BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF TIER II ASSESSMENT

FORMER KMO #119
1312 WILLIAMSTON ROAD
ANDERSON, SOUTH CAROLINA
UST PERMIT # 00505; COST AGREEMENT # 22807

Prepared For

Moorhead Oil Company
P.O. Box 2587
Anderson, South Carolina 29662

Prepared By

Bunnell-Lammons Engineering, Inc.
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November 14, 2007

BLE Project Number J04-3661-02

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

November 14, 2007

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
Underground Storage Tank Program
2600 Bull Street
Columbia, S.C. 29201-1708

Attention: Mr. Arthur Shrader, Hydrogeologist

Subject: **Report of Tier II Assessment**
Former KMO #119
1312 Williamston Road
Anderson, South Carolina
UST Permit # 00505; Cost Agreement # 22807
BLE Project No. J04-3661-02

Dear Mr. Shrader:

As authorized, Bunnell-Lammons Engineering, Inc. (BLE) has completed a Tier II Assessment at the subject site. This report describes the work performed and presents the results obtained, along with our comments and recommendations.

We appreciate the opportunity to be of service on behalf of Moorhead Oil Company regarding these environmental issues. Please do not hesitate to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

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IBLE INC.

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1.0 BACKGROUND INFORMATION

The subject property is located at 1312 Williamston Road in Anderson, South Carolina (Figure 1). Prior to 2004, the site was owned by the Ken Moorhead Oil Company and operated as a Citgo fueling station. Currently, the site is owned and operated by DEV Enterprises, LLC and is utilized as a convenience store where gasoline and kerosene fuels are sold.

Four gasoline underground storage tanks (USTs) were located on the northeastern portion of the site. A soil assessment performed in December 1989 discovered minor petroleum contamination in the area around the USTs. The South Carolina Department of Health and Environmental Control (SCDHEC) issued a No Further Action status to the site in June 1990. In December 1991, the USTs and associated equipment were removed.

In June 2004 a Phase II property transaction was conducted on the site. Results from the Phase II report indicated concentrations of petroleum hydrocarbons in groundwater. Pursuant to these results, the SCDHEC required a Tier I Assessment be performed with regard to the former UST system. The Tier I Assessment was completed by BLE in August 2004. Results from the Tier I Assessment indicated significant petroleum hydrocarbon impact to the groundwater along the eastern and northeastern portion of the site. Based on the Tier I results, SCDHEC required a Tier II Assessment be performed to define the horizontal and vertical extent of the groundwater contamination associated with the former UST system. The current UST system has been relocated and updated with required leak detection devices.

2.0 SITE CHARACTERISTICS

2.1 Site Geography

The site is located in the Piedmont Physiographic Province, which generally consists of sloping to moderately steep uplands dissected by branching streams. Flood plains are relatively narrow, and

ridgetops or stream divides are narrow to medium in width. The rolling hills of the Piedmont range in elevation from about 400 feet to 1,000 feet above mean sea level (AMSL).

The site has been graded flat for commercial use and gently slopes to the south-southeast direction (Figure 1). The mean site elevation is approximately 730 feet mean sea level (msl). No major bodies of water exist within 500 feet of the site, however the Rocky River exists approximately 2,800 feet northwest (downgradient) of the site. The surrounding properties are mainly residential and to a lesser extent commercial (motel, convenience store, and a day care).

2.2 Regional Geology and Hydrogeology

The site is located within the Inner Piedmont block of the western Piedmont of South Carolina. The Inner Piedmont block is a composite stack of thrust sheets containing a variety of gneisses, schists, amphibolites, sparse ultramafic bodies, and intrusive granitoids.

The typical residual soil profile consists of clayey soils near the surface, where soil weathering is more advanced, underlain by sandy silts and silty sands. Residual soil zones which develop by the in-situ chemical weathering of bedrock are referred to as "saprolite." Saprolite usually consists of silt with lesser amounts of sand, clay and large rock fragments. The thickness of saprolite in the Piedmont ranges from a few feet to more than 100 feet. The boundary between soil and rock is not sharply defined.

A transitional zone of partially weathered rock (PWR) is normally found overlying the parent bedrock. PWR is defined, for engineering purposes, as residual material with standard penetration resistances in excess of 100 blows per foot (bpf). Weathering is facilitated by fractures, joints, and the presence of less resistant rock types. Consequently, the profile of the PWR and hard rock is quite irregular and erratic, even over short horizontal distances. Also, it is not unusual to find lenses and boulders of hard rock and zones of PWR within the soil mantle, well above the general bedrock level. According to the Geologic Map of the Crystalline Rocks of South Carolina and observations in the field from this assessment, the bedrock beneath the site consists of gray to black, fine to coarse grained, biotite gneiss.

Groundwater in the Piedmont usually occurs under unconfined conditions in three primary zones: 1) residual soil (saprolite); 2) PWR; and 3) fractured bedrock. These zones are typically interconnected via bedrock fractures, pore spaces, and secondary permeability features of the saprolite. The configuration of the water table aquifer generally resembles the local topography.

In the residual soil and PWR zone, groundwater is stored within the pore spaces and is released to the underlying bedrock through gravity drainage. Groundwater within the bedrock zone occurs primarily in fracture voids. Generally, fractures within the bedrock are very small but may extend to several hundred feet.

Seasonal high-water tables are typically observed during the winter and spring months of the year when maximum infiltration capacity occurs due to low intensity, long duration precipitation events, and less evaporation and transpiration (i.e., many plants are dormant). Seasonal low-water tables are typically observed during the summer and fall months when minimum infiltration capacity occurs due to higher surface runoff caused by high intensity, short duration precipitation events, and greater evapo-transpiration.

Natural discharge of groundwater occurs to creeks, streams, rivers, and lakes. Typically, artificial discharge of groundwater can occur through withdrawals from water supply wells used for industrial, public, private, and agricultural purposes.

2.3 Review of Public and Private Domestic Water Supplies

A water supply well survey was conducted within 1,500 feet of the site boundaries and consisted of the following:

- A computer file search of South Carolina Department of Natural Resources, Water Resources Division for water supply well records within a 1,500-foot radius of the site boundaries;

- Personal communication with South Carolina Water Resources Division personnel;
- A vehicular reconnaissance of roads and private residences within a 1,500-foot radius of the site boundaries to identify water supply wells;
- A review of the City of Anderson Public Works records to determine if public water is supplied to the site. Palmetto Utility Protection Service to locate aboveground and underground structures and underground utilities on the site; and
- Review of the County of Anderson, Development Standards Department's zoning ordinance records to determine the zoning designation for the site.

The computer file search from the South Carolina Department of Natural Resources, Water Resources Division for water supply well records and visual confirmation documented that a private, residential water supply well exists on the parcel of land owned by Mrs. Mattie R. Julien (Figure 2), approximately 110 feet southeast of the subject site. Verbal communication with the property owner determined that the well was no longer in use and the property is connected to the public water supply system. Additionally, all other adjacent properties are currently connected to the city water supply system. No other current industrial, public, private, or agricultural water supply wells were detected within a 1,500-foot radius of the subject site. The existing drinking water well was sampled as part of this assessment. The surveyed location of the well is shown as DW-1 on Figure 3.

3.0 ASSESSMENT INFORMATION

The completed scope of services was based on SCDHEC's *Tier II Assessment* Guidance Document, prepared by the Bureau of Underground Storage Tank Management, dated October 6, 2004. The Tier II Assessment Plan was approved by SCDHEC project manager, Mr. Arthur Shrader. During the Tier II Assessment, shallow Geoprobe borings and deeper bedrock borings were conducted to screen soil and groundwater samples. Based on the field screening results groundwater monitoring wells were installed to collect groundwater samples. The locations of the borings and monitoring wells are shown on Figure 3. The monitoring well locations were surveyed by a licensed surveyor (Daniel J. Stiles RLS, SC #17933) to establish horizontal control and vertical elevations of the top

of polyvinyl chloride (PVC) casing and the ground surface. Stabilized groundwater elevation measurements were related to a common site datum from which groundwater flow directions could be determined. The results of the survey are shown as Figure 4.

3.1 On-Site Assessment

3.1.1 Field Screening of Soil and Groundwater Contaminants

Thirty-six (36) Geoprobe borings (GP-5 through GP-9, and GPW-1 through GPW-31) were performed for screening of soil and groundwater samples. Geoprobe field procedures are described in Appendix A. After representative samples were collected from each boring, the resulting borehole was properly abandoned to the ground surface with a bentonite/cement grout pursuant to South Carolina well standards[1]. Groundwater screening borings GPW-1, GPW-4 through GPW-8, GPW-12, GPW-17, GPW-19, GPW-20 through GPW-23, and GPW-28 through GPW-31 encountered bedrock without the presence of groundwater, therefore soil cores were collected from each borehole and screened in the field with a properly calibrated MiniRae 2000 Photoionization Detector (PID). Soil screening data is shown on Table 1. Groundwater screening data is shown on Table 2.

3.1.1.1 Soil Screening

Five borings (GP-5 through GP-9) were conducted utilizing a Geoprobe 6600 drill rig for soil screening on October 21, 2004. The borings were performed on-site, in the area of the former UST basin. Prior soil borings GP-1 through GP-4 were performed as part of the Tier I Assessment, which was completed in August 2004. The boring locations were established in the field from map-scaled distances, by measuring from site landmarks and estimating right angles. The boring locations are shown on Figures 3 and 5. A description of the field procedures is included in Appendix A. Soil samples from each boring were screened in the field using a PID. Moderate to strong organic vapors were detected throughout each of the five borings. Soil samples

[1] South Carolina Well Standards and Regulations, SCDHEC, Promulgated Pursuant to Section 44-55-40 of the 1976 South Carolina Code of Laws, R. 61-71, June 2, 1985.

from GP-5, GP-6, GP-7, and GP-9 were collected for laboratory analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX), and naphthalene by EPA Method 8260B and compared to South Carolina Risk-Based Screening Levels (RBSLs)[2] for each constituent. Laboratory analytical results of the soil screening samples are shown on Figure 5 and are provided in Table 1. Laboratory data sheets are in Appendix B.

Seventeen additional soil borings (GPW-1, GPW-4 through GPW-8, GPW-12, GPW-17, GPW-19, GPW-20 through GPW-23, and GPW-28) were collected for field screening using a PID. Hese borings were intended for groundwater sample collection, however competent bedrock was encountered above the water table. Therefore, soil cores were collected from the ground surface to the refusal depth of each boring, and scanned at one-foot intervals with a PID. Samples were not collected for laboratory analysis. Screening results from each boring are shown on Figure 5 and are provided in Table 2. Geoprobe soil screening field procedures are in Appendix A.

3.1.1.2 Groundwater Screening

Thirty-one Geoprobe borings (GPW-1 through -31) were conducted for groundwater screening. The boring locations were established in the field from map-scaled distances, by measuring from site landmarks and estimating right angles. The Geoprobe boring locations are shown on Figure 3 and Figure 6 and should be considered approximate. A description of Geoprobe field procedures is included in Appendix A. Groundwater samples from each boring (excluding GPW-1, GPW-4 through GPW-8, GPW-12, GPW-17, GPW-19, GPW-20 through GPW-23, and GPW-28 which encountered bedrock) were collected and screened in the field using a PID. Groundwater samples were collected from four of the borings (GPW-2, GPW-3, GPW-9, and GPW-14) and analyzed in the laboratory for BTEX, naphthalene, methyl-tertiary-butyl-ether (MTBE), and 1,2-dichloroethane (1,2-DCA) by EPA Method 8260B. Laboratory analytical results of the groundwater screening samples are shown on Figure 6 and are provided in Table 2A. Laboratory data sheets are in Appendix B. The field screening results were used to determine placement of the groundwater monitoring well locations.

[2] South Carolina Risk-Based Corrective Action for Petroleum Releases, May 15, 2001.

Since Geoprobe refusal was encountered without the presence of groundwater in various locations northwest of the subject site, air rotary/hammer drilling was employed to advance boreholes into the bedrock to collect representative groundwater samples for field screening. Groundwater samples from each of these boreholes was collected, scanned in the field with a PID, and submitted for laboratory analysis of BTEX, naphthalene, and MTBE. Selected samples were also submitted for analysis of 1,2-DCA by EPA Method 8260B and/or 1,2-dibromoethane (EDB) by EPA Method 8011. Laboratory analytical results of the PWR/bedrock screening samples are shown on Figure 6 and are provided in Table 2A. Laboratory data sheets are in Appendix B. Each boring location was converted into a groundwater monitoring well. The laboratory analytical data from these borings was used to determine placement of additional monitoring wells or to define the extent of the contaminant plume in the areas with no shallow groundwater above bedrock interface.

3.1.2 Monitoring Well Installation

After completion of field screening, thirty-two Tier II Assessment monitoring wells (MW-1R, MW-1D, MW-4 through MW-11, MW-11D, and MW-12 through MW-32) were installed for the assessment of petroleum hydrocarbons in groundwater. Well locations were based on the aforementioned field screening results. Justification for the new wells is shown below:

MW-1D	Type III bedrock monitoring well installed to monitor the vertical extent of groundwater contamination adjacent to existing source area well, MW-1/1R
MW-1R	Type II monitoring well installed as a replacement to MW-1 which was compromised during grout injection for the installation of MW-1D. MW-1 was abandoned during this process.
MW-4 through MW-8, and MW-17	Type II sidegradient/upgradient monitoring wells installed in residual soils to define the extent of petroleum contamination east, west, and south of the source area.

MW-9 through MW-32	Type II downgradient monitoring wells installed in PWR/bedrock to establish groundwater quality north/northwest of the source area.
MW-11D	Type III bedrock monitoring well installed downgradient of the source area to monitor a plunging plume.

Monitoring wells MW-1R, MW-4 through MW-8, MW-12, and MW-17 were installed utilizing 8½-inch outer diameter (OD), hollow stem augers, advanced by a Geoprobe 6620DT drilling rig. Monitoring wells MW-1D, MW-9 through MW-11, MW-11D, and MW-13 through MW-16 were installed with a CME 750X ATV drill rig utilizing 8½-inch OD or 10½-inch OD hollow stem augers and a 4-inch or 6-inch OD air hammer. Monitoring wells MW-18 through MW-32 were installed with a CME 750X ATV drilling rig utilizing a 6-inch diameter air rotary bit and a 6-inch OD air hammer (when necessary). Due to the proximity of high voltage power lines adjacent to MW-1D and MW-16, Duke Power Company was required to insulate the lines in order to allow the drilling equipment access. Duke Power Company assessed a charge in the amount of $236.26 to perform this task, which was approved by Mr. Arthur Shrader. A copy of the Duke Power billing invoice is provided in Appendix C.

Existing monitoring well MW-1 was compromised during the installation of adjacent vertical extent well MW-1D. As the outer casing for MW-1D was pressure grouted to the ground surface, grout flowed through the porous residual soils (PWR) and partially filled the shallow well. At the direction of Mr. Arthur Shrader, MW-1 was properly abandoned and replaced with monitoring well MW-1R. Additionally, monitoring well boring location identified as MW-4A on Figures 3 and 5, encountered bedrock without the presence of groundwater. Therefore, soil samples were collected every five feet from the ground surface to the refusal depth of the boring (39 feet bgs), and scanned in the field with a PID. Samples were not collected for laboratory analysis. The borehole was properly abandoned with a neat cement grout to the ground surface. Soil screening data is provided on Table 1 and the soil boring log is included in Appendix A. Rock drilling techniques were required to install a monitoring well in this location (see MW-16).

Monitoring wells MW-1R, MW-4 through MW-8, and MW-17 were installed in residual soils, monitoring wells MW-12, MW-19, MW-25, MW-27, MW-28, MW-30, and MW-31 were installed in PWR, and monitoring wells MW-1D, MW-9 through MW-11, MW-11D, MW-13 through MW-16, MW-18, MW-20 through MW-24, MW-26, MW-29, and MW-32 were installed in bedrock. Wells MW-1D and MW-11D were installed as Type III monitoring wells and the remaining wells were installed as Type II monitoring wells.

The Type II monitoring wells consisted of 2-inch inner diameter (ID), schedule 40 PVC casing with flush-threaded joints. The bottom 10-foot section of each respective well (20-foot section in MW-20, MW-24, and MW-26) was a manufactured well screen with 0.010-inch wide machined slots. The well screens were installed to the depth of the boring and bracketed the water table (with the exception of MW-20, MW-24, and MW-26). Monitoring wells MW-20, MW-24, and MW-26 encountered massive bedrock without the presence of water bearing fractures in the upper reaches of the rock. The wells were drilled to the first water bearing fractures in the rock. At the direction of Mr. Arthur Shrader, 20-foot long well screens were installed in these three boreholes to screen potential microfractures in the upper reaches of the rock. Standard sand filter pack, bentonite seal and grout was installed to the ground surface. Drilling procedures for Type II wells are described in Appendix A.

Monitoring wells MW-1D and MW-11D were installed as Type III, telescoping monitoring wells. The wells were installed with a CME 750X ATV drilling rig employing hollow stem augers and air hammer drilling techniques. Monitoring well MW-1D was installed in the source area, adjacent to monitoring well MW-1R. The telescoping wells were constructed with a 5-inch inner diameter (ID) schedule 40 PVC outer casing installed in a 10 ½-inch nominal diameter borehole. The outer casing for MW-1D was installed to a total depth of 51 feet bgs and the outer casing for MW-11D was installed to a total depth of 64 feet bgs. The casings were then pressure grouted to the ground surface and allowed to cure for at least 24 hours. After curing, a 4-inch OD air hammer bit was utilized to advance the borehole through the outer casing to a termination depth of 106.6 feet bgs in MW-1D and 90.4 feet bgs in MW-11D. A 2-inch ID schedule 40 PVC casing with flush-threaded joints was installed in each borehole. The bottom 5-foot section of each well was a manufactured well screen with 0.010-inch machine slots. Standard filter sand pack, bentonite seal and grout was installed to the

ground surface. Due to the presence of massive bedrock without apparent water bearing fractures in MW-1D, the filter pack sand was extended approximately 16 feet above the top of the well screen to capture potential groundwater in this zone which may be seeping through microfractures in the rock. Drilling procedures for Type III wells are described in Appendix A.

At assigned intervals, drill cuttings were collected for soil classification. Representative portions of the test samples were visually examined and classified in the field. To help prevent cross-contamination, downhole drilling equipment was steam cleaned between borings. Surveyed monitoring well locations are shown on Figure 3. Monitoring well boring logs are included in Appendix A and monitoring well construction data is provided on Table 3.

Drill cuttings generated during the installation of the monitoring wells were contained in 55-gallon drums, on-site. These wastes were transported off site for disposal. Waste transportation and disposal records are in Appendix D.

3.1.3 Aggressive Fluid Vapor Recovery Events

After the monitoring well installations were completed, wells MW-10, MW-11, MW-14, and MW-16 exhibited various thicknesses of free-phase petroleum product above the water table. Consequently, four separate 8-hour Aggressive Fluid Vapor Recovery (AFVR) events were conducted on the wells on November 29th and November 30th, 2006 and February 28th and March 1st 2007. Vacuum was pulled from multiple wells wherever distance did not restrict the surrounding traffic flow or affect the vacuum capabilities of the vacuum truck.

The first two AFVR events were conducted on November 29th (MW-16) and November 30th (MW-14), 2006. An *Interim Report of Aggressive Fluid Vapor Recovery Events* was submitted to Mr. Arthur Shrader on December 14, 2006. A total of 301 gallons of petroleum impacted groundwater was removed from the subsurface during these events. Of this total, approximately 30 gallons of free-phase petroleum product was recovered.

The second two AFVR events were conducted on February 28th (MW-10 and MW-14) and March 1st (MW-11), 2007. An *Interim Report of Aggressive Fluid Vapor Recovery Events* was submitted to Mr. Arthur Shrader on March 22, 2007. A total of 494 gallons of petroleum impacted groundwater was removed from the subsurface during these events. Of this total, approximately 80 gallons of free-phase petroleum product was recovered.

Please reference the individual interim reports for specific details of each AFVR event.

3.1.4 Groundwater Sampling

Thirty-four groundwater monitoring wells are currently associated with the site: six on-site (MW-1R, MW-1D, MW-2 through MW-4, and MW-16) and twenty-six off-site (MW-5 through MW-11, MW-11D, MW-12 through MW-15, and MW-17 through MW-32). Additionally, one drinking water well (DW-1) is located approximately 110 feet southeast of the site. Monitoring well locations and the drinking water well location are shown on Figure 3.

The new monitoring wells were developed by purging until it was determined that groundwater flow through the well screen was not inhibited by silt or fine sand. The drinking water well was pumped with a downhole pump for a minimum of fifteen minutes prior to sampling. Pursuant to SCDHEC's directive, purging was not required for existing monitoring wells (MW-2 and MW-3) where the well screen was bracketing the water table during the time of sampling. Monitoring well purging and sampling field procedures and logs are in Appendix A.

Monitoring wells MW-1R, MW-1D, and MW-2 through MW-8 were sampled on April 18, 2007 while monitoring wells MW-9, MW-11D, MW-12, MW-13, MW-15, and MW-18 through MW-32 were sampled on April 20, 2007. The drinking water well was sampled on April 5, 2005. Free-phase petroleum product was detected in MW-10 (0.24 feet), MW-11 (0.33 feet), and MW-14 (0.38 feet) at the time of sampling, therefore no groundwater samples were collected from these locations. Sample containers for the remaining wells were marked in the field with identifying numbers, properly preserved, placed into sample coolers, secured, and maintained at less than 4 degrees Celsius. The samples and chain-of-custody records were delivered to Environmental Science Corp. analytical

laboratory in Mt. Juliet, Tennessee for analysis. Each monitoring well was analyzed for BTEX, naphthalene, MTBE, 1,2-DCA and eight oxygenates by EPA Method 8260B, EDB by EPA Method 8011, total lead by EPA Method 6020, nitrate and sulfate by EPA Method 9056, ferrous iron by SM3500Fe-B, and methane by the Kerr Method. The drinking water well was analyzed for BTEX, naphthalene, MTBE, and 1,2-DCA by EPA Method 8260B, EDB by EPA Method 8011, and total lead by EPA Method 7421. Groundwater analytical results are summarized in Table 4 and are shown on Figure 6. Laboratory data sheets are provided in Appendix B.

Purge water generated during monitoring well sampling was contained in sealed 55-gallon drums on-site. This waste was transported off site for disposal. Waste transportation and disposal records are attached in Appendix D.

4.0 TIER II ASSESSMENT RESULTS

4.1 Subsurface Geology

The soil borings encountered residual soils consisting of micaceous, clayey, sandy silts and silty sands overlying lenses of PWR which sampled as micaceous silty fine to coarse sand. The PWR transitions into competent bedrock (gray and black mica gneiss) at depth. Soil boring records are provided in Appendix A.

4.2 Groundwater Occurrence

The uppermost aquifer beneath the site is composed of residual soils and bedrock. The water table is in the shallow residual soils east and south of the site, however is below the PWR/bedrock surface north and west of the site. Site-wide stabilized groundwater level measurements obtained on April 18, 2007 ranged from 25.41 (MW-8) to 54.20 (MW-1D) feet bgs. A tabulation of the groundwater level data is provided in Table 3. A water table contour map is presented as Figure 7, which shows the occurrence and direction of groundwater flow.

Figure 8 provides N-S and W-E hydrogeologic cross-sections through subsurface soils. The cross-sections depict the surveyed ground surface elevation, subsurface lithologies, monitoring wells and their respective screened intervals, and the static groundwater potentiometric elevation contours.

4.3 Results of Soil Sampling

During this assessment, soil samples were collected from four borings (GP-5 through GP-7, and GP-9) for laboratory analysis of BTEX and naphthalene by EPA Method 8260B. These samples were collected around the former UST system and analyzed for comparison to South Carolina RBSLs. Benzene was detected above RBSLs in each of the four samples collected, and toluene, ethylbenzene, and naphthalene were above RBSLs in sample GP-7. Additionally, naphthalene was detected above RBSLs in soil sample GP-9. No other soil CoC were detected above their respective RBSL. Soil analytical results are summarized in Table 1 and are shown on Figure 5. Laboratory data sheets are provided in Appendix B.

4.4 Results of Groundwater Monitoring Well Sampling

Of the 32 groundwater samples collected for laboratory analysis (31 monitoring wells and one drinking water well), sixteen wells (MW-1R, MW-1D, MW-2, MW-9, MW-11D, MW-13, MW-15, MW-16, MW-19, MW-21, MW-22, MW-23, and MW-25 through MW-28) detected petroleum hydrocarbons above RBSLs, and three wells (MW-10, MW-11, and MW-14) had measurable detections of free-phase petroleum product. Additionally, total lead was detected above RBSLs in four monitoring wells (MW-1R, MW-5, MW-8, and MW-13).

Total BTEX and MTBE isoconcentration contour maps (Figures 9 and 10) indicate the CoC plume migrates offsite to the northwest. The highest CoC concentrations exist in an area from source well MW-1R across Highway 29 to MW-10 (free-product), MW-11 (free-product), and MW-14 (free-product). The results of the groundwater samples are summarized in Table 4 and are shown on Figure 6. Laboratory data sheets are in Appendix B.

5.0 AQUIFER CHARACTERISTICS

Field permeability (slug) tests were performed in monitoring wells MW-9, MW-11D, and MW-21 to determine the hydraulic conductivity of the formation material exposed to the well screen. The slug tests measured hydraulic conductivity of the uppermost water table aquifer (MW-9) and the bedrock portion of the aquifer (MW-11D and MW-21). The field procedures used to determine this parameter was as follows:

1. Measure the static ground-water elevation in the well to be tested;

2. Effect a sudden change to the static water level in the well displacing a known volume of water via solid slug; and

3. Measure the rate at which the water column recovers to its original level.

Slug test data was reduced and the hydraulic conductivity values were computed using Bouwer, H. and R. C. Rice "*A Slug Test for Determining Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells,*" Water Resources Research, 12 (1976): 423-28. Appendix E includes slug test results. These data are also summarized on Table 5.

5.1 Hydraulic Conductivity

Hydraulic conductivity is defined as the ability of the aquifer material to conduct water under a hydraulic gradient. Hydraulic conductivities measured in the field are 4.17×10^{-5} cm/sec for MW-9, 4.37×10^{-5} cm/sec for MW-11D, and 4.46×10^{-2} for MW-21. The average (geometric mean) hydraulic conductivity measured in the field is 1.78×10^{-4} cm/sec. This value also includes hydraulic conductivity measurements from monitoring wells MW-2 (3.38×10^{-5} cm/sec) and MW-3 (6.56×10^{-5} cm/sec), which were determined during the Tier I Assessment at the site.

5.2 Hydraulic Gradient

The hydraulic gradient is determined by dividing the difference in ground-water elevations at two locations (MW-1 to MW-9) by the horizontal distance between those locations along the direction of groundwater flow. The hydraulic gradient for the site is approximately 0.043 ft/ft.

5.3 Effective Porosity and Specific Yield

Effective porosity is the volume of void spaces through which water or other fluids can travel in a rock or sediment divided by the total volume of the rock or sediment. Effective porosity can be assumed to be approximately equal to specific yield for unconfined (water table) aquifers. Specific yield is defined as the ratio of the volume of water that drains from a saturated rock owing to the attraction of gravity to the total volume of rock. Specific yield measurements of the uppermost aquifer on site were derived from grain size analysis data (Tier I Assessment) from soil boring GP-3 (6'-7'), and are expected to range from 0.05 to 0.25. Based on Fetter, Applied Hydrogeology, 1994, page 93, the specific yield for silty sandy aquifers with minor clay would be approximately 0.18, or 18%. A copy of the grain size/hydrometer analysis from the Tier I Report is provided in Appendix E.

5.4 Groundwater Flow Velocity

The velocity of groundwater movement (V) is a function of existing hydraulic gradient (i), the hydraulic conductivity (K) and the effective porosity (n), in the equation V = Ki/n. Based on these parameters and the data provided above, the horizontal movement of groundwater is approximately 44.00 feet/year. Table 5 summarizes the groundwater flow velocity calculations.

6.0 CONCLUSIONS

- Releases of gasoline from the former UST system have impacted the underlying soil and groundwater with petroleum hydrocarbons at concentrations above the RBSLs site;

- Free-phase petroleum product is present in monitoring wells MW-10 (0.24 feet), MW-11 (0.33 feet), and MW-14 (0.38 feet) located northwest of the former UST basin.

