	6.80
	12/12/05	16:30	0.50	18.0	10,000	1250	112.50	13.50	6.75
	12/12/05	17:00	0.50	18.0	10,000	1250	112.50	13.50	6.75
	12/12/05	17:30	0.50	18.0	10,000	1240	111.60	13.39	6.70
	12/12/05	18:00	0.50	18.0	10,000	1250	112.50	13.50	6.75
									TOTAL 111.08

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (In)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MWR-1	2"	45	29.79	29.80	0.01	29.85	29.85	0.00	0.06
MW-8	2"	45	29.94	30.08	0.14	30.18	30.19	0.01	0.23

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI		
Truck Operator:	L. Lee	MWR-1	29.85
Stack I.D. (feet)	0.33 feet	MW-8	30.18
Corrected depth to water before AFVR Event in MWR-1=			29.79
Corrected depth to water before AFVR Event in MW-8=			29.96

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	111.08	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	19.19	Equivilant Gallons
Molecular Weght Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	0	Gallons

TABLE 2
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SC
MECI PROJECT NUMBER 05-755
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-7R	**MWR-1A**	**MWR-2**
Nearest Extraction Well:		MWR-1	MW-8	MWR-1
Approximate Distance:		55 ft	3 ft	50 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
10:00	0.0	0	0	0
10:30	0.5	0	0	0
11:00	1.0	0	0	0
11:30	1.5	0	0	0
12:00	2.0	0	0	0
12:30	2.5	0	0	0
13:00	3.0	0	0	0
13:30	3.5	0	0	0
14:00	4.0	0	0	0
14:30	4.5	0	0	0
15:00	5.0	0	0	0
15:30	5.5	0	0	0
16:00	6.0	0	0	0
16:30	6.5	0	0	0
17:00	7.0	0	0	0
17:30	7.5	0	0	0
18:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-7R	**MWR-1A**	**MWR-2**
Nearest Extraction Well:		MWR-1	MW-8	MWR-1
Approximate Distance:		55 ft	3 ft	50 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		28.75	30.20	28.11
14:00	4 hours	28.61	30.37	27.73
18:00	8 hours	28.69	30.44	27.75
Maximum Change:		-0.08	-0.24	-0.02

Midlands
Environmental
Consultants, Inc.

December 15, 2005

Mr. Joel Padgett, P.G. Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

RECEIVED
DEC 15 2005
UNDERGROUND STORAGE
TANK PROGRAM

Subject: Aggressive Fluid Vapor Recovery Report
Former Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID #06742; CA #25711
MECI Project Number 05-755

Dear Mr. Padgett,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

Prior to initiation of the Aggressive Fluid Vapor Recovery (AFVR) event conducted by MECI, free phase petroleum product was detected in monitoring wells MWR-4, and MWR-4R. An aggressive fluid vapor recovery event was conducted on monitoring wells MWR-4 and MWR-4R to reduce CoC concentrations. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. The AFVR event was conducted for a total of 8 hours on December 13, 2005. Free phase petroleum product was not detected in either well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 28.26 pounds or approximately 4.88 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 3.53 pounds per hour. Concentrations of off gas produced during the event were recorded ranging from 10,000 to 150 parts per million by volume (PPM) throughout the entire event. These readings were taken before vapors entered the off gas treatment system. Vacuum readings were recorded at 18.0 inches of mercury for the entire event. A complete compilation of measurements recorded is presented in attached Table 1.

Post Office Box 854, Lexington SC 29071 • 1144 Old Two Notch Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2. Monitoring well locations are depicted on Figure 3.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report is intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Lyle Lee
Staff Geologist

Bryan T. Shane, P.G.
Principal Geologist

Attachments:

RECEIVED
DEC 15 2005
UNDERGROUND STORAGE
TANK PROGRAM

TABLE 1
AFVR MONITORING DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SC
MECI PROJECT NUMBER 05-755
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MWR-4	12/13/05	7:30	0.50	18.0	10,000	1210	108.90	13.07	6.53
MWR-4R	12/13/05	8:00	0.50	18.0	10,000	1220	109.80	13.18	6.59
	12/13/05	8:30	0.50	18.0	10,000	1250	112.50	13.50	6.75
	12/13/05	9:00	0.50	18.0	6,000	1300	117.00	8.42	4.21
	12/13/05	9:30	0.50	18.0	2,000	1270	114.30	2.74	1.37
	12/13/05	10:00	0.50	18.0	1,000	1290	116.10	1.39	0.70
	12/13/05	10:30	0.50	18.0	700	1300	117.00	0.98	0.49
	12/13/05	11:00	0.50	18.0	500	1280	115.20	0.69	0.35
	12/13/05	11:30	0.50	18.0	400	1280	115.20	0.55	0.28
	12/13/05	12:00	0.50	18.0	200	1270	114.30	0.27	0.14
	12/13/05	12:30	0.50	18.0	200	1260	113.40	0.27	0.14
	12/13/05	13:00	0.50	18.0	200	1270	114.30	0.27	0.14
	12/13/05	13:30	0.50	18.0	200	1290	116.10	0.28	0.14
	12/13/05	14:00	0.50	18.0	200	1300	117.00	0.28	0.14
	12/13/05	14:30	0.50	18.0	150	1250	112.50	0.20	0.10
	12/13/05	15:00	0.50	18.0	150	1260	113.40	0.20	0.10
	12/13/05	15:30	0.50	18.0	150	1250	112.50	0.20	0.10
									TOTAL 28.26

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (In)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MWR-4	2"	40	25.17	25.17	0.00	24.64	24.64	0.00	-0.53
MWR-4R	2"	37	25.36	25.36	0.00	24.91	24.91	0.00	-0.45

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI		
Truck Operator:	L. Lee	MWR-4	25.8
Stack I.D. (feet)	0.33 feet	MWR-4R	26
Corrected depth to water before AFVR Event in MWR-4=			25.17
Corrected depth to water before AFVR Event in MWR-4R=			25.36

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	28.26	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	4.88	Equivilant Gallons
Molecular Weght Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	0	Gallons

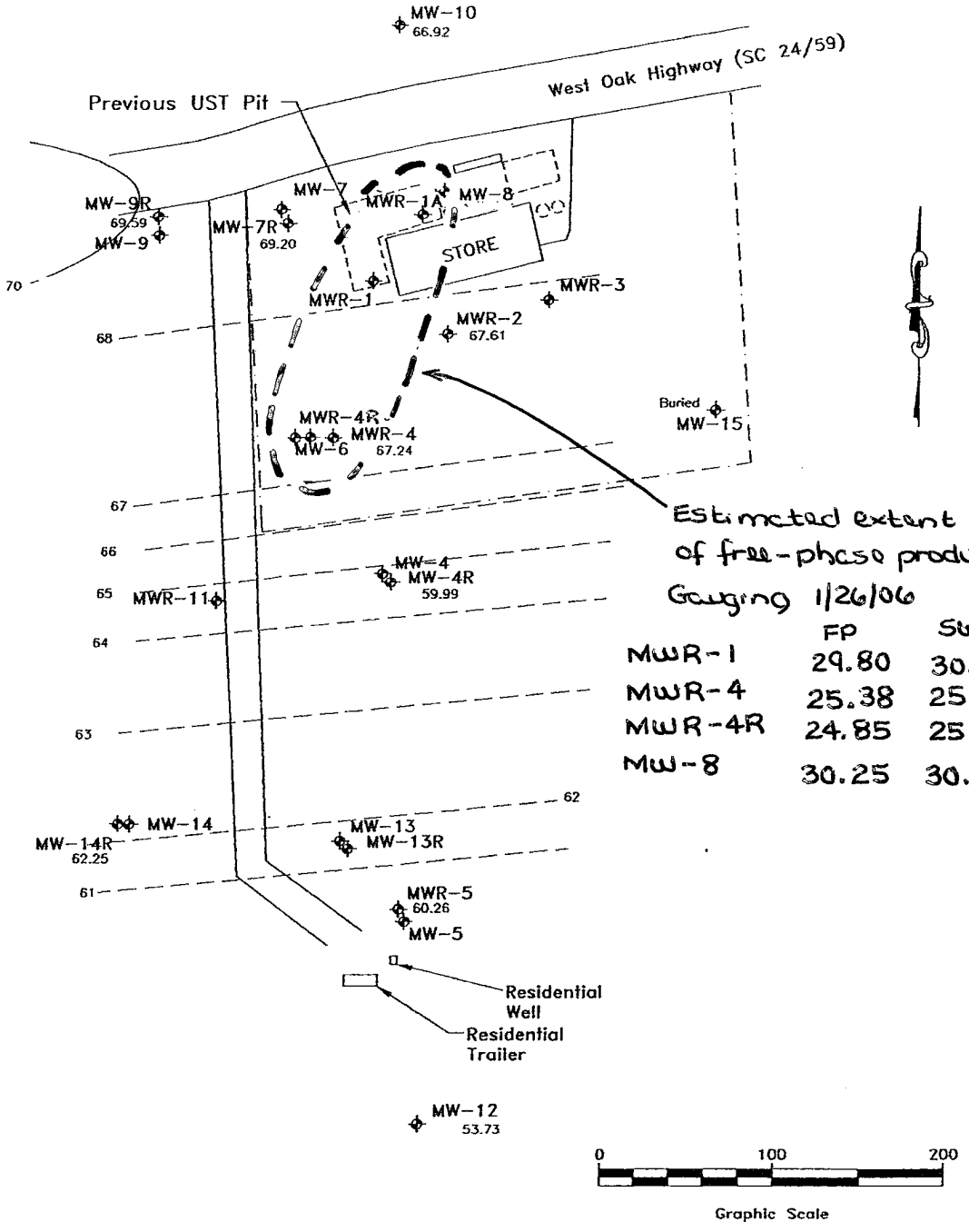
TABLE 2
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
FORMER CROSSROADS GROCERY
WESTMINSTER, SC
MECI PROJECT NUMBER 05-755
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-6	**MWR-1**	**MWR-2**
Nearest Extraction Well:		MWR-4	MWR-4	MWR-4R
Approximate Distance:		3 ft	95 ft	80 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
7:30	0.0	0	0	0
8:00	0.5	0	0	0
8:30	1.0	0	0	0
9:00	1.5	0	0	0
9:30	2.0	0	0	0
10:00	2.5	0	0	0
10:30	3.0	0	0	0
11:00	3.5	0	0	0
11:30	4.0	0	0	0
12:00	4.5	0	0	0
12:30	5.0	0	0	0
13:00	5.5	0	0	0
13:30	6.0	0	0	0
14:00	6.5	0	0	0
14:30	7.0	0	0	0
15:00	7.5	0	0	0
15:30	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-6	**MWR-1**	**MWR-2**
Nearest Extraction Well:		MWR-4	MWR-4	MWR-4R
Approximate Distance:		3 ft	95 ft	80 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		25.01	30.86	27.83
11:30	4 hours	25.00	30.86	27.97
15:30	8 hours	24.96	30.85	27.92
Maximum Change:		0.04	0.01	0.05



Estimated extent of free-phase product

Gauging 1/26/06

	FP	SWL
MWR-1	29.80	30.85
MWR-4	25.38	25.63
MWR-4R	24.85	25.90
MW-8	30.25	30.56

Rick Smith, SMME12/4/2004 1:09 PMoconee oct 2004.dwg

South Carolina DHEC
2600 Bull Street
Columbia, South Carolina

SMME Smith Monitoring & Maintenance Engineering, Inc.
Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance
145 Merrill Avenue Decatur, Georgia 30030
Telephone: (404) 371-9332

PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: December 4, 2004

Potentiometric Surface Map
October 21, 2004
Cross Roads Grocery
Oconee County, South Carolina

oconee dec 2004.dwg

FIGURE
1

Confirmation Report – Memory Send

Date & Time: 02-07-2006 04:42pm
Tel line : +8038966245
Machine ID : UST PROGRAM

Job number	:	551
Date & Time	:	02-07 04:37pm
To	:	914105360222
Number of pages	:	015
Start time	:	02-07 04:38pm
End time	:	02-07 04:42pm
Pages sent	:	015
Status	:	OK

