#57423

Terracon

November 30, 2009

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SITE ASSESSMENT, REMEDIATION & REVITALIZATION

State Remediation Section
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201-1708

Attn: Ms. Keisha Long
PHN: 803-896-4872
FAX: 803-896-4292
Email: longkd@dhec.sc.gov

Re: Well Installation and Groundwater Sampling Report
Castlebridge Properties, LLC Property
200/280 National Avenue
Spartanburg, Spartanburg County, South Carolina
VCC 07-5712-RP; MWA #SF-09-009

Dear Ms. Long:

On behalf of Castlebridge Properties, LLC, Terracon Consultants, Inc. (Terracon) is pleased to provide the results of the monitoring well installation and groundwater sampling for the aforementioned site. The request to install the permanent monitoring wells was made in the directive dated May 7, 2009 (K. Long to T. Morgan).

If you have any questions or comments regarding the work performed and report, please contact me at 864-292-2901 or by email at cdeady@terracon.com.

Sincerely,

TERRACON CONSULTANTS, INC.

Craig Eady

Craig D. Eady, P.G.
Senior Geologist
SC License No. 1099

Rex Z. Brown FOR

Charles R. Clymer, P.G.
Senior Principal
SC License No. 236

Attachment(s)

Cc: Mr. Thom Morgan, Castlebridge Properties, LLC, P.O. Box 128, Hazelwood, NC 28738

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WELL INSTALLATION AND GROUNDWATER SAMPLING REPORT

CASTLEBRIDGE PROPERTIES, LLC
200/280 NATIONAL AVENUE
SPARTANBURG, SPARTANBURG COUNTY, SOUTH CAROLINA
VCC 07-5712-RP

Terracon Project No. 86077044
Report Date: November 30, 2009

1.0 INTRODUCTION

1.1 Site Information

The Site is located at 200 and 280 National Avenue in Spartanburg, Spartanburg County, South Carolina, approximately one-half mile west of the intersection of New Cut Road and Interstate 26 (see Figure 1). The Site contains two semi-rectangular parcels identified by Spartanburg County map numbers 2-54-00-008.01 (8.9 acres) and 2-54-00-008.00 (12.1 acres).

The Site encompasses two industrial-type warehouses, asphalt parking areas, a fire-suppression water-tank, landscaped areas, security fencing and undeveloped, wooded land. A site diagram is included as Figure 2 and shows the Site layout and pertinent features. Goodyear Tire Company (Goodyear) leases the Site for storage and distribution of rubber products and administrative services.

Findings of the Remedial Investigation (RI) Phase I assessment conducted in September 2008 indicate tetrachloroethene (PCE) and trichloroethene (TCE), to a lesser degree, are the primary constituents of concern at the Site. VOC impacts to soil were identified; however, the reported concentrations did not exceed industrial SSLs. Where impacts to soil were identified, PCE and TCE were also detected in the groundwater screening samples at concentrations exceeding their respective MCLs. No LNAPL or DNAPL were observed in the groundwater screening samples. Based on the distribution of the detected PCE/TCE constituents, the source of the contamination appears to be related to the previous use of drycleaning fluids at the 200 National Avenue building and, to a lesser degree, at the 280 National Avenue building.

Based on results of the RI Phase I assessment, the SCDHEC requested the installation of permanent monitoring wells to evaluate the groundwater quality at the site (K. Long to T. Morgan, May 7, 2009) (Appendix G).

1.2 Site Geology and Hydrogeology

The Castlebridge property is situated within the Inner Piedmont Physiographic Province of South Carolina. The surficial geology consists of residual soils (saprolite) that have weathered in-place from the underlying bedrock. The bedrock consists of crystalline igneous and metamorphic rocks composed of granite, gneiss and schist rock complexes. The soil samples from the RI Phase I assessment were described as predominantly micaceous silty sand to sandy silt, indicative of saprolitic soils in the Piedmont region of South Carolina. The depth to bedrock, as indicated by GeoProbe® probe refusal, was generally encountered between 40 and 50 feet below ground surface (BGS) along the center of the Site. The interface was encountered approximately 15 to 25 feet BGS along the western Site boundary and much shallower along the eastern Site boundary at approximately three feet BGS. Survey of a railroad cut immediately to the north and on adjacent property immediately to the east indicated bedrock outcrops near the land surface. Outcrops observed in the railroad cut suggest bedrock trends north to south and dips to the east. This orientation may explain deeper probe refusal along the center axis of the Site in less resistant materials.

Groundwater within the shallow sediments of the Piedmont province typically occurs under unconfined conditions within the saprolite and underlying fractured bedrock. Groundwater flow directions are a subtle reflection of the local topography. Local recharge of the shallow aquifer occurs by the direct infiltration of precipitation. Based on the RI Phase I screening data, groundwater along the center axis of the Site was indicated at approximately 25 to 30 feet BGS, but much shallower (approximately 15 feet BGS) along the western Site boundary and near an off-site stream. Groundwater was not encountered along the eastern Site boundary where shallow probe refusal at several locations occurred at approximately three feet BGS.

2.0 ASSESSMENT INFORMATION

2.1 Monitoring Well Installation

Terracon began permanent monitoring well installation at the site from August 24-27, 2009. Metro Drill, Inc. (Metro, SC Well Driller Certification #493) installed the shallow and deep wells with a CME 45 hollow stem auger drilling rig with rock coring capabilities. The shallow wells (MW-03, -04, and -05) were installed with 8-inch (OD) hollow stem augers and constructed from 2-inch PVC well materials and 10-foot, 0.010-inch machine slotted well screen. The wells were completed with a filter pack to approximately two feet above the well screen, approximately two feet of hydrated bentonite seal and grouted to the land surface. The deep wells (MW-01D, -02D, -06D and -07D) were installed with 8-inch (OD) hollow stem augers until the interception of competent bedrock as indicated by auger refusal. The depth to bedrock was measured at 43.5 feet bgs (MW-01D), 52 feet bgs (MW-02D), 44.5 feet bgs (MW-06D) and 54 feet bgs (MW-7D).

Afterwards, the drill rig was retooled with a 4-inch OD wireline NQ2 rock corebarrel to extend the boring approximately 5 feet into competent bedrock. Following removal of the rock core, the deep wells were constructed from 2-inch PVC well materials and 10-foot or 15-foot, 0.010-inch machine slotted well screen to bracket the lower saprolite/upper bedrock transition zone. The wells were completed with a sand filter pack to approximately two feet above the well screen, approximately two feet of hydrated bentonite seal and grouted to the land surface. Each well was completed at the ground surface with a 4-inch square steel standup protective cover set in a 2X2-foot square concrete pad, with the exception of MW-07D. This well was completed with an 8-inch flush-mounted steel protective cover set in a 2X2 square concrete pad. Copies of the well construction diagrams, boring logs and SC 1903 well forms are included in Appendix A and B.

Following installation, Terracon purged the monitoring wells until the groundwater was free and relatively clear of sediment. Investigation derived wastes (IDW) consisting of auger cuttings and development water was staged on-site in thirteen 55-gallon drums prior to disposal by Advanced Environmental Options, Inc. (AEO) in Spartanburg, South Carolina. A copy of the disposal manifest for the IDW is included in Appendix C. Prior to sampling, the wells were surveyed by 3D Land Surveying, Inc. (SC Professional Land Surveyor No. 22746) for location and elevation. The locations of the wells are shown on Figure 3 and construction details for the wells are presented in Table 1.

2.2 Groundwater Assessment

Terracon personnel gauged groundwater levels at the site on September 2, 2009 with an electric water level probe. Groundwater elevations are referenced to the site temporary benchmark (TBM) and ranged from 879.90 feet TBM (MW-04) to 897.49 feet TBM (MW-07D). The approximate horizontal groundwater flow direction at the site in the shallow water table aquifer was drawn perpendicular to equipotential contours established from water level measurements and groundwater elevations. The resulting groundwater flow direction is to the north-northwest following the stream present along the western property boundary. The average horizontal hydraulic gradient was calculated by dividing the change in hydraulic head (Δh) between two wells by the horizontal distance between the two wells (Δl). The resulting average hydraulic gradient calculated from MW-07D to MW-04 is 0.012 (17.59 feet/1435 feet). Groundwater elevation contours of the shallow water table aquifer and the groundwater flow direction are shown on Figure 4; water level and groundwater elevations are summarized on Table 2.

Terracon personnel purged all monitoring wells a minimum of three well volumes or until "dry", whichever came first. The shallow wells were purged and sampled with new, disposable polyethylene bailers; whereas the deeper wells were purged and sampled with a 12-volt submersible pump and new, disposable polyethylene bailers. Measurements of temperature,

pH and specific conductance were recorded during purging activities to determine when groundwater representative of the aquifer was obtained. Copies of the well sampling logs are included in Appendix D. Purge water was contained on-site in two 55-gallon drums and disposed by AEO in Spartanburg, South Carolina. A copy of the disposal manifest for the purge water generated during sampling activities is included in Appendix C.

The groundwater samples were submitted to Shealy Environmental Services, Inc. of West Columbia, South Carolina ("Shealy", SCDHEC Certification No. 32010) for analysis. Shealy performed analysis of Target Compound List (TCL) volatile organic compounds (VOCs) by USEPA Method 8260B.

VOCs were detected above the laboratory practical quantitation limits (PQLs) in samples from all the wells with the exception of MW-5. Detected VOCs above PQLs appear to be limited to acetone, bromodichloromethane, chloroform, and tetrachloroethene (PCE). A summary of VOC constituents in groundwater samples is presented as Table 3. A copy of the laboratory report of analysis is included in Appendix E.

Concentrations of detected constituents were compared to maximum contaminant levels (MCLs) listed in the *Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites*. MCL's for acetone, bromodichloromethane and chloroform have not been established. PCE was reported above the MCL of 5.0 μg/L in MW-01D (170 μg/L), MW-02D (400 μg/L), MW-03 (33 μg/L), MW-04 (6.3 μg/L), MW-06D (750 μg/L) and MW-07D (20 μg/L). As an illustration of the detected PCE values, a PCE isoconcentration map incorporating both building locations is provided in Figure 5.

2.3 Interior Basin Water Removal – 200 National Avenue Building

During the well installation field activities, Terracon observed removal of the TCE impacted water present in the interior concrete basin of the 200 National Avenue building on August 25, 2009. The interior basin was used as an equalization basin as part of the waste water treatment process utilized by National Lock during their occupancy of the building in the late 1980's. The water present in the basin was determined to be from storm water/rainfall seepage via piping connected to the secondary containment structure of the adjacent above ground storage tanks. The piping discharges to a concrete floor trench that drains to the interior basin. A&D Environmental Services (SC), LLC of Lexington, SC was retained to remove the water with a diaphragm pump into a vacuum tanker for transport. The water was disposed at the Spartanburg Water Fairforest Wastewater Treatment Plant. Permission to receive and dispose the water was given by Mr. John Holcomb, Spartanburg Water Industrial Wastewater Specialist, in correspondence dated July 9, 2009 (Appendix H). Approximately 14,100 gallons of water was removed and disposed on August 25, 2009. To prevent further infiltration of water into the basin, the surface water drain piping connecting the interior basin to the exterior aboveground

storage tank containment structure were plugged with cement. Photographs taken during the interior basin water removal are provided in Appendix F.

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

Based on the results of the Phase I RI, seven permanent monitoring wells were installed on the Castlebridge property to evaluate the on-site horizontal extent of the chlorinated hydrocarbon plume in the saprolite and shallow bedrock aquifer. Off-site wells were not installed due to site physical constraints and access issues.