- Laboratory analyses from the monitoring well samples detected petroleum CoC on-site and off-site. CoC consist of free-phase petroleum product, BTEX, naphthalene, MTBE, EDB, 1,2-DCA, total lead, diisopropyl ether, t-amyl alcohol, tert-butyl alcohol, and tert-amyl methyl ether.

- Constituents that exceed RBSLs in the monitoring wells are:
  - benzene in MW-1R, MW-1D, MW-2, MW-9, MW-11D, MW-13, MW-15, MW-16, MW-19, MW-21, MW-22, MW-23, and MW-25 through MW-28,
  - toluene in MW-1R, MW-1D, MW-13, and MW-16,
  - ethylbenzene in MW-1R, MW-1D, MW-13, MW-16, and MW-23,
  - total xylenes in MW-1R and MW-13,
  - naphthalene in MW-1R, MW-1D, MW-9, MW-13, MW-15, MW-16, MW-21, MW-22, MW-23, MW-26, and MW-27,
  - MTBE in MW-1R, MW-1D, MW-2, MW-9, MW-11D, MW-13, MW-15, MW-16, MW-21, MW-22, MW-23, MW-25, MW-26, and MW-27,
  - EDB in MW-1R, MW-2, MW-13, MW-16, MW-21, and MW-23,
  - 1,2-DCA in MW-1R, MW-1D, MW-2, MW-9, MW-11D, MW-13, MW-15, MW-16, MW-19, MW-21, MW-22, MW-23, and MW-25 through MW-28,
  - total lead in MW-1R, MW-5, MW-8, and MW-13.

- No CoC were detected in the drinking water well sample.

7.0 RECOMMENDATIONS

Since concentrations of petroleum related CoC were detected above RBSLs in downgradient monitoring wells MW-19, MW-25, MW-26, and MW-28, we recommend the installation of additional Type II monitoring wells to fully define the horizontal/lateral extent of the groundwater

contamination at the site. One additional well should be installed northeast of MW-19 to define the extent of the benzene and 1,2-DCA concentrations which exceed RBSLs in this well (Figures 6 and 9). Up to two new wells should be installed northwest of MW-25 (along the Duke Power right-of-way) to address the MTBE exceedance in MW-25 as well as the detection of MTBE in MW-31. Laboratory data indicates that MTBE concentrations may be detected northwest of MW-25 and west of MW-31 at concentrations exceeding RBSLs (Figure 10). Additionally, at least two new wells should be installed northeast of MW-26 and MW-28 to define the extent of petroleum contaminants in this area. Each of these additional wells will require rock drilling equipment, as groundwater in this area is located in or below the PWR/bedrock transition zone.

We also recommend the installation of four additional Type III bedrock monitoring wells to define the vertical extent of contaminants at the site. An additional Type III well should be installed adjacent to existing wells MW-1D and MW-11D to define the vertical extent of contamination in these areas. These wells will be pit-cased in bedrock and drilled to the first occurrence of water below the termination depth of the adjacent wells (MW-1D - 106.6 feet; MW-11D – 90.4 feet). The screened intervals, sand filter pack, and bentonite seal will be set to give ample separation between the existing wells and the new Type III wells. We also recommend two additional Type III pit-cased monitoring wells be installed adjacent to MW-10 and MW-14 to evaluate contaminant migration in bedrock in these areas. These wells will be cased in bedrock and drilled to the first occurrence of groundwater below the termination depth of the adjacent Type II well (MW-10 – 50.9 feet; MW-14 – 50.6 feet). Each of the new Type III monitoring wells will have five-foot screens.

After installation or in conjunction with the installation of the new monitoring wells, we recommend a series of additional 8-hour AFVR events be conducted on MW-10, MW-11, MW-14, and MW-16 (if free-product reemerges). The AFVR events will remove free-phase petroleum product, high levels of dissolved petroleum contaminants, and vapor phase petroleum hydrocarbons. Additionally, the AFVR events can help stimulate aerobic activity by improving oxygen flow through the subsurface.

Approximately one month after completion of the final AFVR event we recommend a comprehensive groundwater sampling event of all wells be performed at the site.

8.0 QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Moorhead Oil Company. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

9.0 ASSESSMENT COMPONENT INVOICE

The Assessment Component Invoice will be sent under separate cover to Ms. Robertha Dorsey of the SCDHEC accounting department.

TABLES

TABLE 1

Summary of Soil Screening Results
Tier II Assessment
Moorhead Oil Company - KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #22807
BLE Project Number J04-3661-02

			Tier I Assessment				Tier II Assessment																						
CoC	Method	RBSL (mg/kg)	GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-8	GP-9	GPW-1	GPW-4	GPW-5	GPW-6	GPW-7	GPW-8	GPW-12	GPW-17	GPW-19	GPW-20	GPW-21	GPW-22	GPW-23	GPW-28	GPW-29	GPW-30	GPW-31	MW-4A
Boring Depth (ft bgs)	--	--	25	25	10	10	30	25	25	25	25	33	33	37	44	33	31	20	39	39	43	41	41	43	44	35	34	30	39
Sample Depth (ft bgs)	--	--	17-19	15-17	6-7	4-5	21-22	21-22	19-20	22-23	23-24	30	30	37	44	30	30	20	39	35	43	41	41	43	44	35	34	30	39
PID Reading (ppm)	--	--	1,735	1,842	1,999+	8.9	295.8	321.7	537.9	518.7	795.7	52.3	200.0	178.6	133.8	23.1	0.0	0.0	0.0	366.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	274.6
Benzene (mg/kg)	8260B	0.007	0.0238	0.0076	ND	ND	0.0272	0.129	0.640	NT	0.0421	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Toluene (mg/kg)	8260B	1.45	ND	0.0116	1.73	ND	0.0663	0.390	6.06	NT	1.27	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Ethylbenzene (mg/kg)	8260B	1.15	0.0114	0.0022	4.25	ND	0.020	0.105	2.20	NT	0.737	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Xylenes (mg/kg)	8260B	14.50	0.0307	0.0142	29.93	ND	0.123	0.505	13.6	NT	4.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene (mg/kg)	8260B	0.036	ND	ND	5.14	ND	ND	0.00683	2.62	NT	0.144	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TPH (DRO) (mg/kg)	3550B	NA	NT	NT	72.7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TOC (mg/kg)	9060	NA	NT	NT	NT	5,540	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Notes:
CoC - Chemical of Concern
RBSL - Risk Based Screening Level
RBSLs for sandy soil based on groundwater RBSLs
PID - MiniRae Plus Photoionization Detector
mg/kg - miligrams per kilogram (ppm)
ppm - parts per million
ft bgs - feet below ground surface
Shaded cells indicate concentrations above RBSL's
PID reading is indicative of the highest recorded value throughout the boring
Groundwater screening borings GPW-1, GPW-4 through GPW-8, GPW-12, GPW-12, GPW-17, GPW-19 through GPW-23, and GPW-28 through GPW-31 encountered bedrock with no measurable groundwater, therefore soil cores were collected from each borehole and scanned in the field with a PID (one-foot intervals).
Monitoring well boring MW-4A encountered bedrock with no measureable groundwater. Soil samples were collected from the broing and scanned in the field with a PID (five-foot intervals). The boring was properly abandoned with a neat cement grout to the ground surface.
NA - Not Applicable
ND - Not Detected
NT - Not Tested

Prepared By: TJB
Checked By: RAM

TABLE 2

Groundwater Screening Field Data
Tier II Assessment
Moorhead Oil Company - KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #22807
BLE Project Number J04-3661-02

Groundwater Screening Location	Boring Depth (bgs)	Depth to Rock (bgs)	Depth to Water (bgs)	Groundwater Sample Interval (bgs)	PID Reading (ppm)	Depth of PID Reading (bgs)
GPW-1	33.0	33.0	N/A	refusal	52.3	30.0
GPW-2	42.5	42.5	N/A	38.5 - 42.5	370.3	38.5 - 42.5
GPW-3	44.0	>44.0	40.0	40.0 - 44.0	724.0	40.0 - 44.0
GPW-4**	33.0	33.0	N/A	refusal	200.0	30.0
GPW-5**	37.0	37.0	N/A	refusal	178.6	37.0
GPW-6**	44.0	44.0	N/A	refusal	133.8	44.0
GPW-7**	33.0	33.0	N/A	refusal	23.1	30.0
GPW-8**	31.0	31.0	N/A	refusal	0.0	30.0
GPW-9	48.0	>48.0	45.0	44.0 - 48.0	1,980	44.0 - 48.0
GPW-10	44.0	>44.0	40.0	40.0 - 44.0	4.6	40.0 - 44.0
GPW-11	42.0	>42.0	38.0	38.0 - 42.0	2.2	38.0 - 42.0
GPW-12**	20.0	20.0	N/A	refusal	0.0	20.0
GPW-13	44.0	>44.0	38.0	40.0 - 44.0	0.2	40.0 - 44.0
GPW-14	29.0	>29.0	26.0	25.0 - 29.0	6.1	25.0 - 29.0
GPW-15	29.0	>29.0	26.0	25.0 - 29.0	4.3	25.0 - 29.0
GPW-16	38.0	>38.0	35.0	34.0 - 38.0	0.0	34.0 - 38.0
GPW-17**	39.0	39.0	N/A	refusal	0.0	39.0
GPW-18	44.0	>44.0	40.0	40.0 - 44.0	0.6	40.0 - 44.0
GPW-19**	39.0	39.0	N/A	refusal	366.8	35.0
GPW-20**	43.0	43.0	N/A	refusal	0.0	43.0
GPW-21**	41.0	41.0	N/A	refusal	0.0	41.0
GPW-22**	41.0	41.0	N/A	refusal	0.0	41.0
GPW-23**	43.0	43.0	N/A	refusal	0.0	43.0
GPW-24	42.0	>42.0	40.0	38.0 - 42.0	0.0	38.0 - 42.0
GPW-25	54.0	>54.0	50.0	50.0 - 54.0	1.6	50.0 - 54.0
GPW-26	42.0	>42.0	40.0	38.0 - 42.0	1.6	38.0 - 42.0
GPW-27	53.0	>53.0	49.0	49.0 - 53.0	0.0	49.0 - 53.0
GPW-28**	44.0	44.0	N/A	refusal	0.0	44.0
GPW-29**	35.0	35.0	N/A	refusal	0.0	35.0
GPW-30**	34.0	34.0	N/A	refusal	0.0	34.0
GPW-31**	30.0	30.0	N/A	refusal	0.0	30.0
MW-18	55.9	53.0	47.9	47.9 - 55.9	0.9	47.9 - 55.9
MW-19	55.1	>55.1	47.3	47.3 - 55.1	18.8	47.3 - 55.1
MW-20	82.0	40.0	69.1	69.1 - 82.0	0.7	69.1 - 82.0
MW-21	43.9	37.0	34.1	34.1 - 43.9	247.0	34.1 - 43.9
MW-22	45.2	37.0	37.4	37.4 - 45.2	264.0	37.4 - 45.2
MW-23	45.5	38.0	36.3	36.3 - 45.5	131.0	36.3 - 45.5
MW-24	77.1	42.0	66.3	66.3 - 77.1	6.2	66.3 - 77.1
MW-25	57.8	>58.5	49.8	49.8 - 57.8	0.7	49.8 - 57.8
MW-26	77.3	43.0	75.2	75.2 - 77.3	0.8	75.2 - 77.3
MW-27	44.7	>45.0	38.9	38.9 - 44.7	12.2	38.9 - 44.7
MW-28	51.7	>52.0	43.5	43.5 - 51.7	0.9	43.5 - 51.7
MW-29	55.1	46.0	46.2	46.2 - 55.1	2.8	46.2 - 55.1
MW-30	33.2	>33.2	24.7	24.7 - 33.2	0.1	24.7 - 33.2
MW-31	40.0	>40.0	31.2	31.2 - 40.0	0.2	31.2 - 40.0
MW-32	32.4	>32.0	24.5	24.5 - 32.4	0.0	24.5 - 32.4

NOTES:
All measurements are in feet
Groundwater screening samples were obtained from 3/30/05 to 3/6/07
Shaded screening locations indicate borings in which samples were obtained for laboratory analysis (lab data presented on Table 2A)
** Soil cores were collected from GPW screening locations which encountered PWR/bedrock and no groundwater. The highest PID result for the borehole has been recorded.
MW-25 through MW-32 screening locations were collected from boreholes installed in bedrock/PWR
All borings were properly abandoned or converted into groundwater monitoring wells
NA = Not Applicable. Bedrock encountered without the presence of groundwater
bgs = below ground surface
PID - MiniRae 2000 Photionization Detector
ppm - parts per million

Prepared By: TJB
Checked By: RLS

TABLE 2A

Summary of Groundwater Screening Analytical Results
Tier II Assessment
Moorhead Oil Company - KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #22807
BLE Project Number J04-3661-02

		Geoprobe Groundwater Screening				Bedrock/PWR Borehole Screening													
		GPW-2	GPW-3	GPW-9	GPW-14	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26	MW-27	MW-28	MW-29	MW-30	MW-31	MW-32
CoC	RBSL (µg/L)	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled
		3/30/2005	3/30/2005	4/5/2005	4/5/2005	2/15/2007	2/15/2007	2/20/2007	2/19/2007	2/20/2007	2/20/2007	2/28/2007	2/21/2007	2/28/2007	2/26/2007	3/1/2007	3/5/2007	3/6/2007	3/6/2007	3/6/2007
Benzene	5	21,900	28,300	7,300	ND	ND	513	ND	2,000	1,400	810	ND	ND	ND	47.0	52.0	50.0	ND	ND	ND
Toluene	1,000	23,700	46,600	21,200	ND	ND	ND	ND	1,400	180	480	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	2,320	3,810	9,450	ND	ND	ND	ND	700	960	480	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	10,000	10,800	18,400	56,700	ND	ND	ND	ND	2,500	3,200	2,100	ND	ND	ND	5.4	ND	ND	ND	ND	ND
MTBE	40	4,910	18,100	580	ND	ND	ND	ND	260	190	180	ND	20.0	13.0	100	28.0	66.0	ND	10.0	ND
Naphthalene	25	740	1,200	6,300	ND	ND	ND	ND	450	660	520	ND	ND	ND	88.0	10.0	38.0	ND	ND	ND
1,2-DCA	5	2,190	2,320	ND	ND	NT	22.0	NT	42.0	NT	NT	ND	ND	NT	14.0	ND	NT	ND	NT	NT
EDB	0.05	NT	NT	NT	NT	ND	0.36	NT	0.13	NT	NT	ND	ND	NT	ND	ND	NT	ND	NT	NT

Notes:
CoC - Chemical of Concern
RBSL - Risk Based Screening Level
µg/L - micrograms per liter (ppb)
Shaded cells indicate concentrations above RBSL's
ND - Not Detected

Prepared By: TJB
Checked By: RLS

TABLE 3

Monitoring Well and Groundwater Surface Elevation Data

Tier II Assessment
Moorhead Oil Company - KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #22807
BLE Project Number J04-3661-02

Monitoring Well	TOC Elev.	Ground Elev.	GW Depth BTOC	Free-Product Thickness	GW Elevation	Well Depth	Screened Interval Depth	Screened Interval Elevation
MW-1	101.31	101.50	Abandoned				NA - NA	NA - NA
MW-1R	100.89	101.32	39.22	None	61.67	44.0	33.80 - 43.80	67.09 - 57.09
MW-1D	101.50	101.63	54.20	None	47.30	106.6	101.40 - 106.40	0.10 - -4.90
MW-2	97.00	97.16	34.61	None	62.39	42.5	32.52 - 42.52	64.48 - 54.48
MW-3	94.72	94.80	32.39	None	62.33	40.4	30.40 - 40.40	64.32 - 54.32
MW-4	97.61	97.80	39.86	None	57.75	47.1	36.90 - 46.90	60.71 - 50.71
MW-5	89.23	89.48	27.15	None	62.08	32.3	22.10 - 32.10	67.13 - 57.13
MW-6	101.74	101.99	39.52	None	62.22	44.3	34.10 - 44.10	67.64 - 57.64
MW-7	96.50	96.88	34.09	None	62.41	39.5	29.30 - 39.30	67.20 - 57.20
MW-8	87.94	88.16	25.41	None	62.53	30.6	20.40 - 30.40	67.54 - 57.54
MW-9	102.33	102.54	45.13	None	57.20	52.7	42.50 - 52.50	59.83 - 49.83
MW-10**	99.78	100.02	44.73	**0.24**	55.05	50.9	40.70 - 50.70	59.08 - 49.08
MW-11**	98.46	98.74	45.10	**0.33**	53.36	51.5	41.30 - 51.30	57.16 - 47.16
MW-11D	98.49	98.67	46.27	None	52.22	90.4	80.20 - 90.20	18.29 - 8.29
MW-12	97.25	97.53	44.33	None	52.92	53.0	42.80 - 52.80	54.45 - 44.45
MW-13	99.08	99.25	45.06	None	54.02	48.3	38.10 - 48.10	60.98 - 50.98
MW-14**	94.99	95.22	42.92	**0.38**	52.07	50.6	40.40 - 50.40	54.59 - 44.59
MW-15	96.64	96.88	44.74	None	51.90	51.3	41.10 - 51.10	55.54 - 45.54
MW-16	99.91	100.08	39.83	None	60.08	49.0	38.80 - 48.80	61.11 - 51.11
MW-17	103.40	103.90	42.08	None	61.32	48.7	38.50 - 48.50	64.90 - 54.90
MW-18	108.17	105.09	50.73	None	57.44	55.9	45.70 - 55.70	62.47 - 52.47
MW-19	104.15	101.06	50.26	None	53.89	55.1	44.90 - 54.90	59.25 - 49.25
MW-20	97.96	94.73	45.92	None	52.04	82.0	61.80 - 81.80	36.16 - 16.16
MW-21	87.23	83.56	36.37	None	50.86	43.9	33.70 - 43.70	53.53 - 43.53
MW-22	84.09	80.46	39.89	None	44.20	45.2	35.00 - 45.00	49.09 - 39.09
MW-23	88.00	84.72	38.43	None	49.57	45.5	35.30 - 45.30	52.70 - 42.70
MW-24	81.89	78.51	49.81	None	32.08	77.1	56.90 - 76.90	24.99 - 4.99
MW-25	87.36	83.86	52.17	None	35.19	57.8	47.60 - 57.60	39.76 - 29.76
MW-26	85.06	81.65	48.20	None	36.86	77.3	57.10 - 77.10	27.96 - 7.96
MW-27	76.31	72.91	41.25	None	35.06	44.7	34.50 - 44.50	41.81 - 31.81
MW-28	98.33	95.07	46.76	None	51.57	51.7	41.50 - 51.50	56.83 - 46.83
MW-29	95.60	95.77	45.52	None	50.08	55.1	44.90 - 54.90	50.70 - 40.70
MW-30	61.37	58.42	27.57	None	33.80	33.2	23.00 - 33.00	38.37 - 28.37
MW-31	67.41	64.10	34.09	None	33.32	40.0	29.80 - 39.80	37.61 - 27.61
MW-32	61.57	58.61	27.86	None	33.71	32.4	22.20 - 32.20	39.37 - 29.37

NOTES:
Groundwater levels were measured on 4/18/07
Measurements are in feet; elevations are relative to an arbitrary site datum
BTOC - below top of casing
NA - Not Available
**Petroleum free-product measured in wells MW-10 (0.24'), MW-11 (0.33') and MW-14 (0.38')
Groundwater elevation data for MW-10, MW-11, and MW-14 has been corrected for free-product thickness using a density of 0.70 g/cc.

Prepared By: TJB
Checked By: RAM

TABLE 4

Historical Groundwater Analytical Data
Tier II Assessment
Moorhead Oil Company - KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #22807
BLE Project Number J04-3661-02

		DW-1	MW-1		MW-1R	MW-1D	MW-2		MW-3		MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-11D	MW-12	MW-13
		Date Sampled	Date Sampled		Date Sampled	Date Sampled	Date Sampled		Date Sampled		Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled
COC	RBSL	4/5/2005	7/27/2004	4/18/2007	4/18/2007	4/18/2007	7/27/2004	4/18/2007	7/27/2004	4/18/2007	4/18/2007	4/18/2007	4/18/2007	4/18/2007	4/18/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007
Free Product Thickness (ft)	None	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.33	0.00	0.00	0.00
Benzene (µg/L)	5	N/D	37,700		15,000	17,000	15,100	2,400	4.7	N/D	4.2	N/D	N/D	N/D	N/D	4,900	N/T	N/T	590	N/D	6,600
Toluene (µg/L)	1,000	N/D	48,800		21,000	500	1,700	580	N/D	N/D	N/D	N/D	N/D	N/D	N/D	38.0	N/T	N/T	20.0	N/D	8,400
Ethylbenzene (µg/L)	700	N/D	3,450		2,400	1,500	1,500	220	N/D	N/D	N/D	N/D	N/D	N/D	N/D	17.0	N/T	N/T	17.0	N/D	2,800
Xylenes (µg/L)	10,000	N/D	19,200		14,200	2,300	10,200	1,800	2.1	N/D	N/D	N/D	N/D	N/D	N/D	37.0	N/T	N/T	44.0	N/D	13,000
Total BTEX (µg/L)	N/A	N/D	161,150		53,400	16,540	56,580	5,000	6.8	N/D	4.2	N/D	N/D	N/D	N/D	4,992	N/T	N/T	431	N/D	32,800
MTBE (µg/L)	40	N/D	7,450		2,400	1,400	510	440	3.5	N/D	4.9	N/D	N/D	N/D	N/D	96.0	N/T	N/T	60.0	N/D	2,200
Naphthalene (µg/L)	25	N/D	720		1,200	2,100	2,600	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	110	N/T	N/T	13.0	N/D	1,800
EDB (µg/L)	0.05	N/D	N/T		0.60	0.012	N/T	0.011	N/T	N/D	N/D	N/D	N/D	N/D	N/D	0.045	N/T	N/T	N/D	N/D	0.19
1,2-Dichloroethane (µg/L)	5	N/D	N/T		1,520	1,400	N/T	944	N/T	N/D	N/D	N/D	N/D	N/D	N/D	210	N/T	N/T	23.0	N/D	290
Diisopropyl ether (µg/L)	N/A	N/T	N/T		1,300	1,600	N/T	210	N/T	N/D	N/D	N/D	N/D	N/D	N/D	660	N/T	N/T	90.0	N/D	1,100
Ethanol (µg/L)	N/A	N/T	N/T		N/D	N/D	N/T	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/T	N/T	N/D	N/D	N/D
Ethyl tert-butyl ether (µg/L)	N/A	N/T	N/T		N/D	N/D	N/T	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/T	N/T	N/D	N/D	N/D
t-Amyl alcohol (µg/L)	N/A	N/T	N/T		7,300	7,600	N/T	580	N/T	N/D	N/D	N/D	N/D	N/D	N/D	5,200	N/T	N/T	500	N/D	5,600
tert-Butyl alcohol (µg/L)	N/A	N/T	N/T		1,000	N/D	N/T	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
tert-Amyl Methyl Ether (µg/L)	N/A	N/T	N/T		N/D	N/D	N/T	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/T	N/T	N/D	N/D	77.0
tert-Butyl Formate (µg/L)	N/A	N/T	N/T		N/D	N/D	N/T	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/T	N/T	N/D	N/D	N/D
3,3-Dimethyl-1-butanol (µg/L)	N/A	N/T	N/T		N/D	N/D	N/T	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/T	N/T	N/D	N/D	N/D
Benzo(a)anthracene (µg/L)	10	N/T	N/D		N/T	N/T	N/D	N/T	N/D	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Benzo(b)fluoranthene (µg/L)	10	N/T	N/D		N/T	N/T	N/D	N/T	N/D	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Benzo(k)fluoranthene (µg/L)	10	N/T	N/D		N/T	N/T	N/D	N/T	N/D	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Chrysene (µg/L)	10	N/T	N/D		N/T	N/T	N/D	N/T	N/D	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Dibenz(a, h)anthracene (µg/L)	10	N/T	N/D		N/T	N/T	N/D	N/T	N/D	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
PAH-Naphthalene (µg/L)	25	N/T	370		N/T	N/T	90.0	N/T	90.0	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Total PAH's (µg/L)	N/A	N/T	370		N/T	N/T	500	N/T	90.0	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Lead (µg/L)	15	N/D	960		27.0	6.1	13.0	N/D	N/D	N/D	5.1	32.0	15.0	4.5	18.0	2.8	N/T	N/T	5.2	4.6	60.0
Ferrous Iron (µg/L)	N/A	N/T	N/T		1,000	4,400	N/T	8,900	N/T	290	N/D	N/D	N/D	380	N/D	11,000	N/T	N/T	970	N/D	24,000
Nitrates (µg/L)	N/A	N/T	N/T		N/D	N/D	N/T	N/D	N/T	1,400	N/D	N/D	N/D	1,000	150	N/D	N/T	N/T	N/D	900	N/D
Sulfates (µg/L)	N/A	N/T	N/T		18,000	N/D	N/T	13,000	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/T	N/T	N/D	N/D	N/D
Methane (ppb)	N/A	N/T	N/T		N/D	790	N/T	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	13.0	N/T	N/T	44.0	N/D	N/D
Dissolved Oxygen (mg/L)	N/A	4.91	N/T		0.60	0.58	N/T	1.02	N/T	1.99	3.36	6.51	5.12	5.28	7.10	1.19	N/T	N/T	0.71	5.01	0.68

Abandoned

		MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26	MW-27	MW-28	MW-29	MW-30	MW-31	MW-32
		Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled
COC	RBSL	4/20/2007	4/20/2007	4/18/2007	4/18/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007	4/20/2007
Free Product Thickness (ft)	None	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Benzene (µg/L)	5	N/T	730	1,900	N/D	N/D	17.0	N/D	1,100	2,880	1,200	N/D	N/D	1,330	N/T	17.0	1.8	N/D	N/D	N/D
Toluene (µg/L)	1,000	N/T	5.2	4,200	N/D	N/D	N/D	N/D	690	170	890	N/D	N/D	50.0	N/D	N/D	N/D	N/D	N/D	N/D
Ethylbenzene (µg/L)	700	N/T	5.1	2,200	N/D	N/D	N/D	N/D	470	630	960	N/D	N/D	42.0	1.0	N/D	N/D	N/D	N/D	N/D
Xylenes (µg/L)	10,000	N/T	7.9	9,900	N/D	N/D	N/D	N/D	1,700	1,900	2,400	N/D	4.1	150	N/D	4.0	N/D	N/D	N/D	N/D
Total BTEX (µg/L)	N/A	N/T	748	22,100	N/D	N/D	17.0	N/D	3,960	5,580	6,550	N/D	10.1	372	10.7	81.0	1.8	N/D	N/D	N/D
MTBE (µg/L)	40	N/T	170	5,900	N/D	N/D	36.0	2.1	220	1,200	220	N/D	56.0	350	86.0	36.0	12.0	N/D	12.0	N/D
Naphthalene (µg/L)	25	N/T	210	3,200	N/D	N/D	N/D	N/D	200	430	610	N/D	N/D	28.0	47.0	12.0	N/D	N/D	N/D	N/D
EDB (µg/L)	0.05	N/T	0.02	4.6	N/D	N/D	N/D	N/D	0.078	0.034	0.280	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
1,2-Dichloroethane (µg/L)	5	N/T	320	900	N/D	N/D	54.0	N/D	33.0	29.0	33.0	N/D	6.8	17.0	25.0	12.0	6.0	1.9	N/D	1.6	N/D
Diisopropyl ether (µg/L)	N/A	N/T	120	670	N/D	N/D	110	N/D	130	96.0	140	N/D	16.0	63.0	48.0	28.0	N/D	N/D	N/D	N/D
Ethanol (µg/L)	N/A	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
Ethyl tert-butyl ether (µg/L)	N/A	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
t-Amyl alcohol (µg/L)	N/A	N/T	660	3,700	N/D	N/D	750	N/D	660	660	930	N/D	N/D	480	230	180	N/D	N/D	N/D	N/D
tert-Butyl alcohol (µg/L)	N/A	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
tert-Amyl Methyl Ether (µg/L)	N/A	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
tert-Butyl Formate (µg/L)	N/A	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
3,3-Dimethyl-1-butanol (µg/L)	N/A	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
Benzo(a)anthracene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Benzo(b)fluoranthene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Benzo(k)fluoranthene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Chrysene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Dibenz(a, h)anthracene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
PAH-Naphthalene (µg/L)	25	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Total PAH's (µg/L)	N/A	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Lead (µg/L)	15	N/T	3.2	4.6	2.9	N/D	1.6	N/D	N/D	N/D	1.2	10.0	N/D	1.9	1.8	N/D	N/D	1.2	5.0	2.3
Ferrous Iron (µg/L)	N/A	N/T	4,600	18,000	410	4,400	N/D	2,500	13,000	10,000	18,000	22,000	500	1,800	290	N/D	N/D	150	N/D	N/D	180
Nitrates (µg/L)	N/A	N/T	N/D	N/D	490	540	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	330	540	N/D	N/D	770
Sulfates (µg/L)	N/A	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	16,000	N/D	13,000	N/D	N/D	N/D	N/D	N/D	N/D
Methane (ppb)	N/A	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
Dissolved Oxygen (mg/L)	N/A	N/T	0.71	0.46	3.78	4.20	1.05	1.05	0.81	0.98	0.82	1.82	3.32	3.78	3.23	2.64	5.49	7.74	7.15	7.67