Job number : 551 *** SEND SUCCESSFUL ***

South Carolina Department of Health and Environmental Control

2600 Bull Street
Columbia, SC 29201-1708

FAX MESSAGE

Date: 2/7/06
Number of Pages Including Cover Sheet: 15

Please Deliver This Fax Message

TO: Ned Tillman
Name

Columbia Technologies
Organization/Department

Fax Number

Phone Number

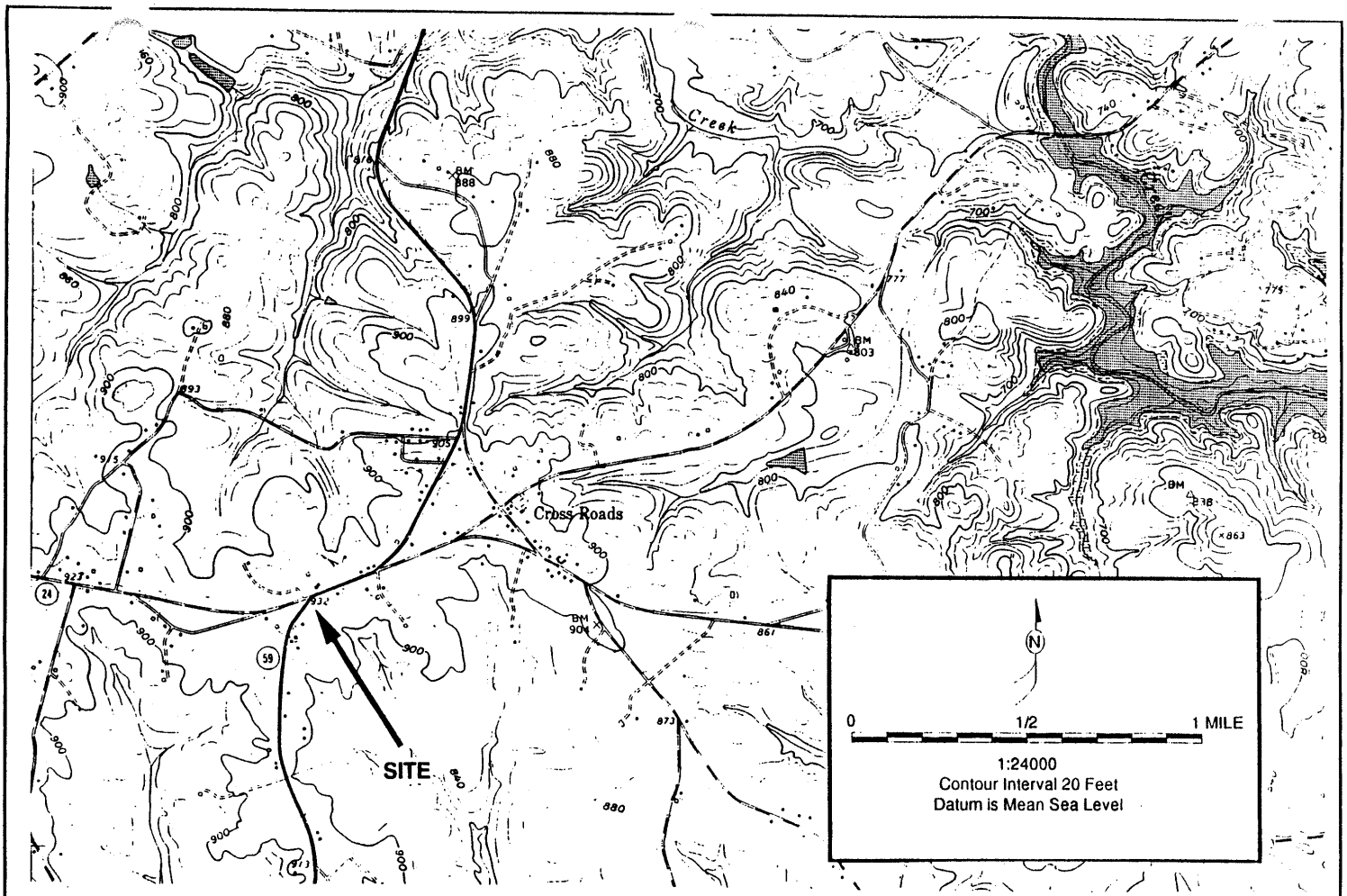
FROM: Joel Padgett
Bureau of Land & Waste Management
Underground Storage Tank Program

(803) 896-6245
Fax Number

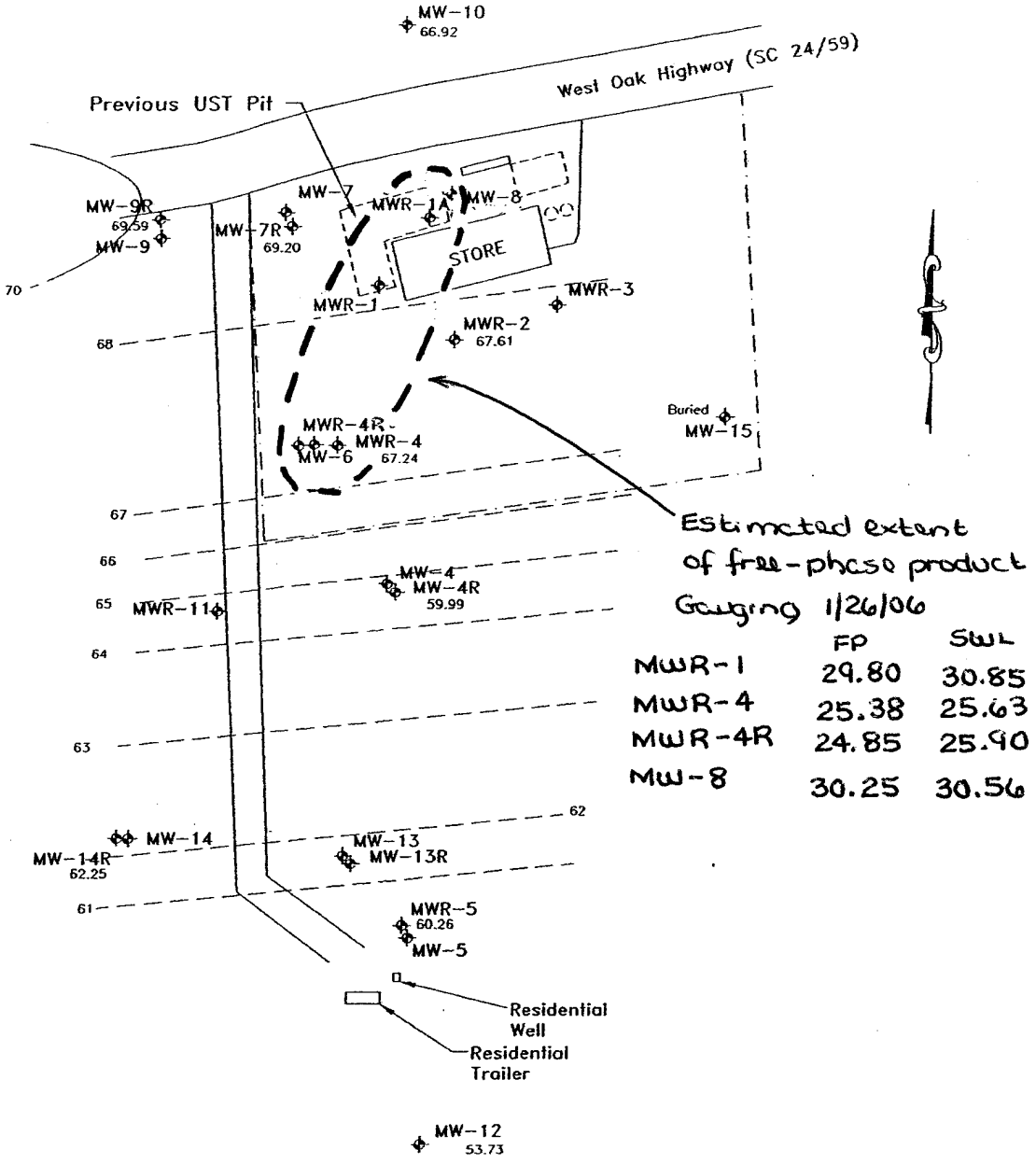
(803) 896-6240
Phone Number

SUBJECT/COMMENT: Ned - I have enclosed site location map, site map showing est extent of free-phase product, cross sections, and selected drilling/MW logs. Call if any questions
- Joel

87 tech



Crossroads Grocery #06742	USGS MAP SHOWING SITE LOCATION
Highway 24/59, Tokeena, Oconee County, South Carolina	(Fair Play, SC, Quad, 1958-Photorevised 1979)
ESCM & Associates, Inc. 394 S. Milledge Avenue Athens, Georgia 30605	Scale: 1:24000 — **FIGURE 1**



Gauging 1/26/06

	FP	SWL
MWR-1	29.80	30.85
MWR-4	25.38	25.63
MWR-4R	24.85	25.90
MW-8	30.25	30.56

Rick Smith, SMME12/4/2004 1:09 PMoconee oct 2004.dwg

South Carolina DHEC
2600 Bull Street
Columbia, South Carolina

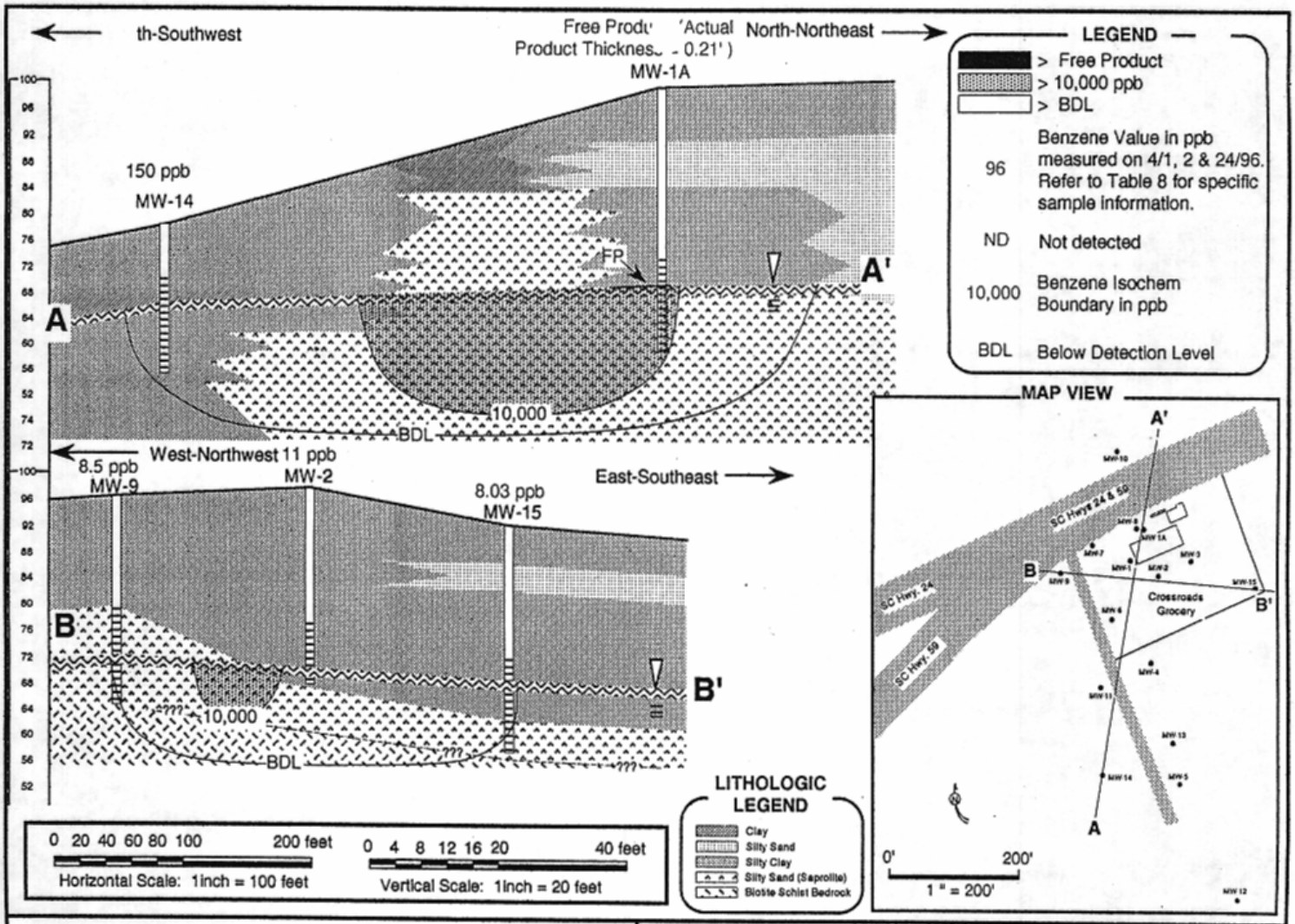
SMME Smith Monitoring & Maintenance Engineering, Inc.
Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance
145 Merrill Avenue Decatur, Georgia 30030
Telephone: (404) 371-9332

PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: December 4, 2004

Potentiometric Surface Map
October 21, 2004
Cross Roads Grocery
Oconee County, South Carolina

oconee dec 2004.dwg

FIGURE
1



Crossroads Grocery

Ground-Water Benzene Concentrations in ppb
(A-A' & B-B' Cross-Sections) April 1,2 & 14, 1998

Environmental Monitoring Corporation
P.O. Box 901, Hartwell, Georgia

Drafted by: Mirta A. Carpenter 5/13/98
Scale: 1"=100' Horizontal 1"= 20' Vertical

FIGURE 16

DHEC

Water Well Record

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: [redacted] MWR-1A

County: OCONEE

Latitude: **Longitude:**

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

See Attached

4. OWNER OF WELL: R.L. Jordan Oil Company
Address: P.O. Box 2527
Spartanburg, South Carolina 29304
Telephone No.: (864) 585-2784 Ext. 116

06742

Engineer: FORCE & ASSOCIATES, INC.
Address: 138 MIDDLEBROOK DRIVE
LEXINGTON, SC 29072
Telephone No.: (803) 359-7847

5. WELL DEPTH (completed) 70.0 ft. **Date Started:** 5/25/00 **Date Completed:** 5/25/00

6. ☐ Mud Rotary ☐ Air Rotary ☐ Jetted ☐ Driven ☑ Bored ☐ Cable tool ☐ Dug ☐ Other

7. USE: ☐ Domestic ☐ Irrigation ☐ Test Well ☐ Public Supply-Permit No. _____ ☐ Air Conditioning ☑ Monitoring Well ☐ Industry ☐ Commercial ☐ _____

8. CASING: ☑ Threaded ☐ Welded
Diam.: 6.0"/2.0"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 ft.
0 in. to 65 ft.
Height: Above/Below Surface 0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

2. CUTTING SAMPLES: ☑ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Clayey Silt	2.0	2.0
Brown and Tan Clayey Silt	4.0	8.0
Red/Brown Clayey Sandy Silt	52.0	60.0
Tan/Red Silty Fine to Medium Sand	10.0	70.0
Rock @ 70'		

*Indicate Water Bearing Zones (Use a 2nd sheet if needed)

9. SCREEN Type PVC Diam.: 2.0"
Slot/Gauge: #10 **Length:** 5.0'
Set Between: 70.0 ft. and 65.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

10. STATIC WATER LEVEL _____

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclosed) ☑ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No **Bacterial Analysis** ☐ Yes ☑ No
Pumping Tests: ☐ Yes (please enclosed) ☐ No
Yield: _____

13. ARTIFICIAL FILTER (gravel pack) ☑ Yes ☐ No
Installed from 70.0 ft. to 63.0 ft.
Effective size "FX-50" Uniformity Coefficient _____

14. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☑ Concrete ☑ Other - Bentonite
Depth: From 63.0 ft. to ground surface

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft. ___direction
_____ Type well disinfected upon completion ☐ Yes ☐ No Type: _____ Amount: _____

16. PUMP: Date installed: _____ **Not installed** ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Force & Associates, Inc. Date: _____
Address: 138 Middlebrook Drive, Lexington, SC 29072
Signed: Kerry Drake Cert. No.: 969
Kerry Drake Authorized Representative

3. REMARKS:
MW-1AR

RECEIVED
JUN 19 2000
Bureau of Underground Storage Tank Management

DHEC

Water Well Record

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: [redacted] MWR-1

County: OCONEE

Latitude: **Longitude:**

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

See Attached

4. OWNER OF WELL: R.L. Jordan Oil Company
Address: P.O. Box 2527
Spartanburg, South Carolina 29304
Telephone No.: (864) 585-2784 Ext. 116

Engineer: FORCE & ASSOCIATES, INC.
Address: 138 MIDDLEBROOK DRIVE
LEXINGTON, SC 29072
Telephone No.: (803) 359-7847

5. WELL DEPTH (completed) 45.0 ft. **Date Started:** 5/24/00 **Date Completed:** 5/24/00

6. ☐ Mud Rotary ☐ Air Rotary ☐ Jetted ☐ Driven ☑ Bored ☐ Cable tool ☐ Dug ☐ Other

7. USE: ☐ Domestic ☐ Irrigation ☐ Test Well ☐ Public Supply-Permit No. _____ ☐ Air Conditioning ☑ Monitoring Well ☐ Industry ☐ Commercial ☐ _____

8. CASING: ☑ Threaded ☐ Welded
Diam.: 2.0"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 30 ft.
_____ in. to _____ ft.
Height: Above/Below Surface 0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

2. CUTTING SAMPLES: ☑ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Sandy Silt	3.0	3.0
Brown/Tan Sandy Silt	22.0	25.0
Black Sandy Silt	20.0	45.0

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

9. SCREEN **Type** PVC **Diam.:** 2.0"
Slot/Gauge: #10 **Length:** 15.0'
Set Between: 45.0 ft. and 30.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

10. STATIC WATER LEVEL _____

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclosed) ☑ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No **Bacterial Analysis** ☐ Yes ☑ No
Pumping Tests: ☐ Yes (please enclosed) ☐ No
Yield: _____

13. ARTIFICIAL FILTER (gravel pack) ☑ Yes ☐ No
Installed from 45.0 ft. to 28.0 ft.
Effective size "FX-50" Uniformity Coefficient _____

14. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☑ Concrete ☑ Other - Bentonite
Depth: From 28.0 ft. to ground surface

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft. ___direction
_____ Type well disinfected upon completion ☐ Yes ☐ No Type: _____ Amount: _____

16. PUMP: Date installed: _____ **Not installed** ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Force & Associates, Inc. Date: _____
Address: 138 Middlebrook Drive, Lexington, SC 29072
Signed: Kerry Drake Cert. No.: 962
Kerry Drake Authorized Representative

3. REMARKS:
MW-1R

DHEC

Water Well Record

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: [redacted] MWR-2

County: OCONEE

Latitude: **Longitude:**

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

See Attached

4. OWNER OF WELL: R.L. Jordan Oil Company
Address: P.O. Box 2527
Spartanburg, South Carolina 29304
Telephone No.: (864) 585-2784 Ext. 116

Engineer: FORCE & ASSOCIATES, INC.
Address: 138 MIDDLEBROOK DRIVE
LEXINGTON, SC 29072
Telephone No.: (803) 359-7847

5. WELL DEPTH (completed) 40.0 ft. **Date Started:** 5/24/00 **Date Completed:** 5/24/00

6. ☐ Mud Rotary ☐ Air Rotary ☐ Jetted ☐ Driven ☑ Bored ☐ Cable tool ☐ Dug ☐ Other

7. USE: ☐ Domestic ☐ Irrigation ☐ Test Well ☐ Public Supply-Permit No. _____ ☐ Air Conditioning ☑ Monitoring Well ☐ Industry ☐ Commercial ☐ _____

8. CASING: ☑ Threaded ☐ Welded
Diam.: 2.0"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 ft.
_____ in. to _____ ft.

Height: Above/Below
Surface 0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

2. CUTTING SAMPLES: ☑ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Sandy Silt	4.0	4.0
Brown/Red Sandy Silt	18.0	22.0
Red/Tan Sandy Silt	18.0	40.0

*Indicate Water Bearing Zones (Use a 2nd sheet if needed)

9. SCREEN **Type** PVC **Diam.:** 2.0"
Slot/Gauge: #10 **Length:** 15.0'
Set Between: 40.0 ft. and 25.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

10. STATIC WATER LEVEL _____

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclosed) ☑ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No **Bacterial Analysis** ☐ Yes ☑ No
Pumping Tests: ☐ Yes (please enclosed) ☐ No
Yield: _____

13. ARTIFICIAL FILTER (gravel pack) ☑ Yes ☐ No
Installed from 40.0 ft. to 23.0 ft.
Effective size "FX-50" Uniformity Coefficient _____

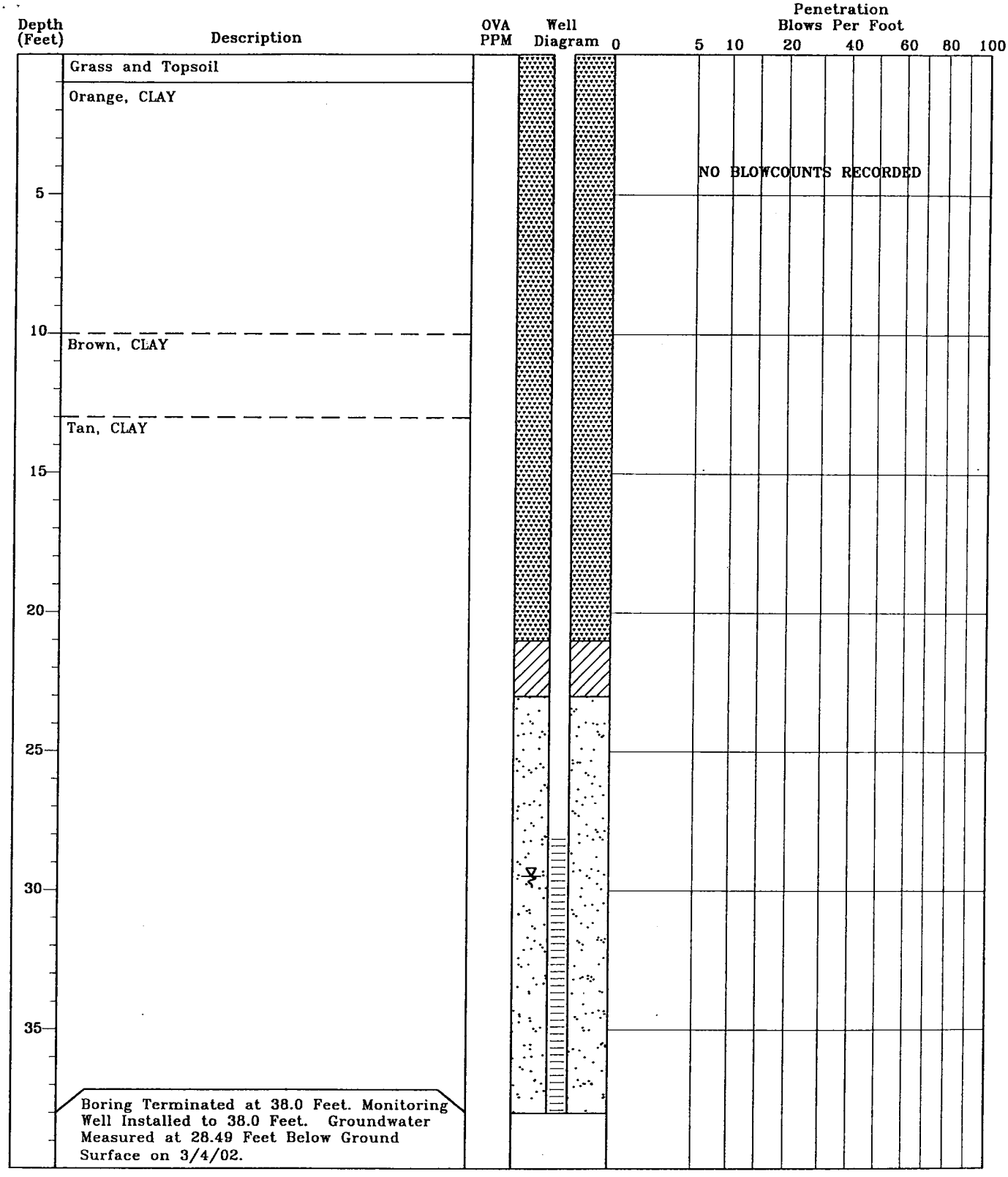
14. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☑ Concrete ☑ Other - Bentonite
Depth: From 23.0 ft. to ground surface

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft. ___direction
_____ Type well disinfected upon completion ☐ Yes ☐ No Type: _____ Amount: _____

16. PUMP: Date installed: _____ **Not installed** ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Force & Associates, Inc. Date: _____
Address: 138 Middlebrook Drive, Lexington, SC 29072
Signed: Kerry Drake Cert. No.: 969
Kerry Drake Authorized Representative

3. REMARKS:
MW-2R



TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

Boring Number:	MW-4R
Date Drilled:	2/28/02
Drilled By:	American Enivoronmental Drilling
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

DHEC

Water Well Record

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: [redacted] MWR-4

County: OCONEE

Latitude: **Longitude:**

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

See Attached

4. OWNER OF WELL: R.L. Jordan Oil Company
Address: P.O. Box 2527
Spartanburg, South Carolina 29304
Telephone No.: (864) 585-2784 Ext. 116

Engineer: FORCE & ASSOCIATES, INC.
Address: 138 MIDDLEBROOK DRIVE
LEXINGTON, SC 29072
Telephone No.: (803) 359-7847

5. WELL DEPTH (completed) 40.0 ft. **Date Started:** 5/25/00 **Date Completed:** 5/25/00

6. ☐ Mud Rotary ☐ Air Rotary ☐ Jetted ☐ Driven ☑ Bored ☐ Cable tool ☐ Dug ☐ Other

7. USE: ☐ Domestic ☐ Irrigation ☐ Test Well ☐ Public Supply-Permit No. _____ ☐ Air Conditioning ☑ Monitoring Well ☐ Industry ☐ Commercial ☐ _____

8. CASING: ☑ Threaded ☐ Welded
Diam.: 2.0"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 ft.
_____ in. to _____ ft.