Groundwater elevations indicate the flow direction at the site is to the north-northwest toward the groundwater discharge point of the stream present along the western property boundary. Groundwater analytical data reveal concentrations of PCE exceed the MCL in all the wells, except MW-5. No other VOCs, including TCE, were detected in the samples above applicable regulatory standards. Based on the distribution of the PCE, low levels of PCE impacted groundwater is present in the vicinity of the AST area at the southwest corner of the 200 National Avenue building and the vicinity of the septic tank area of the 280 National Avenue building. The PCE contaminant plume at MW-2D appears to diminish significantly within 200 to 300 feet downgradient of the 200 National Avenue building. Although elevated PCE concentrations were detected at MW-1D and MW-6D (280 National Avenue Building), it is assumed the concentrations would diminish in a similar fashion. During the Phase I RI, no VOCs were detected in the stream present along the western property boundary.

Approximately 14,100 gallons of TCE impacted water was removed and disposed from the interior concrete basin of the 200 National Avenue building. To prevent further infiltration of water into the basin, the surface water drain piping connecting the interior basin to the exterior aboveground storage tank containment structure were plugged with cement.

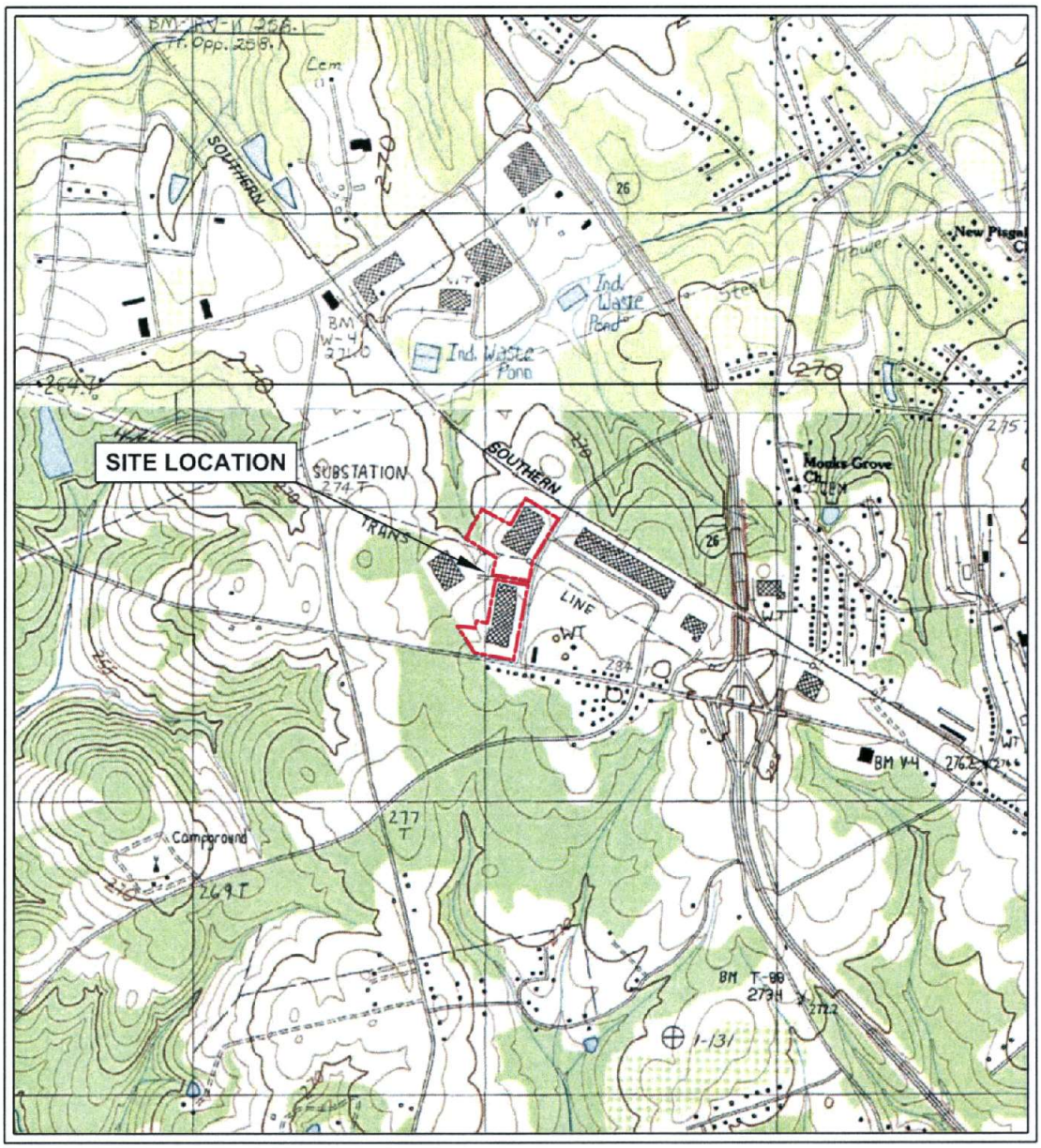
3.2 Recommendations

The Site is located in a developed portion of Spartanburg County used for industrial-type purposes. The Site encompasses two industrial-type warehouses, asphalt parking areas, a fire-suppression water-tank, landscaped areas, security fencing and undeveloped, wooded land. Potable water is supplied to the property by a public utility. The groundwater in the area is not used as a drinking water supply. Therefore, Terracon recommends that the monitoring wells be sampled on annual basis to monitor the PCE contaminant plume and assess natural attenuation effects.

Terracon

FIGURES

UNITED STATES – DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY



N

SCALE 1:24 000

KILOMETERS 1 .5 0 1 2

METERS 1000 0 1000 2000

MILES 1 .5 0 1

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

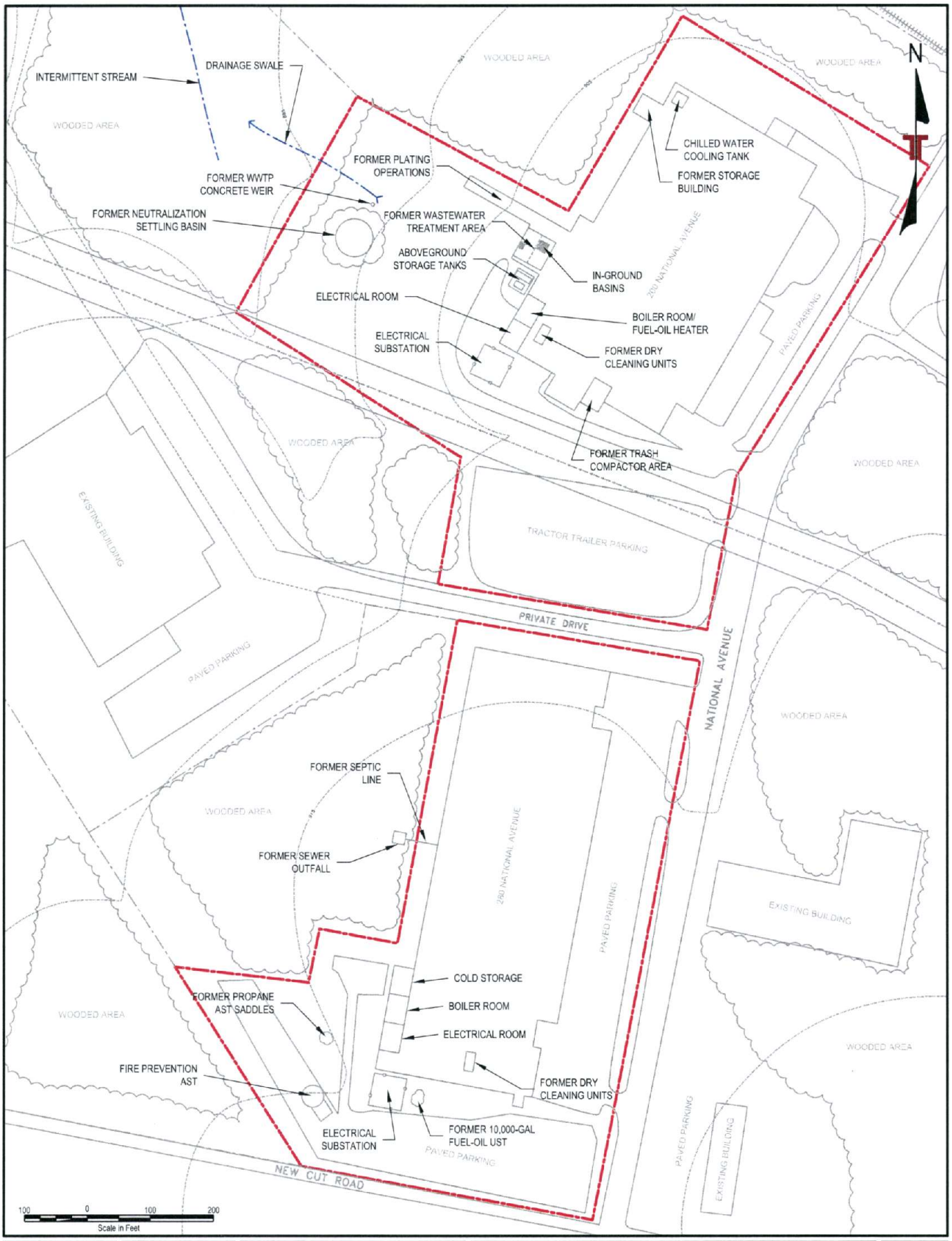
CONTOUR INTERVAL 3 METERS

NATIONAL GEODETIC VERTICAL DATUM OF 1929

INMAN, SOUTH CAROLINA
WELLFORD, SOUTH CAROLINA
1983
7.5 MINUTE SERIES (TOPOGRAPHIC)