Notes:
COC = Chemical of Concern
RBSL = Risk-Based Screening Level
Shaded cells indicate COC concentrations that exceed RBSL's
MW-1 through MW-3 were installed during the Tier I phase of work.
MW-1 was compromised during grout injection for the installation of MW-1D. The well was properly abandoned and MW-1R was installed in its place.
µg/L - micrograms per liter - parts per billion
mg/L - milligrams per liter - parts per million
N/D = Not Detected (at the laboratory detection limit)
N/T = Not Tested
N/A = Not Applicable

Prepared By: TJB
Checked By: RLS

TABLE 5

Interstitial Groundwater Velocity

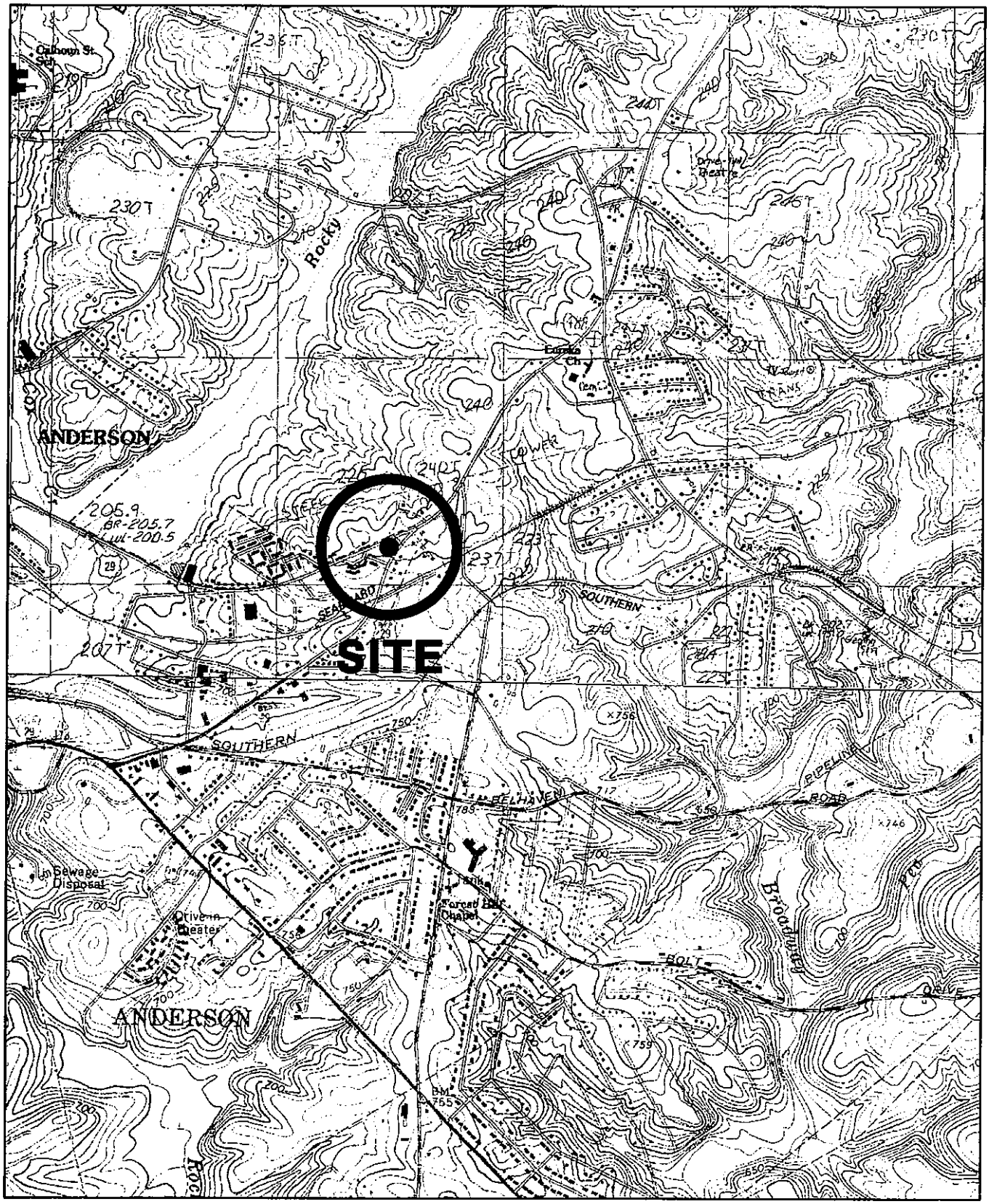
Tier II Assessment
Moorhead Oil Company - KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #22807
BLE Project Number J04-3661-02

VELOCITY CALCULATION	Hydraulic Conductivity (K) (centimeters/second)	Hydraulic Conductivity (K) (feet/day)	Hydraulic Conductivity (K) (feet/year)	Hydraulic Gradient (i) (unitless)	Effective Porosity (n) (unitless)	Ground-Water Velocity (V) (feet/day)	Ground-Water Velocity (V) (feet/year)	Ground-Water Velocity (V) (meters/second)
MW-2	3.38E-05	9.59E-02	3.50E+01	0.043	0.18	2.29E-02	8.35	8.07E-08
MW-3	6.56E-05	1.86E-01	6.79E+01	0.043	0.18	4.43E-02	16.18	1.56E-07
MW-9	4.17E-05	1.18E-01	4.31E+01	0.043	0.18	2.82E-02	10.29	9.94E-08
MW-11D	4.37E-05	1.24E-01	4.52E+01	0.043	0.18	2.95E-02	10.78	1.04E-07
MW-21	4.46E-02	1.27E+02	4.62E+04	0.043	0.18	3.02E+01	11,013.31	1.06E-04
Geometric Mean Value	1.78E-04	5.06E-01	1.85E+02	0.043	0.18	6.06E+00	44.00	2.14E-05

Notes:
Hydraulic conductivity value from slug tests performed by BLE on MW-2 and MW-3 on July 28, 2004 and MW-9, MW-11D, and MW-21 on May 23, 2007
Effective porosity estimated from specific yield as described by Fetter (1994)

Prepared By: TJB
Checked By: RAM

FIGURES

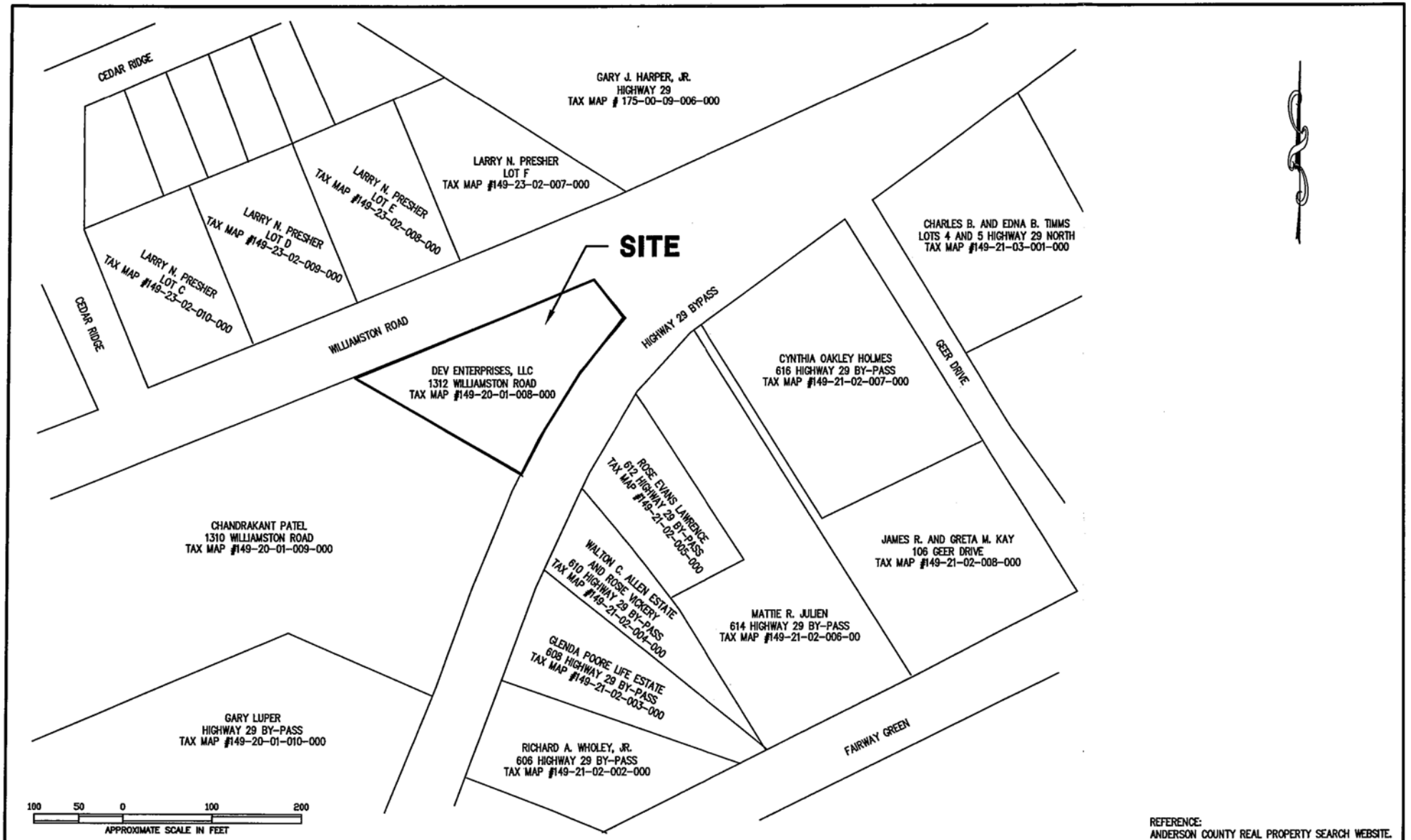


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES,
BELTON WEST AND SAYLORS CROSSROADS, S.C.
QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: AEH	DATE: 03-21-07	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1285 FAX: (864)288-4430	SITE LOCATION MAP MOORHEAD OIL COMPANY – KMO 119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
CHECKED: TJB	CAD: MOOREHEAD-02SLM		FIGURE 1
APPROVED:	JOB NO: J07-3661-02		



REFERENCE:
ANDERSON COUNTY REAL PROPERTY SEARCH WEBSITE.

DRAWN BY: AEH	DATE: 08-30-04	REVISIONS	
CHECKED BY: TJB	FILE: MOORHEAD-TAX	No.	DESCRIPTION / BY
APPROVED BY:	JOB NO: J04-3661-02		

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
1200 WOODRUFF ROAD, SUITE B-7
GREENVILLE, SOUTH CAROLINA 29607
PHONE: (864)288-1265 FAX: (864)288-4430

TAX MAP
FORMER KMO #119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE
2

APPENDIX A

FIELD PROCEDURES, DRILLING AND GEOPROBE PROCEDURES, MONITORING WELL CONSTRUCTION PROCEDURES, MONITORING WELL PURGING AND SAMPLING PROCEDURES, MONITORING WELL CONSTRUCTION DIAGRAMS, AND MONITORING WELL PURGING AND SAMPLING LOGS

APPENDIX A

GEOPROBE® SAMPLING PROCEDURES

Soil Sampling and Screening

Soil samples were collected using a GeoProbe Systems® Sampler. The sampler consisted of a nickel-plated sample tube, replaceable hardened cutting shoe, and a removable acetate liner. The sample tube was capable of recovering cores of soil for laboratory analysis. The sampler was sealed by a piston tip at the end of the sample tube while it was being advanced to the desired sampling depth using sections of alloy steel probe rods driven with a portable automatic hammer. At the desired sampling depth, a piston stop pin at the opposite end of the sampler was removed by means of stainless steel extension rods. The extension rods were inserted down the inside of the probe rods, which enabled the piston to retract into the sample tube while the sample was being taken. The sampler was then driven with the hammer to collect the sample. The sample tube and probe rods were then extracted from the ground. Post extraction, the sample tubes were sealed on each end with vinyl end caps. At 1-foot intervals the sample tube was opened and the resulting soil was scanned using a PID. Samples collected for chemical analysis were placed in laboratory prepared sample jars.

A. General

Soil samples were placed in glass vials or jars and marked with identifying numbers, placed immediately in sample coolers, secured, and maintained at $\leq 4^{\circ}$ C. Samples for VOC analysis were placed in three glass vials (3 grams of soil in each vial). Two vials contained the preservative sodium bisulfate (NaHSO4) and one vial contained methanol (MeOH). The remaining samples were placed in 4-ounce amber jars with no preservative. Samples were shipped to Test America, Inc. environmental laboratory in Nashville, Tennessee, for analysis. Appropriate chain-of-custody records were maintained.

APPENDIX A - CONTINUED

GEOPROBE® SAMPLING PROCEDURES

Groundwater Screening and Sampling

Groundwater samples were collected using a GeoProbe Systems® Screen Point Groundwater Sampler. The assembled sampler had a 1.5 -inch outside diameter (OD) and was 48-inches long. The sampler consisted of a 48-inch sealed stainless steel screen encased in a perforated stainless steel sleeve. The sampler was advanced to the desired sampling depth using 5-foot long sections of alloy steel probe rods driven with a portable automatic hammer. At the desired sampling depth, an extension ramrod was attached to extension rods and inserted inside the probe rods. The screen was enclosed in a sampling sheath until it was advanced into the formation at the desired sampling depth. For groundwater screening and sampling, a post-run tubing adapter attached to polypropylene tubing was threaded into the screen connector and groundwater was evacuated using a peristaltic sampling pump. Representative groundwater samples were placed in 100-milliliter glass jars, covered aluminum foil and sealed. The sample containers were allowed to sit undisturbed for approximately 10-15 minutes allowing VOCs in solution to escape into the open headspace of the sample jars. The aluminum foil was punctured and the headspace in the jar was scanned using a PID. Groundwater samples collected for chemical analysis were placed in laboratory prepared sample jars.

A. General

Samples were marked with identifying numbers, placed immediately in sample coolers, secured, and maintained at $\leq 4°$ C. Preservatives were added to the samples as required. Samples were shipped to Test America, Inc. environmental laboratory in Nashville, Tennessee, for analysis. Appropriate chain-of-custody records were maintained.

APPENDIX A - CONTINUED

MONITORING WELL CONSTRUCTION PROCEDURES

Type II Well

Type II groundwater monitoring wells consisted of 2-inch polyvinyl chloride (PVC) Schedule 40 casing with flush-threaded joints installed in a 8.25-inch nominal diameter augered borehole. The bottom 10-foot section of each well was a manufactured well screen with 0.010-inch wide machined slots. The well screen was installed to the depth of the boring and bracketed the water table.

Type III Well

In the Type III well installation, a 10 ½-inch nominal diameter boring was advanced through the overburden soils using hollow stem auger drilling techniques to a minimum depth of five feet deeper than the bottom of the adjacent water table screen of the source area well (MW-1) and downgradient well (MW-11). A 5-inch diameter PVC casing was installed to the termination depth of each borehole. Due to the presence of bedrock the casings were installed either on top of bedrock (MW-1D) or cased in bedrock (MW-11D). The annular space between the hole and the 5-inch casing was pressure grouted with a cement/bentonite grout mixture to ground surface. The grout was allowed to set-up and cure for a minimum of 24 hours. After the grout cured, the borings were advanced to a depth of the next occurrence of groundwater (100 feet bgs in MW-1D and 88 feet bgs in MW-11D). The borings were advanced from the base of the 5-inch casing to a depth of 106.6 feet in MW-1D and 90.4 feet in MW-11D using air hammer drilling techniques. A monitoring well was installed, constructed of 2-inch PVC Schedule 40 casing with flush-threaded joints and a manufactured well screen with 0.010-inch wide machined slots. The well screen was 5 feet in length.

A. General

In the Type II and Type III wells, a washed sand filter pack was emplaced around the outside of the pipe from the bottom of the well casing to at least 2 feet above the top of the well screen. The sand filter pack was used to stabilize the formation and to help yield a less turbid ground-water sample.

A two-foot thick (minimum) bentonite seal was installed on top of the sand filter pack to seal the monitoring well at the desired level. The well annulus was then grouted to the surface with a cement/bentonite grout mixture. A PVC cap and a steel protective cover or steelbolted manhole cover was secured over each wellhead.

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-1R

PROJECT: KMO #119 PROJECT NO.: J04-3661-02
CLIENT: Ken Moorhead Oil Company START: 3-1-06 END: 3-3-06
LOCATION: Anderson, South Carolina ELEVATION:
DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton
DRILLING METHOD: Geoprobe 6620DT; 8-1/2 inch OD hollow stem auger
DEPTH TO - WATER> INITIAL: ▽ 40 AFTER 24 HOURS: ▼ 39.42 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	Red, dry, slightly fine to medium sandy, clayey SILT		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 100.89 feet Ground surface elev. = 101.32 feet Elevations are relative to an arbitrary site datum
8	Reddish-brown, dry, micaceous, fine to medium sandy SILT with slight clay		
26	Reddish-brown, moist, micaceous, fine to medium sandy SILT with slight clay		Neat cement, 0 to 29 feet
30	PARTIALLY WEATHERED ROCK which sampled as reddish-brown and grayish-brown, moist to wet, micaceous, silty, fine to coarse SAND		Bentonite seal, 29 to 31.5 feet Filter pack, sand 31.5 to 44 feet 2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 33.8 to 43.8 feet

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-1R

PROJECT: KMO #119 PROJECT NO.: J04-3661-02
CLIENT: Ken Moorhead Oil Company START: 3-1-06 END: 3-3-06
LOCATION: Anderson, South Carolina ELEVATION:
DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton
DRILLING METHOD: Geoprobe 6620DT; 8-1/2 inch OD hollow stem auger
DEPTH TO - WATER> INITIAL: ▽ 40 AFTER 24 HOURS: ▼ 39.42 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	PARTIALLY WEATHERED ROCK which sampled as reddish-brown and grayish-brown, moist to wet, micaceous, silty, fine to coarse SAND		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 33.8 to 43.8 feet
44	Boring terminated at 44.0 feet. Groundwater encountered at 40 feet at time of drilling and at 39.42 feet after 24 hours.		Pipe cap
46			Total well depth, 44 feet
48			
50			
52			
54			
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

MW-1R

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
BENTONITE SEAL
29 - 31.5

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 44 ft. Date Started: 3/1/06 Date Completed: 3/8/06

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 33.8 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-in Length: 10
Set Between: 33.8 ft. and 43.8 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 39.5 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 31.5 ft. to 44 ft.
Effective size Hughes #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 29 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 0 ft. _____ direction
Type UST
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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman Well Driller Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-1D

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 3-1-06 END: 3-3-06

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 10.5 inch OD hollow stem auger & 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ AFTER 24 HOURS: ▼ 96.7 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	Red, dry, slightly fine to medium sandy, clayey SILT		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 101.50 feet Ground surface elev. = 101.63 feet Elevations are relative to an arbitrary site datum
8	Reddish-brown, dry, micaceous, fine to medium sandy SILT with slight clay		
20			Neat cement, 0 to 68 feet
26	Reddish-brown, moist, micaceous, fine to medium sandy SILT with slight clay		
28			5-inch outer casing installed from 0 to 51 feet and grouted to the surface
30	PARTIALLY WEATHERED ROCK which sampled as grayish-brown, moist, micaceous, silty, fine to coarse SAND		

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-1D

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 3-1-06 END: 3-3-06

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 10.5 inch OD hollow stem auger & 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ AFTER 24 HOURS: ▼ 96.7 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	PARTIALLY WEATHERED ROCK which sampled as grayish-brown, moist, micaceous, silty, fine to coarse SAND		
44			
46			
48			
50			
52	BEDROCK - Gray and black, biotite gneiss (very fresh rock with minimal fractures)		
54			
56			Neat cement, 0 to 68 feet
58			
60			
62			
64			
66			
68			
70			
72			
74			Bentonite seal, 68 to 85 feet
76			
78			

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-1D

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 3-1-06 END: 3-3-06

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 10.5 inch OD hollow stem auger & 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ AFTER 24 HOURS: ▼ 96.7 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
82	BEDROCK - Gray and black, biotite gneiss (very fresh rock with minimal fractures)		Bentonite seal, 68 to 85 feet
84			
86			
88			
90			Filter pack, sand 85 to 106.6 feet
92			
94			
96 ▼			
98			
100	Minor fracture at 100 feet - minimal water		
102			
104			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 101.4 to 106.4 feet
106			Pipe cap
108	Boring terminated at 106.6 feet. No ground water encountered at time of drilling but was encountered at 96.7 feet after 24 hours.		Total well depth, 106.6 feet
110			
112			
114			
116			
118			

GEOT_WELLNB 3661-02.GPJ 8/17/07

MW-1D

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: BENTONITE SEAL: 68'-85'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 106.6 ft. Date Started: 3/1/06 Date Completed: 3/3/06

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-in
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
5 in. to 51 ft. depth
2 in. to 101.4 ft. depth
Height: Above ☐ Below ☐
Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-in
Slot/Gauge: 0.010-in Length: 5 FT
Set Between: 101.4 ft. and 106.4 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 95 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 85 ft. to 106.6 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: 0 ft. direction
Type UST
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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-4

PROJECT: KMO #119 PROJECT NO.: J04-3661-02
CLIENT: Ken Moorhead Oil Company START: 6-6-05 END: 6-6-05
LOCATION: Anderson, South Carolina ELEVATION:
DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton
DRILLING METHOD: Geoprobe 6620DT; 8-1/2 inch OD hollow stem auger
DEPTH TO - WATER> INITIAL: ▽ AFTER 24 HOURS: ▼ 35.5 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Reddish-brown, dry, slightly micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 97.61 feet
4			Ground surface elev. = 97.80 feet
6	Reddish-brown to brown, dry, micaceous, fine to medium sandy SILT with slight clay		Elevations are relative to an arbitrary site datum
8			
10			
12			
14			
16			Neat cement, 0 to 31 feet
18			
20			
22	Light brown and grayish-brown, dry, micaceous, fine to medium sandy SILT		
24			
26			
28			
30			
32			Bentonite seal, 31 to 35 feet
34	Brown and tan, moist to wet, very micaceous, silty, fine to medium SAND		Filter pack, sand 35 to 47.1 feet
36 ▼			
38			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 36.9 to 46.9 feet

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-4A

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 6-6-05 END: 6-6-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, T. Benton/G. Alverson LOGGED BY: T. Benton

DRILLING METHOD: Geoprobe 6620DT; 8-1/2 inch OD hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ AFTER 24 HOURS: ▼ CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	SAMPLES	PID (ppm) READING
0	6-inches of ASPHALT and GRAVEL			
2	Reddish-brown, dry, micaceous, fine to medium sandy SILT with clay			
4				
6	Brown, dry, very micaceous, fine sandy SILT with minor quartz fragments			62.4
8				
10				83.1
12				
14				
16				88.6
18				
20				72.4
22				
24				
26				116.0
28				
30	Brown and light brown, dry to moist, very micaceous, fine sandy SILT with minor quartz fragments			143.0
32				
34				
36				201.1
38				274.6
40	Auger refusal at 39 feet. No ground water encountered in borehole after 3 hours. Borehole abandoned to the ground surface with a neat cement grout.			
42				
44				

ENVNOWELL_PIDONLY 3661-02.GPJ 11/14/07

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-4

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 6-6-05 END: 6-6-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: Geoprobe 6620DT; 8-1/2 inch OD hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ AFTER 24 HOURS: ▼ 35.5 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	Brown and tan, moist to wet, very micaceous, silty, fine to medium SAND		Filter pack, sand 35 to 47.1 feet
44			
46			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 36.9 to 46.9 feet
48	Boring terminated at 47.1 feet. No ground water encountered at time of drilling but was encountered at 35.5 feet after 24 hours.		Pipe cap
50			Total well depth, 47.1 feet
52			
54			
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

MW-4

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: Ken Moorhead Oil Co. (last) (first)
Address: P.O. Box 2587
City: Anderson State: SC Zip: 29622-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name:
Street Address: 1312 Williamston Rd
City: Anderson Zip:
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Bentonite seal 35' - 31'
MW-4

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

7. PERMIT NUMBER: UST PERMIT # 00505

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

9. WELL DEPTH (completed) 47 ft. Date Started: 6/6/05 Date Completed: 6/6/05

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 47 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 47 ft. and 37 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 40 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 47 ft. to 35 ft.
Effective size FX 50 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 31 ft. to 0 ft.

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

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

19. WELL DRILLER: Kevin Thomas CERT. NO.: 1155
Address: (Print) 6004 Ponders Court
Greenville, SC 29615
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 864 288 1265 Fax No.: 288 4450

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: Kevin Thomas (Well Driller) Date: 6/15/05

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-5

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 6-6-05 END: 6-6-05

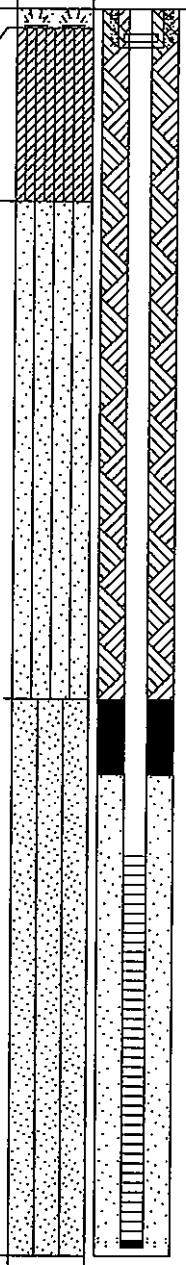
LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: Geoprobe 6620DT; 8-1/2 inch OD hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 30.4 AFTER 24 HOURS: ▼ 28.03 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of GRASS and TOPSOIL Reddish-brown and brown, dry, slightly micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 89.23 feet
4			Ground surface elev. = 89.48 feet
6	Brown and orangish-brown, dry, micaceous, fine to medium sandy SILT		Elevations are relative to an arbitrary site datum
8			
10			Neat cement, 0 to 18 feet
12			
14			
16			
18	Brown and orangish-brown, moist to wet, micaceous, fine to medium sandy SILT intermixed with silty, fine to medium sand stringers		Bentonite seal, 18 to 20 feet Filter pack, sand 20 to 32.3 feet
20			
22			
24			
26			
28 ▼			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 22.1 to 32.1 feet
30 ▽			
32			Pipe cap
34	Boring terminated at 32.5 feet. Ground water encountered at 30.4 feet at time of drilling and at 28.03 feet after 24 hours.		Total well depth, 32.3 feet
36			
38			



GEOT_WELLNB 3661-02.GPJ 10/11/07

MW-5

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Co. (last) (first)
Address: P.O. Box 2587
City: Anderson State: SC Zip: 29622-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name:
Street Address: 1312 Williamston Rd
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Bentonite seal 20' - 18'
MW-5

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

7. PERMIT NUMBER: UST PERMIT #00505

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

9. WELL DEPTH (completed) Date Started: 6/6/05
32.5 ft. Date Completed: 6/6/05

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 32.5 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 32.5 ft. and 22.5 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 25 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 32.5 ft. to 20 ft.
Effective size FX 50 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 18 ft. to 0 ft.