Height: Above/Below
Surface 0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

2. CUTTING SAMPLES: ☑ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Sandy Silt	2.0	2.0
Brown/Tan Sandy Silt	23.0	25.0
Red/Brown Sandy Silt	15.0	40.0

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

9. SCREEN **Type** PVC **Diam.:** 2.0"
Slot/Gauge: #10 **Length:** 15.0'
Set Between: 40.0 ft. and 25.0 ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☑ No

10. STATIC WATER LEVEL

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclosed) ☑ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☑ Yes ☐ No **Bacterial Analysis** ☐ Yes ☑ No
Pumping Tests: ☐ Yes (please enclosed) ☐ No
Yield: _____

13. ARTIFICIAL FILTER (gravel pack) ☑ Yes ☐ No
Installed from 40.0 ft. to 23.0 ft.
Effective size "FX-50" Uniformity Coefficient _____

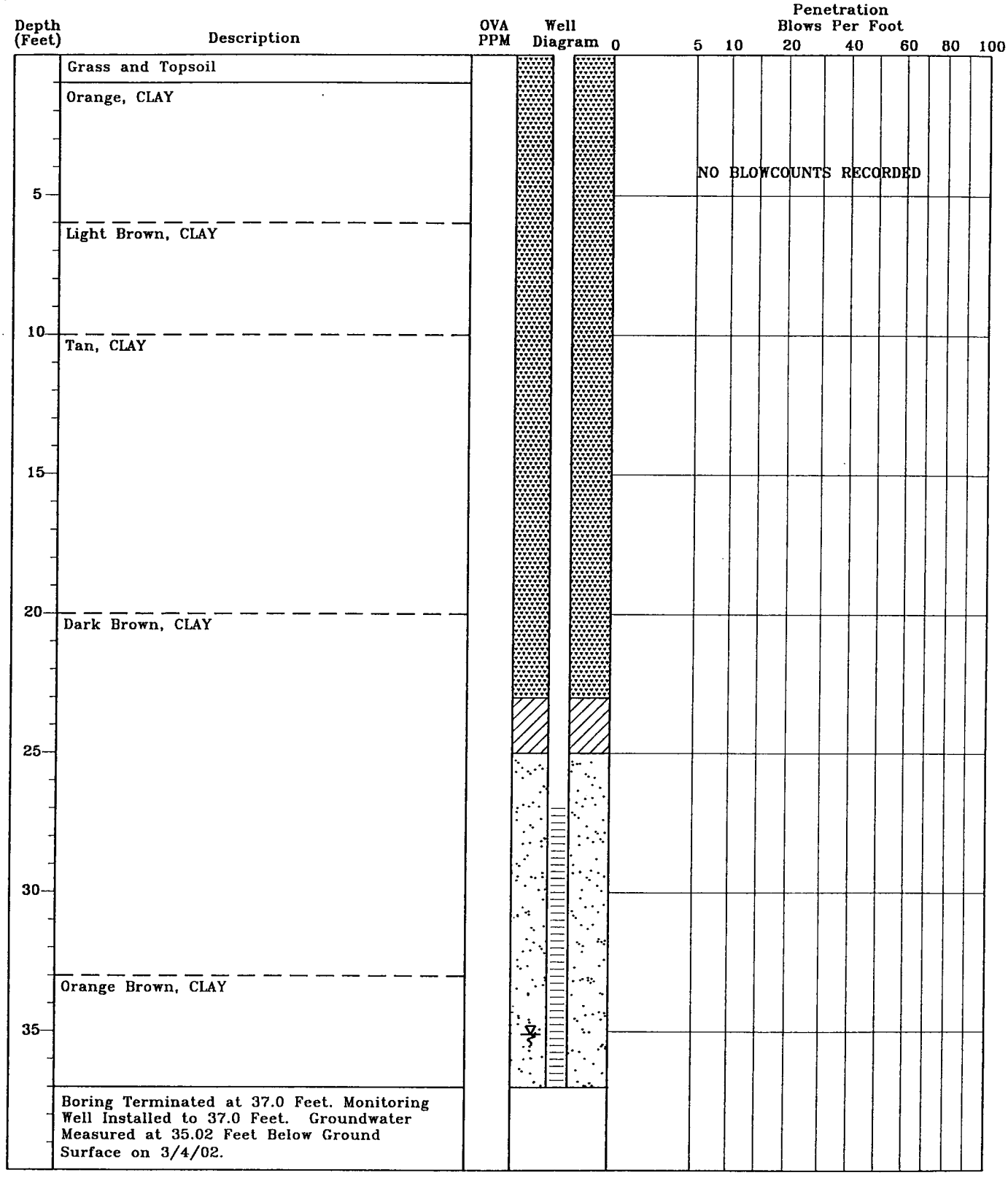
14. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☑ Concrete ☑ Other - Bentonite
Depth: From 23.0 ft. to ground surface

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft. ___direction
_____ Type well disinfected upon completion ☐ Yes ☐ No Type: _____ Amount: _____

16. PUMP: Date installed: _____ **Not installed** ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Force & Associates, Inc. Date: _____
Address: 138 Middlebrook Drive, Lexington, SC 29072
Signed: Kerry Drake Cert. No.: 969
Kerry Drake Authorized Representative

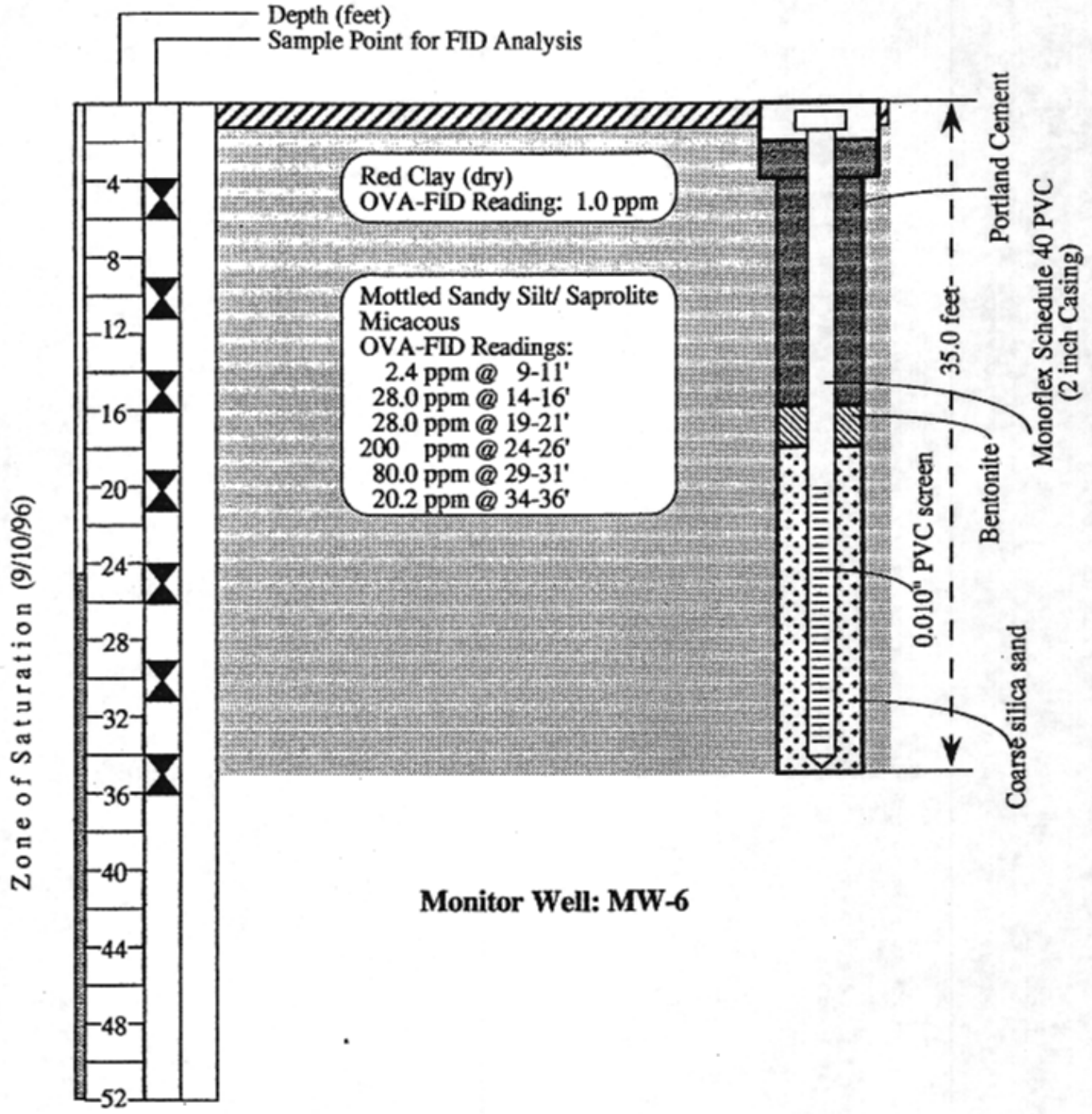
3. REMARKS:
MW-4R



TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

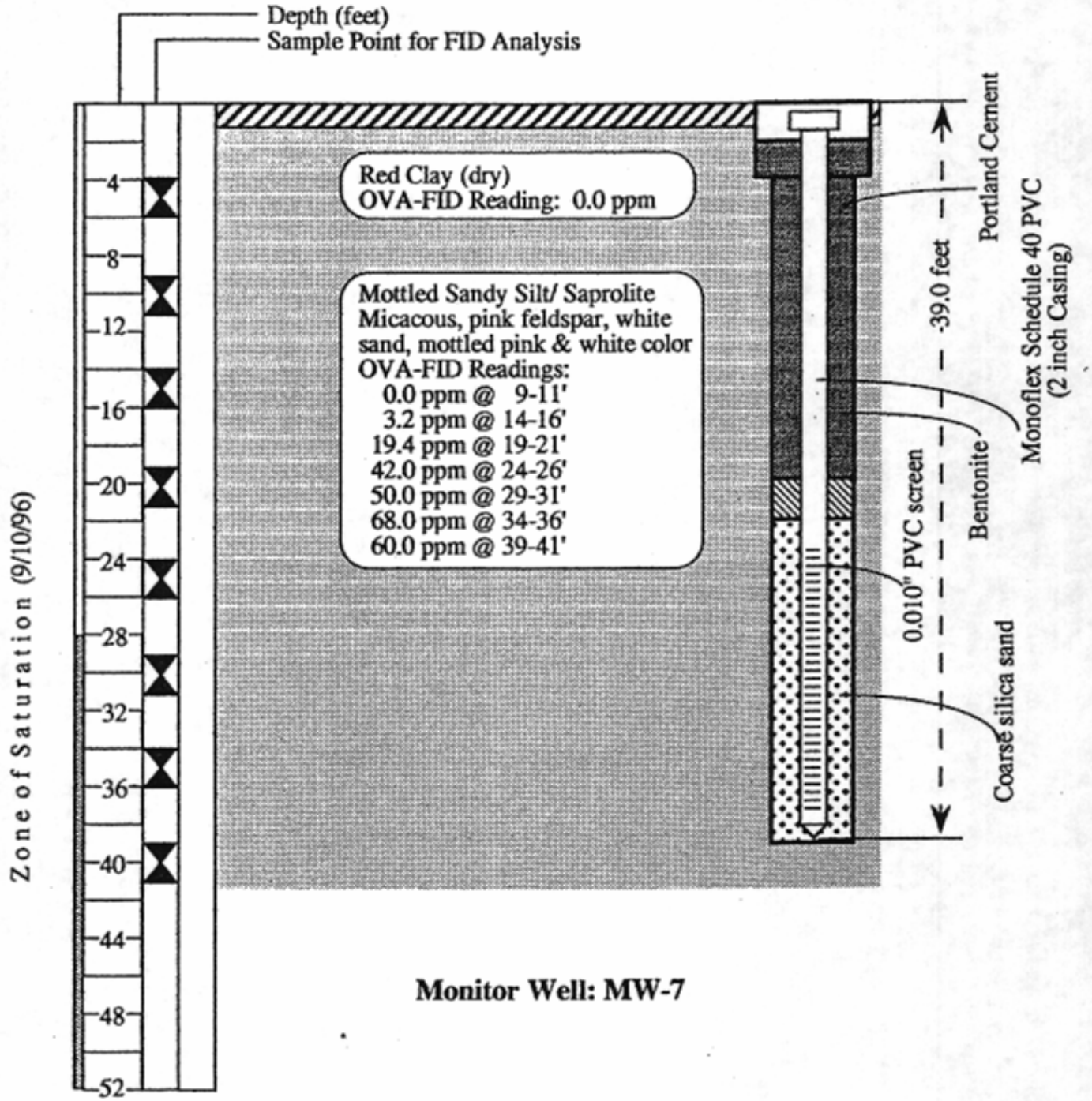
Boring Number:	MWR-4R
Date Drilled:	2/27/02
Drilled By:	American Enivoronmental Drilling
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