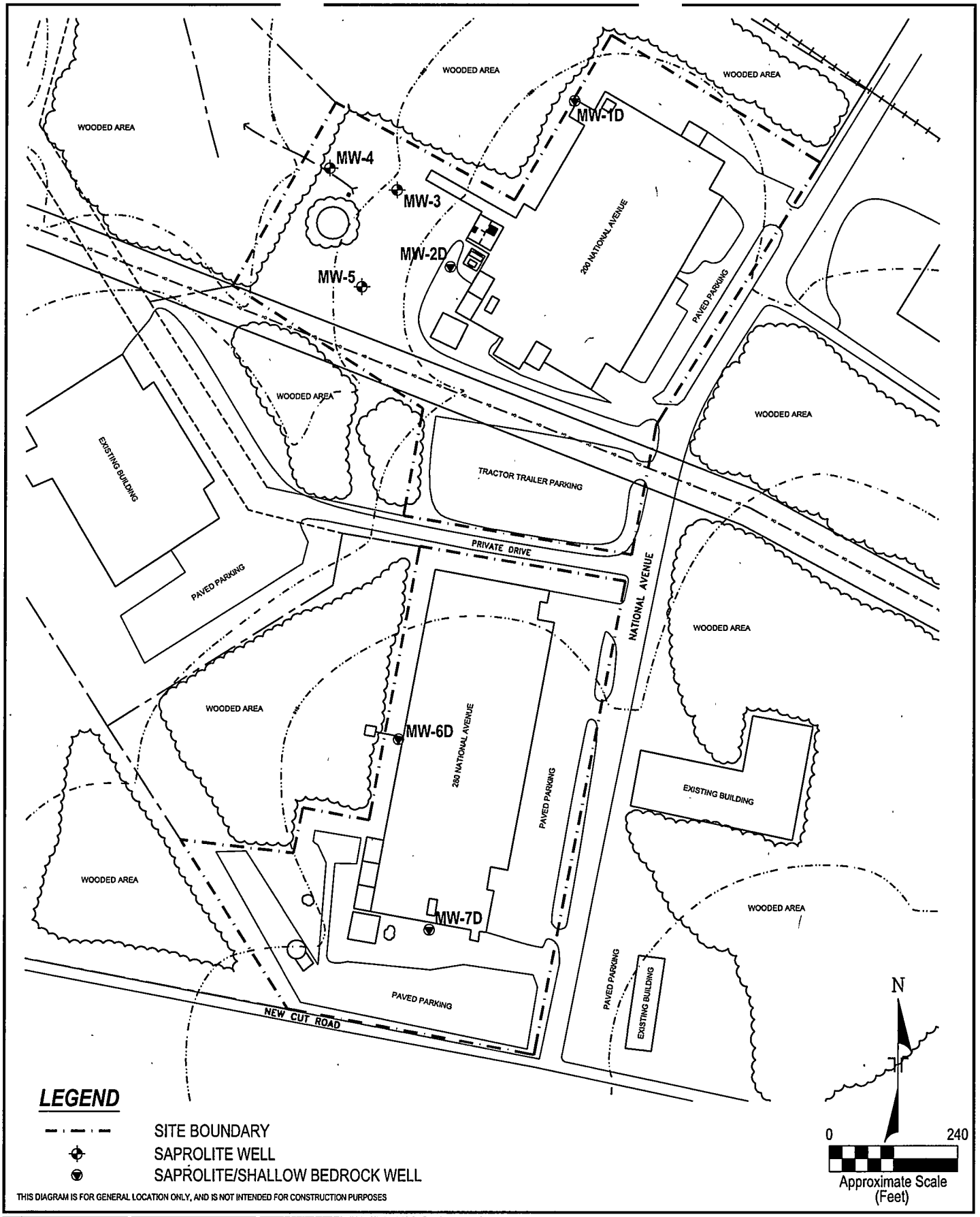
Project Mngr: CDE	Project No: 86077044	Terracon Consulting Engineers and Scientists	SITE LOCATION MAP
Drawn By: SKN	Scale: AS SHOWN	3534 RUTHERFORD ROAD TAYLORS, SC 29687	REMEDIAL INVESTIGATION PHASE I REPORT
Checked By: CDE	File Name: 86077044.7044RIFIGURES.DWG	PH. (864) 292-2901 FAX (864) 292-6381	CASTLEBRIDGE PROPERTIES, LLC PROPERTY
Approved By: CDE	Date: 12/01/2008		200 & 280 NATIONAL AVENUE
			SPARTANBURG, SPARTANBURG COUNTY SOUTH CAROLINA

FIG No. 1



Project Mngr: CDE	Project No: 86077044	Terracon Consulting Engineers and Scientists	SITE DIAGRAM
Drawn By: SKN	Scale: AS SHOWN	3534 RUTHERFORD ROAD TAYLORS, SC 29687	REMEDIAL INVESTIGATION PHASE I REPORT
Checked By: CDE	File Name: 86077044\7044RIFIGURES.DWG	PH. (864) 292-2901 FAX (864) 292-6351	CASTLEBRIDGE PROPERTIES, LLC PROPERTY
Approved By: CDE	Date: 12/01/2008		200 & 280 NATIONAL AVENUE
			SPARTANBURG, SPARTANBURG COUNTY SOUTH CAROLINA

FIG No. 2



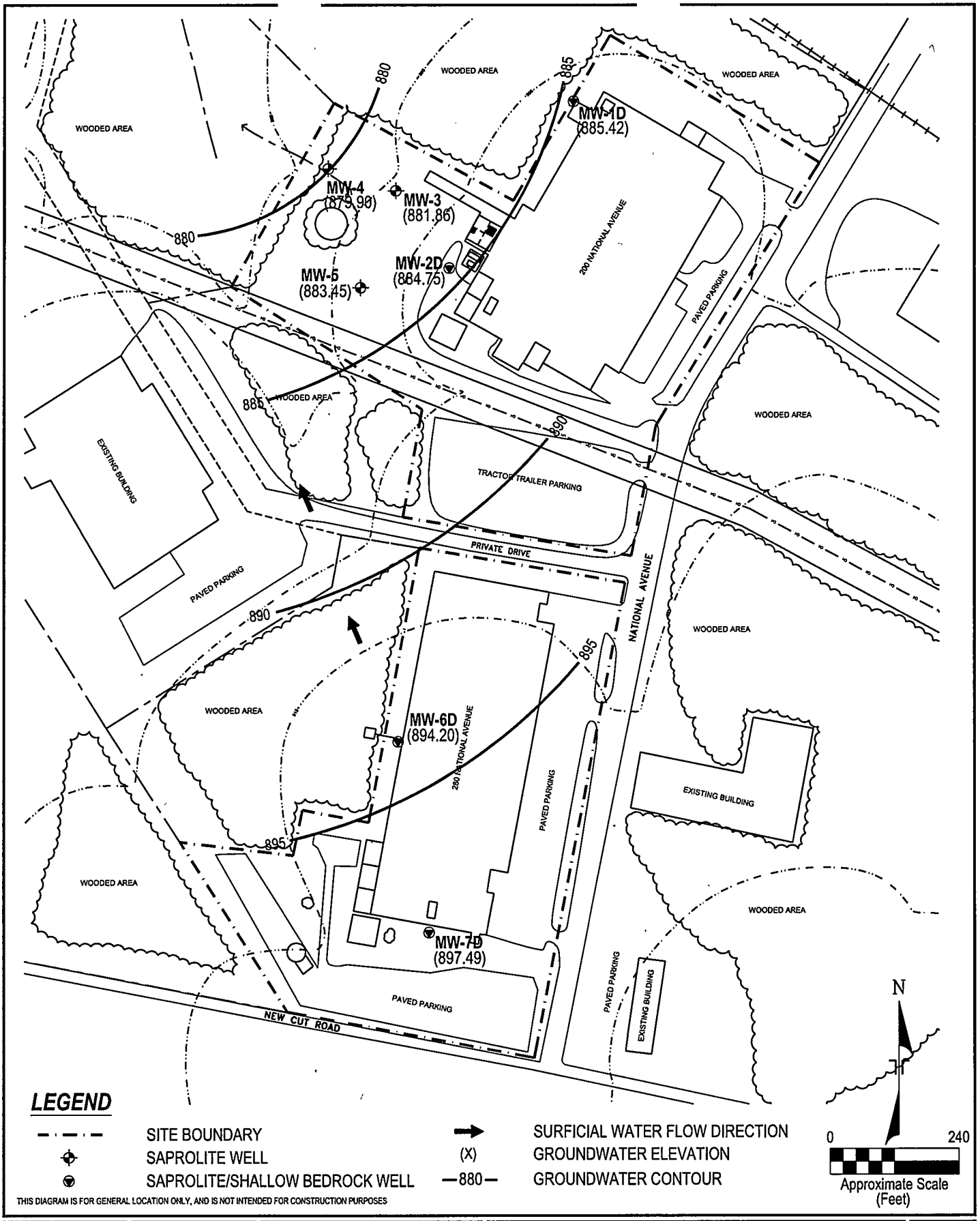
LEGEND

- SITE BOUNDARY
- SAPROLITE WELL
- SAPROLITE/SHALLOW BEDROCK WELL

THIS DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mngr: CDE	Project No. 86077044	Terracon Consulting Engineers and Scientists	MONITORING WELL LOCATION MAP
Drawn By: TLY	Scale: AS SHOWN		RI WELL INSTALLATION REPORT
Checked By: CDE/MRF	File No. RI86077044-(3)		CASTLEBRIDGE PROPERTIES, LLC PROPERTY
Approved By: CDE	Date: NOVEMBER 2009	3534 Rutherford Road (864) 292-2901 Taylors, SC 29687 (864) 292-6361	200 AND 280 NATIONAL AVENUE
			SPARTANBURG, SPARTANBURG COUNTY, SC

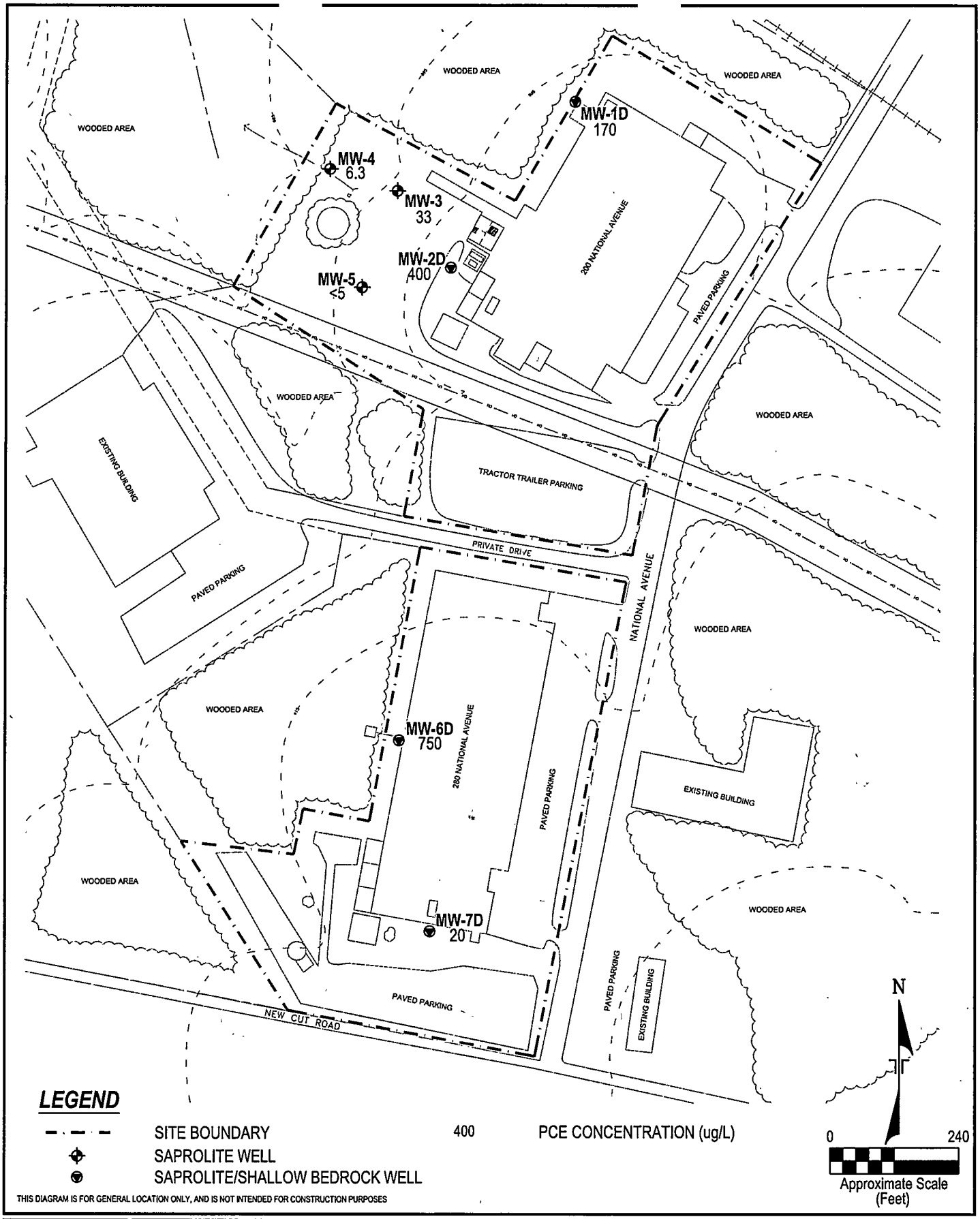
FIG. No. 3



THIS DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mngr: CDE	Project No. 86077044	Terracon Consulting Engineers and Scientists	GROUNDWATER ELEVATION AND FLOW DIRECTION MAP
Drawn By: TLY	Scale: AS SHOWN	3534 Rutherford Road (864) 292-2901 Taylors, SC 29687 (864) 292-6361	RI WELL INSTALLATION REPORT
Checked By: CDE/MRF	File No. RI86077044-(4)		CASTLEBRIDGE PROPERTIES, LLC PROPERTY
Approved By: CDE	Date: NOVEMBER 2009		200 AND 280 NATIONAL AVENUE
			SPARTANBURG, SPARTANBURG COUNTY, SC