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

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

19. WELL DRILLER: Kevin Thomas CERT. NO.: 1155
Address: (Print) 6004 Ponders Court Greenville, SC 29615
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 864 288 1265 Fax No.: 288 4430

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

Signed: Kevin Thomas (Well Driller) Date: 6/15/05

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-6

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 6-7-05 END: 6-7-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton

DRILLING METHOD: Geoprobe 6620DT; 8-1/2 inch OD hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 38.9 AFTER 24 HOURS: ▼ 38.23 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	Reddish-brown, dry, slightly micaceous, slightly fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 101.74 feet
4			Ground surface elev. = 101.99 feet
6	Reddish-brown and brown, dry, micaceous, slightly fine to medium sandy SILT with slight clay		Elevations are relative to an arbitrary site datum
8			
10			
12			
14			Neat cement, 0 to 28 feet
16			
18			
20			
22	Brown, moist to wet, micaceous, fine to medium sandy SILT		
24			
26			
28			
30			Bentonite seal, 28 to 31 feet
32			Filter pack, sand 31 to 44.3 feet
34			
36			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 34.1 to 44.1 feet
38 ▼ ▽			

GEOT_WELLNB 3661-02.GPJ 8/17/07

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-6

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 6-7-05 END: 6-7-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton

DRILLING METHOD: Geoprobe 6620DT; 8-1/2 inch OD hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 38.9 AFTER 24 HOURS: ▼ 38.23 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	Brown, moist to wet, micaceous, fine to medium sandy SILT		Filter pack, sand 31 to 44.3 feet
44			Pipe cap
46	Boring terminated at 45 feet. Ground water encountered at 38.9 feet at time of drilling and at 38.23 feet after 24 hours.		Total well depth, 44.3 feet
48			
50			
52			
54			
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

GEOT_WELLNB 3661-02.GPJ 8/17/07

MW-6

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Co. (last) (first)
Address: P.O. Box 2587
City: Anderson State: SC Zip: 29622-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name:
Street Address: 1312 Williamston Rd
City: Anderson Zip:
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Bentonite seal 31' - 28'
MW-6

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

7. PERMIT NUMBER: UST PERMIT # 00505

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

9. WELL DEPTH (completed) 44 ft. Date Started: 6/7/05 Date Completed: 6/7/05

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: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 44 ft. and 34 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 36 ft. below land surface after 24 hours

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

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

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 31 ft.
Effective size FX 50 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 28 ft. to 0 ft.

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

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

19. WELL DRILLER: Kevin Thomas CERT. NO.: 1155
Address: (Print) Level: A ☑ B ☐ C ☐ D ☐ (circle one)
6004 Ponders Court
Greenville, SC 29615
Telephone No.: 864 288 1265 Fax No.: 288 4430

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

Signed: Kevin Thomas (Well Driller) Date: 6/15/05

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-7

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 6-7-05 END: 6-8-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton

DRILLING METHOD: Geoprobe 6620DT; 8-1/2-inch OD hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 32 AFTER 24 HOURS: ▼ CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	Reddish-brown, dry, slightly micaceous, slightly fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 96.50 feet
4			Ground surface elev. = 96.88 feet
6	Reddish-brown and orangish-brown, dry, micaceous, fine to medium sandy SILT with slight clay		Elevations are relative to an arbitrary site datum
8			
10			
12			Neat cement, 0 to 24 feet
14			
16			
18			
20	Brown, moist to wet, micaceous, fine to medium sandy SILT with minor silty, fine to medium sand stringers		
22			
24			
26			Bentonite seal, 24 to 27 feet
28			Filter pack, sand 27 to 40 feet
30			
32 ▽			
34			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 29.3 to 39.3 feet
36			
38	Boring terminated at 40 feet. Ground water encountered at 32 feet at time of drilling.		Pipe cap Total well depth, 39.5 feet

MW-7

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: Ken Moorhead Oil Co. (last) (first)
Address: P.O. Box 2587
City: Anderson State: SC Zip: 29622-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Anderson
Name:
Street Address: 1312 Williamston Rd
City: Anderson Zip:
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Bentonite seal 27' - 24'
MW-7

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

7. PERMIT NUMBER: UST PERMIT #00505

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

9. WELL DEPTH (completed) 39.5 ft. Date Started: 6/7/05 Date Completed: 6/8/05

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 39.5 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 39.5 ft. and 29.5 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 33 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 39.5 ft. to 27 ft.
Effective size FX 50 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 24 ft. to 0 ft.

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

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

19. WELL DRILLER: Kevin Thomas **CERT. NO.:** 1155
Address: (Print) Level: A B C D (circle one) ☑ ☐ ☐ ☐
6004 Ponders Court
Greenville SC 29615
Telephone No.: 864 288 1265 Fax No.: 288 4430

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

Signed: Kevin Thomas (Well Driller) Date: 6/15/05

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-8

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 6-8-05 END: 6-8-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton

DRILLING METHOD: Geoprobe 6620DT; 8-1/2-inch OD hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 26.5 AFTER 24 HOURS: ▼ CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of GRASS and TOPSOIL Reddish-brown and brown, dry, slightly micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 87.94 feet
4			Ground surface elev. = 88.16 feet
6	Brown and orangish-brown, dry, micaceous, fine to medium sandy SILT		Elevations are relative to an arbitrary site datum
8			
10			Neat cement, 0 to 15 feet
12			
14			
16			Bentonite seal, 15 to 17 feet
18			Filter pack, sand 17 to 30.6 feet
20	Light brown, moist to wet, very micaceous, fine to medium sandy SILT with silty, fine to medium sand stringers		
22			
24			
26 ▽			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 20.4 to 30.4 feet
28			
30			Pipe cap
32	Boring terminated at 30.6 feet. Ground water encountered at 26.5 feet at time of drilling.		Total well depth, 30.6 feet
34			
36			
38			

GEOT WELLNB 3661-02.GPJ 8/17/07

MW-8

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Co. (last) (first)
Address: P.O. Box 2587
City: Anderson State: SC Zip: 29622-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name:
Street Address: 1312 Williamston Rd
City: Anderson Zip:
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Bentonite seal 17' - 15'
MW-8

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

7. PERMIT NUMBER: UST PERMIT #00505

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

9. WELL DEPTH (completed) Date Started: 6/8/05
30.5 ft. Date Completed: 6/8/05

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 30.5 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 30.5 ft. and 20.5 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 30.5 ft. to 17 ft.
Effective size FX 50 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 15 ft. to 0 ft.

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

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

19. WELL DRILLER: Kevin Thomas CERT. NO.: 1155
Address: (Print) Level: A B C D (circle one) ☑ ☐ ☐ ☐
6004 Ponders Court
Greenville, SC 29615
Telephone No.: 864 288 1265 Fax No.: 288 4430

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

Signed: Kevin Thomas (Well Driller) Date: 6/13/05

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)

BLB INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-9

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-1-05 END: 12-1-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger & 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 46 AFTER 24 HOURS: ▼ 44.6 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
0	6-inches of GRASS and TOPSOIL		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 102.33 feet
2	Reddish-brown, dry, slightly fine to medium sandy, silty CLAY		
4			Ground surface elev. = 102.54 feet
6	Reddish-brown and brown, dry, micaceous, fine to medium sandy SILT with slight clay		Elevations are relative to an arbitrary site datum
8			
10	Intermittent rock lenses		
12			
14			
16			
18			Neat cement, 0 to 36.9 feet
20			
22			
24			
26	Light brown and white, dry to moist, micaceous, silty, fine to medium SAND		
28			
30			
32			
34			
36	PARTIALLY WEATHERED ROCK which sampled as grayish-brown, moist, micaceous, silty, fine to coarse SAND		
38			Bentonite seal, 36.9 to 40.5 feet

GEOT_WELLNB 3661-02.GPJ 8/17/07

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-9

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-1-05 END: 12-1-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger & 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 46 AFTER 24 HOURS: ▼ 44.6 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	PARTIALLY WEATHERED ROCK which sampled as grayish-brown, moist, micaceous, silty, fine to coarse SAND		Filter pack, sand 40.5 to 52.7 feet
44	BEDROCK - Gray and black, BIOTITE GNEISS (moderately weathered - good water flow)		
46			
48			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 42.5 to 52.5 feet
50			
52			Pipe cap
54	Boring terminated at 52.7 feet. Ground water encountered at 46 feet at time of drilling and at 44.6 feet after 24 hours.		Total well depth, 52.7 feet
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

MW-9

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: BENTONITE SEAL 36.9 - 40.5

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 52.7 ft. Date Started: 12/1/05 Date Completed: 12/1/05

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-in
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 42.5 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-in
Slot/Gauge: 0.010-in Length: 10-FT
Set Between: 42.5 ft. and 52.5 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 45 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 40.5 ft. to 52.7 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 36.9 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-10

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-2-05 END: 12-2-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger & 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 42.4 AFTER 24 HOURS: ▼ 41.16 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	Reddish-brown, dry, slightly fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 99.78 feet
4			Ground surface elev. = 100.22 feet
6	Reddish-brown and orangish-brown, dry, micaceous, fine to medium sandy SILT		Elevations are relative to an arbitrary site datum
8			
10	Rock lense at 9 feet		
12			
14			
16			
18			Neat cement, 0 to 36 feet
20			
22			
24			
26	Light brown, dry to moist, very micaceous, silty, fine to medium SAND		
28			
30			
32			
34			
36	PARTIALLY WEATHERED ROCK which sampled as grayish-brown, moist, very micaceous, silty, fine to coarse SAND		Bentonite seal, 36 to 38.1 feet
38			Filter pack, sand 38.1 to 50.9 feet

GEOT_WELLNB 3661-02.GPJ 8/17/07

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-10

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-2-05 END: 12-2-05

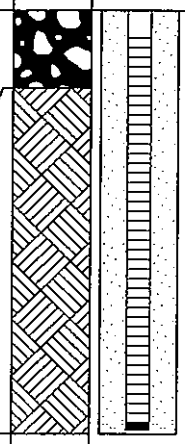
LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger & 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 42.4 AFTER 24 HOURS: ▼ 41.16 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	PARTIALLY WEATHERED ROCK which sampled as grayish-brown, moist, very micaceous, silty, fine to coarse SAND		
	BEDROCK - Gray and black, BIOTITE GNEISS		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 40.7 to 50.7 feet
52	Boring terminated at 51 feet. Ground water encountered at 42.4 feet at time of drilling and at 41.16 feet after 24 hours.		Pipe cap Total well depth, 50.9 feet



MW-10

DHEC — PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: BENTONITE SEAL: 36'-38.1'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 50.9 ft. Date Started: 12/2/05 Date Completed: 12/2/05

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-in
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 40.7 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-in
Slot/Gauge: 0.010-in Length: 10'
Set Between: 40.7 ft. and 50.7 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 41 ft. below land surface after 24 hours

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

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

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 38.1 ft. to 50.9 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 36 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: _____ (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-11

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-14-05 END: 12-15-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger & 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 51.0 AFTER 24 HOURS: ▼ 44.8 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of ASPHALT and GRAVEL Reddish-brown, dry, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 98.46 feet
4	Reddish-brown and brown, dry, micaceous, clayey SILT		Ground surface elev. = 98.74
6			Elevations are relative to an arbitrary site datum
8			
10			
12			
14			
16			
18			Neat cement, 0 to 37.1 feet
20	Brown, dry to moist, micaceous, fine to medium sandy SILT intermixed with brown and white, micaceous, silty, fine to medium sand zones		
22			
24			
26			
28			
30			
32			
34			
36			
38			Bentonite seal, 37.1 to 39.2 feet Filter pack, sand 39.2 to 51.5 feet

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-11

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-14-05 END: 12-15-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger & 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 51.0 AFTER 24 HOURS: ▼ 44.8 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	Brown, dry to moist, micaceous, fine to medium sandy SILT intermixed with brown and white, micaceous, silty, fine to medium sand zones		Filter pack, sand 39.2 to 51.5 feet
44 ▼			
46	PARTIALLY WEATHERED ROCK which sampled as grayish-brown, moist, very micaceous, silty, fine to coarse SAND		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 41.3 to 51.3 feet
48	(strong gasoline odor)		
50 ▽	BEDROCK - Gray and black BIOTITE GNEISS		
52	Boring terminated at 51.5 feet. Ground water encountered at 51.0 feet at time of drilling and at 44.8 feet after 24 hours.		Pipe cap Total well depth, 51.5 feet
54			
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

GEOT WELLNB 3661-02.GPJ 8/17/07

MW-11

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: BENTONITE SEAL 37.1' - 39.2'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 51.5 ft. Date Started: 12/14/05 Date Completed: 12/15/05

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-in
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 41.3 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-in Length: 10'
Set Between: 41.3 ft. and 51.3 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 45 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 39.2 ft. to 51.5 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 37.1 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-11D

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-19-05 END: 12-22-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 10-1/2-inch OD hollow stem auger, 6-inch OD and 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 87 AFTER 120 HOURS: ▼ 45.2 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of ASPHALT and GRAVEL Reddish-brown, dry, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 98.49 feet
4	Reddish-brown and brown, dry, micaceous, clayey SILT		Ground surface elev. = 96.67 feet
6			Elevations are relative to an arbitrary site datum
8			
10			
12			
14			
16			
18			Neat cement, 0 to 79.4 feet
20	Brown, dry to moist, micaceous, fine to medium sandy SILT intermixed with brown and white, micaceous, silty, fine to medium sand zones		
22			
24			
26			
28			5-inch outer casing installed from 0 to 64 feet and grouted to the ground surface
30			
32			
34			
36			
38			

GEOT WELLNB 3661-02.GPJ 8/17/07

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-11D

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-19-05 END: 12-22-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 10-1/2-inch OD hollow stem auger, 6-inch OD and 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 87 AFTER 120 HOURS: ▼ 45.2 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, micaceous, silty, fine to coarse SAND		Neat cement, 0 to 79.4 feet
44			
46	BEDROCK - Gray and black BIOTITE GNEISS		
48	4-inch water bearing fracture at 49 feet Strong gasoline odor		
50			
52			
54			
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

GEOT_WELLNB 3661-02.GPJ 8/17/07

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-11D

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-19-05 END: 12-22-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 10-1/2-inch OD hollow stem auger, 6-inch OD and 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 87 AFTER 120 HOURS: ▼ 45.2 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
82	BEDROCK - Gray and black BIOTITE GNEISS		Bentonite seal, 79.4 to 83 feet
84			Filter pack, sand 83 to 90.4 feet
86 ▽			
88	Large 6-inch water bearing fracture (good flow)		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 85.2 to 90.2 feet
90			Pipe cap
92	Boring terminated at 90.4 feet. Ground water encountered at 87.0 feet at time of drilling and at 45.2 feet after 5 days.		Total well depth, 90.4 feet
94			
96			
98			
100			
102			
104			
106			
108			
110			
112			
114			
116			
118			

GEOT_WELLNB 3661-02.GPJ 8/17/07

MW-11D

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

D H E C — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 79.4'-83'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 90.4 ft. Date Started: 12/19/05 Date Completed: 12/22/05

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-in
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
5 in. to 69 ft. depth
2 in. to 85.2 ft. depth
Height: Above ☐ Below ☐
Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-in
Slot/Gauge: 0.010-in Length: 5
Set Between: 85.2 ft. and 90.2 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 45 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 83 ft. to 90.4 ft.
Effective size #2 Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 79.4 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-12

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-16-05 END: 12-16-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 44.5 AFTER 72 HOURS: ▼ 44.29 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Reddish-brown, dry, slightly fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 97.25 feet Ground surface elev. = 97.53 feet
6	Reddish-brown and brown, dry, micaceous, fine to medium sandy, clayey SILT		Elevations are relative to an arbitrary site datum
8	6-inch rock lense at 8 feet		
20			Neat cement, 0 to 38 feet
22	Tan and light brown, dry, slightly micaceous, fine to medium sandy SILT intermixed with white, slightly micaceous, silty, fine to medium SAND		
38			Bentonite seal, 38 to 40.4 feet

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-12

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-16-05 END: 12-16-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 44.5 AFTER 72 HOURS: ▼ 44.29 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	Tan and light brown, dry, slightly micaceous, fine to medium sandy SILT intermixed with white, slightly micaceous, silty, fine to medium SAND		Filter pack, sand 40.4 to 53 feet
44 ▽	PARTIALLY WEATHERED ROCK which sampled as white and brown, moist to wet, micaceous, silty, fine to coarse SAND		
46			
48			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 42.8 to 52.8 feet
50			
52			Pipe cap
54	Boring terminated at 53.0 feet. Ground water encountered at 44.5 feet at time of drilling and at 44.29 feet after 72 hours.		Total well depth, 53 feet
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

MW-12

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

DHEC — PROMOTE. PROTECT. PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: BENTONITE SEAL: 38' - 40.4'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 53 ft. Date Started: 12/16/05 Date Completed: 12/16/05

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 42.8 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-in Length: 10
Set Between: 42.8 ft. and 52.8 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 44.29 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 40.4 ft. to 53 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 38 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: _____ (Well Driller) Date: 5-24-07

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

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

BLB INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-13

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-21-05 END: 12-21-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 10-1/2-inch OD hollow stem auger and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 44 AFTER 24 HOURS: ▼ 43.87 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Reddish-brown, dry, slightly fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 99.08 feet
4			Ground surface elev. = 99.25 feet
6	Reddish-brown, dry, micaceous, fine to medium sandy SILT with slight clay		Elevations are relative to an arbitrary site datum
8			
10			
12			
14			
16	Light brown, dry, micaceous, fine to medium sandy SILT		Neat cement, 0 to 33.5 feet
18			
20			
22			
24			
26			
28			
30			
32			
34			Bentonite seal, 33.5 to 36 feet
36			Filter pack, sand 36 to 49 feet
38			

GEOT_WELLNB 3661-02.GPJ 8/17/07

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-13

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 12-21-05 END: 12-21-05

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 10-1/2-inch OD hollow stem auger and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 44 AFTER 24 HOURS: ▼ 43.87 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	Light brown, dry, micaceous, fine to medium sandy SILT		
44 ▼	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and brown, moist to wet, micaceous, silty, fine to coarse SAND		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 38.1 to 48.1 feet
46			
48	BEDROCK - gray and black, BIOTITE GNEISS		Pipe cap
50	Boring terminated at 49.0 feet. Ground water encountered at 44 feet at time of drilling and at 43.87 feet after 24 hours.		Total well depth, 48.3 feet
52			
54			
56			
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60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

GEOT_WELLNB 3661-02.GPJ 8/17/07

MW-13

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 33.5' - 36'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 48.3 ft. Date Started: 12/21/05 Date Completed: 12/21/05

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 38.1 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN: Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-in Length: 10
Set Between: 38.1 ft. and 48.1 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 43.87 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 36 ft. to 49 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 33.5 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: _____ (Well Driller) Date: 5-24-07

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-14

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-24-06 END: 2-24-06

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger and 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 42.7 AFTER 72 HOURS: ▼ 42.15 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Reddish-brown and brown, dry, slightly fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 94.99 feet
4			Ground surface elev. = 95.22 feet
6	Reddish-brown, dry, micaceous, fine to medium sandy SILT with slight clay		Elevations are relative to an arbitrary site datum
8			
10			
12			
14			
16			
18	Light brown, dry, micaceous, fine to medium sandy SILT intermixed with light brown, very micaceous, silty, fine to medium sand		Neat cement, 0 to 36.1 feet
20			
22			
24			
26			
28			
30			
32			
34			
36			
38	PARTIALLY WEATHERED ROCK which sampled as gray and black, moist to wet, very micaceous, silty, fine to coarse		Bentonite seal, 36.1 to 40.4 feet

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-14

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-24-06 END: 2-24-06

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger and 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 42.7 AFTER 72 HOURS: ▼ 42.15 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42 ▼ ▽	SAND PARTIALLY WEATHERED ROCK which sampled as gray and black, moist to wet, very micaceous, silty, fine to coarse SAND		Filter pack, sand 40.4 to 51 feet
44			
46	BEDROCK - gray and black, BIOTITE GNEISS		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 40.4 to 50.4 feet
48			
50			Pipe cap
52	Boring terminated at 51.0 feet. Ground water encountered at 42.7 feet at time of drilling and at 42.15 feet after 72 hours.		Total well depth, 50.6 feet
54			
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

GEOT_WELLNB 3661-02.GPJ 8/17/07

MW-14

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 36.1' - 40.4'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 50.6 ft. Date Started: 2/24/06 Date Completed: 2/24/06

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 40.4 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 40.4 ft. and 50.4 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 42.15 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 40.4 ft. to 51' ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 36.1 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: _____ (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-15

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-27-06 END: 2-27-06

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger and 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 45.0 AFTER 24 HOURS: ▼ 44.7 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	Reddish-brown and brown, dry, slightly fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 96.64 feet
4			Ground surface elev. = 96.88 feet
6	Reddish-brown, dry, micaceous, fine to medium sandy SILT with slight clay		Elevations are relative to an arbitrary site datum
8			
10			
12			
14			
16			
18	Light brown and tan, dry, very micaceous, fine to medium sandy SILT intermixed with light brown, very micaceous, silty, fine to medium SAND		Neat cement, 0 to 36.6 feet
20			
22			
24			
26			
28			
30			
32			
34			
36			Bentonite seal, 36.6 to 39.1 feet
38			Filter pack, sand 39.1 to 51.5 feet

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-15

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-27-06 END: 2-27-06

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger and 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: 45.0 AFTER 24 HOURS: 44.7 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	Light brown and tan, dry, very micaceous, fine to medium sandy SILT intermixed with light brown, very micaceous, silty, fine to medium SAND		
44	PARTIALLY WEATHERED ROCK which sampled as grayish-brown, moist to wet, very micaceous, silty, fine to coarse SAND		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 41.1 to 51.1 feet
46			
48	BEDROCK - gray and black, BIOTITE GNEISS		
50			Pipe cap
52	Boring terminated at 51.5 feet. Ground water encountered at 45.0 feet at time of drilling and at 44.7 feet after 24 hours.		Total well depth, 51.3 feet
54			
56			
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60			
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70			
72			
74			
76			
78			

MW-15

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 36.6' - 39.1'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 51.3 ft. Date Started: 2/27/06 Date Completed: 2/27/06

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 41.1 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN: Type: PVC Diam.: 2 inch
Slot/Gauge: 0.010 inch Length: 10
Set Between: 41.1 ft. and 51.1 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 44.7 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 39.1 ft. to 51.5 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 36.6 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: John Gorman CERT. NO.: 1807
Address: (Print) Level: A B C D (circle one) ☐ ☑ ☐ ☐
6004 Ponders Court, Greenville, SC 29615
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John Gorman (Well Driller) Date: 5-24-07

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

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

BLB INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-16

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 3-1-06 END: 3-3-06

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger and 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 46.4 AFTER 24 HOURS: ▼ 38.25 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of ASPHALT and GRAVEL Reddish-brown, dry, slightly micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 99.91 feet
4	Reddish-brown to brown, dry, micaceous, fine to medium sandy SILT with slight clay		Ground surface elev. = 100.08 feet
6			Elevations are relative to an arbitrary site datum
8			
10			
12			Neat cement, 0 to 35 feet
14			
16			
18			
20			
22			
24	Light brown and orangish-brown, dry, micaceous, fine to medium sandy SILT		
26			
28			
30			
32			
34	PARTIALLY WEATHERED ROCK which sampled as brown and tan, moist to wet, very micaceous, silty, fine to coarse SAND		
36			Bentonite seal, 35 to 38 feet
38 ▼	BEDROCK - gray and black, BIOTITE GNEISS		Filter pack, sand 38 to 49 feet

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-16

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 3-1-06 END: 3-3-06

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750 ATV; 8-1/2-inch OD hollow stem auger and 4-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 46.4 AFTER 24 HOURS: ▼ 38.25 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	**BEDROCK - gray and black, BIOTITE GNEISS**		Filter pack, sand 38 to 49 feet
44			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 38.8 to 48.8 feet
46 ▽			
48			
50	**Boring terminated at 49 feet. Ground water encountered at 46.4 feet at time of drilling and at 38.25 feet after 24 hours.**		Pipe cap Total well depth, 49.0 feet
52			
54			
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

GEOT_WELLNB 3661-02.GPJ 8/17/07

MW-16

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: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Bentonite Seal:
35' - 38'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 49.0 ft. Date Started: 3/1/06 Date Completed: 3/3/06

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 38.8 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 38.8 ft. and 48.8 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 38.25 ft. below land surface after 24 hours

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

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

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 38 ft. to 49 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 35 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: _____ (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-17

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 5-2-06 END: 5-2-06

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton

DRILLING METHOD: Geoprobe 6620DT; 8-1/2-inch OD hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 45 AFTER 24 HOURS: ▼ 43.91 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	Reddish-brown, dry, slightly micaceous, fine to medium sandy, silty CLAY with gravel		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 103.40 feet
4	Reddish-brown and brown, dry, micaceous, fine to medium sandy SILT with slight clay		Ground surface elev. = 103.90 feet
6			Elevations are relative to an arbitrary site datum
8			
10			
12			
14			
16			
18			Neat cement, 0 to 32.8 feet
20			
22			
24	Light brown, dry, micaceous, fine to medium sandy SILT		
26			
28			
30			
32			
34	Brown and tan, moist to wet, very micaceous, silty, fine to medium SAND		Bentonite seal, 32.8 to 36.2 feet
36			Filter pack, sand 36.2 to 48.7 feet
38			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 38.5 to 48.5 feet

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-17

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 5-2-06 END: 5-2-06

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton

DRILLING METHOD: Geoprobe 6620DT; 8-1/2-inch OD hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 45 AFTER 24 HOURS: ▼ 43.91 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	Brown and tan, moist to wet, very micaceous, silty, fine to medium SAND		
44 ▼ ▽			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 38.5 to 48.5 feet
46			
48			Pipe cap
50	Auger refusal at 48.7 feet. Ground water encountered at 45 feet at time of drilling and at 43.91 feet after 24 hours.		Total well depth, 48.7 feet
52			
54			
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

MW-17

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 32.8 - 36.2

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 48.7 ft. Date Started: 5/2/06 Date Completed: 5/2/06

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 38.5 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN: Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 38.5 ft. and 48.5 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 43.91 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 36.2 ft. to 48.7 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 32.8 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John Gorman (Well Driller) Date: 5-24-07

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

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

BLB INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-18

PROJECT: KMO #119 — PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company — START: 2-14-07 END: 2-14-07

LOCATION: Anderson, South Carolina — ELEVATION:

DRILLER: Landprobe, J. Gorman — LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 48 AFTER 24 HOURS: ▼ 50.97 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Reddish-brown, dry, slightly fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 108.17 feet Ground surface elev. = 105.09 feet Elevations are relative to an arbitrary site datum
6	Reddish-brown and dark brown, dry, micaceous, fine to medium sandy SILT with slight clay		
12	Brown, dry, very micaceous, fine to medium sandy SILT intermixed with quartz fragments (<10mm)		Neat cement, 0 to 33.3 feet
30	Grayish-brown, dry, very micaceous, silty, fine to medium SAND with minor quartz fragments		Bentonite seal, 33.3 to 40.4 feet

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-18

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-14-07 END: 2-14-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 48 AFTER 24 HOURS: ▼ 50.97 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	Grayish-brown, dry, very micaceous, silty, fine to medium SAND with minor quartz fragments		Filter pack, sand 40.4 to 56 feet
44			
46	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, moist to wet, very micaceous, silty, fine to coarse SAND		
48 ▽			
50 ▼			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 45.6 to 55.6 feet
52			
54	BEDROCK - gray and black BIOTITE GNEISS		
56			Pipe cap
58	Boring terminated at 56 feet. Groundwater encountered at 48 feet at time of drilling and at 50.97 feet after 24 hours.		Total well depth, 55.9 feet
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

GEOT_WELLNB 3661-02.GPJ 8/15/07

MW-18

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 33.3' - 40.4'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 55.9 ft. Date Started: 2/14/07 Date Completed: 2/14/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 45.16 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 45.16 ft. and 55.16 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 50.97 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 40.4 ft. to 56 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 33.3 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John Gorman Well Driller Date: 5-24-07

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-19

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-14-07 END: 2-14-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 52 AFTER 24 HOURS: ▼ 47.3 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Brown, dry, slightly micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 104.15 feet Ground surface elev. = 101.06 feet Elevations are relative to an arbitrary site datum
6	Brown and reddish-brown, dry, micaceous, fine to medium sandy SILT		
14			Neat cement, 0 to 32.4 feet
28	Grayish-brown and tan, dry, very micaceous, silty, fine to medium SAND		
34			Bentonite seal, 32.4 to 39.7 feet

GEOT_WELLNB 3661-02.GPJ 8/15/07

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-19

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-14-07 END: 2-14-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 52 AFTER 24 HOURS: ▼ 47.3 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	Grayish-brown and tan, dry, very micaceous, silty, fine to medium SAND		Filter pack, sand 39.7 to 55.1 feet
44			
46	PARTIALLY WEATHERED ROCK which sampled as brown and gray, moist to wet, very micaceous, silty, fine to coarse SAND		
48 ▼			
50			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 44.8 to 54.8 feet
52 ▽			
54			
56	Boring terminated at 55.1 feet. Groundwater encountered at 52 feet at time of drilling and at 47.3 feet after 24 hours.		Pipe cap Total well depth, 55.1 feet
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

GEOT_WELLNB 3661-02.GPJ 8/15/07

MW-19

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

DHEC — PROMOTE. PROTECT. PROSPER.