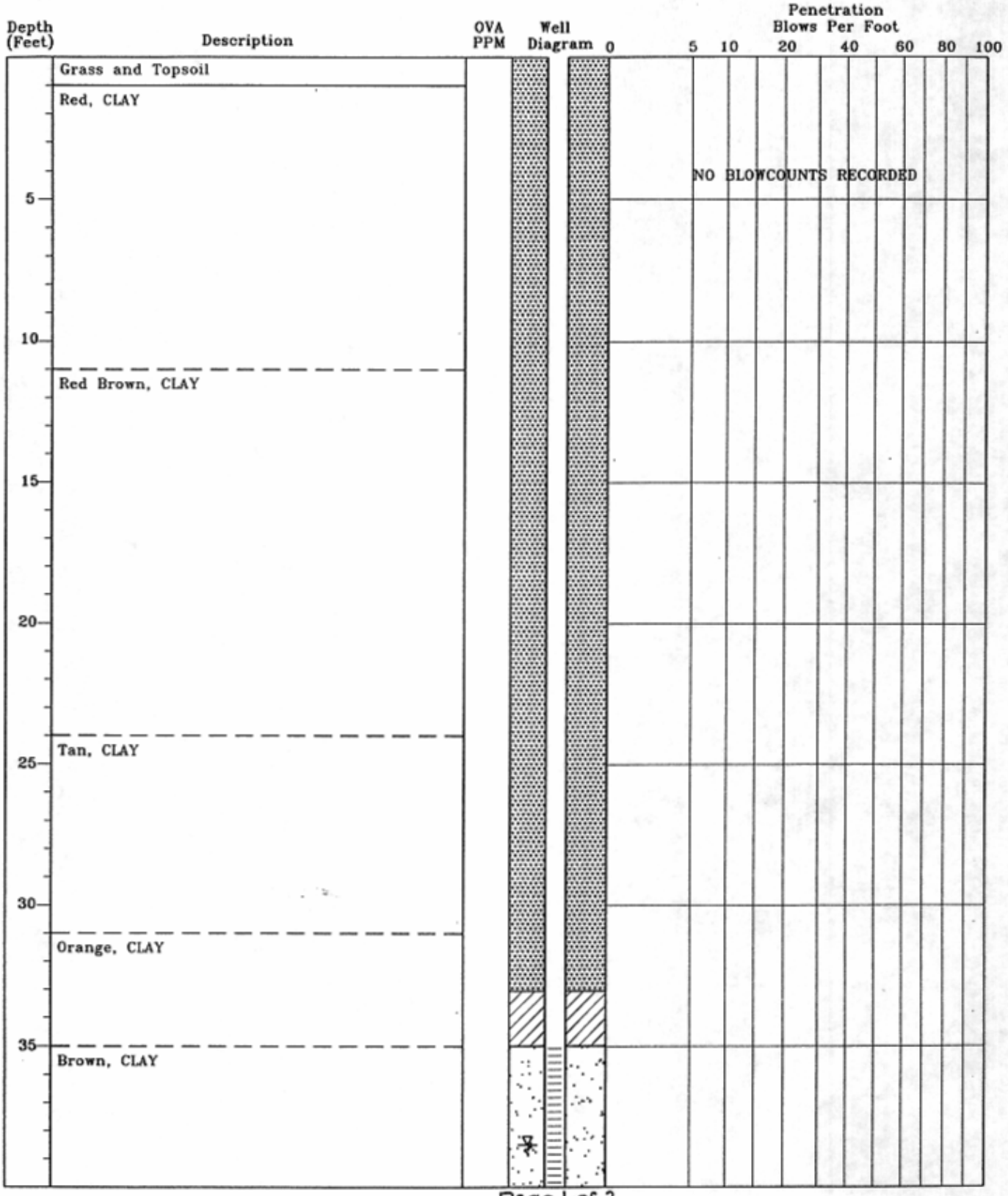
Monitor Well: MW-6

CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Monitor Well Boring Log**
Location: Highway 24/59, Westminster, Oconee Co., SC	
ESCM & Associates, Inc. 1781 Mars Hill Road, Watkinsville, Oconne Co., GA	Drafted By: Mirta A. Carpenter Date Drafted: January 15, 1997



Monitor Well: MW-7

CROSSROADS GROCERY **SCDHEC Facility I.D. #06742**	**Monitor Well Boring Log**
Location: Highway 24/59, Westminster, Oconee Co., SC	
ESCM & Associates, Inc. 1781 Mars Hill Road, Watkinsville, Oconne Co., GA	Drafted By: Mirta A. Carpenter Date Drafted: January 15, 1997



TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

Boring Number:	MW-7R
Date Drilled:	2/28/02
Drilled By:	American Environmental Drilling Services
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

Depth (Feet)	Description	OVA PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Brown, CLAY			NO BLOWCOUNTS RECORDED
45	Boring Terminated at 45.0 Feet. Monitoring Well Installed to 45.0 Feet. Groundwater Measured at 38.55 Feet Below Ground Surface on 3/4/02.			
50				
55				
60				
65				
70				
75				

TEST BORING RECORD
Crossroads Grocery
Westminster, South Carolina
SCDHEC Site ID 06742
MECI Project Number 00-328

Boring Number:	MW-7R
Date Drilled:	2/28/02
Drilled By:	American Environmental Drilling Services
Logged By:	C. Compton

Prepared By:
Midlands Environmental Consultants, Inc.
1144 Old Two Notch Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

COLUMBIA TECHNOLOGIES

SmartData Solutions®

Friday, April 07, 2006

Phone:803-896-6398
Fax: 803- 896-4001

Joel Padgett
South Carolina DHEC
2600 Bull Street
Columbia, SC 29201

Membrane Interface Probing and Direct Push Proposal
Site: Crossroads Grocery #06742

Dear Joel:

Thank you for the opportunity to present our approach for meeting your objectives in a safe and timely manner. We understand that you would like a firm that you can depend on to get the job done right and to provide the most cost-effective solution for your site.

Your Objectives: We understand that you would like to:

1. Complete this investigation and *eliminate data gaps* in just one more field effort
2. Delineate the nature and extent of free product
3. Collect samples that are representative of specific subsurface hydrogeologic units.

Our Approach: To accomplish these goals in a single site visit, COLUMBIA Technologies will:

1. Customize a direct sensing system to meet your specific site needs
2. Optimize this system as we gain specific results from your site
3. Post all results on a secure website each day
4. Incorporate all relevant data into a high-definition, 3D image of the subsurface

Benefits* to South Carolina DHEC from *teaming with COLUMBIA Technologies

1. **Daily Posting of Results** - Allows for timely review of data and helps direct field efforts
2. **COLUMBIA'S Experience** – We are the most experienced MIP firm in the nation and offer our expertise to aid field performance, data interpretation and reporting. We have the largest MIP database in the world.
3. ***SmartData Solutions®*** - Provides data processing, QA, and 2D/3D images of CSM

We hope you find this proposal of value. Thank you for the opportunity to provide our technical services to your firm. Please let me know if I can be of any additional assistance.

Sincerely,

Ned Tillman
President

88 kch

Per telephone conversation w/ Ned Tillman 6/8/06, Columbia was to obtain SC contractor certification. Certification necessary for plan approval. Sent e-mail (ntillman@columbiatechnologies.com) requesting status 8/17/06. No response. Project transferred to Assessment Section 11/16/06 for FP delineation.

JPP
11/16/06

PROPOSAL FOR TECHNICAL SERVICES

Background

You have invited COLUMBIA Technologies, LLC, a ***Veteran-owned, small business*** concern (NAICS 541690, 562910, 541380, 235810), to provide a Proposal for services. COLUMBIA Technologies is not just a technology vendor. We convert our data into knowledge with our SmartData Solutions® process. This allows you to reduce your costs while improving your outcomes. We are a:

1. ***Experienced Triad practitioner*** – experienced on EPA and privately funded projects
2. ***Leading expert in real-time measurement tools*** – 5 years and 300 MIP projects
3. ***Provider of SmartData Solutions®*** – for real-time data management and visualization

Scope of Services

You require a dependable and experienced firm to provide on site services for achieving your client's goals. Our staff at COLUMBIA brings an excellent safety record and years of experience to fully understand your needs and provide you with a complete and reliable product in a useable format.

To accomplish this, COLUMBIA will provide:

1. A State-of-the-art ***SmartMIP*** probing system and lab grade GC equipped with a ECD/PID/FID to optimize your understanding of the subsurface contamination. This system will provide you with detailed logs of the subsurface lithology and contamination immediately at the end of each hole.

2. Electrical Conductivity Logging for profiling soil types.

3. Temperature Logging for locating top of the groundwater table and hydrologic units.

4. Fully equipped, direct push sampling rig to collect soil and water samples.

5. The **SmartData Solutions®** approach to collecting, reviewing, processing and presenting the data as easy to understand 3D images. This will enable you to learn more versus using just the Raw Data.

Field Procedures

Your firm expects a partner that follows tightly written and approved Standard Operating Procedures. The Proposal and Cost Estimate are based on information provided by your staff, and assumes reasonable access to the survey areas for the personnel and equipment to be used. COLUMBIA follows strict protocols in the collection of soil, water and direct sensing data from the subsurface. These protocols are essential for obtaining both reliable and

representative samples of the subsurface. Our methods are designed to limit carryover of contamination and dilution of the sample. We will follow strict decontamination procedures.

Enhanced Membrane Interface Probing

COLUMBIA will conduct vertical profiling at the site using a Membrane Interface Probe complete with an Electrical Conductivity Sensor. The combined MIP/EC tool will be pushed into the ground collecting continuous data from the surface to the target depth or refusal. The logs generated will reveal both the soil types as well as the location of any contaminant detected. The MIP system heats the soil and water up to 250 degrees and analyzes the resultant volatiles with PID, FID and ECD detectors. The results can be used to develop a conceptual model for the site and more accurately locate the best depths for sampling.

Reporting

COLUMBIA provides the following key elements for processing and communication our results:

Secure Project Specific Website – We will create a Project Web-site for you so we can post the site map, historical data and all the data we collect on this web-site for easy referenced during the field investigation.

Daily Posting of MIP Results to - We will provide you with logs of each location at the end of each hole and will post these logs on a secured web page on a real time so your technical team and our experts can discuss the results in a timely manner. Our clients have found that this service helps to facilitate onsite decision-making and results in more complete and successful investigations.

Drilling guide – We run a geostatistical program after each log to show where the next location should be drilled to limit the number of locations that need to be logged. Our clients have found this service saves them 1 or more days on site, easily paying for using it.