FIG. No. 4



LEGEND

- SITE BOUNDARY
- SAPROLITE WELL
- SAPROLITE/SHALLOW BEDROCK WELL
- 400 PCE CONCENTRATION (ug/L)

THIS DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mngr: CDE	Project No. 86077044	Terracon Consulting Engineers and Scientists	PCE ISOCONCENTRATION MAP	FIG. No.
Drawn By: TLY	Scale: AS SHOWN		RI WELL INSTALLATION REPORT	
Checked By: CDE/MRF	File No. RI86077044-(5)		CASTLEBRIDGE PROPERTIES, LLC PROPERTY	
Approved By: CDE	Date: NOVEMBER 2009	3534 Rutherford Road (864) 292-2901 Taylors, SC 29687 (864) 292-6361	200 AND 280 NATIONAL AVENUE	5
			SPARTANBURG, SPARTANBURG COUNTY, SC	

TABLES

TABLE 1. MONITORING WELL CONSTRUCTION DETAILS
CASTLEBRIDGE PROPERTIES, LLC. PROPERTY
200-280 NATIONAL AVENUE, SPARTANBURG, SOUTH CAROLINA

Well ID	Date Installed	GSE	TOC	TD	Screen	Filter Sand	Seal	Grout
		FT TBM	FT TBM	FT BGS	FT BGS	FT BGS	FT BGS	FT BGS
RI Phase I Well Installation								
MW-01D	8/25/09	908.70	911.58	47.0	32-47	30-47	28-30	0-28
MW-02D	8/25/09	908.04	910.85	56.0	42-52	39-56	37-39	0-37
MW-03	8/24/09	899.05	901.96	25.0	15-25	12-25	8.5-12	0-8.5
MW-04	8/24/09	890.50	893.42	15.0	5-10	3.5-15	1-3.5	0-1
MW-05	8/24/09	900.42	903.38	20.0	10-20	8-20	6-8	0-6
MW-06D	8/26/09	921.54	923.91	56.0	35-50	33-56	31-33	0-31
MW-07D	8/27/09	917.32	917.17	59.0	44-59	42-59	40-42	0-40

NOTES:

1) GSE (Ground Surface Elevation) measured in feet and referenced to the site temporary benchmark (TBM).
2) TOC (Top of Casing Elevation) measured in feet and referenced to the site TBM.
3) TD (Total Depth) measured in feet below ground surface (BGS).
4) Screen, Filter Sand, Seal and Grout represents interval measured in feet BGS.

TABLE 2. GROUNDWATER ELEVATION DATA
CASTLEBRIDGE PROPERTIES, LLC. PROPERTY
200-280 NATIONAL AVENUE, SOUTH CAROLINA

Well ID	Date	GSE	TOC	Screen	Depth to Groundwater	Groundwater Elevation
		FT TBM	FT TBM	FT BGS	FT TOC	FT TBM
MW-01D	9/2/09	908.70	911.58	32-47	26.16	885.42
MW-02D	9/2/09	908.04	910.85	42-52	26.10	884.75
MW-03	9/2/09	899.05	901.96	15-25	20.10	881.86
MW-04	9/2/09	890.50	893.42	5-10	13.52	879.90
MW-05	9/2/09	900.42	903.38	10-20	19.93	883.45
MW-06D	9/2/09	921.54	923.91	35-50	29.71	894.20
MW-07D	9/2/09	917.32	917.17	44-59	19.68	897.49

NOTES:

1) GSE (Ground Surface Elevation) measured in feet and referenced to the site temporary benchmark (TBM).
2) TOC (Top of Casing Elevation) measured in feet and referenced to the site TBM.
3) Screen represents interval measured in feet BGS.
4) Depth to Groundwater measured in feet below the top of casing with an water level meter.
5) Groundwater Elevation measured in feet and referenced to site TBM

TABLE 3.
SUMMARY OF GROUNDWATER VOLATILE ORGANIC CONSTITUENTS
CASTLEBRIDGE PROPERTIES, LLC. PROPERTY
200-280 NATIONAL AVENUE, SPARTANBURG, SC

Constituent	MCL[1]	200-280 National Avenue						
		MW-1D	MW-2D	MW-3	MW-4	MW-5	MW-6D	MW-7D
		02-Sep-09	02-Sep-09	02-Sep-09	02-Sep-09	02-Sep-09	02-Sep-09	02-Sep-09
1,1,1-Trichloroethane	NA[2]	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloro-1,2,2-Trifluoroethane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2,4-Trichlorobenzene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dibromo-3-chloropropane (DBCP)	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dibromoethane (EDB)	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichlorobenzene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloroethane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,3-Dichlorobenzene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,4-Dichlorobenzene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Butanone (MEK)	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-Methyl-2-pentanone	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	NE[3]	***20***	< 20	< 20	< 20	< 20	< 20	< 20
Benzene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromodichloromethane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	***7.8***
Bromoform	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromomethane (Methyl bromide)	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon disulfide	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroform	NA	< 5.0	***13***	< 5.0	< 5.0	< 5.0	< 5.0	***45***
Chloromethane (Methyl chloride)	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,2-Dichloroethene	70	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Cyclohexane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Dibromochloromethane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Dichlorodifluoromethane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Methyl acetate	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Methyl tertiary butyl ether (MTBE)	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Methylcyclohexane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Methylene chloride	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Tetrachloroethene	5.0	**170**	**400**	**33**	**6.3**	< 5.0	**750**	**20**
Toluene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,3-Dichloropropene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloroethene	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichlorofluoromethane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl chloride	NA	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Xylenes (total)	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

NOTES:

TABLE 3.
SUMMARY OF GROUNDWATER VOLATILE ORGANIC CONSTITUENTS
CASTLEBRIDGE PROPERTIES, LLC. PROPERTY
200-280 NATIONAL AVENUE, SPARTANBURG, SC

[1] Maximum Contaminant Level (MCL), Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites, RSL Table Update, USEPA, September 2008.

[2] Contaminant not detected in groundwater samples; screening level Not Applicable (NA).

[3] MCL Not Established (NE).

- Concentrations reported in µg/L.
- Bold concentrations indicate contaminant detected in sample above Practical Quantitation Limit (PQL).
- Shaded concentrations indicate contaminant detected in sample above MCL.

Terracon

APPENDIX A

BORING LOGS AND MONITORING WELL CONSTRUCTION DIAGRAMS

LOG OF WELL NO. MW-1D

CLIENT
Castlebridge Properties, LLC

SITE **200 & 280 National Avenue**
Spartanburg, South Carolina

PROJECT
Remedial Investigation

GRAPHIC LOG	DESCRIPTION		WELL DETAIL	DEPTH, ft.	USCS SYMBOL	SAMPLES: NUMBER	TYPE	RECOVERY, in.	Correlated SPT- N BLOWS / ft.	ROCK QUALITY DESIGNATION,%	TESTS: FIELD VAPOR TEST (PPM)*
	Permanent BOREHOLE DIA.: 8.25 in WELL DIA.: 2 in TOP OF PROTECTOR PIPE: NS ft TOP OF CASING: 911.58 ft GROUND SURFACE ELEV.: 908.70 ft										
	Silty SAND, dark brown, stiff, moist										
	5	903.5		5							
	Sandy SILT, red brown, stiff, moist			10							
	15	893.5		15							
	Sandy SILT, orange brown, stiff, moist			20							
	25	883.5		25							
	Clayey SILT, brown, soft, moist; saturated at 34 ft ∇			30							
				35							
				40							
	43.5	865									
	Auger refusal in PWR at 43.5 ft			45							
	47	861.5									
	Fine-grained granitic gniess with pegmatite intrusions										
	BORING TERMINATED										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft		
WL	∇ 26.16	▼
WL	▼	▼
WL		

Terracon

BORING STARTED			8-25-09
BORING COMPLETED			8-25-09
RIG	Acker	FOREMAN	SC #493
LOGGED	S. Nix	JOB #	86077044

LOG OF WELL NO. MW-2D

CLIENT **Castlebridge Properties, LLC**

SITE **200 & 280 National Avenue**
Spartanburg, South Carolina

PROJECT **Remedial Investigation**

DESCRIPTION	
Permanent BOREHOLE DIA.:	8.25 in
WELL DIA.:	2 in
TOP OF PROTECTOR PIPE:	NS ft
TOP OF CASING:	910.85 ft
GROUND SURFACE ELEV.:	908.04 ft

Depth, ft.	Description	Elevation
	Silty SAND, dark red, stiff, moist 5-10 ft	
10		898
	Sandy SILT, dark red, stiff	
15		893
	Sandy SILT, light brown, moderately stiff	
20		888
	Clayey SILT, light brown, soft, moist	
30		878
	Clayey SILT, orange brown, wet, saturated at 34 ft	
52		856
	Auger refusal in PWR at 52 ft	
56	Fine-grained granitic gniess with pegmatite intrusions	852
	BORING TERMINATED	

GRAPHIC LOG | WELL DETAIL | DEPTH, ft. | USCS SYMBOL | SAMPLES: NUMBER, TYPE, RECOVERY, in., Correlated SPT- N BLOWS / ft., ROCK QUALITY DESIGNATION,% | TESTS: FIELD VAPOR TEST (PPM)*

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft		
WL	∇ 26.10	▼
WL	∇	▼
WL		

Terracon

BORING STARTED	8-24-09		
BORING COMPLETED	8-25-09		
RIG	Acker	FOREMAN	SC #493
LOGGED	S. Nix	JOB #	86077044

LOG OF WELL NO. MW-3

CLIENT
Castlebridge Properties, LLC

SITE
200 & 280 National Avenue
Spartanburg, South Carolina

PROJECT
Remedial Investigation

DESCRIPTION	
Permanent	
BOREHOLE DIA.:	6.25 in
WELL DIA.:	2 in
TOP OF PROTECTOR PIPE:	NS ft
TOP OF CASING:	901.96 ft
GROUND SURFACE ELEV.:	899.05 ft

Description	Depth	Elevation
Silty SAND, red brown, stiff	5	894
Sandy SILT, brown red, stiff, moist	10	889
Clayey SILT, brown red, soft, moist	20	879
Sandy SILT, brown gray, soft, saturated	25	874
BORING TERMINATED		

GRAPHIC LOG | WELL DETAIL | DEPTH, ft. | USCS SYMBOL | SAMPLES: NUMBER, TYPE, RECOVERY, in., Correlated SPT- N BLOWS / ft., ROCK QUALITY DESIGNATION,% | TESTS: FIELD VAPOR TEST (PPM)*

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft		
WL	∇ 20.10	▼
WL	▼	▼
WL		

Terracon

BORING STARTED	8-24-09		
BORING COMPLETED	8-24-09		
RIG	Acker	FOREMAN	SC #493
LOGGED	S. Nix	JOB #	86077044

LOG OF WELL NO. MW-4

CLIENT
Castlebridge Properties, LLC

SITE
200 & 280 National Avenue
Spartanburg, South Carolina

PROJECT
Remedial Investigation

GRAPHIC LOG	DESCRIPTION		WELL DETAIL	DEPTH, ft.	USCS SYMBOL	SAMPLES: NUMBER	TYPE	RECOVERY, in.	Correlated SPT-N BLOWS / ft.	ROCK QUALITY DESIGNATION,%	TESTS: FIELD VAPOR TEST (PPM)*
	Permanent										
	BOREHOLE DIA.:	6.25 in									
	WELL DIA.:	2 in									
	TOP OF PROTECTOR PIPE:	NS ft									
	TOP OF CASING:	893.42 ft									
	GROUND SURFACE ELEV.:	890.50 ft									
	Sandy SILT, red brown										
5		885.5		5							
	Silty SAND, brown, soft, wet, saturated at 8 ft										
10		880.5		10							
	Silty SAND, light brown, soft; rig chatter at 12 ft										
15	Auger refusal at 15 ft	875.5		15							
	BORING TERMINATED										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft		
WL	∇ 13.52	▼
WL	▼	▼
WL		