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Bentonite Seal:
32.4' - 39.7'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 55.1 ft. Date Started: 2/14/07 Date Completed: 2/14/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 49.8 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 44.8 ft. and 54.8 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 47.3 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 39.7 ft. to 55.1 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 32.4 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: John Gorman CERT. NO.: 1807
Address: (Print) Level: A B C D (circle one) ☐ ☑ ☐ ☐
6004 Ponders Court, Greenville, SC 29615
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-20

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-15-07 END: 2-19-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ AFTER 4 HOURS: ▼ 67.40 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Reddish-brown and brown, dry, fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 97.96 feet Ground surface elev. = 94.73 feet Elevations are relative to an arbitrary site datum
4			
6	Brown and dark brown, dry, micaceous, fine to medium sandy SILT with slightly clay		
8			
10			
12			
14	Brown, dry, very micaceous, fine to medium sandy SILT with minor quartz fragments		
16			
18			
20			Neat cement, 0 to 44.5 feet
22			
24			
26			
28	Light grayish-brown, very micaceous, silty, fine to medium SAND with quartz fragments		
30			
32			
34			
36			
38			
-	PARTIALLY WEATHERED ROCK which sampled as gray and light brown, dry, micaceous, silty, fine to coarse SAND		

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-20

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-15-07 END: 2-19-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ AFTER 4 HOURS: ▼ 67.40 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	BEDROCK - gray and black BIOTITE GNEISS		Neat cement, 0 to 44.5 feet
44			
46			
48			
50			Bentonite seal, 44.5 to 58 feet
52			
54			
56			
58			Filter pack, sand 58 to 82 feet
60	Minor fracture at 59 feet - no water		
62	Minor fracture at 61 feet - no water		
64			
66	Minor fracture at 65 feet - no water		
68	▼		
70			
72			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 61.8 to 81.8 feet
74	Minor fracture at 73 feet - no water		
76	Minor fracture at 75 feet - minimal water		
78			

GEOT_WELLNB 3661-02.GPJ 8/15/07

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-20

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-15-07 END: 2-19-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ AFTER 4 HOURS: ▼ 67.40 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
82	BEDROCK - gray and black BIOTITE GNEISS		Pipe cap
84	Boring terminated at 82 feet. No groundwater encountered at time of drilling but was encountered at 67.40 feet after 4 days.		Total well depth, 82.0 feet
86	Note: The upper reaches of bedrock was massive and without apparent water bearing fractures. A 20 foot long screen was installed to bracket microfractures.		
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100			
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110			
112			
114			
116			
118			

MW-20

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 44.5' - 58'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 82.0 ft. Date Started: 2/15/07 Date Completed: 2/19/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 61.8 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-in Length: 20
Set Between: 61.8 ft. and 81.8 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 67.40 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 58 ft. to 82 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 44.5 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John Gorman (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-21

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-16-07 END: 2-16-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 33.9 AFTER 3 HOURS: ▼ 34.10 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Brown and reddish-brown, dry, slightly micaceous, slightly fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 87.23 feet Ground surface elev. = 83.56 feet
4			
6	Reddish-brown and brown, dry, micaceous, fine to medium sandy SILT		Elevations are relative to an arbitrary site datum
8			
10			
12			Neat cement, 0 to 23.3 feet
14			
16			
18			
20			
22			
24			
26	Grayish-brown, dry, very micaceous, silty, fine to medium SAND		Bentonite seal, 23.3 to 30 feet
28			
30			Filter pack, sand 30 to 44 feet
32			
34 ▼	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, moist, very micaceous, silty, fine to coarse SAND		
36			
38	BEDROCK - gray and black BIOTITE GNEISS		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 33.7 to 43.7 feet

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-21

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-16-07 END: 2-16-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 33.9 AFTER 3 HOURS: ▼ 34.10 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	BEDROCK - gray and black BIOTITE GNEISS Water bearing fracture at 41.5 feet		
44	Boring terminated at 44 feet. Groundwater encountered at 33.90 feet at time of drilling and at 34.10 feet after 3 days.		Pipe cap Total well depth, 43.9 feet
46			
48			
50			
52			
54			
56			
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60			
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66			
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70			
72			
74			
76			
78			

MW-21

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 23.3' - 30'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 43.9 ft. Date Started: 2/16/07 Date Completed: 2/16/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 33.7 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN: Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 33.7 ft. and 43.7 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 34.10 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 44 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 23.3 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-22

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-19-07 END: 2-19-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 38.0 AFTER 24 HOURS: ▼ 37.40 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Brown, slightly moist, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 84.09 feet Ground surface elev. = 80.46 feet Elevations are relative to an arbitrary site datum
4			
6	Brown and dark brown, slightly moist, micaceous, fine to medium sandy SILT with slight clay		
8			
10			
12	Brown, slightly moist, micaceous, fine to medium sandy SILT with minor quartz fragments		Neat cement, 0 to 27.8 feet
14			
16			
18	Grayish-brown, moist, very micaceous, silty, fine to medium SAND		
20			
22			
24			
26	PARTIALLY WEATHERED ROCK which sampled as gray and black, moist, micaceous, silty, fine to coarse SAND		
28			
30			Bentonite seal, 27.8 to 33 feet
32			
34			Filter pack, sand 33 to 45.2 feet
36			
38	BEDROCK - gray and black BIOTITE GNEISS Minor water bearing fracture from 37 to 45.2 feet		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 35 to

GEOT_WELLNB 3661-02.GPJ 8/15/07

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-22

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-19-07 END: 2-19-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 38.0 AFTER 24 HOURS: ▼ 37.40 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	**BEDROCK - gray and black BIOTITE GNEISS**		45 feet 2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 35 to 45 feet
44			
46	**Boring terminated at 45.2 feet. Groundwater encountered at 38.0 feet at time of drilling and at 37.40 feet after 24 hours.**		Pipe cap Total well depth, 45.2 feet
48			
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GEOT_WELLNB 3661-02.GPJ 8/15/07

MW-22

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 27.8'-33'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 45.2 ft. Date Started: 2/19/07 Date Completed: 2/19/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
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: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 35 ft. and 45 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 37.40 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 45.2 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 27.8 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman Well Driller Date: 5-24-07

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-23

PROJECT: KMO #119 PROJECT NO.: J04-3661-02
CLIENT: Ken Moorhead Oil Company START: 2-19-07 END: 2-19-07
LOCATION: Anderson, South Carolina ELEVATION:
DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton
DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer
DEPTH TO - WATER> INITIAL: ▽ 43.6 AFTER 24 HOURS: ▼ 36.3 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Brown, dry, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 88.00 feet Ground surface elev. = 84.72 feet
6	Reddish-brown and brown, dry, micaceous, fine to medium sandy SILT		Elevations are relative to an arbitrary site datum
14			Neat cement, 0 to 26 feet
24	Grayish-brown, dry, very micaceous, silty, fine to medium SAND		
30			Bentonite seal, 26 to 32 feet
32			Filter pack, sand 32 to 45.5 feet
34	PARTIALLY WEATHERED ROCK which sampled as gray, white and black, moist, micaceous, silty, fine to coarse SAND		
36 ▼			
38	BEDROCK - gray and black BIOTITE GNEISS Water bearing fracture encountered at 38.5 feet		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 35.3 to 45.3 feet

GEOT_WELLNB 3661-02.GPJ 8/15/07

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-23

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-19-07 END: 2-19-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 43.6 AFTER 24 HOURS: ▼ 36.3 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	BEDROCK - gray and black BIOTITE GNEISS		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 35.3 to 45.3 feet
44 ▽			
46	Boring terminated at 45.5 feet. Groundwater encountered at 43.6 feet at time of drilling and at 36.3 feet after 24 hours.		Pipe cap Total well depth, 45.5 feet
48			
50			
52			
54			
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

GEOT_WELLNB 3661-02.GPJ 8/15/07

MW-23

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 26' - 32'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 45.5 ft. Date Started: 2/19/07 Date Completed: 2/19/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 35.3 ft. depth
in. to ft. depth
Height: Above ☐ Below ☐
Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 35.3 ft. and 45.3 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 36.3 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 32 ft. to 45.5 ft.
Effective size #2 Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 26 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman Well Driller Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-24

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-20-07 END: 2-20-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ AFTER 3 HOURS: ▼ 76.04 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Brown and reddish-brown, slightly moist, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 81.89 feet Ground surface elev. = 78.51 feet Elevations are relative to an arbitrary site datum
4			
6	Brown and dark brown, slightly moist, micaceous, fine to medium sandy SILT with slight clay		
8			
10			
12	Brown, dry, micaceous, fine to medium sandy SILT with minor quartz fragments		
14			
16			
18			
20			
22			Neat cement, 0 to 46 feet
24	Grayish-brown, dry, very micaceous, silty, fine to medium SAND with minor quartz fragments		
26			
28			
30			
32			
34			
36	PARTIALLY WEATHERED ROCK which sampled as gray and black, dry, micaceous, silty, fine to coarse SAND		
38			
40			
42	BEDROCK - gray and black BIOTITE GNEISS No significant fractures encountered throughout boring		Neat cement, 0 to 46 feet
44			

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-24

PROJECT: KMO #119 PROJECT NO.: J04-3661-02
CLIENT: Ken Moorhead Oil Company START: 2-20-07 END: 2-20-07
LOCATION: Anderson, South Carolina ELEVATION:
DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton
DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer
DEPTH TO - WATER> INITIAL: ▽ AFTER 3 HOURS: ▼ 76.04 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
46	BEDROCK - gray and black BIOTITE GNEISS No significant fractures encountered throughout boring		Bentonite seal, 46 to 54 feet
48			
50			
52			
54			Filter pack, sand 54 to 77.1 feet
56			
58			
60			
62			
64			
66			
68			
70			
72			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 56.9 to 76.9 feet
74			
76 ▼			
78	Boring terminated at 77.1 feet. No groundwater encountered at time of drilling but was encountered at 76.4 feet after 3 days.		Pipe cap Total well depth, 77.1 feet
80			
82	Note: The upper reaches of bedrock was massive and without apparent water bearing fractures. A 20 foot long screen was installed to bracket the microfractures encountered.		
84			
86			
88			

MW-24

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	* Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 46'-54'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 77.1 ft. Date Started: 2/20/07 Date Completed: 2/20/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 56.9 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-in
Slot/Gauge: 0.010-in Length: 20
Set Between: 56.9 ft. and 76.9 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 76.04 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 54 ft. to 77.1 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 46 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman Well Driller Date: 5-24-07

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

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

BLB INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-25

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-21-07 END: 2-21-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 48.5 AFTER 24 HOURS: ▼ 49.9 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Brown, dry, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 87.36 feet Ground surface elev. = 83.86 feet Elevations are relative to an arbitrary site datum
4			
6	Brown, dry, micaceous, fine to medium sandy SILT with slight clay		
8			
10			
12			
14	Brown and grayish-brown, slightly moist, micaceous, fine to medium sandy SILT with minor quartz fragments		
16			
18			
20			
22	Grayish-brown, dry, very micaceous, silty, fine to medium SAND		Neat cement, 0 to 38.5 feet
24			
26			
28	PARTIALLY WEATHERED ROCK which sampled as whitish-black, dry, very micaceous, silty, fine to coarse SAND intermixed with competent bedrock zones (BIOTITE GNEISS)		
30			
32			
34			
36			
38			Bentonite seal, 38.5 to 45 feet

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-25

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-21-07 END: 2-21-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 48.5 AFTER 24 HOURS: ▼ 49.9 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	PARTIALLY WEATHERED ROCK which sampled as whitish-black, dry, very micaceous, silty, fine to coarse SAND intermixed with competent bedrock zones (BIOTITE GNEISS)		Bentonite seal, 38.5 to 45 feet
44			
46			Filter pack, sand 45 to 58.5 feet
48 ▽	PARTIALLY WEATHERED ROCK which sampled as gray and black, moist to wet, very micaceous, silty, fine to coarse SAND		
50 ▼			
52			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 47.6 to 57.6 feet
54			
56			
58			Pipe cap
60	Boring terminated at 58.5 feet. Groundwater encountered at 48.5 feet at time of drilling and at 49.9 feet after 24 hours.		Total well depth, 57.8 feet
62			
64			
66			
68			
70			
72			
74			
76			
78			

GEOT_WELLNB 3661-02.GPJ 10/11/07

MW-25

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: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal! 38.5' - 45'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 57.8 ft. Date Started: 2/21/07 Date Completed: 2/21/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 47.6 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010 inch Length: 10
Set Between: 47.6 ft. and 57.6 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 49.9 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 45 ft. to 58.5 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 38.5 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-26

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-22-07 END: 2-26-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ AFTER 3 HOURS: ▼ 75.2 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Brown, dry, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 85.06 feet Ground surface elev. = 81.65 feet Elevations are relative to an arbitrary site datum
6	Reddish-brown and brown, micaceous, fine to medium sandy SILT		
16			Neat cement, 0 to 38.4 feet
22	Grayish-brown, dry, very micaceous, silty, fine to medium SAND		
36	PARTIALLY WEATHERED ROCK which sampled as gray and black, dry, micaceous, silty, fine to coarse SAND		Bentonite seal, 38.4 to 43.5 feet Bentonite seal, 38.4 to 43.5 feet
44	BEDROCK - gray and black BIOTITE GNEISS		Filter pack, sand 43.5 to 77.3 feet

GROUND WATER MONITORING WELL NO. MW-26

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

PROJECT: KMO #119 — PROJECT NO.: J04-3661-02
CLIENT: Ken Moorhead Oil Company — START: 2-22-07 END: 2-26-07
LOCATION: Anderson, South Carolina — ELEVATION:
DRILLER: Landprobe, J. Gorman — LOGGED BY: T. Benton
DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer
DEPTH TO - WATER> INITIAL: ▽ ____ AFTER 3 HOURS: ▼ 75.2 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
46	BEDROCK - gray and black BIOTITE GNEISS		
48			
50			
52			
54			
56			
58			
60			
62			
64			
66	Minor fracture - no apparent water		
68			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 57.1 to 77.1 feet
70			
72			
74			
76			Pipe cap
78	Boring terminated at 77.3 feet. No groundwater encountered at time of drilling but was encountered at 75.2 feet after 3 days.		Total well depth, 77.3 feet
80			
82	Note: The upper reaches of bedrock was massive and without apparent water bearing fractures. A 20 foot long screen was installed to bracket microfractures.		
84			
86			
88			

GEOT_WELLNB 3661-02.GPJ 10/11/07

MW-26

DHEC
PROMOTE. PROTECT. PROSPER.

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

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 38.4' - 43.5'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 77.3 ft. Date Started: 2/22/07 Date Completed: 2/26/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 57.1 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-in
Slot/Gauge: 0.010-in Length: 20
Set Between: 57.1 ft. and 77.1 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 75.2 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 43.5 ft. to 77.3 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 38.4 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-27

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 2-23-07 END: 2-23-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 39.1 AFTER 3 HOURS: ▼ 38.9 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Brown, moist, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 76.31 feet
4			Ground surface elev. = 72.91 feet
6	Dark brown, moist, micaceous, fine to medium sandy SILT with slight clay		Elevations are relative to an arbitrary site datum
8			
10			
12	Brown, dry, micaceous, fine to medium sandy SILT		Neat cement, 0 to 25.5 feet
14			
16			
18			
20			
22			
24	Brown to grayish-brown, dry, very micaceous, silty, fine to medium SAND		
26			Bentonite seal, 25.5 to 31.2 feet
28			
30			
32			Filter pack, sand 31.2 to 45 feet
34			
36	PARTIALLY WEATHERED ROCK which sampled as gray and black, dry to moist, micaceous, silty, fine to coarse SAND		
38	▼ PARTIALLY WEATHERED ROCK which sampled as light		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 34.5 to 44.5 feet

GEOT_WELLNB 3661-02.GPJ 10/11/07

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-27

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

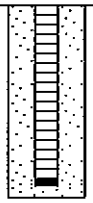
CLIENT: Ken Moorhead Oil Company START: 2-23-07 END: 2-23-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 39.1 AFTER 3 HOURS: ▼ 38.9 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	grayish-brown and black, moist to wet, very micaceous, silty, fine to coarse SAND		 Pipe cap
44			
46	Boring terminated at 45 feet. Groundwater encountered at 39.1 feet at time of drilling and at 38.9 feet after 3 days.		Total well depth, 44.7 feet
48			
50			
52			
54			
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

MW-27

DHEC — PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 25.5' - 31.2'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 44.7 ft. Date Started: 2/23/07 Date Completed: 2/23/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 34.5 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 34.5 ft. and 44.5 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 38.9 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 31.2 ft. to 45 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 25.5 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-28

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 3-1-07 END: 3-1-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 43.5 AFTER 24 HOURS: ▼ 42.17 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Brown and reddish-brown, dry, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 98.33 feet Ground surface elev. = 95.07 feet
6	Reddish-brown, dry, micaceous, fine to medium sandy SILT		Elevations are relative to an arbitrary site datum
14			Neat cement, 0 to 31.2 feet
26	Brown and grayish-brown, dry, very micaceous, silty, fine to medium SAND		
32			Bentonite seal, 31.2 to 39 feet
38			Filter pack, sand 39 to 52 feet

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-28

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 3-1-07 END: 3-1-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 43.5 AFTER 24 HOURS: ▼ 42.17 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42 ▼	Brown and grayish-brown, dry, very micaceous, silty, fine to medium SAND		Filter pack, sand 39 to 52 feet
44 ▽			
46			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 41.5 to 51.5 feet
48	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, wet, very micaceous, silty, fine to coarse SAND		
50			
52	Boring terminated at 52 feet. Groundwater encountered at 43.5 feet at time of drilling and at 42.17 feet after 24 hours.		Pipe cap Total well depth, 51.7 feet
54			
56			
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

GEOT WELLNB 3661-02.GPJ 8/15/07

MW-28

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
See Attached Log		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 31.2' - 39'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 51.7 ft. Date Started: 3/1/07 Date Completed: 3/1/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 41.5 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 41.5 ft. and 51.5 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 42.17 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 #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 31.2 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-29

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 3-2-07 END: 3-2-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 47 AFTER 24 HOURS: ▼ 46.20 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of GRASS and TOPSOIL Reddish-brown and brown, dry, slightly micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush mount below ground surface Top of casing elev. = 95.60 feet Ground surface elev. = 95.77 feet
6	Reddish-brown, dry, micaceous, fine to medium sandy SILT with slight clay		Elevations are relative to an arbitrary site datum
16			Neat cement, 0 to 34.7 feet
20	Light brown, dry, very micaceous, fine to medium sandy SILT intermixed with light brown, very micaceous, silty, fine to medium SAND		
32	Light brown, dry to moist, very micaceous, silty, fine to medium SAND		
34			Bentonite seal, 34.7 to 41.8 feet

BLB INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-29

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 3-2-07 END: 3-2-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary and 6-inch OD air hammer

DEPTH TO - WATER> INITIAL: ▽ 47 AFTER 24 HOURS: ▼ 46.20 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
42	Light brown, dry to moist, very micaceous, silty, fine to medium SAND		Bentonite seal, 34.7 to 41.8 feet Filter pack, sand 41.8 to 55.1 feet
44			
46 ▼ ▽	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, moist, micaceous, silty, fine to coarse SAND		
48	BEDROCK - gray and black BIOTITE GNEISS		
50			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 44.9 to 54.9 feet
52			
54			
56	Boring terminated at 55.1 feet. Groundwater encountered at 47 feet at time of drilling and at 46.20 feet after 24 hours.		Pipe cap Total well depth, 55.1 feet
58			
60			
62			
64			
66			
68			
70			
72			
74			
76			
78			

GEOT_WELLNB 3661-02.GPJ 8/15/07

MW-29

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

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Bentonite Seal:
34.7'-41.8'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 55.1 ft. Date Started: 3/2/07 Date Completed: 3/2/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 44.9 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 44.9 ft. and 54.9 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 46.20 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 41.8 ft. to 55.1 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 34.7 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman (Well Driller) Date: 5-24-07

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

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

BLB INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-30

PROJECT: KMO #119 — PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company — START: 3-5-07 END: 3-5-07

LOCATION: Anderson, South Carolina — ELEVATION:

DRILLER: Landprobe, J. Gorman — LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 24.7 AFTER 24 HOURS: ▼ 24.5 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Reddish-brown, moist, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 61.37 feet
4			Ground surface elev. = 58.42 feet
6	Reddish-brown to brown, moist, very micaceous, fine to medium sandy SILT		Elevations are relative to an arbitrary site datum
8			
10			Neat cement, 0 to 13.6 feet
12			
14			Bentonite seal, 13.6 to 20 feet
16			
18			
20			Filter pack, sand 20 to 33.2 feet
22	Light brown, moist, very micaceous, silty, fine to medium SAND		
24 ▼			
26			
28	PARTIALLY WEATHERED ROCK which sampled as brown and gray, wet, micaceous, silty, fine to coarse SAND		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 23 to 33 feet
30			
32			
34	Boring terminated at 33.2 feet. Groundwater encountered at 24.7 feet at time of drilling and at 24.5 feet after 24 hours.		Pipe cap Total well depth, 33.2 feet
36			
38			

MW-30

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

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 13.6'-20'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 33.2 ft. Date Started: 3/5/07 Date Completed: 3/5/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 23 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 inch
Slot/Gauge: 0.010 inch Length: 10
Set Between: 23 ft. and 33 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 24.5 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 20 ft. to 33.2 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 13.6 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-31

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 3-5-07 END: 3-5-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 31.2 AFTER 24 HOURS: ▼ 30.9 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Reddish-brown, moist, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 67.41 feet Ground surface elev. = 64.10 feet
4			
6	Reddish-brown and brown, moist, micaceous, fine to medium sandy SILT		Elevations are relative to an arbitrary site datum
8			
10			Neat cement, 0 to 13.6 feet
12			
14			Bentonite seal, 13.6 to 25.5 feet
16			
18			
20			
22			
24	Brown, moist, very micaceous, silty, fine to medium SAND		
26			Filter pack, sand 25.5 to 40 feet
28	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, moist to wet, micaceous, silty, fine to coarse SAND		
30 ▼			
32			
34			
36			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 29.8 to 39.8 feet
38			
40			Pipe cap
42	Boring terminated at 40 feet. Groundwater encountered at 31.2 feet at time of drilling and at 30.9 feet after 24 hours.		Total well depth, 40 feet
44			

mw-31

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

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 13.6' - 25.5'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 40 ft. Date Started: 3/5/07 Date Completed: 3/5/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 29.8 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 29.8 ft. and 39.8 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 30.9 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 25.5 ft. to 40 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 13.6 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: _____ (Well Driller) Date: 5-24-07

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

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

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-32

PROJECT: KMO #119 PROJECT NO.: J04-3661-02

CLIENT: Ken Moorhead Oil Company START: 3-6-07 END: 3-6-07

LOCATION: Anderson, South Carolina ELEVATION:

DRILLER: Landprobe, J. Gorman LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 6-inch OD air rotary

DEPTH TO - WATER> INITIAL: ▽ 26 AFTER 24 HOURS: ▼ 24.5 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
2	6-inches of TOPSOIL Reddish-brown, dry, slightly micaceous, slightly fine to medium sandy, silty CLAY		SURFACE COMPLETION 4" x 4" x 5' long stand-up steel protective cover secured in a 2' x 2' x 6" thick concrete pad Top of casing elev. = 61.57 feet Ground surface elev. = 58.61 feet Elevations are relative to an arbitrary site datum
6	Reddish-brown and brown, dry, micaceous, fine to medium sandy SILT		Neat cement, 0 to 13 feet
16	Intermixed layers of light brown, moist, micaceous, fine to medium sandy SILT and PARTIALLY WEATHERED ROCK which sampled as light grayish-brown and black, micaceous, silty, fine to coarse SAND		Bentonite seal, 13 to 19.8 feet Filter pack, sand 19.8 to 32 feet 2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 21.7 to 31.7 feet
32	Boring terminated at 32 feet. Groundwater encountered at 26 feet at time of drilling and at 24.5 feet after 24 hours.		Pipe cap Total well depth, 32 feet

MW-32

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Ken Moorhead Oil Company (last) (first)
Address: 820 South Main Street
City: Anderson State: SC Zip: 29624-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: KMO #119 (MD Food Mart)
Street Address: 1312 Williamston Road
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from N/A ft. to N/A ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite Seal: 13' - 19.8'

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 32 ft. Date Started: 3/6/07 Date Completed: 3/6/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2-inch
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 21.7 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 10
Set Between: 21.7 ft. and 31.7 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 24.5 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 19.8 ft. to 32 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 13 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: John Gorman CERT. NO.: 1807
Address: (Print) 6004 Ponders Court, Greenville, SC 29615
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 864-288-1265 Fax No.: 864-288-4430

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

Signed: John C. Gorman (Well Driller) Date: 5-24-07

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

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

APPENDIX A - CONTINUED

MONITORING WELL PURGING AND SAMPLING PROCEDURES

Pursuant to SCDHEC's directive, purging was not required for monitoring wells where the well screens bracket the water table during the time of sampling (with the exception of new well development). Therefore, the monitoring wells which required purging were purged prior to sample collection to remove any stagnant water from the well so that the samples collected were representative of the groundwater quality in the vicinity of each well. For wells that recovered quickly, a minimum of three volumes of water was evacuated. Wells that were evacuated to dryness with less than three well volumes being removed were sampled as soon as the well had recovered enough to yield sufficient volume for a sample.
Specific conductance, pH, water temperature, and dissolved oxygen were measured periodically during well evacuation using instruments, which were calibrated as required.

The monitoring wells were purged using 42-inch long disposable bailers attached to an unused polypropylene cord or a downhole pump with disposable polyethylene tubing. To minimize the potential for cross-contamination between wells, a new clean bailer or new tubing was used for each well.

Samples for VOC analysis were placed in laboratory prepared 40-milliliter glass vials with Teflon ® lined lids and marked with identifying numbers. The VOC samples were preserved using hydrochloric acid (HCl). The nitrate and sulfate samples were not preserved. The sample containers were maintained at approximately 4° Celsius in a refrigerated sample cooler. The sample cooler was shipped to Environmental Science Corp. in Mt. Juliet, Tennessee via overnight delivery service for analysis.