SmartData Solutions® Package with 3D Gallery - Our staff will run all the MIP and EC results through our patented process and produce 3D images of the chemical and geological results. This can be done each day and the 3D site images and Conceptual Site Model can be updated daily. We can include in these images, surface features and lab results from samples from the site in our final report.

For examples of our presentation capabilities for MIP data, visit a typical client webpage with project results from raw data to high resolution video images:

http://smartdata.columbiadata.com
Enter the USERNAME: demo
Enter the PASSWORD: demo

The collection, rapid processing and internet delivery of direct sensing data is protected by COLUMBIA Technologies with a series of pending patents.

COLUMBIA TECHNOLOGIES

SmartData Solutions®

Selected Project Experience

EPA and State funded *Triad* Projects, Dennis Rounds, Petroleum Release Compensation Fund, 605-773-3769. Revenue of $60,000. COLUMBIA completed rapid assessments of 5 Legacy Service Stations in a total of 15 days. Each site was thoroughly logged with the MIP and a detailed Conceptual Site Model was created by Columbia and updated throughout the day for interactive webcasts. The evolving 3D images were posted on a project webpage accessible by the entire team for timely decision-making.

EPA funded *Vapor Intrusion* assessment of Armen Cleaners in Ann Arbor, Michigan, David Sawicki of TetraTech EMI,248-350-9694. COLUMBIA provided MIP services and processed all site data with SmartData Solutions® so 3D CSM images were available for the team to review. We also conducted soil gas sampling and installed permanent vapor implants around the neighborhood for quarterly monitoring.

BRAC *Triad* Site assessment and closure, Vint Hill Farms in Manassas, VA. Nora Zirp of Shaw Group 336-454-0745. COLUMBIA participated as part of the Systematic Planning, field phase and reporting on this very successful assessment and closure of a site that had been under investigation for years. Our teams provided the direct push sampling, well installation and membrane interface probing that quickly bracketed the source area. We also utilized the SmartData Solutions® data management system for updating the 3D conceptual site model on a daily basis and conducted real-time interactive webcasts so all parties could have their concerns addressed on a daily basis.

CECIL FIELD assessment of Petroleum Release, Jacksonville, Florida, Tetra Tech., Paul Calligan, 813-806-0202. Revenue of $150,000. COLUMBIA conducted 48 MIP profiles to depths up to 118 ft. Petroleum was found at depths as much as 80 ft below the groundwater table. The MIP/EC survey saved the client from the need to install many monitoring wells on the site. Our teams performed sampling of soils and water for laboratory analysis via a dual tube sampling system.

CHARLESTON Naval Weapons Station, SWMU 12 in Charleston, South Carolina for CH2MHill. David Beverly, 770-604-9182. Revenue of $18,142.
Using MIPS, Columbia outlined a Pentachlorophenol (PCP) spill, which was migrating through an ancient fluvial channel. Once the MIP/EC logging had clearly delineated the source and extent of the solvents, samples were collected with the dual tube sampling system. A casing was set through a confining layer at 30 ft and samples were collected at greater depths.

Maryland Sand and Gravel Site, Elkton, MD for ERM, Jeff Pflanzenbaum, Contract # ERM011901t, Revenue: $ 27,000. COLUMBIA conducted multiple Membrane Interface Probe profiles to locate DNAPL and then confirmed this with the FLUTe Ribbon Sampler.

MANUFACTURING SITE, Knoxville, TN for Earth Technology, Bill DiGuiseppi, (303-804-2356) ETC011102t. Revenue: $45,000. COLUMBIA Technologies was contracted to perform vertical profiling using the Membrane Interface Probe and to collect soil and groundwater samples from depths to 30 ft through the floor of the basement of the building.

NJDEP Projects – COLUMBIA was retained to work on several NJDEP projects. One was at Jacks Auto, where we delineated a gasoline plume. Another site was at the Hurley Facility, where we located the sources and the extent of chlorinated solvents. The firm has also done numerous projects for private firms throughout the state. Our work plans and final reports were accepted by the NJDEP.

MDE Projects – COLUMBIA has worked on numerous projects with the Maryland Department of the Environment. The firm conducted the rapid assessment of 26 petroleum sites that had been previously closed. The goal was to assess the status of these sites and the presence and extent of MTBE, TBA and other oxygenates, which had not been tested for during the previous investigations. The firm has also performed work on solvent sites and on Brownfield sites, both in and out of the VCP program.

1450 South Rolling Rd. Baltimore, MD 21227 Phone: 410.536. 9911 Fax: 410.536 .0222
Email: info@columbiadata.com www.columbiadata.com

Resumes

J. E. (NED) TILLMAN, President

Ned has 30 years of experience in environmental project management and has developed and refined various sampling and analytical technologies. He has chaired and served on committees on ground water, Brownfields, Risk Based Assessments, Expedited Site Assessments and Field Analytical Techniques for the State of Maryland, ASTM, EPA and API and holds certifications from AAPG (#3159) and AIPG (#6245). He is a registered geologist in Pennsylvania and Delaware and has a MS in Geochemistry from Syracuse(1973) and a BA from Franklin & Marshall (1971).

JOHN H SOHL, III , CEO

John is the Chief Executive Officer of Columbia Technologies. He is responsible for the overall direction of corporate activities and the quality of field services. Mr. Sohl also has responsibility for the capital structure and business development of Columbia Technologies. Mr. Sohl has 25 years of experience in senior technical project management and business development. Mr. Sohl holds B.S. in Engineering from the United States Naval Academy (1972) and a MBA from Chaminade University of Honolulu (1987).

THOMAS MILLER, CIO

Tom is the manager of the SmartData Solutions® data management system. He is responsible for all development of faster and better processes for handling, visualization and delivery of data to our clients in near real time. He manages the SmartData Solutions® DataBase – which is the largest direct sensing data base in the country. He has BS and MS degrees from George Mason University and has been awarded the CIO Certificate for the Federal Government.

RANDY BRAND, Field Operations Manager

Randy is the senior field superintendent and DPT manager/operator. He has 15 years of Geoprobe experience and has been instrumental in the modification and design of soil, water and vapor sampling tools. He has performed successful Geoprobe sampling and injection projects at over 1000 sites, both in this country and abroad. He has served as Columbia Technologies' Health and Safety Officer and has taught courses for both the OSHA 40 hr and 8 hr updates. He received his Bachelors degree from the University of Maryland in 1983.

EXPERIENCED MIP OPERATORS – COLUMBIA is unique in the country, in that we have 4 MIP systems and a very experienced staff, which is fully dedicated to the successful performance and interpretation of Membrane Interface Probing surveys.

DOUGLAS MCINNES, MIP Operator

Doug is responsible for the technical development and quality assurance of Direct Sensing instrumentation. His experience includes 25 years in analytical laboratories and related industries, including all phases of sample collection, sample preparation and analysis, data validation, report writing, customer service, project management, lab waste management, computer usage and supervision. Mr. McInnes received a BS in Chemistry from Towson State University (1988).

MORGAN AYCOCK, MIP Operator

Morgan is a Senior Chemist and an experienced Membrane Interface Probe Operator. He has been fully engaged in performing SmartMIP and SmartScan® services from DPT and CPT platforms. In addition to MIP operations, he is skilled in IR, UV-VIS, HPLC, and Chromatography. He has worked on projects throughout the US and has been instrumental in the successful completion of site assessments for due diligence and risk analysis projects. Morgan received his Chemistry Degree from the College of Charleston, where he was a member of the Chemistry Fraternity and the Honor Society.

COLUMBIA TECHNOLOGIES

SmartData Solutions®

COST ESTIMATE

Friday, April 07, 2006

Prepared for: South Carolina DHEC
2600 Bull Street
Columbia, SC 29201

The following cost estimate is for COLUMBIA Technologies' services as described in the attached Proposal. These prices are based on a 3 day job which should be adequate to bound the extent of the free product with a grid at 25 ft centers.

Estimate of charges

3 day ***SmartMIPS*** logging @ $ 2500/day	$7500
3 day of Geoprobe to push the MIP est. @$1500	$4500
1 day of Geoprobe to collect samples est. @$1500	$1500
7 man/days perdiem @ $125/man/day	$875
Mobilization/demobilization	$1000
Reporting	
SmartData Solutions® Processing, QA and 3D Gallery	$1500
Create Web-page and post site map and historic data	incl
Daily Posting of logs, Drill Guide and 3D CSMs @$250/day	$500
TOTAL	**$17,375**

Optional Services

Probes lost or damaged due to subsurface conditions are charge at $1500 each.
Coring, if required @$80 for holes up to12 inch deep.
GPS mapping of survey points @ $ 500
Permitting

The final invoice will reflect the amount of work actually done and actual time required. Our rates are for up to a 9 hour day to include equipment prep, decon, data processing and delivery and travel. Overtime will be charged at $350/hr for the MIP van and operator. Payment terms are Net 30. COLUMBIA is not responsible for damage to any underground structure. Projects canceled within 72 hours of start date are subject to a $1000 cancellation/postponement fee.

ACCEPTED BY:_____
South Carolina DHEC

1450 South Rolling Rd. Baltimore, MD 21227 Phone: 410.536. 9911 Fax: 410.536 .0222
Email: info@columbiadata.com www.columbiadata.com

TERMS AND CONDITIONS

This agreement is entered into on Friday, April 07, 2006 between **COLUMBIA Technologies, LLC**, a Maryland corporation, (referred to as the Contractor) and South Carolina DHEC (referred to as the Client). This agreement shall be governed by the laws of the State of Maryland.

1. Quotations for site investigations are valid for 90 days. These terms and conditions shall preside over the work unless specific agreement to the contrary has been made in writing prior to the start of the work. Terms are net 30 days, 1.5% interest per month will be added to any outstanding balances that exceed 30 days. Any legal or other costs incurred in collecting delinquent amounts shall be paid by the Client.
2. The rig operator will solely determine when the maximum capacity of the equipment has been reached. Should refusal arise during the performance of a sounding, the Contractor will stop advancement and determine whether or not he/she feels that it is safe to continue without harming Contractors tooling or equipment. The Client shall pay for all the completed work at the rates quoted. If remedial action to achieve deeper penetration is requested by the Client, the Client shall pay contractor for the actual time and expenses incurred to determine and perform remedial action and to continue advancement.
3. The Contractor will take reasonable precautions to control damage to the property. The correction on any site damage, including subsurface damages, is not a part of this agreement.
4. The Client shall obtain all necessary permits and access agreements necessary to complete the work. Any Contractor costs associated with non-availability of the required permits shall be paid by the Client.
5. The Client shall provide adequate access to the site and the drilling locations on the site. In the event that access is not adequate; all costs incurred in providing access shall be paid by the Client.
6. Client shall mark, or arrange to have marked, on the ground the exact location of all underground structures and utilities with the project site. It will be the responsibility of the client to notify the utility locating service at least 72-hours prior to field activities. Client shall have COLUMBIA Technologies' LLC's name added to the utility clearance number. The Client shall hold Contractor harmless against any and all costs, losses, damages or expenses, including legal expenses resulting from any damage to underground features or utilities.
7. The Contractor shall endeavor to perform services in accordance with generally and currently accepted industry principles and practices. This warranty is in lieu of other written warranties, either express or implied.
8. The Contractor shall have sole discretion with regard to quality and completeness of the final product. The Contractor shall not be responsible for the interpretation by others of the information obtained.
9. The Client will make full and complete disclosure to Contractor of all safety information, hazardous areas, chemical and other dangerous materials used currently or in the past at the work site; to the extent such information is known to the Client prior to the commencement of site activities. Failure to make such notification will render the Client fully and completely liable for all damages or injuries suffered by Contractor or Contractors employees.
10. If contamination exists at the site, COLUMBIA Technologies, in its activities and work on the site, will not be held liable or responsible for any disturbance and/or redistribution thereof.
11. The Contractor represents and warrants that it and its employees are protected by workers compensation insurance and the Contractor has such coverage under public liability and property damage insurance policies.
12. The Contractor shall not be liable for failure or delays in performance due to any reason beyond the direct control of the Contractor.