Terracon

BORING STARTED	8-24-09		
BORING COMPLETED	8-24-09		
RIG	Acker	FOREMAN	SC #493
LOGGED	S. Nix	JOB #	86077044

LOG OF WELL NO. MW-5

CLIENT
Castlebridge Properties, LLC

SITE
200 & 280 National Avenue
Spartanburg, South Carolina

PROJECT
Remedial Investigation

DESCRIPTION	
Permanent	
BOREHOLE DIA.:	6.25 in
WELL DIA.:	2 in
TOP OF PROTECTOR PIPE:	NS ft
TOP OF CASING:	903.38 ft
GROUND SURFACE ELEV.:	900.42 ft

GRAPHIC LOG	DESCRIPTION		WELL DETAIL	DEPTH, ft.	USCS SYMBOL	SAMPLES: NUMBER	TYPE	RECOVERY, in.	Correlated SPT-N BLOWS / ft.	ROCK QUALITY DESIGNATION,%	TESTS: FIELD VAPOR TEST (PPM)*
	Sandy SILT, red brown, stiff	5 / 895.5		5							
	Sandy SILT, orange brown, stiff, moist	15 / 885.5		10, 15							
	Sandy SILT, brown gray, wet, saturated at 19 ft ∇	25 / 875.5		20							
	BORING TERMINATED										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft		
WL	∇ 19.93	∇
WL	∇	∇
WL		

Terracon

BORING STARTED	8-24-09		
BORING COMPLETED	8-24-09		
RIG	Acker	FOREMAN	SC #493
LOGGED	S. Nix	JOB #	86077044

LOG OF WELL NO. MW-6D

CLIENT **Castlebridge Properties, LLC**

SITE **200 & 280 National Avenue**
Spartanburg, South Carolina

PROJECT **Remedial Investigation**

Permanent
BOREHOLE DIA.: 8.25 in
WELL DIA.: 2 in
TOP OF PROTECTOR PIPE: NS ft
TOP OF CASING: 923.91 ft
GROUND SURFACE ELEV.: 921.54 ft

GRAPHIC LOG	DESCRIPTION		WELL DETAIL	DEPTH, ft.	USCS SYMBOL	SAMPLES: NUMBER	TYPE	RECOVERY, in.	Correlated SPT- N BLOWS / ft.	ROCK QUALITY DESIGNATION,%	TESTS: FIELD VAPOR TEST (PPM)*
	Silty SAND, red brown, stiff										
10		911.5		5, 10							
	Sandy SILT, gray brown, moderately stiff										
15		906.5		15							
	Clayey SILT, gray brown, soft										
20		901.5		20							
	Clayey SILT, brown, soft, micaceous, moist										
25		896.5		25							
	Clayey SILT, gray, soft, micaceous, moist										
	Auger refusal in PWR at 44.5 ft			30, 35, 40							
44.5		877									
	Partially weathered bedrock			45							
51		870.5		50							
	Fine-grained granitic gniess with pegmatite intrusions										
56		865.5									
	BORING TERMINATED										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft		
WL	▽ 29.71	▼
WL	▽	▼
WL		

Terracon

BORING STARTED	8-26-09		
BORING COMPLETED	8-26-09		
RIG	Acker	FOREMAN	SC #493
LOGGED	S. Nix	JOB #	86077044

LOG OF WELL NO. MW-7D

CLIENT
Castlebridge Properties, LLC

SITE
200 & 280 National Avenue
Spartanburg, South Carolina

PROJECT
Remedial Investigation

DESCRIPTION	
Permanent	
BOREHOLE DIA.:	8.25 in
WELL DIA.:	2 in
TOP OF PROTECTOR PIPE:	NS ft
TOP OF CASING:	917.17 ft
GROUND SURFACE ELEV.:	917.32 ft

Depth, ft.	Description	Elevation
	Silty SAND, red brown, stiff	
5		912.5
	Silty SAND, red, stiff	
10		907.5
	Sandy SILT, brown, moderately stiff	
20	∇	897.5
	Clayey SILT, brown, soft, moist to wet, saturated at 43 ft	
	Auger refusal in PWR at 53 ft	
53		864.5
	Fine-grained granitic gniess with pegmatite intrusions	
59		858.5
	BORING TERMINATED	

GRAPHIC LOG | WELL DETAIL | DEPTH, ft. | USCS SYMBOL | SAMPLES: NUMBER, TYPE, RECOVERY, in., Correlated SPT- N BLOWS / ft., ROCK QUALITY DESIGNATION,% | TESTS: FIELD VAPOR TEST (PPM)*

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

* ND indicates a reading of less than the field detection limit (FDL) of one (1) part per million isobutylene equivalents (ppmi).

WATER LEVEL OBSERVATIONS, ft		
WL	∇ 19.68	▼
WL	▼	▼
WL		

Terracon

BORING STARTED	8-27-09		
BORING COMPLETED	8-27-09		
RIG	Acker	FOREMAN	SC #493
LOGGED	S. Nix	JOB #	86077044

Terracon

APPENDIX B

SC 1903 WELL FORMS

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: Castlebridge Properties, LLC (last) (first)
Address: 352 Georgia Avenue
City: Waynesville State: NC Zip: 28786-0000
Telephone: Work: (828) 456-9473 Home: (828) 421-3615

2. LOCATION OF WELL: COUNTY: Spartanburg
Name: Castlebridge Properties, LLC Property
Street Address: 200&280 National Avenue
City: Spartanburg Zip: 29303-0000
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
See Geologist's Logs		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		
5. REMARKS: MW-1D		

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

7. PERMIT NUMBER: SF-09-009

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

9. WELL DEPTH (completed) 47 ft. Date Started: 08/24/2009 Date Completed: 08/27/2009

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 32 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: Sch 40 PVC Diam.: 2 in
Slot/Gauge: 0.010 in Length: 15 ft
Set Between: 32 ft. and 47 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ 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 ft. to 47 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 28 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: Robert Frye CERT. NO.: 493
Address: (Print) 218 Abernathy Drive Gaffney, SC 29341
Level: A ☑ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 8043041562 Fax No.: 8644638817

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: _____
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: Castlebridge Properties, LLC (last) (first)
Address: 352 Georgia Avenue
City: Waynesville State: NC Zip: 28786-0000
Telephone: Work: (828) 456-9473 Home: (828) 421-3615

2. LOCATION OF WELL: COUNTY: Spartanburg
Name: Castlebridge Properties, LLC Property
Street Address: 200&280 National Avenue
City: Spartanburg Zip: 29303-0000
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
See Geologist's Logs		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-2D

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

7. PERMIT NUMBER: SF-09-009

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

9. WELL DEPTH (completed) Date Started: 08/24/2009
52 ft. Date Completed: 08/27/2009

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 42 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: Sch 40 PVC Diam.: 2 in
Slot/Gauge: 0.010 in Length: 10 ft
Set Between: 42 ft. and 52 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ 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 39 ft. to 52 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 37 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: Robert Frye CERT. NO.: 493
Address: (Print) Level: A ☑ B ☑ C ☐ D ☐ (circle one)
218 Abernathy Drive
Gaffney, SC 29341
Telephone No.: 8043041582 Fax No.: 8644638817

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: _____
Well Driller

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

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: Castlebridge Properties, LLC (last) (first)
Address: 352 Georgia Avenue
City: Waynesville State: NC Zip: 28786-0000
Telephone: Work: (828) 456-9473 Home: (828) 421-3615

2. LOCATION OF WELL: COUNTY: Spartanburg
Name: Castlebridge Properties, LLC Property
Street Address: 200&280 National Avenue
City: Spartanburg Zip: 29303-0000
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
See Geologist's Logs		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-3

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

7. PERMIT NUMBER: SF-09-009

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

9. WELL DEPTH (completed) Date Started: 08/24/2009
25 ft. Date Completed: 08/27/2009

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 15 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: Sch 40 PVC Diam.: 2 in
Slot/Gauge: 0.010 in Length: 10 ft
Set Between: 15 ft. and 25 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ 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 12 ft. to 25 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 8.5 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: Robert Frye CERT. NO.: 493
Address: (Print) Level: A B C D (circle one) ☑ ☑ ☐ ☐
218 Abernathy Drive
Gaffney, SC 29341
Telephone No.: 8643041382 Fax No.: 8644638817

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: _____
Well Driller

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

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: Castlebridge Properties, LLC (last) (first)
Address: 352 Georgia Avenue
City: Waynesville State: NC Zip: 28786-0000
Telephone: Work: (828) 456-9473 Home: (828) 421-3615

2. LOCATION OF WELL: COUNTY: Spartanburg
Name: Castlebridge Properties, LLC Property
Street Address: 200&280 National Avenue
City: Spartanburg Zip: 29303-0000
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
See Geologist's Logs		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-4

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

7. PERMIT NUMBER: SF-09-009

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

9. WELL DEPTH (completed) 15 ft. Date Started: 08/24/2009 Date Completed: 08/27/2009

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 5 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: Sch 40 PVC Diam.: 2 in
Slot/Gauge: 0.010 in Length: 10 ft
Set Between: 5 ft. and 15 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ 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 3.5 ft. to 15 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 1 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: Robert Frye CERT. NO.: 493
Address: (Print) Level: A ☑ B ☑ C ☐ D ☐ (circle one)
218 Abernathy Drive
Gaffney, SC 29341
Telephone No.: 8643041382 Fax No.: 8644638817

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: _____
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: Castlebridge Properties, LLC (last) (first)
Address: 352 Georgia Avenue
City: Waynesville State: NC Zip: 28786-0000
Telephone: Work: (828) 456-9473 Home: (828) 421-3615

2. LOCATION OF WELL: COUNTY: Spartanburg
Name: Castlebridge Properties, LLC Property
Street Address: 200&280 National Avenue
City: Spartanburg Zip: 29303-0000
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
See Geologist's Logs		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		
5. REMARKS: MW-5		

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

7. PERMIT NUMBER: SF-09-009

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

9. WELL DEPTH (completed) Date Started: 08/24/2009
20 ft. Date Completed: 08/27/2009

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

11. SCREEN:
Type: Sch 40 PVC Diam.: 2 in
Slot/Gauge: 0.010 in Length: 10 ft
Set Between: 10 ft. and 20 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ 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 ft. to 20 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 6 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: Robert Frye CERT. NO.: 493
Address: (Print) Level: A ☑ B ☑ C ☐ D ☐ (circle one)
218 Abernathy Drive
Gaffney, SC 29341
Telephone No.: 8043041382 Fax No.: 8644638817

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: _____
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: Castlebridge Properties, LLC (last) (first)
Address: 352 Georgia Avenue
City: Waynesville State: NC Zip: 28786-0000
Telephone: Work: (828) 456-9473 Home: (828) 421-3615

2. LOCATION OF WELL: COUNTY: Spartanburg
Name: Castlebridge Properties, LLC Property
Street Address: 200&280 National Avenue
City: Spartanburg Zip: 29303-0000
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
See Geologist's Logs		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-6D