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/18-18:30	Env. Science Corp.	4/19- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorhead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-1R

Well Diameter (D): 2 inch of 44.00 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 39.22 feet
Total Well Depth (TWD) 44.00 feet
Length of Water Column (LWC=TWD-DGW) 4.78 feet

1 Casing Volume (CV = LWC X C) = 4.78 X 0.17 = 0.81 gals
3 Casing Volume 3 X CV = 2.43 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 1 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1		
Time (military)	1215	1219		
pH (s.u.)	5.92	5.91		
Specific Cond. (µmhos/cm)	204	194		
Water Temperature (°C)	20.2	20.1		
Turbidity (subjective: clear, slightly cloudy, cloudy)	Slight	Cloudy		
Dissolved Oxygen (mg/l)	0.60			

Remarks: Well purged dry after one gallon. Well sampled at 14:10 on 4/18/07

D H E C
PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/18-18:30	Env. Science Corp.	4/19- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorhead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-1D

Well Diameter (D): 2 inch of 106.40 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 54.20 feet
Total Well Depth (TWD) 106.40 feet
Length of Water Column (LWC=TWD-DGW) 52.20 feet

1 Casing Volume (CV = LWC X C) = 52.20 X 0.17 = 8.87 gals
3 Casing Volume 3 X CV = 26.61 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 11 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	9	dry @ 11 gal	
Time (military)	1230	1323		
pH (s.u.)	7.86	7.74		
Specific Cond. (µmhos/cm)	297	331		
Water Temperature (°C)	21.8	19.1		
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy		
Dissolved Oxygen (mg/l)	0.58			

Remarks: Well purged dry after 11 gallons. Well sampled at 14:28 on 4/18/07

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/18-18:30	Env. Science Corp.	4/19- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorhead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-2

Well Diameter (D): 2 inch of 42.50 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 34.61 feet
Total Well Depth (TWD) 42.50 feet
Length of Water Column (LWC=TWD-DGW) 7.89 feet

1 Casing Volume (CV = LWC X C) = 7.89 X 0.17 = 1.34 gals
3 Casing Volume 3 X CV = 4.02 gals (standard purge volume)

Total Volume of Water Purged Before Sampling NA gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0			
Time (military)	1502			
pH (s.u.)	6.50			
Specific Cond. (µmhos/cm)	358.2			
Water Temperature (°C)	22.0			
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear			
Dissolved Oxygen (mg/l)	1.02			

Remarks: Well sampled at 15:02 on 4/18/07

D H E C
PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/18-18:30	Env. Science Corp.	4/19- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorhead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-3

Well Diameter (D): 2 inch of 40.40 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 32.39 feet
Total Well Depth (TWD) 40.40 feet
Length of Water Column (LWC=TWD-DGW) 8.01 feet

1 Casing Volume (CV = LWC X C) = 8.01 X 0.17 = 1.36 gals
3 Casing Volume 3 X CV = 4.08 gals (standard purge volume)

Total Volume of Water Purged Before Sampling NA gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0			
Time (military)	1516			
pH (s.u.)	5.0			
Specific Cond. (µmhos/cm)	46.2			
Water Temperature (°C)	21.6			
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear			
Dissolved Oxygen (mg/l)	1.99			

Remarks: Well sampled at 15:16 on 4/18/07

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/18-18:30	Env. Science Corp.	4/19- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-4

Well Diameter (D): 2 inch of 47.10 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 39.86 feet
Total Well Depth (TWD) 47.10 feet
Length of Water Column (LWC=TWD-DGW) 7.24 feet

1 Casing Volume (CV = LWC X C) = 7.24 X 0.17 = 1.23 gals
3 Casing Volume 3 X CV = 3.69 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 2 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1.5	dry @ 2 gal	
Time (military)	1508	1512		
pH (s.u.)	5.08	5.13		
Specific Cond. (µmhos/cm)	29.4	34.7		
Water Temperature (°C)	19.6	19.2		
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy		
Dissolved Oxygen (mg/l)	3.36			

Remarks: Well purged dry after two gallons. Well sampled at 16:28 on 4/18/07

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/18-18:30	Env. Science Corp.	4/19- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-5

Well Diameter (D): 2 inch of 32.30 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 27.15 feet
Total Well Depth (TWD) 32.30 feet
Length of Water Column (LWC=TWD-DGW) 5.15 feet

1 Casing Volume (CV = LWC X C) = 5.15 X 0.17 = 0.88 gals
3 Casing Volume 3 X CV = 2.64 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 3 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1	2	3
Time (military)	1454	1456	1500	1503
pH (s.u.)	5.32	5.19	5.16	5.13
Specific Cond. (µmhos/cm)	32.2	33.3	33.8	33.9
Water Temperature (°C)	19.8	19.2	19.1	19.0
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	6.51			

Remarks: Well sampled at 16:45 on 4/18/07

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/18-18:30	Env. Science Corp.	4/19- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-6

Well Diameter (D): 2 inch of 44.30 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 39.52 feet
Total Well Depth (TWD) 44.30 feet
Length of Water Column (LWC=TWD-DGW) 4.78 feet

1 Casing Volume (CV = LWC X C) = 4.78 X 0.17 = 0.81 gals
3 Casing Volume 3 X CV = 2.43 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 3 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1	2	3
Time (military)	1348	1351	1355	1359
pH (s.u.)	6.67	5.77	5.44	5.26
Specific Cond. (µmhos/cm)	27.3	25.6	24.1	24.5
Water Temperature (°C)	19.2	18.7	18.2	18.2
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	5.12			

Remarks: Well sampled at 1537 on 4/18/07

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: ____ °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/18-18:30	Env. Science Corp.	4/19- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-7

Well Diameter (D): 2 inch of 39.50 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 34.09 feet
Total Well Depth (TWD) 39.50 feet
Length of Water Column (LWC=TWD-DGW) 5.41 feet

1 Casing Volume (CV = LWC X C) = 5.41 X 0.17 = 0.92 gals
3 Casing Volume 3 X CV = 2.76 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 3 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1	2	3
Time (military)	1416	1419	1422	1425
pH (s.u.)	5.31	5.04	5.02	5.01
Specific Cond. (µmhos/cm)	47.1	36.8	37.4	38.2
Water Temperature (°C)	19.6	19.2	19.1	19.0
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	5.28			

Remarks: Well sampled at 1547 on 4/18/07

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: ____ °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/18-18:30	Env. Science Corp.	4/19- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-8

Well Diameter (D): 2 inch of 30.60 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 25.41 feet
Total Well Depth (TWD) 30.60 feet
Length of Water Column (LWC=TWD-DGW) 5.19 feet

1 Casing Volume (CV = LWC X C) = 5.19 X 0.17 = 0.88 gals
3 Casing Volume 3 X CV = 2.64 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 3 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1	2	3
Time (military)	1429	1431	1434	1437
pH (s.u.)	5.39	5.35	5.28	5.28
Specific Cond. (µmhos/cm)	21.70	19.20	19.83	19.95
Water Temperature (°C)	19.6	19.1	18.9	18.9
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	7.10			

Remarks: Well sampled at 1615 on 4/18/07

D H E C
PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-9

Well Diameter (D): 2 inch of 52.70 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 45.13 feet
Total Well Depth (TWD) 52.70 feet
Length of Water Column (LWC=TWD-DGW) 7.57 feet

1 Casing Volume (CV = LWC X C) = 7.57 X 0.17 = 1.29 gals
3 Casing Volume 3 X CV = 3.87 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 2 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1.5	Dry @ 2 gal	
Time (military)	1040	1043		
pH (s.u.)	6.32	6.38		
Specific Cond. (µmhos/cm)	372	368		
Water Temperature (°C)	19.0	18.6		
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy		
Dissolved Oxygen (mg/l)	1.19			

Remarks: Well purged dry after two gallons. Well sampled at 0758 on 4/20/07

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-10

Well Diameter (D): 2 inch of 50.90 Feet BTOC

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: **0.24** feet
Depth to Ground Water (DGW) 44.73 feet
Total Well Depth (TWD) 50.90 feet
Length of Water Column (LWC=TWD-DGW) 6.17 feet

1 Casing Volume (CV = LWC X C) = 6.17 X 0.17 = 1.05 gals
3 Casing Volume 3 X CV = 3.15 gals (standard purge volume)

Total Volume of Water Purged Before Sampling _____ gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)				
Time (military)				
pH (s.u.)				
Specific Cond. (µmhos/cm)				
Water Temperature (°C)				
Turbidity (subjective: clear, slightly cloudy, cloudy)				
Dissolved Oxygen (mg/l)				

Remarks: Petroleum free-product detected in well. No sample collected.

D H E C

PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-11

Well Diameter (D): 2 inch of 51.50 Feet BTOC

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: **0.33** Feet
Depth to Ground Water (DGW) 45.10 Feet
Total Well Depth (TWD) 51.50 Feet
Length of Water Column (LWC=TWD-DGW) 6.40 feet

1 Casing Volume (CV = LWC X C) = 6.40 X 0.17 = 1.09 gals
3 Casing Volume 3 X CV = 3.27 gals (standard purge volume)

Total Volume of Water Purged Before Sampling _____ gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)				
Time (military)				
pH (s.u.)				
Specific Cond. (µmhos/cm)				
Water Temperature (°C)				
Turbidity (subjective: clear, slightly cloudy, cloudy)				
Dissolved Oxygen (mg/l)				

Remarks: Petroleum free-product detected in well. No sample collected.

D H E C
PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-11D

Well Diameter (D): 2 inch of 90.40 Feet BTOC

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 46.27 Feet
Total Well Depth (TWD) 90.40 Feet
Length of Water Column (LWC=TWD-DGW) 44.13 feet

1 Casing Volume (CV = LWC X C) = 44.13 X 0.17 = 7.50 gals
3 Casing Volume 3 X CV = 22.50 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 13 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	8	dry @ 13 gal	
Time (military)	0847	0908		
pH (s.u.)	6.24	7.73		
Specific Cond. (µmhos/cm)	197	201		
Water Temperature (°C)	19.0	18.5		
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy		
Dissolved Oxygen (mg/l)	0.71			

Remarks: Well purged dry after 13 gallons. Well sampled at 0746 on 4/20/07.

D H E C
PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-12

Well Diameter (D): 2 inch of 53.00 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 44.33 feet
Total Well Depth (TWD) 53.00 feet
Length of Water Column (LWC=TWD-DGW) 8.67 feet

1 Casing Volume (CV = LWC X C) = 8.67 X 0.17 = 1.47 gals
3 Casing Volume 3 X CV = 4.41 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 4.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1.5	3	4.5
Time (military)	0826	0831	0835	0839
pH (s.u.)	5.21	5.19	5.16	5.18
Specific Cond. (µmhos/cm)	46.9	45.9	44.6	43.4
Water Temperature (°C)	18.1	18.1	18.1	18.1
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	5.01			

Remarks: Well sampled at 0738 on 4/20/07

D H E C
PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-13

Well Diameter (D): 2 inch of 48.30 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 45.06 feet
Total Well Depth (TWD) 48.30 feet
Length of Water Column (LWC=TWD-DGW) 3.24 feet

1 Casing Volume (CV = LWC X C) = 3.24 X 0.17 = 0.55 gals
3 Casing Volume 3 X CV = 1.65 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 1.0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	0.66	dry @ 1 gal	
Time (military)	1055	1057		
pH (s.u.)	6.48	6.60		
Specific Cond. (µmhos/cm)	612	597		
Water Temperature (°C)	18.5	18.0		
Turbidity (subjective: clear, slightly cloudy, cloudy)	Cloudy	Cloudy		
Dissolved Oxygen (mg/l)	0.68			

Remarks: Well purged dry after one gallon. Well sampled at 0848 on 4/20/07.

D H E C
PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter serial no.		Conductivity Meter serial no.	
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-14

Well Diameter (D): 2 inch of 50.60 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: **0.38** feet
Depth to Ground Water (DGW) 42.92 feet
Total Well Depth (TWD) 50.60 feet
Length of Water Column (LWC=TWD-DGW) 7.68 feet

1 Casing Volume (CV = LWC X C) = 7.68 X 0.17 = 1.31 gals
3 Casing Volume 3 X CV = 3.93 gals (standard purge volume)

Total Volume of Water Purged Before Sampling NA gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)				
Time (military)				
pH (s.u.)				
Specific Cond. (µmhos/cm)				
Water Temperature (°C)				
Turbidity (subjective: clear, slightly cloudy, cloudy)				
Dissolved Oxygen (mg/l)				

Remarks: Petroleum free-product detected in well. No sample collected.

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-15

Well Diameter (D): 2 inch of 51.30 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 44.74 feet
Total Well Depth (TWD) 51.30 feet
Length of Water Column (LWC=TWD-DGW) 6.56 feet

1 Casing Volume (CV = LWC X C) = 6.56 X 0.17 = 1.12 gals
3 Casing Volume 3 X CV = 3.36 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 4.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1.5	3	4.5
Time (military)	1009	1012	1015	1018
pH (s.u.)	5.96	5.88	5.86	5.89
Specific Cond. (µmhos/cm)	158.1	149.5	149.3	153.6
Water Temperature (°C)	18.1	17.9	17.9	17.8
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	0.71			

Remarks: Well sampled at 0830 on 4/20/07

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/18-18:30	Env. Science Corp.	4/19- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-16

Well Diameter (D): 2 inch of 49.00 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 39.83 feet
Total Well Depth (TWD) 49.00 feet
Length of Water Column (LWC=TWD-DGW) 9.17 feet

1 Casing Volume (CV = LWC X C) = 9.17 X 0.17 = 1.56 gals
3 Casing Volume 3 X CV = 4.68 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 6 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	2	4	6
Time (military)	1238	1241	1244	1248
pH (s.u.)	7.70	6.56	6.55	6.52
Specific Cond. (µmhos/cm)	484	468	479	494
Water Temperature (°C)	20.2	20.2	20.0	20.2
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Slight
Dissolved Oxygen (mg/l)	0.46			

Remarks:

D H E C
PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 18, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/18-18:30	Env. Science Corp.	4/19- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-17

Well Diameter (D): 2 inch of 48.70 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 42.08 feet
Total Well Depth (TWD) 48.70 feet
Length of Water Column (LWC=TWD-DGW) 6.62 feet

1 Casing Volume (CV = LWC X C) = 6.62 X 0.17 = 1.13 gals
3 Casing Volume 3 X CV = 3.39 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 4.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1.5	3	4.5
Time (military)	1346	1352	1358	1406
pH (s.u.)	7.30	5.69	5.52	5.49
Specific Cond. (µmhos/cm)	80.3	73.6	72.1	72.8
Water Temperature (°C)	20.7	19.8	18.7	18.7
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	3.78			

Remarks: Well sampled at 1608 on 4/18/07.

D H E C
PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-18

Well Diameter (D): 2 inch of 55.90 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 47.65 feet below ground surface
Total Well Depth (TWD) 55.90 feet
Length of Water Column (LWC=TWD-DGW) 8.25 feet

1 Casing Volume (CV = LWC X C) = 8.25 X 0.17 = 1.41 gals
3 Casing Volume 3 X CV = 4.23 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 4.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1.5	3	4.5
Time (military)	1114	1118	1123	1128
pH (s.u.)	7.11	6.59	5.52	6.48
Specific Cond. (µmhos/cm)	150.1	146.3	148.3	150.3
Water Temperature (°C)	17.9	17.7	17.6	17.6
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	4.20			

Remarks: Well sampled at 1016 on 4/20/07.

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-19

Well Diameter (D): 2 inch of 55.10 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 47.17 feet below ground surface
Total Well Depth (TWD) 55.10 feet
Length of Water Column (LWC=TWD-DGW) _____ feet

1 Casing Volume (CV = LWC X C) = 47.17 X 0.17 = 7.93 gals
3 Casing Volume 3 X CV = 4.05 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 4.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1.5	3	4.5
Time (military)	1137	1141	1145	1150
pH (s.u.)	6.41	6.23	6.23	6.17
Specific Cond. (µmhos/cm)	169.3	161.8	154.7	154.2
Water Temperature (°C)	17.1	16.9	16.9	16.9
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	1.05			

Remarks: Well sampled at 1010 on 4/20/07.

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-20

Well Diameter (D): 2 inch of 82.00 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 42.69 feet below ground surface
Total Well Depth (TWD) 82.00 feet
Length of Water Column (LWC=TWD-DGW) 39.31 feet

1 Casing Volume (CV = LWC X C) = 39.31 X 0.17 = 6.68 gals
3 Casing Volume 3 X CV = 20.04 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 21 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	7	14	21
Time (military)	1209	1225	1247	1302
pH (s.u.)	6.97	7.22	7.27	7.28
Specific Cond. (µmhos/cm)	301	298	295	296
Water Temperature (°C)	16.9	16.9	16.8	16.8
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	1.05			

Remarks: Well sampled at 0958 on 4/20/07

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-21

Well Diameter (D): 2 inch of 43.90 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 32.70 feet
Total Well Depth (TWD) 43.90 feet
Length of Water Column (LWC=TWD-DGW) 11.20 feet

1 Casing Volume (CV = LWC X C) = 11.20 X 0.17 = 1.91 gals
3 Casing Volume 3 X CV = 5.73 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 6 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	2	4	6
Time (military)	1305	1310	1315	1320
pH (s.u.)	6.72	6.45	6.30	6.29
Specific Cond. (µmhos/cm)	317	216	220	219
Water Temperature (°C)	17.2	17.2	17.2	17.2
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Slight
Dissolved Oxygen (mg/l)	0.81			

Remarks: Well sampled at 1045 on 4/20/07.

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-22

Well Diameter (D): 2 inch of 45.20 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 36.26 feet
Total Well Depth (TWD) 45.20 feet
Length of Water Column (LWC=TWD-DGW) 8.94 feet

1 Casing Volume (CV = LWC X C) = 8.94 X 0.17 = 1.52 gals
3 Casing Volume 3 X CV = 4.56 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 6 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	2	4	6
Time (military)	1711	1716	1721	1726
pH (s.u.)	6.23	6.23	6.20	6.25
Specific Cond. (µmhos/cm)	218	210	212	216
Water Temperature (°C)	16.7	16.6	16.6	16.6
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	0.98			

Remarks: Well sampled at 1055 on 4/20/07.

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-23

Well Diameter (D): 2 inch of 45.50 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 35.15 feet below ground surface
Total Well Depth (TWD) 45.50 feet
Length of Water Column (LWC=TWD-DGW) 10.35 feet

1 Casing Volume (CV = LWC X C) = 10.35 X 0.17 = 1.76 gals
3 Casing Volume 3 X CV = 5.28 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 6 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	2	4	6
Time (military)	1652	1657	1702	1707
pH (s.u.)	6.23	6.32	6.25	6.28
Specific Cond. (µmhos/cm)	363	257	255	249
Water Temperature (°C)	16.6	16.5	16.5	16.5
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	0.82			

Remarks: Well sampled at 1141 on 4/20/07

D H E C

PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-24

Well Diameter (D): 2 inch of 77.10 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 46.43 feet below ground surface
Total Well Depth (TWD) 77.10 feet
Length of Water Column (LWC=TWD-DGW) 30.67 feet

1 Casing Volume (CV = LWC X C) = 30.67 X 0.17 = 5.21 gals
3 Casing Volume 3 X CV = 15.63 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 16.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	5.5	11	16.5
Time (military)	0824	0836	0852	0904
pH (s.u.)	6.90	7.36	7.28	7.88
Specific Cond. (µmhos/cm)	199.2	188	197	198
Water Temperature (°C)	15.6	15.8	15.8	15.8
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	1.82			

Remarks: Well sampled at 1156 on 4/20/07.

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-25

Well Diameter (D): 2 inch of 57.80 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 48.67 feet below ground surface
Total Well Depth (TWD) 57.80 feet
Length of Water Column (LWC=TWD-DGW) 9.13 feet

1 Casing Volume (CV = LWC X C) = 9.13 X 0.17 = 1.56 gals
3 Casing Volume 3 X CV = 4.68 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 6 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	2	4	6
Time (military)	0750	0755	0800	0805
pH (s.u.)	6.11	6.07	6.07	6.10
Specific Cond. (µmhos/cm)	138.5	135.3	132.4	134.3
Water Temperature (°C)	15.6	16.0	16.0	15.9
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	3.22			

Remarks: Well sampled at 1212 on 4/20/07.

D H E C

PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 20, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-26

Well Diameter (D): 2 inch of 77.30 Feet BTOC

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 44.79 feet below ground surface
Total Well Depth (TWD) 77.30 feet
Length of Water Column (LWC=TWD-DGW) 32.51 feet

1 Casing Volume (CV = LWC X C) = 32.51 X 0.17 = 5.53 gals
3 Casing Volume 3 X CV = 16.59 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 13 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	6	12	dry @ 13 gal
Time (military)	0935	0946	0959	
pH (s.u.)	6.63	6.82	7.14	
Specific Cond. (µmhos/cm)	392	397	423	
Water Temperature (°C)	15.8	15.9	15.9	
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Slight	Cloudy	
Dissolved Oxygen (mg/l)	3.78			

Remarks: Well purged dry after 13 gallons. Well sampled at 1443 on 4/20/07.

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 20, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-27

Well Diameter (D): 2 inch of 44.70 Feet BTOC

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 37.85 feet below ground surface
Total Well Depth (TWD) 44.70 feet
Length of Water Column (LWC=TWD-DGW) 6.85 feet

1 Casing Volume (CV = LWC X C) = 6.85 X 0.17 = 1.17 gals
3 Casing Volume 3 X CV = 3.51 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 4 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1.33	2.66	4
Time (military)	0913	0916	0919	0922
pH (s.u.)	7.45	6.08	5.79	5.77
Specific Cond. (µmhos/cm)	57.7	52.8	64.9	77.6
Water Temperature (°C)	15.1	15.4	15.4	15.3
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	3.23			

Remarks: Well sampled at 1440 on 4/20/07.

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-28

Well Diameter (D): 2 inch of 51.70 Feet BTOC

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 43.50 feet below ground surface
Total Well Depth (TWD) 51.70 feet
Length of Water Column (LWC=TWD-DGW) 8.20 feet

1 Casing Volume (CV = LWC X C) = 8.20 X 0.17 = 1.40 gals
3 Casing Volume 3 X CV = 4.20 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 4.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1.5	3	4.5
Time (military)	1636	1641	1646	1649
pH (s.u.)	5.93	5.84	5.77	5.79
Specific Cond. (µmhos/cm)	78.8	60.5	60.8	61.2
Water Temperature (°C)	16.6	16.3	16.2	16.2
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	2.64			

Remarks: Well sampled at 1113 on 4/20/07.

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-29

Well Diameter (D): 2 inch of 55.10 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 45.52 feet
Total Well Depth (TWD) 55.10 feet
Length of Water Column (LWC=TWD-DGW) 9.58 feet

1 Casing Volume (CV = LWC X C) = 9.58 X 0.17 = 1.63 gals
3 Casing Volume 3 X CV = 4.89 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 6 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	2	4	6
Time (military)	0945	0950	0955	1000
pH (s.u.)	7.83	6.47	6.12	6.10
Specific Cond. (µmhos/cm)	129.5	133.2	132.4	133.1
Water Temperature (°C)	17.4	17.2	17.2	17.2
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	5.40			

Remarks: Well sampled at 0912 on 4/20/07

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-30

Well Diameter (D): 2 inch of 33.20 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 24.62 feet below ground surface
Total Well Depth (TWD) 33.20 feet
Length of Water Column (LWC=TWD-DGW) 8.58 feet

1 Casing Volume (CV = LWC X C) = 8.58 X 0.17 = 1.46 gals
3 Casing Volume 3 X CV = 4.38 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 4.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1.5	3	4.5
Time (military)	1345	1350	1355	1400
pH (s.u.)	5.53	5.35	5.37	5.38
Specific Cond. (µmhos/cm)	27.1	25.9	26.7	27.1
Water Temperature (°C)	16.2	15.4	15.4	15.4
Turbidity (subjective: clear, slightly cloudy, cloudy)	Slight	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	7.74			

Remarks: Well sampled at 1135 on 4/20/07

D H E C
PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-31

Well Diameter (D): 2 inch of 40.00 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 30.78 feet below ground surface
Total Well Depth (TWD) 40.00 feet
Length of Water Column (LWC=TWD-DGW) 9.22 feet

1 Casing Volume (CV = LWC X C) = 9.22 X 0.17 = 1.57 gals
3 Casing Volume 3 X CV = 4.71 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 6 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	2	4	6
Time (military)	1405	1410	1415	1420
pH (s.u.)	5.67	5.75	5.72	5.68
Specific Cond. (µmhos/cm)	52.7	54.6	55.3	54.8
Water Temperature (°C)	16.0	15.8	15.7	15.7
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	7.15			

Remarks: Well sampled at 1118 on 4/20/07.

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): April 19, 2007
Field Personnel: T. Benton and R. Mayer
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 18 °C

Quality Assurance

pH Meter	Oakton 35630-62	Conductivity Meter	35630-32
serial no.	324976	serial no.	324976
pH=4.0		standard	
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Trevor J. Benton	4/20-1700	Env. Science Corp.	4/21- 09:00
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Moorehead Oil Company – KMO 119
Facility ID#: UST Permit # 00505 **Well #:** MW-32

Well Diameter (D): 2 inch of 32.40 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: NA feet
Depth to Ground Water (DGW) 24.90 feet
Total Well Depth (TWD) 32.40 feet
Length of Water Column (LWC=TWD-DGW) 7.50 feet

1 Casing Volume (CV = LWC X C) = 7.50 X 0.17 = 1.28 gals
3 Casing Volume 3 X CV = 3.84 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 4.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol
Cumulative Volume Purged (gallons)	0	1.5	3	4.5
Time (military)	1330	1334	1338	1342
pH (s.u.)	6.48	5.80	5.71	5.75
Specific Cond. (µmhos/cm)	50.4	55.1	61.1	66.0
Water Temperature (°C)	16.0	15.6	15.6	15.6
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy
Dissolved Oxygen (mg/l)	7.67			

Remarks: Well sampled at 1153 on 4/20/07

APPENDIX B

LABORATORY DATA SHEETS

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10/26/04 CASE NARRATIVE

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
6004 PONDERS COURT
GREENVILLE, SC 29615

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: KMO #119
Project Number: J04-3361-02.
Laboratory Project Number: 393986.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
GP-5(21-22)	04-A164222	10/21/04
GP-6(21-22)	04-A164223	10/21/04
GP-7(19-20)	04-A164224	10/21/04
GP-9(23-24)	04-A164225	10/21/04

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Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: Roxanne Connor Report Date: 10/26/04

Johnny A. Mitchell, Operations Manager
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Technical Services
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Technical Services
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Technical Services

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
6004 PONDERS COURT
GREENVILLE, SC 29615

Project: J04-3361-02
Project Name: KMO #119
Sampler: TREVOR BENTON

Lab Number: 04-A164222
Sample ID: GP-5(21-22)
Sample Type: Soil
Site ID:

Date Collected: 10/21/04
Time Collected: 13:50
Date Received: 10/22/04
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.0272	mg/kg	0.0018	1.0	10/24/04	10:31	J. Bundy	8260B	8538
Ethylbenzene	0.0200	mg/kg	0.0018	1.0	10/24/04	10:31	J. Bundy	8260B	8538
Naphthalene	ND	mg/kg	0.00438	1.0	10/24/04	10:31	J. Bundy	8260B	8538
Toluene	0.0663	mg/kg	0.0018	1.0	10/24/04	10:31	J. Bundy	8260B	8538
Xylenes (Total)	0.123	mg/kg	0.0018	1.0	10/24/04	10:31	J. Bundy	8260B	8538

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	5.71 g	5.0 ml	10/21/04	13:50	J. Bundy	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	118.	72. - 134.
VOA Surr Toluene-d8	102.	76. - 122.
VOA Surr, 4-BFB	88.	60. - 138.
VOA Surr, DBFM	109.	75. - 137.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A164222
Sample ID: GP-5(21-22)
Project: J04-3361-02

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
6004 PONDERS COURT
GREENVILLE, SC 29615

Project: J04-3361-02
Project Name: KMO #119
Sampler: TREVOR BENTON

Lab Number: 04-A164223
Sample ID: GP-6(21-22)
Sample Type: Soil
Site ID:

Date Collected: 10/21/04
Time Collected: 14:30
Date Received: 10/22/04
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.129	mg/kg	0.0887	50.0	10/25/04	17:36	J. Bundy	8260B	9377
Ethylbenzene	0.105	mg/kg	0.0018	1.0	10/24/04	11:01	J. Bundy	8260B	8538
Naphthalene	0.00683	mg/kg	0.00443	1.0	10/24/04	11:01	J. Bundy	8260B	8538
Toluene	0.390	mg/kg	0.0887	50.0	10/25/04	17:36	J. Bundy	8260B	9377
Xylenes (Total)	0.505	mg/kg	0.0887	50.0	10/25/04	17:36	J. Bundy	8260B	9377

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	5.64 g	5.0 ml	10/21/04	14:30	J. Bundy	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	112.	72. - 134.
VOA Surr Toluene-d8	105.	76. - 122.
VOA Surr, 4-BFB	90.	60. - 138.
VOA Surr, DBFM	105.	75. - 137.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A164223
Sample ID: GP-6(21-22)
Project: J04-3361-02

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
6004 PONDERS COURT
GREENVILLE, SC 29615

Project: J04-3361-02
Project Name: KMO #119
Sampler: TREVOR BENTON

Lab Number: 04-A164224
Sample ID: GP-7(19-20)
Sample Type: Soil
Site ID:

Date Collected: 10/21/04
Time Collected: 15:00
Date Received: 10/22/04
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.640	mg/kg	0.171	100.	10/25/04	15:36	J. Bundy	8260B	9377
Ethylbenzene	2.20	mg/kg	0.171	100.	10/25/04	15:36	J. Bundy	8260B	9377
Naphthalene	2.62	mg/kg	0.427	100.	10/25/04	15:36	J. Bundy	8260B	9377
Toluene	6.06	mg/kg	0.171	100.	10/25/04	15:36	J. Bundy	8260B	9377
Xylenes (Total)	13.6	mg/kg	0.171	100.	10/25/04	15:36	J. Bundy	8260B	9377

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	5.86 g	5.0 ml	10/21/04	15:00	J. Bundy	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	106.	72. - 134.
VOA Surr Toluene-d8	126. #	76. - 122.
VOA Surr, 4-BFB	86.	60. - 138.
VOA Surr, DBFM	102.	75. - 137.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A164224
Sample ID: GP-7(19-20)
Project: J04-3361-02

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.
8260 surrogate recovery above laboratory historical limits but within method default limits.