Agreed this Date

COLUMBIA Technologies, a Veteran-owned, small business 1450 South Rolling Road Baltimore, MD 21227	South Carolina DHEC 2600 Bull Street Columbia, SC 29201
Signed	Signed
Name/Title	Name/Title
Date	Date

COLUMBIA TECHNOLOGIES

SmartData Solutions ™

Sole Source Justification

Basic Geoprobe technology and MIP tools are available commercially. However, COLUMBIA has become the leader in deploying MIP based services, because it has developed a series of ***patent*** protected enhancements to the basic tooling. These enhancements have resulted in a much more useful and reliable capability. ***Our patent # is 7058509 and covers:***

SmartData Solutions® is an advanced approach to collecting, reviewing, processing and presenting the data as easy to understand 3D images. By providing data and images on a timely basis, field work can be completed efficiently without the need for revisits.

Daily Posting of MIP Results to Secure Project Specific Website - We will provide you with logs of each location at the end of each hole and will post these logs and transects on a secured webpage on a daily basis for review by your colleagues who may not be in the field. Our clients have found that this service helps to facilitate onsite decision-making and results in more complete and successful investigations.

Proprietary Comparative Data Base – Our ability to interpret your results will be enhanced by our ability to compare them with the most extensive MIP database in the country.

Strict QA Protocols – We have developed a rigorous QAQC protocol together with the EPA and COE that allows us to produce data that is reproduceable and is of known quality so that it can be used in risk assessments.

SmartScan® allows us to see VOCs at levels below traditional MIP abilities.

Full Speciation – COLUMBIA has developed the ability to speciate the gas stream and therefore can identify specific compounds that contribute to the total VOC response.

Experience: Most experienced MIP firm in the country. We have 4 MIP systems and 4 fully trained and experienced MIP professionals. We regularly work with EPA and various states on projects and in presentations of the MIP technology. ***See list of presentations.***

General 500,000/ 1mil

Professional 500,000/ 1mil

Pollution 300,000

Presentations and Publications on MIP and Triad Approach

By
Ned Tillman and John Sohl
COLUMBIA Technologies, LLC

Implementing the Triad Approach with the Membrane Interface Probe and SmartData Solutions; USEPA 2003 National Site Assessment Symposium in Pittsburgh, PA

Reliable Field Measurement Methods for Triad Investigations; Triad Orientation for NJDEP Staff Agenda. May 2003

Subsurface Profiling Tools; *The use of Effective Data for making defensible project decisions.* 17th Annual Waste Testing and Quality Assurance Conference. Washington , DC.

Conceptual Site Models: The Need for Higher Definition and Accuracy; 19th Annual National Environmental Monitoring Conference. Washington, DC

The Use of Direct Sensing Technologies and Data Integration for Real Time, Web-Based Delivery of High Definition Contaminant Mapping; ERTEC 2003. Columbia, SC

An Integrated Approach for Assessing Migration Pathways; USEPA Indoor Air Vapor Intrusion Seminars in Texas and Georgia.2003

Support for the State of Maryland Assessment for the presence of MTBE/TBA at Closed Sited using Membrane Interface Probe and the SMARTSCAN™ System; Petroleum Hydrocarbons and Organic Chemicals in Ground Water: Costa Mesa, 2003.

MIP-based Subsurface Mapping Applications, 2004, submitted to the Ground Water Monitoring and Review.

Use of chemical and physical direct push sensors for high definition contaminant mapping (MIP, LIF, CPT, Rad), 2003, to be presented at the Real Time Measurements Symposium at NJDEP.

Web-based Management of Field Data to ensure quality and optimize decision making during Triad-type Projects 2003, to be presented at the Real Time Measurements Symposium at NJDEP.

Quality Assurance Protocols for Ensuring Appropriate Use of MIP Data, 2003, submitted to the Army Corps of Engineers and the EPA Technology Innovation Office.

Professional References

Deana Crumbling, EPA Technology Innovation Office, 703-603-0643
Dan Powell, EPA Technology Innovation Office, 703-603-7196
Kira Lynch, Army Corps of Engineers, 206-764-6918
Ken Skinner of Bechtel Jacobs 865-241-1193

Sole Source Justification

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Ned Tillman and John Sohl
COLUMBIA Technologies, LLC

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Reliable Field Measurement Methods for Triad Investigations; Triad Orientation for NJDEP Staff Agenda. May 2003

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Conceptual Site Models: The Need for Higher Definition and Accuracy; 19th Annual National Environmental Monitoring Conference. Washington, DC

The Use of Direct Sensing Technologies and Data Integration for Real Time, Web-Based Delivery of High Definition Contaminant Mapping; ERTEC 2003. Columbia, SC

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Support for the State of Maryland Assessment for the presence of MTBE/TBA at Closed Sited using Membrane Interface Probe and the SMARTSCAN™ System; Petroleum Hydrocarbons and Organic Chemicals in Ground Water: Costa Mesa, 2003.

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Kira Lynch, Army Corps of Engineers, 206-764-6918
Ken Skinner of Bechtel Jacobs 865-241-1193

Midlands
Environmental
Consultants, Inc.

February 21, 2007

RECEIVED

FEB 22 2007

UNDERGROUND STORAGE
TANK PROGRAM

Mr. Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #28424
MECI Project Number 07-1132

Dear Mr. Shrader,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

A site visit was conducted on January 30, 2007 to gauge and located monitoring wells. MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on February 9, 2007. The event was conducted on monitoring wells MWR-1A and MW-8 to remove free phase petroleum product. The event was conducted continuously for eight hours. Free phase petroleum product was detected in monitoring wells MWR-1A at a thickness of 0.01 and MW-8 at a thickness of 1.14 feet prior to the AFVR event. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 8.50 pounds or approximately 1.47 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.06 pounds per hour. Concentrations of off gas produced during the event were recorded from 711 parts per million by volume (PPM) to 1,680 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 17.0 to 20.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1A.

Post Office Box 854, Lexington SC 29071 • 1144 Old Two Notch Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

89 tech

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2A. Monitoring well locations are depicted on attached Figure 1.

A total of 125 gallons of liquid was removed from MWR-1A and MW-8 during this event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Staff Scientist

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1A
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1132
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MWR-1A	02/09/07	10:20	0.50	20.0	1,680	740	66.60	1.34	0.67
MW-8	02/09/07	10:50	0.50	20.0	1,000	800	72.00	0.86	0.43
	02/09/07	11:20	0.50	20.0	1,646	740	66.60	1.32	0.66
	02/09/07	11:50	0.50	20.0	1,050	820	73.80	0.93	0.46
	02/09/07	12:20	0.50	21.0	912	740	66.60	0.73	0.36
	02/09/07	12:50	0.50	17.0	790	1180	106.20	1.01	0.50
	02/09/07	13:20	0.50	17.0	790	1200	108.00	1.02	0.51
	02/09/07	13:50	0.50	17.0	787	1250	112.50	1.06	0.53
	02/09/07	14:20	0.50	17.0	760	1260	113.40	1.03	0.52
	02/09/07	14:50	0.50	17.0	761	1280	115.20	1.05	0.53
	02/09/07	15:20	0.50	17.0	745	1180	106.20	0.95	0.47
	02/09/07	15:50	0.50	17.0	711	1170	105.30	0.90	0.45
	02/09/07	16:20	0.50	17.0	762	1200	108.00	0.99	0.49
	02/09/07	16:50	0.50	17.0	706	1230	110.70	0.94	0.47
	02/09/07	17:20	0.50	17.0	748	1180	106.20	0.95	0.48
	02/09/07	17:50	0.50	17.0	770	1170	105.30	0.97	0.49
	02/09/07	18:20	0.50	17.0	714	1230	110.70	0.95	0.47
									TOTAL 8.50

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-1A	2"	45	34.37	34.38	0.01	***	30.65	***	-3.72
MW-8	2"	45	33.89	35.03	1.14	***	33.80	***	-0.26

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MWR-1A	20.00
Truck Operator:	B. Sease	MW-8	31.00
Stack I.D. (feet)	0.33 feet		
Corrected depth to water before AFVR Event in MWR-1A=			34.37
Corrected depth to water before AFVR Event in MW-8=			34.06

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	8.50	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.47	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	125	Gallons

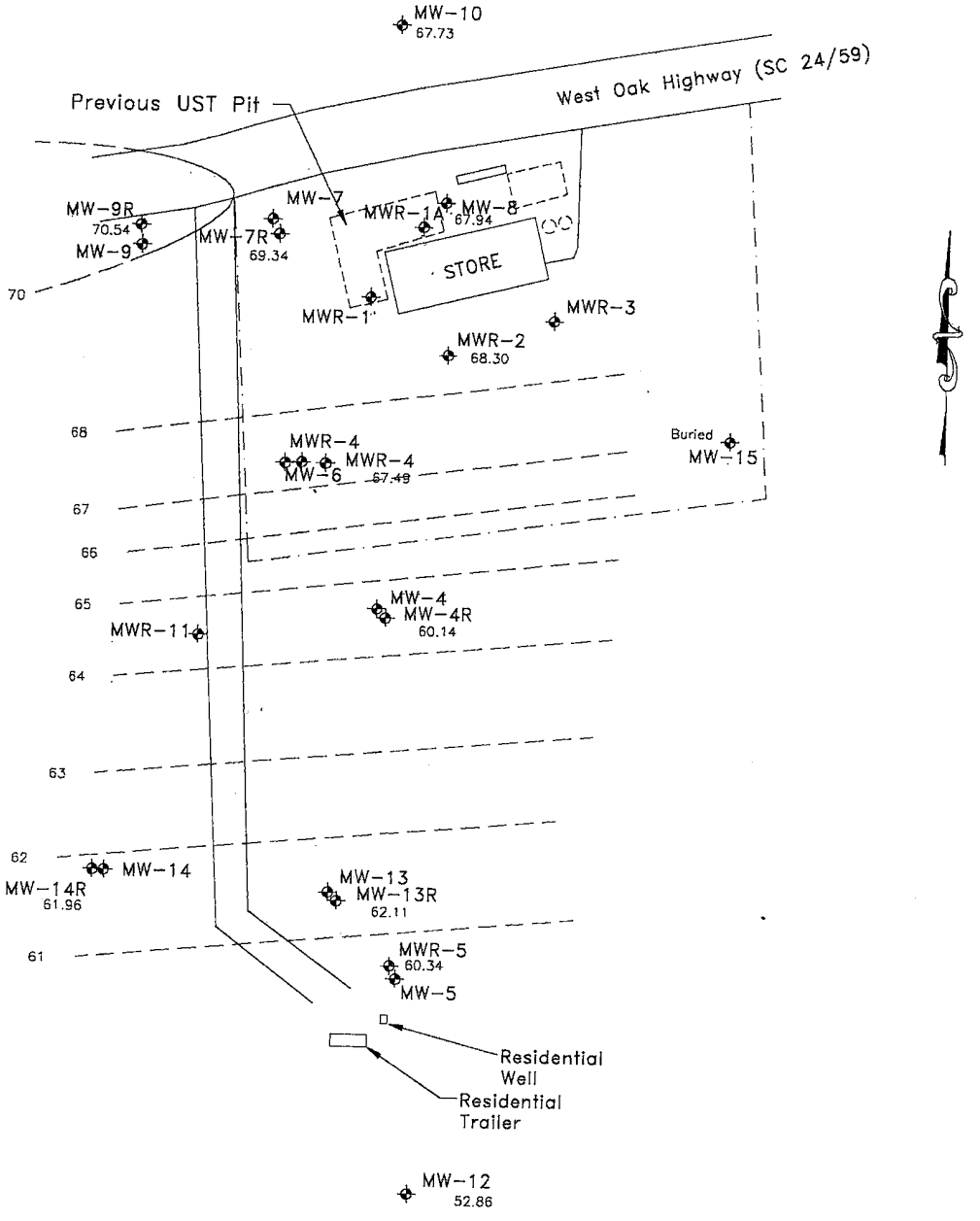
TABLE 2A
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1132
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MWR-1	**MWR-2**	**MWR-3**
Nearest Extraction Well:		MWR-1A	MWR-1A	MW-8
Approximate Distance:		48 ft	70 ft	90 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
10:20	0.0	0	0	0
10:50	0.5	0	0	0
11:20	1.0	0	0	0
11:50	1.5	0	0	0
12:20	2.0	0	0	0
12:50	2.5	0	0	0
13:20	3.0	0	0	0
13:50	3.5	0	0	0
14:20	4.0	0	0	0
14:50	4.5	0	0	0
15:20	5.0	0	0	0
15:50	5.5	0	0	0
16:20	6.0	0	0	0
16:50	6.5	0	0	0
17:20	7.0	0	0	0
17:50	7.5	0	0	0
18:20	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MWR-1	**MWR-2**	**MWR-3**
Nearest Extraction Well:		MWR-1A	MWR-1A	MW-8
Approximate Distance:		48 ft	70 ft	90 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		35.13	31.66	31.84
13:50	4 hours	35.08	31.56	31.83
18:20	8 hours	33.11	31.58	31.85
Maximum Change:		2.02	-0.08	0.01