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

7. PERMIT NUMBER: SF-09-009

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

9. WELL DEPTH (completed) 50 ft. Date Started: 08/24/2009 Date Completed: 08/27/2009

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 35 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: Sch 40 PVC Diam.: 2 in
Slot/Gauge: 0.010 in Length: 15 ft
Set Between: 35 ft. and 50 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ 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 ft. to 50 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 31 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: Robert Frye CERT. NO.: 493
Address: (Print) 218 Abernathy Drive Gaffney, SC 29341
Level: A ☑ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 8643041582 Fax No.: 8644638817

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: _____
Well Driller

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

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: Castlebridge Properties, LLC (last) (first)
Address: 352 Georgia Avenue
City: Waynesville State: NC Zip: 28786-0000
Telephone: Work: (828) 456-9473 Home: (828) 421-3615

2. LOCATION OF WELL: COUNTY: Spartanburg
Name: Castlebridge Properties, LLC Property
Street Address: 200&280 National Avenue
City: Spartanburg Zip: 29303-0000
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
See Geologist's Logs		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-7D

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

7. PERMIT NUMBER: SF-09-009

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

9. WELL DEPTH (completed) 59 ft. Date Started: 08/24/2009 Date Completed: 08/27/2009

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 44 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: Sch 40 PVC Diam.: 2 in
Slot/Gauge: 0.010 in Length: 15 ft
Set Between: 44 ft. and 59 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ 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 42 ft. to 59 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 40 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: Robert Frye CERT. NO.: 493
Address: (Print) Level: A B C D (circle one) ☑ ☑ ☐ ☐
218 Abernathy Drive
Gaffney, SC 29341
Telephone No.: 8643041382 Fax No.: 8644638817

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: _____
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)

Terracon

APPENDIX C

DISPOSAL MANIFESTS

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. CESQG	Manifest Document No. 00392	2. Page 1 of 1

3. Generator's Name and Mailing Address
Castlebridge Properties, LLC
202/250 National Ave
Spartanburg, SC 29302
4. Generator's Phone (864) 292-2901

5. Transporter 1 Company Name	6. US EPA ID Number	A. State Transporter's ID
Advanced Environmental Options, Inc	SCR000766671	B. Transporter 1 Phone (864) 488-9111
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	10. US EPA ID Number	E. State Facility's ID
Advanced Environmental Options, 25 Stan Perkins Road Spartanburg, SC 29307	SCR000766671	F. Facility's Phone (864) 488-9111

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON/DOT NON/RCRA Regulated Materials contains (contaminated soil) (01581) (11x55)	11	DM	04400	P
b. NON/DOT NON/RCRA Regulated Materials (Contains Water, (01582) (2x55)	2	DM	00800	P
c.	0			
d.	0			

G. Additional Descriptions for Materials Listed Above
a) S/-

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
a) S/-
Emergency Contact : David Hitchens 864-488-9111, cell - 864-530-4648
job#5315

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	Signature	Month	Day	Year
CRAIG EADY, AS AGENT FOR CASTLEBRIDGE PROPERTIES, LLC	Craig Eady	10	09	09

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
BRADLEY NAY	[signature]	10	09	09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Transport to Facility Owner

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 18

Printed/Typed Name	Signature	Month	Day	Year
Cheryl Hitchens	Cheryl Hitchens	10	09	09

GENERATOR

TRANSPORTER

FACILITY

GF14 ©2002 LABELMASTER® (800) 621-5808 www.labelmaster.com

Terracon

APPENDIX D

MONITORING WELL SAMPLING LOGS

Monitor Well Sampling Log

Terracon
Consulting Engineers & Scientists

3534 Rutherford Road
Taylors, South Carolina 29687
(864) 292-2901 • (864) 292-6361 Fax
www.terracon.com

Client/Project No.	Castlebridge Properties/86077044
Location:	200&280 National Avenue, Spartanburg, SC
Terracon Field Personnel:	S. Nix
Weather:	☒ SUNNY ☐ OVERCAST ☐ RAIN TEMP. (APPROX): 85 °F
Sample Date:	09/02/2009
Sample Time:	10:20

Well ID:	MW-1D
Measuring Point:	TOC
Casing Type:	PVC
Comments:	

Total Well Depth:	50.32 (FT)
Depth to Water:	26.16 (FT)
Water Column:	24.16 (FT)
Conversion Factor:	X 0.163
Well Volume:	3.94 (GAL)
Total Volume Purged:	~20 (GAL)

PURGE START	
DATE	TIME
09/02/09	09:30

PURGE STOP	
DATE	TIME
09/02/09	10:20

CONVERSION FACTORS
WELL/TUBING VOLUME (GAL) = $0.041xd^2xh$ • 1 L = 0.264 GAL • 1 GAL = 3.785 L

PURGE METHOD: ☐ Grundfos Pump ☒ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☐ Polyethylene Bailer
SAMPLE METHOD: ☐ Grundfos Pump ☐ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☒ Polyethylene Bailer

READING	VOLUME (Gal)	TEMPERATURE (° Celsius)	pH (su)	CONDUCTANCE (µS/cm)	DO (mg/L)	Eh (mV)	TURBIDITY NTU	COLOR
1	0	19.5	5.4	50.67	6.04	-	1007	-
2	4	19.4	5.3	40.80	6.02	-	204.3	-
3	8	19.3	5.1	39.61	5.99	-	64.16	-
4	12	19.3	5.2	39.41	6.29	-	30.34	-
5	16	19.4	5.2	39.72	6.31	-	14.54	-
6	20	19.3	5.1	39.09	6.27	-	8.41	-
7								
8								
9								
10								

CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS								CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS							
	125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER		125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER
TCL VOCS				3													

COMMENTS:

PROTECTIVE CASING:			WELL PAD:			LOCK:			VEGETATION:		
☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA

Monitor Well Sampling Log

Terracon
Consulting Engineers & Scientists

3534 Rutherford Road
Taylors, South Carolina 29687
(864) 292-2901 • (864) 292-6361 Fax
www.terracon.com

Client/Project No.	Castlebridge Properties/86077044
Location:	200&280 National Avenue, Spartanburg, SC
Terracon Field Personnel:	S. Nix
Weather:	☒ SUNNY ☐ OVERCAST ☐ RAIN TEMP. (APPROX): 85 °F
Sample Date:	09/02/2009
Sample Time:	11:30

Well ID:	MW-2D
Measuring Point:	TOC
Casing Type:	PVC
Comments:	

Total Well Depth:	54.00 (FT)
Depth to Water:	26.10 (FT)
Water Column:	27.9 (FT)
Conversion Factor:	X 0.163
Well Volume:	4.55 (GAL)
Total Volume Purged:	~20 (GAL)

PURGE START	
DATE	TIME
09/02/09	10:40

PURGE STOP	
DATE	TIME
09/02/09	11:30

CONVERSION FACTORS
WELL/TUBING VOLUME (GAL) = $0.041xd^2xh$ • 1 L = 0.264 GAL • 1 GAL = 3.785 L

PURGE METHOD: ☐ Grundfos Pump ☒ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☐ Polyethylene Bailer
SAMPLE METHOD: ☐ Grundfos Pump ☐ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☒ Polyethylene Bailer

READING	VOLUME (Gal)	TEMPERATURE (° Celsius)	pH (su)	CONDUCTANCE (µS/cm)	DO (mg/L)	Eh (mV)	TURBIDITY NTU	COLOR
1	0	19.2	5.7	79.24	5.81	-	436.4	-
2	5	19.0	5.6	77.82	8.40	-	90.87	-
3	10	19.1	5.6	80.65	5.42	-	461.3	-
4	15	19.1	5.6	79.56	5.51	-	1000	-
5	20	19.1	5.6	77.27	6.13	-	1084	-
6								
7								
8								
9								
10								

CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS								CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS							
	125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER		125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER
TCL VOCS				3													

COMMENTS: Turbidity increasing; well beginning to purge dry at ~20 gallons; allow to recharge prior to sampling

PROTECTIVE CASING:			WELL PAD:			LOCK:			VEGETATION:		
☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA

Monitor Well Sampling Log

Terracon
Consulting Engineers & Scientists

3534 Rutherford Road
Taylors, South Carolina 29687
(864) 292-2901 • (864) 292-6361 Fax
www.terracon.com

Client/Project No.	Castlebridge Properties/86077044
Location:	200&280 National Avenue, Spartanburg, SC
Terracon Field Personnel:	S. Nix
Weather:	☒ SUNNY ☐ OVERCAST ☐ RAIN TEMP. (APPROX): 85 °F
Sample Date:	09/02/2009
Sample Time:	12:00

Well ID:	MW-3
Measuring Point:	TOC
Casing Type:	PVC
Comments:	

Total Well Depth:	27.72 (FT)
Depth to Water:	20.10 (FT)
Water Column:	7.62 (FT)
Conversion Factor:	X 0.163
Well Volume:	1.24 (GAL)
Total Volume Purged:	~3.75 (GAL)

PURGE START	
DATE	TIME
09/02/09	11:40

PURGE STOP	
DATE	TIME
09/02/09	12:00

CONVERSION FACTORS
WELL/TUBING VOLUME (GAL) = $0.041xd^2xh$ • 1 L = 0.264 GAL • 1 GAL = 3.785 L

PURGE METHOD: ☐ Grundfos Pump ☐ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☒ Polyethylene Bailer
SAMPLE METHOD: ☐ Grundfos Pump ☐ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☒ Polyethylene Bailer

READING	VOLUME (Gal)	TEMPERATURE (° Celsius)	pH (su)	CONDUCTANCE (µS/cm)	DO (mg/L)	Eh (mV)	TURBIDITY NTU	COLOR
1	0	17.6	4.9	49.43	5.60	-	870.8	-
2	1.25	17.0	4.7	48.62	5.84	-	>1100	-
3	2.5	16.9	4.7	48.48	5.86	-	>1100	-
4	3.75	16.9	4.7	48.25	6.05	-	>1100	-
5								
6								
7								
8								
9								
10								

CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS								CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS							
	125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER		125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER
TCL VOCS				3													

COMMENTS:

PROTECTIVE CASING:			WELL PAD:			LOCK:			VEGETATION:		
☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA

Monitor Well Sampling Log

Terracon
Consulting Engineers & Scientists

3534 Rutherford Road
Taylors, South Carolina 29687
(864) 292-2901 • (864) 292-6361 Fax
www.terracon.com

Client/Project No.	Castlebridge Properties/86077044
Location:	200&280 National Avenue, Spartanburg, SC
Terracon Field Personnel:	S. Nix
Weather:	☒ SUNNY ☐ OVERCAST ☐ RAIN TEMP. (APPROX): 85 °F
Sample Date:	09/02/2009
Sample Time:	12:30

Well ID:	MW-4
Measuring Point:	TOC
Casing Type:	PVC
Comments:	

Total Well Depth:	17.46 (FT)
Depth to Water:	13.52 (FT)
Water Column:	3.94 (FT)
Conversion Factor:	X 0.163
Well Volume:	0.64 (GAL)
Total Volume Purged:	~2 (GAL)

PURGE START	
DATE	TIME
09/02/09	12:10

PURGE STOP	
DATE	TIME
09/02/09	12:30

CONVERSION FACTORS
WELL/TUBING VOLUME (GAL) = $0.041xd^2xh$ • 1 L = 0.264 GAL • 1 GAL = 3.785 L

PURGE METHOD: ☐ Grundfos Pump ☐ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☒ Polyethylene Bailer
SAMPLE METHOD: ☐ Grundfos Pump ☐ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☒ Polyethylene Bailer

READING	VOLUME (Gal)	TEMPERATURE (° Celsius)	pH (su)	CONDUCTANCE (µS/cm)	DO (mg/L)	Eh (mV)	TURBIDITY NTU	COLOR
1	0	17.7	5.5	83.61	0.92	-	66.57	-
2	0.65	16.7	5.5	85.59	2.04	-	35.90	-
3	1.3	16.7	5.6	82.01	3.09	-	0	-
4	2	16.7	5.5	74.16	3.63	-	>1100	-
5								
6								
7								
8								
9								
10								

CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS								CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS							
	125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER		125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER
TCL VOCS				3													

COMMENTS: Well purged dry at ~2 gallons; allow to recharge prior to sampling; turbidity meter appears to malfunction will purging; recalibrate

PROTECTIVE CASING:			WELL PAD:			LOCK:			VEGETATION:		
☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA

Monitor Well Sampling Log

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Taylors, South Carolina 29687
(864) 292-2901 • (864) 292-6361 Fax
www.terracon.com

Client/Project No.	Castlebridge Properties/86077044
Location:	200&280 National Avenue, Spartanburg, SC
Terracon Field Personnel:	S. Nix
Weather:	☒ SUNNY ☐ OVERCAST ☐ RAIN TEMP. (APPROX): 85 °F
Sample Date:	09/02/2009
Sample Time:	13:20

Well ID:	MW-5
Measuring Point:	TOC
Casing Type:	PVC
Comments:	

Total Well Depth:	26.61 (FT)
Depth to Water:	19.93 (FT)
Water Column:	6.68 (FT)
Conversion Factor:	X 0.163
Well Volume:	1.08 (GAL)
Total Volume Purged:	~3 (GAL)

PURGE START	
DATE	TIME
09/02/09	13:00

PURGE STOP	
DATE	TIME
09/02/09	13:20

CONVERSION FACTORS
WELL/TUBING VOLUME (GAL) = $0.041xd^2xh$ • 1 L = 0.264 GAL • 1 GAL = 3.785 L

PURGE METHOD: ☐ Grundfos Pump ☐ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☒ Polyethylene Bailer
SAMPLE METHOD: ☐ Grundfos Pump ☐ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☒ Polyethylene Bailer

READING	VOLUME (Gal)	TEMPERATURE (° Celsius)	pH (su)	CONDUCTANCE (µS/cm)	DO (mg/L)	Eh (mV)	TURBIDITY NTU	COLOR
1	0	17.0	5.4	37.11	5.30	-	74.77	-
2	1	16.2	5.1	31.79	6.24	-	0.54	-
3	2	15.7	5.0	31.16	6.57	-	0.99	-
4	3	16.0	5.1	30.52	6.79	-	3.36	-
5								
6								
7								
8								
9								
10								

CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS								CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS							
	125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER		125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER
TCL VOCS				3													

COMMENTS: Well purged dry at ~3 gallons; allow to recharge prior to sampling

PROTECTIVE CASING:			WELL PAD:			LOCK:			VEGETATION:		
☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA

Monitor Well Sampling Log

Terracon
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www.terracon.com

Client/Project No.	Castlebridge Properties/86077044
Location:	200&280 National Avenue, Spartanburg, SC
Terracon Field Personnel:	S. Nix
Weather:	☒ SUNNY ☐ OVERCAST ☐ RAIN TEMP. (APPROX): 85 °F
Sample Date:	09/02/2009
Sample Time:	16:00

Well ID:	MW-6D
Measuring Point:	TOC
Casing Type:	PVC
Comments:	

Total Well Depth:	52.32 (FT)
Depth to Water:	29.71 (FT)
Water Column:	22.61 (FT)
Conversion Factor:	X 0.163
Well Volume:	3.69 (GAL)
Total Volume Purged:	~20 (GAL)

PURGE START	
DATE	TIME
09/02/09	15:10

PURGE STOP	
DATE	TIME
09/02/09	16:00

CONVERSION FACTORS
WELL/TUBING VOLUME (GAL) = $0.041xd^2xh$ • 1 L = 0.264 GAL • 1 GAL = 3.785 L

PURGE METHOD: ☐ Grundfos Pump ☒ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☐ Polyethylene Bailer

SAMPLE METHOD: ☐ Grundfos Pump ☐ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☒ Polyethylene Bailer

READING	VOLUME (Gal)	TEMPERATURE (° Celsius)	pH (su)	CONDUCTANCE (µS/cm)	DO (mg/L)	Eh (mV)	TURBIDITY NTU	COLOR
1	0	20.1	6.3	58.25	3.37	-	423.9	-
2	4	19.3	5.7	55.33	3.65	-	135.5	-
3	8	19.2	5.5	33.78	3.95	-	45.05	-
4	12	19.1	5.6	52.98	4.38	-	1019	-
5	16	19.2	5.6	52.26	5.15	-	252.7	-
6	20	18.8	5.6	51.95	4.75	-	100.3	-
7								
8								
9								
10								

CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS								CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS							
	125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER		125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER
TCL VOCS				3													

COMMENTS:

PROTECTIVE CASING:			WELL PAD:			LOCK:			VEGETATION:		
☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA

Monitor Well Sampling Log

Terracon
Consulting Engineers & Scientists

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Taylors, South Carolina 29687
(864) 292-2901 • (864) 292-6361 Fax
www.terracon.com

Client/Project No.	Castlebridge Properties/86077044
Location:	200&280 National Avenue, Spartanburg, SC
Terracon Field Personnel:	S. Nix
Weather:	☒ SUNNY ☐ OVERCAST ☐ RAIN TEMP. (APPROX): 85 °F
Sample Date:	09/02/2009
Sample Time:	14:15

Well ID:	MW-7D
Measuring Point:	TOC
Casing Type:	PVC
Comments:	

Total Well Depth:	58.92 (FT)
Depth to Water:	19.68 (FT)
Water Column:	39.24 (FT)
Conversion Factor:	X 0.163
Well Volume:	6.39 (GAL)
Total Volume Purged:	~20 (GAL)

PURGE START	
DATE	TIME
09/02/09	13:45

PURGE STOP	
DATE	TIME
09/02/09	14:15

CONVERSION FACTORS
WELL/TUBING VOLUME (GAL) = $0.041xd^2xh$ • 1 L = 0.264 GAL • 1 GAL = 3.785 L

PURGE METHOD: ☐ Grundfos Pump ☒ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☐ Polyethylene Bailer

SAMPLE METHOD: ☐ Grundfos Pump ☐ 12 Volt Pump ☐ Peristaltic Pump ☐ Dedicated Pump ☐ Teflon Bailer ☒ Polyethylene Bailer

READING	VOLUME (Gal)	TEMPERATURE (° Celsius)	pH (su)	CONDUCTANCE (µS/cm)	DO (mg/L)	Eh (mV)	TURBIDITY NTU	COLOR
1	0	21.3	5.6	66.13	4.13	-	856.5	-
2	5	20.3	5.7	62.50	5.02	-	1062	-
3	10	20.1	5.7	60.48	5.94	-	387.1	-
4	15	20.1	5.7	58.35	5.37	-	278.0	-
5	20	20.1	5.7	57.93	5.71	-	240.0	-
6								
7								
8								
9								
10								

CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS								CONSTITUENTS SAMPLED	NUMBER OF CONTAINERS							
	125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER		125 ml POLY	250 mL POLY	500 mL POLY	40 ml VOA	125 ml CLEAR	250 ml CLEAR	500 ml CLEAR	1 L AMBER
TCL VOCS				3													

COMMENTS:

PROTECTIVE CASING:			WELL PAD:			LOCK:			VEGETATION:		
☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA	☒ GOOD	☐ BAD	☐ NA

Terracon

APPENDIX E

MONITORING WELL LABORATORY ANALYTICAL REPORT

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Terracon Consultants, Inc.
3534 Rutherford Road
Taylors, SC 29687
Attention: Steve Nix

Lot Number:**KI04054**
Date Completed:**09/16/2009**

Sabrina Boles
Sabrina E Boles
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
Terracon Consultants, Inc.
Lot Number: KI04054

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.

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.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary
Terracon Consultants, Inc.
Lot Number: KI04054

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-1D	Aqueous	09/02/2009 1020	09/04/2009
002	MW-2D	Aqueous	09/02/2009 1130	09/04/2009
003	MW-3	Aqueous	09/02/2009 1200	09/04/2009
004	MW-4	Aqueous	09/02/2009 1230	09/04/2009
005	MW-5	Aqueous	09/02/2009 1320	09/04/2009
006	MW-7D	Aqueous	09/02/2009 1415	09/04/2009
007	MW-6D	Aqueous	09/02/2009 1600	09/04/2009

(7 samples)

Executive Summary
Terracon Consultants, Inc.
Lot Number: KI04054

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-1D	Aqueous	Acetone	8260B	20		ug/L	5
001	MW-1D	Aqueous	Tetrachloroethene	8260B	170		ug/L	5
002	MW-2D	Aqueous	Chloroform	8260B	13		ug/L	7
002	MW-2D	Aqueous	Tetrachloroethene	8260B	400		ug/L	7
003	MW-3	Aqueous	Tetrachloroethene	8260B	33		ug/L	9
004	MW-4	Aqueous	Tetrachloroethene	8260B	6.3		ug/L	11
006	MW-7D	Aqueous	Bromodichloromethane	8260B	7.8		ug/L	15
006	MW-7D	Aqueous	Chloroform	8260B	45		ug/L	15
006	MW-7D	Aqueous	Tetrachloroethene	8260B	20		ug/L	15
007	MW-6D	Aqueous	Tetrachloroethene	8260B	750		ug/L	17

(10 detections)

Client: **Terracon Consultants, Inc.**
Description: **MW-1D**
Date Sampled: **09/02/2009 1020**
Date Received: **09/04/2009**

boratory ID: **KI04054-001**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/15/2009 0137	DLB		17830

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	**67-64-1**	**8260B**	**20**		**20**	**ug/L**	**1**
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**170**		**5.0**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
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%
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-1D**
Date Sampled: **09/02/2009 1020**
Date Received: **09/04/2009**

boratory ID: **KI04054-001**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/15/2009 0137	DLB		17830

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		122	70-130
Bromofluorobenzene		114	70-130
Toluene-d8		112	70-130

48/VOCS

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

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%
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-2D**
Date Sampled: **09/02/2009 1130**
Date Received: **09/04/2009**

boratory ID: **KI04054-002**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/16/2009 0438	DLB		17902

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	1
Chloroform	**67-66-3**	**8260B**	**13**		**5.0**	**ug/L**	**1**
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**400**		**5.0**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
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%
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-2D**
Date Sampled: **09/02/2009 1130**
Date Received: **09/04/2009**

Laboratory ID: **KI04054-002**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/16/2009 0438	DLB		17902

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

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%
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-3**
Date Sampled: **09/02/2009 1200**
Date Received: **09/04/2009**

boratory ID: **KI04054-003**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/09/2009 2038	DLB		17535

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**33**		**5.0**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
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%
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-3**
Date Sampled: **09/02/2009 1200**
Date Received: **09/04/2009**

boratory ID: **KI04054-003**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/09/2009 2038	DLB		17535

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

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%
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-4**
Date Sampled: **09/02/2009 1230**
Date Received: **09/04/2009**

boratory ID: **KI04054-004**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/09/2009 1602	DLB		17535

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**6.3**		**5.0**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
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%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-4**
Date Sampled: **09/02/2009 1230**
Date Received: **09/04/2009**

boratory ID: **KI04054-004**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/09/2009 1602	DLB		17535

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
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%
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-5**
Date Sampled: **09/02/2009 1320**
Date Received: **09/04/2009**

boratory ID: **KI04054-005**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/09/2009 1623	DLB		17535

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
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%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-5**
Date Sampled: **09/02/2009 1320**
Date Received: **09/04/2009**

__boratory ID: **KI04054-005**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/09/2009 1623	DLB		17535

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
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%
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-7D**
Date Sampled: **09/02/2009 1415**
Date Received: **09/04/2009**