End of Sample Report.

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
6004 PONDERS COURT
GREENVILLE, SC 29615

Project: J04-3361-02
Project Name: KMO #119
Sampler: TREVOR BENTON

Lab Number: 04-A164225
Sample ID: GP-9(23-24)
Sample Type: Soil
Site ID:

Date Collected: 10/21/04
Time Collected: 15:35
Date Received: 10/22/04
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.462	mg/kg	0.0933	50.0	10/25/04	14:06	J. Bundy	8260B	9389
Ethylbenzene	0.737	mg/kg	0.0933	50.0	10/25/04	14:06	J. Bundy	8260B	9389
Naphthalene	0.144	mg/kg	0.00466	1.0	10/25/04	13:36	J. Bundy	8260B	9377
Toluene	1.27	mg/kg	0.0933	50.0	10/25/04	14:06	J. Bundy	8260B	9389
Xylenes (Total)	4.63	mg/kg	0.0933	50.0	10/25/04	14:06	J. Bundy	8260B	9389

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	5.36 g	5.0 ml	10/21/04	15:35	J. Bundy	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	106.	72. - 134.
VOA Surr Toluene-d8	105.	76. - 122.
VOA Surr, 4-BFB	87.	60. - 138.
VOA Surr, DBFM	99.	75. - 137.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A164225
Sample ID: GP-9(23-24)
Project: J04-3361-02

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number: J04-3361-02
Project Name: KMO #119
Page: 1
Laboratory Receipt Date: 10/22/04

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/kg	< 0.0020	0.0360	0.0500	72	53 - 136	8538	164909
Benzene	mg/kg	< 0.0008	0.0476	0.0500	95	53 - 136	9377	blank
Toluene	mg/kg	0.0008	0.0325	0.0500	63	43 - 139	8538	164909
Toluene	mg/kg	0.0014	0.0415	0.0500	80	43 - 139	9377	blank
VOA Surr, 1,2-DCAd4	% Rec				95	72 - 134	8538	
VOA Surr, 1,2-DCAd4	% Rec				116	72 - 134	9377	
VOA Surr Toluene-d8	% Rec				103	76 - 122	8538	
VOA Surr Toluene-d8	% Rec				94	76 - 122	9377	
VOA Surr, 4-BFB	% Rec				86	60 - 138	8538	
VOA Surr, 4-BFB	% Rec				102	60 - 138	9377	
VOA Surr, DBFM	% Rec				99	75 - 137	8538	
VOA Surr, DBFM	% Rec				109	75 - 137	9377	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/kg	0.0360	0.0422	15.86	34.	8538
Benzene	mg/kg	0.0476	0.0484	1.67	34.	9377
Toluene	mg/kg	0.0325	0.0386	17.16	39.	8538
Toluene	mg/kg	0.0415	0.0450	8.09	39.	9377

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: J04-3361-02
Project Name: KMO #119
Page: 2
Laboratory Receipt Date: 10/22/04

VOA Surr, 1,2-DCAd4	% Rec	101.	8538
VOA Surr, 1,2-DCAd4	% Rec	119.	9377
VOA Surr Toluene-d8	% Rec	103.	8538
VOA Surr Toluene-d8	% Rec	105.	9377
VOA Surr, 4-BFB	% Rec	83.	8538
VOA Surr, 4-BFB	% Rec	101.	9377
VOA Surr, DBFM	% Rec	103.	8538
VOA Surr, DBFM	% Rec	107.	9377

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/kg	0.0500	0.0488	98	76 - 124	8538
Benzene	mg/kg	0.0500	0.0518	104	76 - 124	9377
Benzene	mg/kg	0.0500	0.0518	104	76 - 124	9389
Ethylbenzene	mg/kg	0.0500	0.0450	90	70 - 128	8538
Ethylbenzene	mg/kg	0.0500	0.0509	102	70 - 128	9377
Ethylbenzene	mg/kg	0.0500	0.0509	102	70 - 128	9389
Naphthalene	mg/kg	0.0500	0.0547	109	59 - 152	8538
Naphthalene	mg/kg	0.0500	0.0580	116	59 - 152	9377
Toluene	mg/kg	0.0500	0.0445	89	72 - 125	8538
Toluene	mg/kg	0.0500	0.0504	101	72 - 125	9377
Toluene	mg/kg	0.0500	0.0504	101	72 - 125	9389
Xylenes (Total)	mg/kg	0.150	0.135	90	71 - 129	8538
Xylenes (Total)	mg/kg	0.150	0.154	103	71 - 129	9377
Xylenes (Total)	mg/kg	0.150	0.154	103	71 - 129	9389

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: J04-3361-02
Project Name: KMO #119
Page: 3
Laboratory Receipt Date: 10/22/04

VOA Surr, 1,2-DCAd4	% Rec	104	72 - 134	8538
VOA Surr, 1,2-DCAd4	% Rec	93	72 - 134	9377
VOA Surr, 1,2-DCAd4	% Rec	93	72 - 134	9389
VOA Surr Toluene-d8	% Rec	104	76 - 122	8538
VOA Surr Toluene-d8	% Rec	105	76 - 122	9377
VOA Surr Toluene-d8	% Rec	105	76 - 122	9389
VOA Surr, 4-BFB	% Rec	90	60 - 138	8538
VOA Surr, 4-BFB	% Rec	86	60 - 138	9377
VOA Surr, 4-BFB	% Rec	86	60 - 138	9389
VOA Surr, DBFM	% Rec	103	75 - 137	8538
VOA Surr, DBFM	% Rec	99	75 - 137	9377
VOA Surr, DBFM	% Rec	99	75 - 137	9389

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0008	mg/kg	8538	10/24/04	9:32
Benzene	< 0.0008	mg/kg	9377	10/25/04	10:07
Benzene	< 0.0008	mg/kg	9389	10/25/04	10:07
Ethylbenzene	< 0.0005	mg/kg	8538	10/24/04	9:32
Ethylbenzene	< 0.0005	mg/kg	9377	10/25/04	10:07
Ethylbenzene	< 0.0005	mg/kg	9389	10/25/04	10:07
Naphthalene	< 0.00130	mg/kg	8538	10/24/04	9:32

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: J04-3361-02
Project Name: KMO #119
Page: 4
Laboratory Receipt Date: 10/22/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Naphthalene	0.00140	mg/kg	9377	10/25/04	10:07
Toluene	< 0.0005	mg/kg	8538	10/24/04	9:32
Toluene	0.0014	mg/kg	9377	10/25/04	10:07
Toluene	0.0014	mg/kg	9389	10/25/04	10:07
Xylenes (Total)	< 0.0013	mg/kg	8538	10/24/04	9:32
Xylenes (Total)	0.0018	mg/kg	9377	10/25/04	10:07
Xylenes (Total)	0.0018	mg/kg	9389	10/25/04	10:07
VOA Surr, 1,2-DCAd4	123.	% Rec	8538	10/24/04	9:32
VOA Surr, 1,2-DCAd4	113.	% Rec	9377	10/25/04	10:07
VOA Surr, 1,2-DCAd4	113.	% Rec	9389	10/25/04	10:07
VOA Surr Toluene-d8	101.	% Rec	8538	10/24/04	9:32
VOA Surr Toluene-d8	101.	% Rec	9377	10/25/04	10:07
VOA Surr Toluene-d8	101.	% Rec	9389	10/25/04	10:07
VOA Surr, 4-BFB	91.	% Rec	8538	10/24/04	9:32
VOA Surr, 4-BFB	84.	% Rec	9377	10/25/04	10:07
VOA Surr, 4-BFB	84.	% Rec	9389	10/25/04	10:07
VOA Surr, DBFM	107.	% Rec	8538	10/24/04	9:32
VOA Surr, DBFM	129.	% Rec	9377	10/25/04	10:07
VOA Surr, DBFM	129.	% Rec	9389	10/25/04	10:07

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 393986

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM **BC#**

Client Name : BLE

Cooler Received/Opened On: 10/22/04 **Accessioned By:** Benjamin C.Wright

Log-in Personnel Signature

1. Temperature of Cooler when triaged: 2.2 **Degrees Celsius**
2. Were custody seals on outside of cooler?..... (YES)...NO....NA
   a. If yes, how many, what kind and where: 1 - FRONT
3. Were custody seals on containers and intact?..... (NO)..YES...NA
4. Were the seals intact, signed, and dated correctly?..... (YES)...NO...NA
5. Were custody papers inside cooler?..... (YES)...NO...NA
6. Were custody papers properly filled out (ink, signed, etc)?..... (YES)...NO...NA
7. Did you sign the custody papers in the appropriate place?..... (YES)..NO...NA
8. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite Other None
9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None
10. Did all containers arrive in good condition (unbroken)?..... (YES)..NO...NA
11. Were all container labels complete (#, date, signed, pres., etc)?..... (YES)..NO...NA
12. Did all container labels and tags agree with custody papers?..... (YES)..NO...NA
13. Were correct containers used for the analysis requested?..... (YES)..NO...NA
14. a. Were VOA vials received?..... (YES)..NO...NA
    b. Was there any observable head space present in any VOA vial?..... (NO)...YES...NA
15. Was sufficient amount of sample sent in each container?..... (YES)...NO...NA
16. Were correct preservatives used?..... (YES)...NO...NA
    If not, record standard ID of preservative used here_____
17. Was residual chlorine present?..... NO...YES..(NA)
18. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below:
    9689
    (Fed-Ex) UPS Velocity Airborne Route Off-street Misc.
19. If a Non-Conformance exists, see attached or comments below:

TestAmerica INCORPORATED

393986

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring: YES

Client Name: BLE Client #: 2123
Address: 6004 PONDERS CT
City/State/Zip Code: GREENVILLE SC 29615
Project Manager: TREVOR BENTON
Telephone Number: 864-288-1265 Fax: 864-288-4430
Sampler Name: (Print Name) TREVOR BENTON
Sampler Signature:

Project Name: KMO #119
Project #: J04-3361-02
Site/Location ID: ANDERSON State: SC
Report To: TREVOR BENTON
Invoice To: SAME
Quote #: PO#:

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: 11/1/04
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify) $Na_2H_2O_4$	Analyze For: 602B BTEX + NAPHTH	QC Deliverables	REMARKS
GP-5 (21-22)	10/21	1350	G		S					1		2	✓		164222
GP-6 (21-22)	↓	1430	↓		↓					1		2	✓		23
GP-7 (19-20)		1500								1		2	✓		24
GP-9 (23-24)	↓	1535	↓		↓					1		2	✓		25

QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: ___

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

Relinquished By: TREVOR BENTON	Date: 10/21	Time: 1700	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 10/22/04	Time: 755

TestAmerica
ANALYTICAL TESTING CORPORATION

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4/14/05

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
6004 PONDERS COURT
GREENVILLE, SC 29615

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: KM[illegible] #119
Project Number: J04-3661-02.
Laboratory Project Number: 411935.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
DW-1	05-A48956	4/ 5/05
GPW-14	05-A48957	4/ 5/05
GPW-9	05-A48958	4/ 5/05

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Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
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Report Approved By: Roxanne L Connor Report Date: 4/14/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
6004 PONDERS COURT
GREENVILLE, SC 29615

Lab Number: 05-A48956
Sample ID: DW-1
Sample Type: Water
Site ID:

Project: J04-3661-02
Project Name: KM[illegible] #119
Sampler: TREVOR BENTON

Date Collected: 4/ 5/05
Time Collected: 10:00
Date Received: 4/ 7/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/ 8/05	4:04	C. Wani	8260B	4174
Toluene	ND	ug/l	1.0	1.0	4/ 8/05	4:04	C. Wani	8260B	4174
Ethylbenzene	ND	ug/l	1.0	1.0	4/ 8/05	4:04	C. Wani	8260B	4174
Xylenes (Total)	ND	ug/l	1.0	1.0	4/ 8/05	4:04	C. Wani	8260B	4174
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/ 8/05	4:04	C. Wani	8260B	4174
Naphthalene	ND	ug/l	5.00	1.0	4/ 8/05	4:04	C. Wani	8260B	4174
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/ 8/05	4:04	C. Wani	8260B	5519
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/13/05	21:18	M. Ricke	8011	6833
METALS									
Lead	ND	ug/l	3.0	1.0	4/14/05	11:00	R.Street	7421	6906

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	105.	70. - 130.
VOA Surr Toluene-d8	96.	78. - 121.
VOA Surr, 4-BFB	89.	78. - 126.
VOA Surr, DBFM	105.	79. - 122.
Surr., 1,3-DCB	107.	83. - 134.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 05-A48956
Sample ID: DW-1
Project: J04-3661-02

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
6004 PONDERS COURT
GREENVILLE, SC 29615

Project: J04-3661-02
Project Name: KMart #119
Sampler: TREVOR BENTON

Lab Number: 05-A48957
Sample ID: GPW-14
Sample Type: Water
Site ID:

Date Collected: 4/ 5/05
Time Collected: 15:00
Date Received: 4/ 7/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/ 8/05	4:35	C. Wani	8260B	4174
Toluene	ND	ug/l	1.0	1.0	4/ 8/05	4:35	C. Wani	8260B	4174
Ethylbenzene	ND	ug/l	1.0	1.0	4/ 8/05	4:35	C. Wani	8260B	4174
Xylenes (Total)	ND	ug/l	1.0	1.0	4/ 8/05	4:35	C. Wani	8260B	4174
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/ 8/05	4:35	C. Wani	8260B	4174
Naphthalene	ND	ug/l	5.00	1.0	4/ 8/05	4:35	C. Wani	8260B	4174
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/ 8/05	4:35	C. Wani	8260B	5519

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	104.	70. - 130.
VOA Surr Toluene-d8	93.	78. - 121.
VOA Surr, 4-BFB	91.	78. - 126.
VOA Surr, DBFM	106.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
6004 PONDERS COURT
GREENVILLE, SC 29615

Project: J04-3661-02
Project Name: KMart #119
Sampler: TREVOR BENTON

Lab Number: 05-A48958
Sample ID: GPW-9
Sample Type: Water
Site ID:

Date Collected: 4/ 5/05
Time Collected: 10:30
Date Received: 4/ 7/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	7300	ug/l	50.0	50.0	4/ 8/05	8:36	C. Wani	8260B	4174
Toluene	21200	ug/l	200.	200.	4/ 8/05	22:09	C. Wani	8260B	6741
Ethylbenzene	9450	ug/l	50.0	50.0	4/ 8/05	8:36	C. Wani	8260B	4174
Xylenes (Total)	56700	ug/l	200.	200.	4/ 8/05	22:09	C. Wani	8260B	6741
Methyl-t-butyl ether	580.	ug/l	50.0	50.0	4/ 8/05	8:36	C. Wani	8260B	4174
Naphthalene	6300	ug/l	250.	50.0	4/ 8/05	8:36	C. Wani	8260B	4174
1,2-Dichloroethane	ND	ug/l	50.0	50.0	4/ 8/05	8:36	C. Wani	8260B	4174

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	103.	70. - 130.
VOA Surr Toluene-d8	95.	78. - 121.
VOA Surr, 4-BFB	93.	78. - 126.
VOA Surr, DBFM	104.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number: J04-3661-02
Project Name: KME #119
Page: 1
Laboratory Receipt Date: 4/ 7/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	< 0.0010	0.0495	0.0500	99	62 - 146	4174	05-A49002
Toluene	mg/l	< 0.0010	0.0524	0.0500	105	68 - 141	4174	05-A49002
Toluene	mg/l	< 0.0010	0.0524	0.0500	105	68 - 141	6741	05-A49055
VOA Surr 1,2-DCA-d4	% Rec				102	70 - 130	6741	
VOA Surr Toluene-d8	% Rec				95	78 - 121	6741	
VOA Surr, 4-BFB	% Rec				92	78 - 126	6741	
VOA Surr, DBFM	% Rec				106	79 - 122	6741	
METALS								
Lead	mg/l	< 0.0030	0.0480	0.0500	96	48. - 144.	6906	05-A48956
Ethylene Dibromide	mg/l	< 0.00002	0.00025	0.00029	86	61. - 134.	6833	05-A48336

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0495	0.0502	1.40	25.	4174
Toluene	mg/l	0.0524	0.0537	2.45	29.	4174
Toluene	mg/l	0.0524	0.0528	0.76	29.	6741

Project QC continued . . .

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ANALYTICAL TESTING CORPORATION

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PROJECT QUALITY CONTROL DATA
Project Number: J04-3661-02
Project Name: KME #119
Page: 2
Laboratory Receipt Date: 4/ 7/05

VOA Surr 1,2-DCA-d4	% Rec		101.			6741
VOA Surr Toluene-d8	% Rec		94.			6741
VOA Surr, 4-BFB	% Rec		90.			6741
VOA Surr, DBFM	% Rec		106.			6741
METALS						
Lead	mg/l	0.0480	0.0480	0.00	20	6906
MISC PARAMETERS						
Ethylene Dibromide	mg/l	0.00025	0.00036	36.07	50	6833

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0478	96	76 - 127	4174
1,2-Dichloroethane	mg/l	0.0500	0.0545	109	72 - 129	4174
1,2-Dichloroethane	mg/l	0.0500	0.0545	109	72 - 129	5519
Ethylbenzene	mg/l	0.0500	0.0514	103	80 - 124	4174
Naphthalene	mg/l	0.0500	0.0599	120	61 - 143	4174
Toluene	mg/l	0.0500	0.0514	103	79 - 124	4174
Toluene	mg/l	0.0500	0.0470	94	79 - 124	6741
Xylenes (Total)	mg/l	0.150	0.159	106	80 - 125	4174
Xylenes (Total)	mg/l	0.150	0.145	97	80 - 125	6741
Methyl-t-butyl ether	mg/l	0.0500	0.0545	109	66 - 136	4174
Ethylene Dibromide	mg/l	0.00029	0.00033	114	70 - 133	6833
VOA Surr 1,2-DCA-d4	% Rec			103	70 - 130	5519
VOA Surr 1,2-DCA-d4	% Rec			100	70 - 130	6741
VOA Surr Toluene-d8	% Rec			96	78 - 121	5519
VOA Surr Toluene-d8	% Rec			96	78 - 121	6741
VOA Surr, 4-BFB	% Rec			91	78 - 126	5519
VOA Surr, 4-BFB	% Rec			94	78 - 126	6741
VOA Surr, DBFM	% Rec			106	79 - 122	5519
VOA Surr, DBFM	% Rec			104	79 - 122	6741

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: J04-3661-02
Project Name: KME #119
Page: 3
Laboratory Receipt Date: 4/ 7/05

METALS						
Lead	mg/l	0.0500	0.0480	96	80 - 120	6906

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0003	mg/l	4174	4/ 8/05	0:03
1,2-Dichloroethane	< 0.00040	mg/l	4174	4/ 8/05	0:03
1,2-Dichloroethane	< 0.00040	mg/l	5519	4/ 8/05	0:03
Ethylbenzene	< 0.0002	mg/l	4174	4/ 8/05	0:03
Naphthalene	< 0.00120	mg/l	4174	4/ 8/05	0:03
Toluene	< 0.0002	mg/l	4174	4/ 8/05	0:03
Toluene	< 0.0002	mg/l	6741	4/ 8/05	13:35
Xylenes (Total)	0.0007	mg/l	4174	4/ 8/05	0:03
Xylenes (Total)	< 0.0006	mg/l	6741	4/ 8/05	13:35
Methyl-t-butyl ether	< 0.0002	mg/l	4174	4/ 8/05	0:03
VOA Surr 1,2-DCA-d4	105.	% Rec	5519	4/ 8/05	0:03
VOA Surr 1,2-DCA-d4	104.	% Rec	6741	4/ 8/05	13:35
VOA Surr Toluene-d8	96.	% Rec	5519	4/ 8/05	0:03
VOA Surr Toluene-d8	96.	% Rec	6741	4/ 8/05	13:35
VOA Surr, 4-BFB	91.	% Rec	5519	4/ 8/05	0:03
VOA Surr, 4-BFB	90.	% Rec	6741	4/ 8/05	13:35
VOA Surr, DBFM	105.	% Rec	5519	4/ 8/05	0:03

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: J04-3661-02
Project Name: KME #119
Page: 4
Laboratory Receipt Date: 4/ 7/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
VOA Surr, DBFM	104.	% Rec	6741	4/ 8/05	13:35
METALS					
Lead	< 0.0012	mg/l	6906	4/14/05	11:00
Ethylene Dibromide	< 0.00002	mg/l	6833	4/13/05	15:11

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 411935

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM BC#

Client Name : BLE

Cooler Received/Opened On: 4/07/05 **Accessioned By:** Shawn Gracey

Log-in Personnel Signature

1. Temperature of Cooler when triaged: 1.0 **Degrees Celsius**
2. Were custody seals on outside of cooler?..... YES....NO....NA
   a. If yes, how many, and where: 1 Front
3. Were custody seals on containers?..... NO...YES...NA
4. Were the seals intact, signed, and dated correctly?..... YES....NO...NA
5. Were custody papers inside cooler?..... YES....NO...NA
6. Were custody papers properly filled out (ink, signed, etc)?..... YES....NO...NA
7. Did you sign the custody papers in the appropriate place?..... YES....NO...NA
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None
10. Did all containers arrive in good condition (unbroken)?..... YES...NO...NA
11. Were all container labels complete (#, date, signed, pres., etc)?..... YES...NO...NA
12. Did all container labels and tags agree with custody papers?..... YES...NO...NA
13. Were correct containers used for the analysis requested?..... YES...NO...NA
14. a. Were VOA vials received?..... YES...NO...NA
    b. Was there any observable head space present in any VOA vial?..... NO...YES...NA
15. Was sufficient amount of sample sent in each container?..... YES...NO...NA
16. Were correct preservatives used?..... YES...NO...NA

    If not, record standard ID of preservative used here_____
17. Was residual chlorine present?..... NO...YES...NA
18. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below:

    3920

    Fed-Ex UPS Velocity DHL Route Off-street Misc.
19. If a Non-Conformance exists, see attached or comments below:

TestAmerica
ANALYTICAL TESTING CORPORATION

AMENDED

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring: YES

Client Name: BLE Client #: 2123
Address: 6004 Ponders Ct
City/State/Zip Code: Greenville SC 29615
Project Manager: Trevor Benton
Telephone Number: 864-288-1265 Fax: 864-288-4430
Sampler Name: (Print Name) Trevor Benton
Sampler Signature:

Project Name: Kmo # 119
Project #: 304-3661-02
Site/Location ID: Anderson State: SC
Report To: Trevor Benton
Invoice To: Same
Quote #: PO#:

TAT
✓ Standard
___ Rush (surcharges may apply)
Date Needed: 4/14/05
Fax Results: Y (N)

SAMPLE ID | Date Sampled | Time Sampled | G = Grab, C = Composite | Field Filtered | Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other | Preservation & # of Containers: HNO_3, HCl, NaOH, H_2SO_4, Methanol, None, Other (Specify) | Analyze For: * 8260B BTEX + NAP + Limited List + DCA, 8011 EDB, 7421 Pb | QC Deliverables: ___ None, ___ Level 2 (Batch QC), ___ Level 3, ___ Level 4, Other: ___ | REMARKS

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	* 8260B BTEX + NAP + Limited List + DCA	8011 EDB	7421 Pb	REMARKS
DW-1	4/5/05	1000	G		GW	1	6						✓	✓	✓	
GPW-12	4/4/05	1500	G		GW		3						✓			
GPW-9	4/4/05	1030	G		GW		3						✓			

Special Instructions:

Relinquished By: Trevor Benton	Date: 4/6/05	Time: 1700	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

LABORATORY COMMENTS
Initial Lab Temp:
Cooler Lab Temp:
Custody Seal(s) Present: Y N N/A
Bottle Supplied by TestAmerica: Y N
Method of Shipment:

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
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4/ 6/05

BUNNELL-LAMMONS ENGINEERING 2123
TREVOR BENTON
6004 PONDERS COURT
GREENVILLE, SC 29615

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: KMO #119
Project Number: J04-3661-02.
Laboratory Project Number: 411358.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
GPW-2	05-A46093	3/30/05
GPW-3	05-A46094	3/30/05

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Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
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Report Approved By: Roxanne L Connor Report Date: 4/ 6/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

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ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TREVOR BENTON
6004 PONDERS COURT
GREENVILLE, SC 29615

Lab Number: 05-A46093
Sample ID: GPW-2
Sample Type: Water
Site ID:

Project: J04-3661-02
Project Name: KMO #119
Sampler: TREVOR BENTON

Date Collected: 3/30/05
Time Collected: 10:50
Date Received: 4/ 1/05
Time Received: 8:20
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	21900	ug/l	1000	1000	4/ 2/05	22:09	B.Herford	8260B	1495
Toluene	23700	ug/l	1000	1000	4/ 2/05	22:09	B.Herford	8260B	1495
Ethylbenzene	2320	ug/l	50.0	50.0	4/ 2/05	21:37	B.Herford	8260B	1492
Xylenes (Total)	10800	ug/l	50.0	50.0	4/ 2/05	21:37	B.Herford	8260B	1492
Methyl-t-butyl ether	4910	ug/l	50.0	50.0	4/ 2/05	21:37	B.Herford	8260B	1492
Naphthalene	740.	ug/l	250.	50.0	4/ 2/05	21:37	B.Herford	8260B	1492
1,2-Dichloroethane	2190	ug/l	50.0	50.0	4/ 2/05	21:37	B.Herford	8260B	1492

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	94.	73. - 127.
VOA Surr Toluene-d8	101.	79. - 113.
VOA Surr, 4-BFB	112.	79. - 125.
VOA Surr, DBFM	96.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TREVOR BENTON
6004 PONDERS COURT
GREENVILLE, SC 29615

Project: J04-3661-02
Project Name: KMO #119
Sampler: TREVOR BENTON

Lab Number: 05-A46094
Sample ID: GPW-3
Sample Type: Water
Site ID:

Date Collected: 3/30/05
Time Collected: 11:40
Date Received: 4/ 1/05
Time Received: 8:20
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	28300	ug/l	1000	1000	4/ 2/05	23:14	B.Herford	8260B	1495
Toluene	46600	ug/l	1000	1000	4/ 2/05	23:14	B.Herford	8260B	1495
Ethylbenzene	3810	ug/l	50.0	50.0	4/ 2/05	22:42	B.Herford	8260B	1492
Xylenes (Total)	18400	ug/l	50.0	50.0	4/ 2/05	22:42	B.Herford	8260B	1492
Methyl-t-butyl ether	18100	ug/l	1000	1000	4/ 2/05	23:14	B.Herford	8260B	1495
Naphthalene	1200	ug/l	250.	50.0	4/ 2/05	22:42	B.Herford	8260B	1492
1,2-Dichloroethane	2320	ug/l	50.0	50.0	4/ 2/05	22:42	B.Herford	8260B	1492

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	94.	73. - 127.
VOA Surr Toluene-d8	101.	79. - 113.
VOA Surr, 4-BFB	109.	79. - 125.
VOA Surr, DBFM	96.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number: J04-3661-02
Project Name: KMO #119
Page: 1
Laboratory Receipt Date: 4/ 1/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0528	106	76 - 127	1495
1,2-Dichloroethane	mg/l	0.0500	0.0511	102	72 - 129	1492
Ethylbenzene	mg/l	0.0500	0.0548	110	80 - 124	1492
Naphthalene	mg/l	0.0500	0.0607	121	61 - 143	1492
Toluene	mg/l	0.0500	0.0534	107	79 - 124	1495
Xylenes (Total)	mg/l	0.150	0.166	111	80 - 125	1492
Methyl-t-butyl ether	mg/l	0.0500	0.0515	103	66 - 136	1492
Methyl-t-butyl ether	mg/l	0.0500	0.0515	103	66 - 136	1495

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: J04-3661-02
Project Name: KMO #119
Page: 2
Laboratory Receipt Date: 4/ 1/05