Richard Smith, SMME6/26/2004 12:18 PMoconee june 2004.dwg

South Carolina DHEC
2600 Bull Street
Columbia, South Carolina

SMME Smith Monitoring & Maintenance Engineering, Inc.
Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance
145 Merrill Avenue Decatur, Georgia 30030
Telephone: (404) 371-9332

PROJECT #:	DRAWN BY: RBS
SCALE: 1" = 100'	DATE: June 26, 2004

Potentiometric Surface Map
June 14, 2004
Cross Roads Grocery
Oconee County, South Carolina

oconee june 2004.dwg

FIGURE
1

C 119913

Crandall

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No. 02702	2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803) 808-2043)

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Crandall Corporation	SCD981864499	(803) 791-4800
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Crandall Corporation 100 Rich-Lex Drive Lexington, SC 29072	SCD981864499	(803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	2786	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above	E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information: KMD 116 (130gal) Cooleys Grocery (115gal) FNR Smith Gulf (20gal) Master Shell (18gal) Whitaker property (90gal) Country Side 2 (125gal) Lugoff baits tackle (135gal) Bay Creek Villas (85gal) Pickens R. Way (105gal) Luckys Corner Mart (200gal) A&B Groc. (280gal) Durham's Grocery (200gal) Pit Stop (105gal) Whitaker Prop (50gal) Hersman's Warehouse (23gal) Weathers service Station (125gal) Bay Creek Villa (185gal) Avants Auto (225gal) Neighborhood Groc (125gal) Horton's (225gal) Lowe's Groc (140gal)

Service Call ID: GL80102702
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

TRANSPORTER

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
[signature]		02	21	07

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
TROY BACKMAN	Troy Backman	02	21	07

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

INVOICE COPY

Midlands
Environmental
Consultants, Inc.

March 20, 2007

RECEIVED
MAR 26 2007
UNDERGROUND STORAGE
TANK PROGRAM

Mr. Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Country Side 2
Westminster, South Carolina
SCDHEC Site ID # 06742; CA #28424
MECI Project Number 07-1132B

Dear Mr. Shrader,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

A site visit was conducted on January 30, 2007 to gauge and locate monitoring wells. MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Country Side 2 on March 18, 2007. The event was conducted on monitoring wells MWR-1A, MWR-1 and MW-8 to remove free phase petroleum product. The event was conducted continuously for eight hours. Free phase petroleum product was detected in monitoring wells MWR-1A at a thickness of 0.69, MWR-1 at a thickness of 1.47, and MW-8 at a thickness of 0.03 feet prior to the AFVR event. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 10.41 pounds or approximately 1.80 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.30 pounds per hour. Concentrations of off gas produced during the event were recorded from 478 parts per million by volume (PPM) to 1,520 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 10.0 to 19.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1B.

Post Office Box 854, Lexington SC 29071 • 1144 Old Two Notch Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

90 tch

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2B. Monitoring well locations are depicted on attached Figure 1.

A total of 105 gallons of liquid was removed from MWR-1A, MWR-1 and MW-8 during this event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Staff Scientist

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1B
AFVR MONITORING DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1132B
SCDHEC SITE ID NUMBER 06742

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MWR-1A	03/18/07	12:30	0.50	19.0	1,520	900	81.00	1.48	0.74
MWR-1	03/18/07	13:00	0.50	15.0	980	1400	126.00	1.48	0.74
MW-8	03/18/07	13:30	0.50	15.0	909	1430	128.70	1.40	0.70
	03/18/07	14:00	0.50	15.0	884	1430	128.70	1.37	0.68
	03/18/07	14:30	0.50	15.0	905	1440	129.60	1.41	0.70
	03/18/07	15:00	0.50	15.0	815	1410	126.90	1.24	0.62
	03/18/07	15:30	0.50	15.0	844	1380	124.20	1.26	0.63
	03/18/07	16:00	0.50	15.0	663	2040	183.60	1.46	0.73
	03/18/07	16:30	0.50	10.0	516	2000	180.00	1.11	0.56
	03/18/07	17:00	0.50	10.0	507	1990	179.10	1.09	0.54
	03/18/07	17:30	0.50	10.0	501	2000	180.00	1.08	0.54
	03/18/07	18:00	0.50	10.0	490	2020	181.80	1.07	0.53
	03/18/07	18:30	0.50	10.0	488	1960	176.40	1.03	0.52
	03/18/07	19:00	0.50	10.0	491	2020	181.80	1.07	0.54
	03/18/07	19:30	0.50	10.0	478	2010	180.90	1.04	0.52
	03/18/07	20:00	0.50	10.0	496	2030	182.70	1.09	0.54
	03/18/07	20:30	0.50	10.0	521	2030	182.70	1.14	0.57
									TOTAL 10.41

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MWR-1A	2"	70	33.05	33.74	0.69	31.40	31.50	0.10	-1.65
MWR-1	2"	45	32.56	34.03	1.47	31.70	33.00	1.30	0.22
MW-8	2"	45	33.33	33.36	0.03	***	31.70	***	-1.63

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MWR-1A	20.00
Truck Operator:	B. Sease	MWR-1	20.00
Stack I.D. (feet)	0.33 feet	MW-8	20.00

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	10.41	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.80	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	105	Gallons

Corrected depth to water before AFVR Event in MWR-1A=	33.15
Corrected depth to water before AFVR Event in MWR-1=	32.78
Corrected depth to water before AFVR Event in MW-8=	33.33

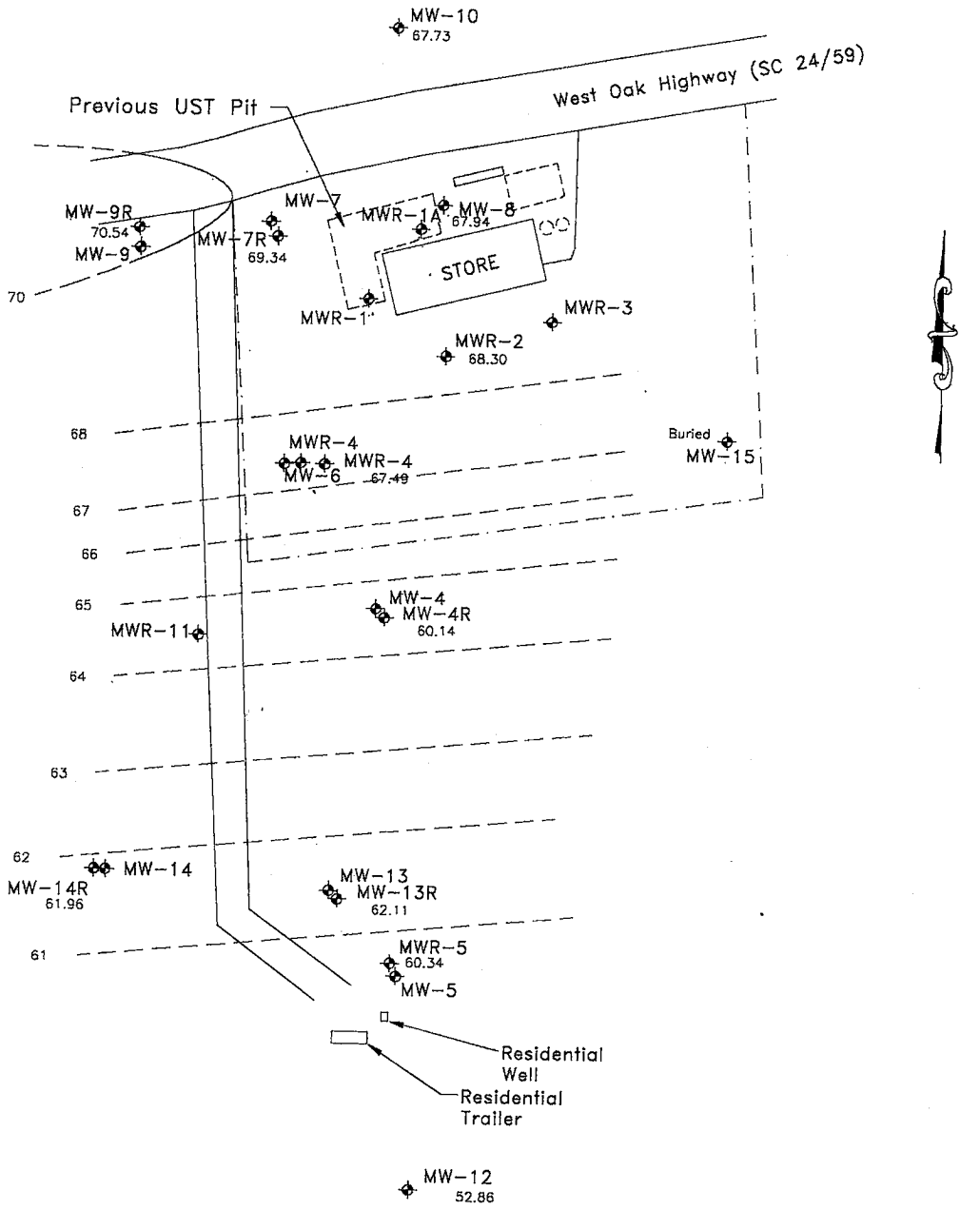
TABLE 2B
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
COUNTRY SIDE 2
WESTMINSTER, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1132B
SCDHEC SITE ID NUMBER 06742

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MWR-2	**MWR-3**	**MW-7R**
Nearest Extraction Well:		MWR-1	MW-8	MWR-1
Approximate Distance:		50 ft	90 ft	60 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
12:30	0.0	0	0	0
13:00	0.5	0	0	0
13:30	1.0	0	0	0
14:00	1.5	0	0	0
14:30	2.0	0	0	0
15:00	2.5	0	0	0
15:30	3.0	0	0	0
16:00	3.5	0	0	0
16:30	4.0	0	0	0
17:00	4.5	0	0	0
17:30	5.0	0	0	0
18:00	5.5	0	0	0
18:30	6.0	0	0	0
19:00	6.5	0	0	0
19:30	7.0	0	0	0
20:00	7.5	0	0	0
20:30	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MWR-2	**MWR-3**	**MW-7R**
Nearest Extraction Well:		MWR-1	MW-8	MWR-1
Approximate Distance:		50 ft	90 ft	60 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		30.77	30.99	33.47
16:30	4 hours	30.71	30.94	33.57
20:30	8 hours	30.75	30.97	33.55
Maximum Change:		0.06	0.05	-0.08



Richard Smith, SMME6/26/2004 12:18 PMoconee june 2004.dwg

South Carolina DHEC 2600 Bull Street Columbia, South Carolina	SMME Smith Monitoring & Maintenance Engineering, Inc. Engineering, Wastewater and Groundwater Remediation System Consultation, Operation and Maintenance 145 Merrill Avenue Decatur, Georgia 30030 Telephone: (404) 371-9332
PROJECT #: / DRAWN BY: RBS SCALE: 1" = 100' / DATE: June 26, 2004	Potentiometric Surface Map June 14, 2004 Cross Roads Grocery Oconee County, South Carolina oconee june 2004.dwg
	FIGURE 1

C 113278

Crandall

Please print or type (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.
Manifest Document No. 03736
2. Page 1 of 1

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
4. Generator's Phone (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation
6. US EPA ID Number: SCD981864499
A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name
8. US EPA ID Number
B. Transporter's Phone

9. Designated Facility Name and Site Address: Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	0.01	TT	1975	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0102736
Pelzer Gas Mart (00480) 205 gal
Country Side 2 (06742) 105 gal
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

North Main Gulf (11340) 85 gal, Former Ford Specialist (00487) 80 gal
Buratts Cleaners (16724) 275 gal Friendly Marks (11693) 5 gal
York County Det. (09152) 25 gal Pitt Stop #23 (07837) 155 gal
Bay Creek Villas (18662) 210 Rockland Parking lot (15475) 170 gal
Beaverdam Groc. (180 gal) Rogers Auto Parts 35 gal
United Oil #144 (13137) 275 gal Former Cracker Box (18287) 40

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
No ONE	AVAL.	03	19	07

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Curtis Lott		03	19	07

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
Chris Monsell		03	20	07

GENERATOR COPY

12/91 C-MS