Laboratory ID: **KI04054-006**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/09/2009 2059	DLB		17535

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Bromodichloromethane	**75-27-4**	**8260B**	**7.8**		**5.0**	**ug/L**	**1**
Bromoform	75-25-2	8260B	ND		5.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	1
Chloroform	**67-66-3**	**8260B**	**45**		**5.0**	**ug/L**	**1**
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**20**		**5.0**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
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%
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-7D**
Date Sampled: **09/02/2009 1415**
Date Received: **09/04/2009**

boratory ID: **KI04054-006**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/09/2009 2059	DLB		17535

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
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%
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-6D**
Date Sampled: **09/02/2009 1600**
Date Received: **09/04/2009**

boratory ID: **KI04054-007**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	2	09/16/2009 0501	DLB		17902
2	5030B	8260B	5	09/15/2009 0305	MZ		17927

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		40	ug/L	1
Benzene	71-43-2	8260B	ND		10	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		10	ug/L	1
Bromoform	75-25-2	8260B	ND		10	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		20	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		10	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		10	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		10	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	ug/L	1
Chloroform	67-66-3	8260B	ND		10	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		10	ug/L	1
Cyclohexane	110-82-7	8260B	ND		10	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		10	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		10	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		10	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		10	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		10	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		10	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		10	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		10	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		10	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		10	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		10	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		10	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		10	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		10	ug/L	1
2-Hexanone	591-78-6	8260B	ND		20	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		10	ug/L	1
Methyl acetate	79-20-9	8260B	ND		10	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		10	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		20	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		10	ug/L	1
Methylene chloride	75-09-2	8260B	ND		10	ug/L	1
Styrene	100-42-5	8260B	ND		10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		10	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**750**		**25**	**ug/L**	**2**

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
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%
N = Recovery is out of criteria
H = Out of holding time

Client: **Terracon Consultants, Inc.**
Description: **MW-6D**
Date Sampled: **09/02/2009 1600**
Date Received: **09/04/2009**

boratory ID: **KI04054-007**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	2	09/16/2009 0501	DLB		17902
2	5030B	8260B	5	09/15/2009 0305	MZ		17927

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Toluene	108-88-3	8260B	ND		10	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		10	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		10	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		10	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		10	ug/L	1
Trichloroethene	79-01-6	8260B	ND		10	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		10	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		4.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130		109	70-130
Bromofluorobenzene		107	70-130		102	70-130
Toluene-d8		105	70-130		107	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
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%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

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

Number 98944

Client: Terracon Consultants, Inc.	Report to Contact: Stephen Nix	Telephone No. / Fax No. / E-mail: 864 292 2901	Quote No. 11777
Address: 3534 Rutherford Road	Sampler's Signature: x [signature]	Waybill No.	Page 1 of 1
City: Taylors; State: SC; Zip Code: 29687	Printed Name: STEPHEN K NIX	Analysis (Attach list if more space is needed.)	
Project Name: Castlebridge Properties			
Project No.: 86077044	PO No.		Lot No.: KI04054

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2009	Time	G-Grab C-Composite	Matrix: Aqueous	Solid	Non-Aqueous	Wipe	Metals	TPHD	TCL	NCDH	SMS KI	TCL Volatiles Bottle	Remarks / Cooler I.D.
MW-1D	9/2	1020	G	✓						3				
MW-2D	9/2	1130	G	✓						3				
MW-3	9/2	1200	G	✓						3				
MW-4	9/2	1230	G	✓						3				
MW-5	9/2	1320	G	✓						3				
MW-7D	9/2	1415	G	✓						3				
MW-6D	9/2	1600	G	✓						3				

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☑ Standard ☐ Rush (Specify)

QC Requirements (Specify): Level II

	Date	Time		Date	Time
1. Relinquished by: [signature]	9/4/09	1222	1. Received by: [signature]	9-4-09	1222
2. Relinquished by:	Date	Time	2. Received by:	Date	Time
3. Relinquished by: [signature]	9-4-09	1648	3. Laboratory received by: [signature]	9-4-09	1648

Comments:

LAB USE ONLY: Received on Ice (Circle) Yes No Ice Pack — Receipt Temp. 5.1 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Plant/Client Copy

Document Number: F-AD-012 Effective Date: 08-04-02

SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 6

Replaces Date: 09/22/06
Effective Date: 05/29/07

Sample Receipt Checklist (SRC)

Client: Terracon Cooler Inspected by/date: DMP / 9/4/09 Lot #: KJ64054

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Airborne Exp ☐ Other

Yes ☐	No ☑	NA ☐	1. Were custody seals present on the cooler?
Yes ☐	No ☐	NA ☑	2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt: 5.1 / °C / °C / °C / °C / °C / °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 ☐	NA ☐	5. Were proper custody procedures (relinquished/received) followed?
Yes ☑	No ☐	NA ☐	6. Were sample IDs listed?
Yes ☑	No ☐	NA ☐	7. Was collection date & time listed?
Yes ☑	No ☐	NA ☐	8. Were tests to be performed listed on the COC or was quote # provided?
Yes ☑	No ☐	NA ☐	9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐	NA ☐	10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐	NA ☐	11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐	NA ☐	12. Was adequate sample volume available?
Yes ☑	No ☐	NA ☐	13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑	NA ☐	14. Were any samples containers missing?
Yes ☐	No ☑	NA ☐	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/BNA/pest/PCB/herb (<0.2mg/L) and toxicity (<0.1mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?

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)

Sample(s) _____ were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Toxicity sample(s) _____ were received with TRC >0.1 mg/L and were analyzed by method 330.5.

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐
SESI employee: _____ Date of response: _____
Comments: _____

Terracon

APPENDIX F

PHOTOGRAPH DOCUMENTATION

Photo #1 Installation of MW-02D, 200 National Avenue building.

Photo #2 Installation of MW-02D, 200 National Avenue building.

Photo #3 Decontamination Pad, 200 National Avenue building.

Photo #4 A&D vacuum tanker truck used for transport of water from interior basin, 200 National Avenue building.

Photo #5 Suction hose used to remove water. Note covered floor trench adjacent to interior basin.

Photo #6 Final removal of water from interior basin, 200 National Avenue building.

Terracon

APPENDIX G

SC DHEC MONITORING WELL APPROVAL

D H E C
PROMOTE PROTECT PROSPER
C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

May 7, 2009

Mr. Tom Morgan
Castlebridge Properties LLC
PO Box 128
Hazelwood, NC 28738

RE: Review
Remedial Investigation Phase I Report dated March 6, 2009
Castlebridge Properties, LLC and 200 National Avenue SC Properties, LLC
File # 057423

Dear Mr. Morgan:

The South Carolina Department of Health and Environmental Control (Department) received the above referenced report on March 10, 2009. This report summarizes assessment activities at the Castlebridge property located at 200 and 280 National Avenue in Spartanburg, SC.

After reviewing the report and discussing the results with Craig Eady and Stephen Nix of Terracon (May 7, 2009), the recommendation to install permanent monitoring wells at the Site is appropriate at this time. However, the Department has determined that the proposed wells will most likely not fully define the nature and extent of contamination in groundwater. Please take note that after installation of the wells proposed in the above referenced report, additional assessment may be needed to better determine the complete extent of VOCs in groundwater. The Department would like to be notified five days prior to installation of the permanent monitoring wells.

Also, please refer to the attached comments prepared by Keisha D. Long. Revised pages, for inclusion into the above referenced report, may be submitted in lieu of a new, revised report.

If you have any questions concerning this review, please contact me at (803) 896-4872.

Sincerely,

Keisha D. Long
State Remediation Section
Bureau of Land and Waste Management

CC: R. Gary Stewart, P.E., State Remediation
Carol Minsk, SCDHEC
Cindy Carter, Region 2 EQC - Spartanburg
Craig D. Eady, P.G., Terracon
File # 057423

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

Date of Issuance: May 7, 2009 **Approval #: SF-09-009**

Approval is hereby granted to: Stephen Nix
Terracon
3534 Rutherford Road
Taylors, South Carolina 29687

Facility: Castlebridge Properties, LLC Property, 200/280 National Avenue
VCC 07-5712-RP
Spartanburg County

This approval is for the installation of nine (9) permanent groundwater monitoring wells. The wells will be installed in the locations as illustrated on Figure 7 and per the construction details included in the Remedial Investigation Phase I Report dated March 6, 2009. These monitoring wells are to be installed following all of the applicable requirements of R.61-71.

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 wells shall be properly developed per R.61-71.H.2.d. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted 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
3. All analytical data and water levels obtained from each monitoring well shall be submitted to the Project Manager (Keisha Long) 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.
4. All monitoring wells shall be labeled as required by R.61-71.H.2.c.
5. If any of the information provided to the Department changes, including the proposed drilling date, the Project Manager (Keisha Long) shall be notified at least twenty-four (24) hours prior to well construction 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.

Carol C. Minsk

Carol C. Minsk, Hydrogeologist
State Remediation Section
Division of Site Assessment, Remediation and Revitalization
Bureau of Land and Waste Management

Terracon

APPENDIX H

SPARTANBURG WATER DISPOSAL APPROVAL

THE COMMISSION OF PUBLIC WORKS
OF THE CITY OF SPARTANBURG, SC
W. C. Alexander, IV
Linda P. Bilanchone
Myles W. Whitlock, Jr.

Sue G. Schneider, General Manager
Charles E. Jackson, Engineering Director
G. Newton Pressley, Finance Director
Rebecca F. West, Technical Services Director

Spartanburg Water

SPARTANBURG SANITARY SEWER
DISTRICT COMMISSION
W. C. Alexander, IV
Barbara J. Barnes
William Barnet, III
Linda P. Bilanchone
Louie W. Blanton
A. Manning Lynch, Jr.
Myles W. Whitlock, Jr.

July 9, 2009

Mr. Craig Eady
Terracon
3534 Rutherford Road
Taylors, SC 29687

RE: Request to dispose of accumulated water in Goodyear Warehouse on National Ave.

Dear Mr. Eady:

Based upon the information provided by you, and the onsite visit made by Mr. Jones and myself, the District would be agreeable to accepting the accumulated waters in the pit of the Goodyear Warehouse on National Ave. with the following provisions:

A. The cost of disposal and treatment will be $2400 based on an estimated 16000 gallons at $0.15 per gallon. Terracon must provide written documentation that it will be responsible for paying an invoice from the District for this charge.
B. The water must either be trucked to the Fairforest Wastewater Treatment Plant for disposal or discharged on the warehouse property to a manhole leading to the District collection system. If the water is removed from the warehouse property, it can not be discharged to the District system at any location other than the Fairforest Plant. The District could provide trucking of the wastewater to the Fairforest Plant for a fee in addition to the above stated disposal and treatment cost. As the District has no information on the service lines on the warehouse site, it will be the responsibility of Terracon to demonstrate to the District's satisfaction that an onsite manhole discharges to the District collection system if this option is selected.
C. This is to be a one-time only discharge of the accumulated waters in the pit inside of the warehouse. The District will require Terracon to provide a remediation plan designed to prevent the future accumulation of water in this area prior to allowing it to be discharged.

Should you have any questions regarding this disposal, or to arrange for an onsite meeting to verify the discharge plans, please call me or Mr. Jones at (864) 582-3250.

Sincerely,

SPARTANBURG SANITARY SEWER DISTRICT

John Holcomb

John Holcomb
Industrial Wastewater Specialist

C: Joel Jones

P.O. Box 251 • Spartanburg, SC 29304
200 Commerce Street • (864) 583-7361 (Business Office) • (864) 585-9142 (Engineering) • (864) 582-6375 (Customer Service)
Equal Opportunity Employer • www.spartanburgwater.org