VOA Surr 1,2-DCA-d4	% Rec	90	73 - 127	1495
VOA Surr Toluene-d8	% Rec	99	79 - 113	1495
VOA Surr, 4-BFB	% Rec	103	79 - 125	1495
VOA Surr, DBFM	% Rec	98	75 - 134	1495

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0003	mg/l	1495	4/ 2/05	15:45
1,2-Dichloroethane	< 0.00040	mg/l	1492	4/ 2/05	15:45
Ethylbenzene	< 0.0002	mg/l	1492	4/ 2/05	15:45
Naphthalene	< 0.00120	mg/l	1492	4/ 2/05	15:45
Toluene	< 0.0002	mg/l	1495	4/ 2/05	15:45
Xylenes (Total)	< 0.0006	mg/l	1492	4/ 2/05	15:45
Methyl-t-butyl ether	< 0.0002	mg/l	1492	4/ 2/05	15:45
Methyl-t-butyl ether	< 0.0002	mg/l	1495	4/ 2/05	15:45
VOA Surr 1,2-DCA-d4	93.	% Rec	1495	4/ 2/05	15:45
VOA Surr Toluene-d8	100.	% Rec	1495	4/ 2/05	15:45
VOA Surr, 4-BFB	112.	% Rec	1495	4/ 2/05	15:45
VOA Surr, DBFM	97.	% Rec	1495	4/ 2/05	15:45

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: J04-3661-02
Project Name: KMO #119
Page: 3
Laboratory Receipt Date: 4/ 1/05

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 411358

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

411358

COOLER RECEIPT FORM **BC#**

Client Name : BLE

Cooler Received/Opened On: 4/1/05 **Accessioned By:** Mark Beasley

M. Beasley

Log-in Personnel Signature

1. **Temperature of Cooler when triaged:** 1.6 **Degrees Celsius**
2. **Were custody seals on outside of cooler?** ..... (YES)...NO....NA
   a. **If yes, how many and where:** 1 Front
3. **Were custody seals on containers ?** ..... (NO)..YES...NA
4. **Were the seals intact, signed, and dated correctly?** ..... (YES)..NO...NA
5. **Were custody papers inside cooler?** ..... (YES)...NO...NA
6. **Were custody papers properly filled out (ink, signed, etc)?** ..... (YES)...NO...NA
7. **Did you sign the custody papers in the appropriate place?** ..... (YES)...NO...NA
8. **What kind of packing material used?** (Bubblewrap) Peanuts Vermiculite (Other) None
9. **Cooling process:** (Ice) Ice-pack Ice (direct contact) Dry ice Other None
10. **Did all containers arrive in good condition (unbroken)?** ..... (YES)..NO...NA
11. **Were all container labels complete (#, date, signed, pres., etc)?** ..... (YES)..NO...NA
12. **Did all container labels and tags agree with custody papers?** ..... (YES)..NO...NA
13. **Were correct containers used for the analysis requested?** ..... (YES)..NO...NA
14. a. **Were VOA vials received?** ..... (YES)...NO...NA
    b. **Was there any observable head space present in any VOA vial?** ..... (NO)..YES...NA
15. **Was sufficient amount of sample sent in each container?** ..... (YES)..NO...NA
16. **Were correct preservatives used?** ..... (YES)..NO...NA

    If not, record standard ID of preservative used here _____
17. **Was residual chlorine present?** ..... (NO)..YES...NA
18. **Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below:**

    3931

    UPS Velocity DHL Route Off-street (Fedex) Misc.
19. **If a Non-Conformance exists, see attached or comments below:**

411358

TestAmerica INCORPORATED

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring: YES

Client Name: BLE Client #: 2123
Address: 6004 Ponders Ct
City/State/Zip Code: Greenville SC 29615
Project Manager: Trevor Benton
Telephone Number: 864-288-1265 Fax: 864-288-4430
Sampler Name: (Print Name) Trevor Benton
Sampler Signature:

Project Name: KMO #119
Project #: 304-3661-02
Site/Location ID: Anderson State: SC
Report To: Trevor Benton
Invoice To:
Quote #: PO#:

TAT: ✓ Standard; ___ Rush (surcharges may apply)
Date Needed: 4/11/05
Fax Results: Y (N)

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: 8260 BTEX+NAPHTH + MTBE + 1,2-DCA	QC Deliverables: None / Level 2 (Batch QC) / Level 3 / Level 4 / Other	REMARKS
GPW-2	3/30/05	1050	G		GW		3						1		46093
GPW-3	3/30/05	1140	G		GW		3						1		46094

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 16
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date	Time		Date	Time
Relinquished By: Trevor Benton	3/31	1700	Received By:	4/1/05	850
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

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Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

February 22, 2007

Mr. Trevor Benton
Bunnell-Lammons Engineering
6004 Ponders Ct.
Greenville, SC 29642

RE: Lab Project Number: 92138505
Client Project ID: KMO#119 J05-3661-02

Dear Mr. Benton:

Enclosed are the analytical results for sample(s) received by the laboratory on February 21, 2007. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Teresa Adams
teresa.adams@pacelabs.com
(704) 875-9092 ext. 241
Project Manager

Enclosures

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Lab Project Number: 92138505
Client Project ID: KMO#119 J05-3661-02

Lab Sample No: 928032622 Project Sample Number: 92138505-001 Date Collected: 02/20/07 09:15
Client Sample ID: MW-20 Matrix: Water Date Received: 02/21/07 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	ND	ug/l	5.0	1.0	02/22/07 12:58	MCK	71-43-2		
Ethylbenzene	ND	ug/l	5.0	1.0	02/22/07 12:58	MCK	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	02/22/07 12:58	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	02/22/07 12:58	MCK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	02/22/07 12:58	MCK	108-88-3		
Xylene (Total)	ND	ug/l	10.	1.0	02/22/07 12:58	MCK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	1.0	02/22/07 12:58	MCK			
o-Xylene	ND	ug/l	5.0	1.0	02/22/07 12:58	MCK	95-47-6		
Toluene-d8 (S)	93	%		1.0	02/22/07 12:58	MCK	2037-26-5		
4-Bromofluorobenzene (S)	100	%		1.0	02/22/07 12:58	MCK	460-00-4		
Dibromofluoromethane (S)	100	%		1.0	02/22/07 12:58	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	104	%		1.0	02/22/07 12:58	MCK	17060-07-0		

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC 99030
FL NELAP E87648

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Lab Project Number: 92138505
Client Project ID: KMO#119 J05-3661-02

Lab Sample No: 928032630 Project Sample Number: 92138505-002 Date Collected: 02/20/07 09:45
Client Sample ID: MW-22 Matrix: Water Date Received: 02/21/07 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	1400	ug/l	100	20.0	02/22/07 13:14	MCK	71-43-2		
Ethylbenzene	960	ug/l	100	20.0	02/22/07 13:14	MCK	100-41-4		
Methyl-tert-butyl ether	190	ug/l	5.0	1.0	02/22/07 13:14	MCK	1634-04-4		
Naphthalene	660	ug/l	100	20.0	02/22/07 13:14	MCK	91-20-3		
Toluene	180	ug/l	5.0	1.0	02/22/07 13:14	MCK	108-88-3		
Xylene (Total)	3200	ug/l	200	20.0	02/22/07 13:14	MCK	1330-20-7		
m&p-Xylene	2000	ug/l	200	20.0	02/22/07 13:14	MCK			
o-Xylene	1200	ug/l	100	20.0	02/22/07 13:14	MCK	95-47-6		
Toluene-d8 (S)	101	%		1.0	02/22/07 13:14	MCK	2037-26-5		
4-Bromofluorobenzene (S)	103	%		1.0	02/22/07 13:14	MCK	460-00-4		
Dibromofluoromethane (S)	100	%		1.0	02/22/07 13:14	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	102	%		1.0	02/22/07 13:14	MCK	17060-07-0		

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Lab Project Number: 92138505
Client Project ID: KMO#119 J05-3661-02

Lab Sample No: 928032648 Project Sample Number: 92138505-003 Date Collected: 02/20/07 10:15
Client Sample ID: MW-23 Matrix: Water Date Received: 02/21/07 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	810	ug/l	50.	10.0	02/22/07 13:30	MCK	71-43-2		
Ethylbenzene	480	ug/l	50.	10.0	02/22/07 13:30	MCK	100-41-4		
Methyl-tert-butyl ether	180	ug/l	5.0	1.0	02/22/07 13:30	MCK	1634-04-4		
Naphthalene	520	ug/l	50.	10.0	02/22/07 13:30	MCK	91-20-3		
Toluene	480	ug/l	50.	10.0	02/22/07 13:30	MCK	108-88-3		
Xylene (Total)	2100	ug/l	100	10.0	02/22/07 13:30	MCK	1330-20-7		
m&p-Xylene	1400	ug/l	100	10.0	02/22/07 13:30	MCK			
o-Xylene	710	ug/l	50.	10.0	02/22/07 13:30	MCK	95-47-6		
Toluene-d8 (S)	101	%		1.0	02/22/07 13:30	MCK	2037-26-5		
4-Bromofluorobenzene (S)	100	%		1.0	02/22/07 13:30	MCK	460-00-4		
Dibromofluoromethane (S)	100	%		1.0	02/22/07 13:30	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	103	%		1.0	02/22/07 13:30	MCK	17060-07-0		

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Lab Project Number: 92138505
Client Project ID: KMO#119 J05-3661-02

Lab Sample No: 928032655 Project Sample Number: 92138505-004 Date Collected: 02/19/07 10:30
Client Sample ID: MW-21 Matrix: Water Date Received: 02/21/07 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	0.13	ug/l	0.020	1.0	02/22/07 13:29	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	89	%		1.0	02/22/07 13:29	RCS1	301-79-56		
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	2000	ug/l	100	20.0	02/22/07 13:46	MCK	71-43-2		
1,2-Dichloroethane	42.	ug/l	5.0	1.0	02/22/07 13:46	MCK	107-06-2		
Ethylbenzene	700	ug/l	100	20.0	02/22/07 13:46	MCK	100-41-4		
Methyl-tert-butyl ether	260	ug/l	100	20.0	02/22/07 13:46	MCK	1634-04-4		
Naphthalene	450	ug/l	100	20.0	02/22/07 13:46	MCK	91-20-3		
Toluene	1400	ug/l	100	20.0	02/22/07 13:46	MCK	108-88-3		
Xylene (Total)	2500	ug/l	200	20.0	02/22/07 13:46	MCK	1330-20-7		
m&p-Xylene	1700	ug/l	200	20.0	02/22/07 13:46	MCK			
o-Xylene	790	ug/l	100	20.0	02/22/07 13:46	MCK	95-47-6		
Toluene-d8 (S)	100	%		1.0	02/22/07 13:46	MCK	2037-26-5		
4-Bromofluorobenzene (S)	100	%		1.0	02/22/07 13:46	MCK	460-00-4		
Dibromofluoromethane (S)	99	%		1.0	02/22/07 13:46	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	102	%		1.0	02/22/07 13:46	MCK	17060-07-0		

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NC Drinking Water 37712
SC 99030
FL NELAP E87648

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Lab Project Number: 92138505
Client Project ID: KMO#119 J05-3661-02

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC 99030
FL NELAP E87648

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Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

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Fax: 704.875.9091

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Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

QUALITY CONTROL DATA

Lab Project Number: 92138505
Client Project ID: KMO#119 J05-3661-02

QC Batch: 181150 Analysis Method: EPA 8011
QC Batch Method: EPA 504.1 Analysis Description: EDB and DBCP in Water
Associated Lab Samples: 928032655

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC 99030
FL NELAP E87648

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Fax: 828.252.4618

QUALITY CONTROL DATA

Lab Project Number: 92138505
Client Project ID: KMO#119 J05-3661-02

QC Batch: 181185 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 928032622 928032630 928032648 928032655

METHOD BLANK: 928037894
Associated Lab Samples: 928032622 928032630 928032648 928032655

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
1,2-Dichloroethane	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
Xylene (Total)	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	99		
4-Bromofluorobenzene (S)	%	98		
Dibromofluoromethane (S)	%	99		
1,2-Dichloroethane-d4 (S)	%	102		

LABORATORY CONTROL SAMPLE: 928037902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	47.73	96	
1,2-Dichloroethane	ug/l	50.00	45.06	90	
Ethylbenzene	ug/l	50.00	46.08	92	
Methyl-tert-butyl ether	ug/l	50.00	46.51	93	
Naphthalene	ug/l	50.00	47.23	94	
Toluene	ug/l	50.00	46.53	93	
m&p-Xylene	ug/l	100.00	92.49	92	
o-Xylene	ug/l	50.00	44.69	89	
Toluene-d8 (S)				101	
4-Bromofluorobenzene (S)				101	
Dibromofluoromethane (S)				101	
1,2-Dichloroethane-d4 (S)				103	

Asheville Certification IDs
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Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 92138505
Client Project ID: KMO#119 J05-3661-02

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

Asheville Certification IDs
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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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Page: 1 of 1

0999169

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: BLE	Report To: TREVOR BENTON	Attention:
Address: 60041 PONDERS CT GREENVILLE, SC 29615	Copy To:	Company Name:
		Address:
Email To: trevor@blecorp.com	Purchase Order No.:	Pace Quote Reference:
Phone: 864-288-1265 Fax:	Project Name: KMO #119	Pace Project Manager:
Requested Due Date/TAT: 24 HR / ASAP *	Project Number: JO5-3661-02	Pace Profile #: 104,21

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ Other

SITE LOCATION ☐GA ☐IL ☐IN ☐MI ☐MN ☐NC ☐OH ☑SC ☐WI ☐OTHER

Section D Required Client Information

SAMPLE ID

One Character per box. (A-Z, 0-9 / -) Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: 8260B BTEX+NAPH+MTBE+1,2 EDC; SOIL 8260B BTEX+NAPH+MTBE+1,2 EDC	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	MW-20	WT	G	2/20/07	0915		→		3				3					✓				92803622
2	MW-22				0945		→		3				3					✓				630
3	MW-23				1015		→		3				3					✓				648
4	MW-21	WT		2/19/07	1030		→		6				6						✓✓			655
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
TREVOR BENTON / BLE	2/20/07	1700		2/21/07	0930

SAMPLE CONDITION

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
2.6	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: TREVOR BENTON

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 02/20/07

SEE REVERSE SIDE FOR INSTRUCTIONS

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Fax: 828.252.4618

February 23, 2007

Mr. Trevor Benton
Bunnell-Lammons Engineering
6004 Ponders Ct.
Greenville, SC 29642

RE: Lab Project Number: 92138644
Client Project ID: KMO#119 J04-3661-02

Dear Mr. Benton:

Enclosed are the analytical results for sample(s) received by the laboratory on February 22, 2007. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Teresa Adams
teresa.adams@pacelabs.com
(704) 875-9092 ext. 241
Project Manager

Enclosures

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Lab Project Number: 92138644
Client Project ID: KMO#119 J04-3661-02

Lab Sample No: 928038074 Project Sample Number: 92138644-001 Date Collected: 02/21/07 14:30
Client Sample ID: MW-25 Matrix: Water Date Received: 02/22/07 09:15

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	ND	ug/l	5.0	1.0	02/22/07 14:05	DLK	71-43-2		
Ethylbenzene	ND	ug/l	5.0	1.0	02/22/07 14:05	DLK	100-41-4		
Methyl-tert-butyl ether	20.	ug/l	5.0	1.0	02/22/07 14:05	DLK	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	02/22/07 14:05	DLK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	02/22/07 14:05	DLK	108-88-3		
Xylene (Total)	ND	ug/l	10.	1.0	02/22/07 14:05	DLK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	1.0	02/22/07 14:05	DLK			
o-Xylene	ND	ug/l	5.0	1.0	02/22/07 14:05	DLK	95-47-6		
Toluene-d8 (S)	97	%		1.0	02/22/07 14:05	DLK	2037-26-5		
4-Bromofluorobenzene (S)	96	%		1.0	02/22/07 14:05	DLK	460-00-4		
Dibromofluoromethane (S)	98	%		1.0	02/22/07 14:05	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	97	%		1.0	02/22/07 14:05	DLK	17060-07-0		

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
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nelac

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Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 92138644
Client Project ID: KMO#119 J04-3661-02

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

Asheville Certification IDs
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Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

QUALITY CONTROL DATA

Lab Project Number: 92138644
Client Project ID: KMO#119 J04-3661-02

QC Batch: 181235 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 928038074

METHOD BLANK: 928039262
Associated Lab Samples: 928038074

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
Xylene (Total)	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	99		
4-Bromofluorobenzene (S)	%	93		
Dibromofluoromethane (S)	%	95		
1,2-Dichloroethane-d4 (S)	%	97		

LABORATORY CONTROL SAMPLE: 928039270

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	56.13	112	
Ethylbenzene	ug/l	50.00	55.18	110	
Methyl-tert-butyl ether	ug/l	50.00	55.33	111	
Naphthalene	ug/l	50.00	46.70	93	
Toluene	ug/l	50.00	57.23	114	
m&p-Xylene	ug/l	100.00	112.9	113	
o-Xylene	ug/l	50.00	54.30	109	
Toluene-d8 (S)				98	
4-Bromofluorobenzene (S)				99	
Dibromofluoromethane (S)				102	
1,2-Dichloroethane-d4 (S)				98	

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
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QUALITY CONTROL DATA

Lab Project Number: 92138644
Client Project ID: KMO#119 J04-3661-02

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928039288 928039296

Parameter	Units	928019751 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	51.84	53.76	104	108	4	
Toluene	ug/l	0	50.00	52.32	52.04	105	104	1	
Toluene-d8 (S)						98	101		
4-Bromofluorobenzene (S)						100	102		
Dibromofluoromethane (S)						100	95		
1,2-Dichloroethane-d4 (S)						96	98		

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Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 92138644
Client Project ID: KMO#119 J04-3661-02

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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CHAIN-OF-CUSTODY / Analytical Request Document

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0999170

Section A
Required Client Information:

Company	BLE
Address	6004 PONDERS CT GREENVILLE, SC 29615
Email To:	trevor@blecorp.com
Phone: 864-288-1265	Fax
Requested Due Date/TAT:	24 HR / RUSH

Section B
Required Project Information:

Report To:	TREVOR BENTON
Copy To:	SAME
Purchase Order No.:	
Project Name:	KMO #119
Project Number:	304-3661-02

Section C
Invoice Information:

Attention:	SAME
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	104, 21

REGULATORY AGENCY

☐ NPDES ☑ UST ☐ GROUND WATER ☐ RCRA ☐ DRINKING WATER ☐ Other

SITE LOCATION

☐GA ☐IL ☐IN ☐MI ☐MN ☐NC ☐OH ☑SC ☐WI ☐OTHER

Section D
Required Client Information

SAMPLE ID

One Character per box.
(A-Z, 0-9 / -)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: 8260B BTEX+NAP+MTBE	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D.
1	MW-25	WT	G			2/21/07	1430		3				3						✓		92803807
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

92138644

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
TREVOR BENTON / BLE	2/21/07	18:00	JWOOD	2/22	9:45

SAMPLE CONDITION

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
2.6	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: TREVOR BENTON

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 2/21/07

SEE REVERSE SIDE FOR INSTRUCTIONS

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Asheville, NC 28804
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Fax: 828.252.4618

February 28, 2007

Mr. Trevor Benton
Bunnell-Lammons Engineering
6004 Ponders Ct.
Greenville, SC 29642

RE: Lab Project Number: 92138295
Client Project ID: KMO#119 J05-3661-02

Dear Mr. Benton:

Enclosed are the analytical results for sample(s) received by the laboratory on February 16, 2007. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Andy Stevens
andy.stevens@pacelabs.com
Project Manager

Enclosures

Resubmitted Data

Added EDB

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Lab Project Number: 92138295
Client Project ID: KMO#119 J05-3661-02

Lab Sample No: 928019587 Project Sample Number: 92138295-001 Date Collected: 02/15/07 14:20
Client Sample ID: MW-18 Matrix: Water Date Received: 02/16/07 12:40

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	1.0	02/28/07 08:17	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	110	%		1.0	02/28/07 08:17	RCS1	301-79-56		
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	ND	ug/l	5.0	1.0	02/19/07 17:50	MCK	71-43-2		
Ethylbenzene	ND	ug/l	5.0	1.0	02/19/07 17:50	MCK	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	02/19/07 17:50	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	02/19/07 17:50	MCK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	02/19/07 17:50	MCK	108-88-3		
Xylene (Total)	ND	ug/l	10.	1.0	02/19/07 17:50	MCK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	1.0	02/19/07 17:50	MCK			
o-Xylene	ND	ug/l	5.0	1.0	02/19/07 17:50	MCK	95-47-6		
Toluene-d8 (S)	101	%		1.0	02/19/07 17:50	MCK	2037-26-5		
4-Bromofluorobenzene (S)	100	%		1.0	02/19/07 17:50	MCK	460-00-4		
Dibromofluoromethane (S)	100	%		1.0	02/19/07 17:50	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	101	%		1.0	02/19/07 17:50	MCK	17060-07-0		

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Fax: 828.252.4618

Lab Project Number: 92138295
Client Project ID: KMO#119 J05-3661-02

Lab Sample No: 928019595 Project Sample Number: 92138295-002 Date Collected: 02/15/07 14:25
Client Sample ID: MW-19 Matrix: Water Date Received: 02/16/07 12:40

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	0.36	ug/l	0.020	1.0	02/28/07 08:33	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	107	%		1.0	02/28/07 08:33	RCS1	301-79-56		
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	5.3	ug/l	5.0	1.0	02/22/07 12:42	MCK	71-43-2		
1,2-Dichloroethane	22.	ug/l	5.0	1.0	02/22/07 12:42	MCK	107-06-2		
Ethylbenzene	ND	ug/l	5.0	1.0	02/22/07 12:42	MCK	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	02/22/07 12:42	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	02/22/07 12:42	MCK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	02/22/07 12:42	MCK	108-88-3		
Xylene (Total)	ND	ug/l	10.	1.0	02/22/07 12:42	MCK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	1.0	02/22/07 12:42	MCK			
o-Xylene	ND	ug/l	5.0	1.0	02/22/07 12:42	MCK	95-47-6		
Toluene-d8 (S)	100	%		1.0	02/22/07 12:42	MCK	2037-26-5		
4-Bromofluorobenzene (S)	99	%		1.0	02/22/07 12:42	MCK	460-00-4		
Dibromofluoromethane (S)	101	%		1.0	02/22/07 12:42	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	104	%		1.0	02/22/07 12:42	MCK	17060-07-0		

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Lab Project Number: 92138295
Client Project ID: KMO#119 J05-3661-02

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

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QUALITY CONTROL DATA

Lab Project Number: 92138295
Client Project ID: KMO#119 J05-3661-02

QC Batch: 181755 Analysis Method: EPA 8011
QC Batch Method: EPA 504.1 Analysis Description: EDB and DBCP in Water
Associated Lab Samples: 928019587 928019595

METHOD BLANK: 928061613
Associated Lab Samples: 928019587 928019595

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	0.020	
1-Chloro-2-bromopropane (S)	%	104		

LABORATORY CONTROL SAMPLE & LCSD: 928061621 928061639

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0.2500	0.2562	0.2543	102	102	1	
1-Chloro-2-bromopropane (S)					109	106		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928061647 928061654

Parameter	Units	928044791 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0	0.2500	0.3442	0.3466	138	139	1	
1-Chloro-2-bromopropane (S)						111	110		

SAMPLE DUPLICATE: 928061662

Parameter	Units	928044817 Result	DUP Result	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
1-Chloro-2-bromopropane (S)	%	111	110		

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QUALITY CONTROL DATA

Lab Project Number: 92138295
Client Project ID: KMO#119 J05-3661-02

QC Batch: 180936 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 928019587

METHOD BLANK: 928025436
Associated Lab Samples: 928019587

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
Xylene (Total)	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	101		
4-Bromofluorobenzene (S)	%	99		
Dibromofluoromethane (S)	%	103		
1,2-Dichloroethane-d4 (S)	%	100		

LABORATORY CONTROL SAMPLE: 928025444

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	61.30	123	
Ethylbenzene	ug/l	50.00	59.52	119	
Methyl-tert-butyl ether	ug/l	50.00	61.25	122	
Naphthalene	ug/l	50.00	58.72	117	
Toluene	ug/l	50.00	60.25	120	
m&p-Xylene	ug/l	100.00	118.4	118	
o-Xylene	ug/l	50.00	56.97	114	
Toluene-d8 (S)				101	
4-Bromofluorobenzene (S)				103	
Dibromofluoromethane (S)				102	
1,2-Dichloroethane-d4 (S)				100	

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QUALITY CONTROL DATA

Lab Project Number: 92138295
Client Project ID: KMO#119 J05-3661-02

QC Batch: 181185 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 928019595

METHOD BLANK: 928037894
Associated Lab Samples: 928019595

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
1,2-Dichloroethane	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
Xylene (Total)	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	99		
4-Bromofluorobenzene (S)	%	98		
Dibromofluoromethane (S)	%	99		
1,2-Dichloroethane-d4 (S)	%	102		

LABORATORY CONTROL SAMPLE: 928037902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	47.73	96	
1,2-Dichloroethane	ug/l	50.00	45.06	90	
Ethylbenzene	ug/l	50.00	46.08	92	
Methyl-tert-butyl ether	ug/l	50.00	46.51	93	
Naphthalene	ug/l	50.00	47.23	94	
Toluene	ug/l	50.00	46.53	93	
m&p-Xylene	ug/l	100.00	92.49	92	
o-Xylene	ug/l	50.00	44.69	89	
Toluene-d8 (S)				101	
4-Bromofluorobenzene (S)				101	
Dibromofluoromethane (S)				101	
1,2-Dichloroethane-d4 (S)				103	

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QUALITY CONTROL DATA

Lab Project Number: 92138295
Client Project ID: KMO#119 J05-3661-02

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928039775 928039783

Parameter	Units	928018092 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	43.37	55.90	87	112	25	
Toluene	ug/l	4.437	50.00	42.78	55.97	77	103	27	
Toluene-d8 (S)						99	98		
4-Bromofluorobenzene (S)						99	100		
Dibromofluoromethane (S)						98	99		
1,2-Dichloroethane-d4 (S)						102	102		

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Lab Project Number: 92138295
Client Project ID: KMO#119 J05-3661-02

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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CHAIN-OF-CUSTODY / Analytical Request Document

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The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: \ of \

0999168

Section A Required Client Information:

Company	BLE
Address	6004 POWDERS CT GREENVILLE, SC 29615
Email To:	trevor@blecorp.com
Phone	864-238-1265
Fax	
Requested Due Date/TAT:	3 DAY TAT / ASAP

Section B Required Project Information:

Report To:	TREVOR BENTON
Copy To:	SAME
Purchase Order No.:	
Project Name:	KMO #119
Project Number:	105-3661-02

Section C Invoice Information:

Attention:	SAME
Company Name:	↓
Address:	
Pace Quote Reference:	
Pace Project Manager:	TA
Pace Profile #:	104 - 19

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ Other_____

SITE LOCATION ☐GA ☑IL ☐IN ☐MI ☐MN ☐NC ☐OH ☑SC ☐WI ☐OTHER _____

Section D Required Client Information

SAMPLE ID

One Character per box. (A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis:	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D.
1	MW-18	WT	G			2/15/07	1420		3				3					✓	BTEX, NAPHTHALENE, SCI LEAD		92501995
2	MW-19	WT	G			2/15/07	1425		6				6					✓✓	BTEX, NAPHTHALENE, SCI LEAD		92501996
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
TREVOR BENTON / BLE	2/16/07	9:20	[illegible]	2/16/07	9:20
[illegible]	2/16/07	12:40	[illegible]	2/16/07	12:40

SAMPLE CONDITION

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
2.0	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: TREVOR BENTON

SIGNATURE of ~~SAMPLER~~: [signature] DATE Signed (MM / DD / YY)

SEE REVERSE SIDE FOR INSTRUCTIONS

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F

February 28, 2007

Mr. Trevor Benton
Bunnell-Lammons Engineering
6004 Ponders Ct.
Greenville, SC 29642

RE: Lab Project Number: 92138929
Client Project ID: KMO#119 J04-3661-02

Dear Mr. Benton:

Enclosed are the analytical results for sample(s) received by the laboratory on February 27, 2007. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Andy Stevens
andy.stevens@pacelabs.com
Project Manager

Enclosures

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Lab Project Number: 92138929
Client Project ID: KMO#119 J04-3661-02

Lab Sample No: 928058874 Project Sample Number: 92138929-001 Date Collected: 02/26/07 13:45
Client Sample ID: MW-27 Matrix: Water Date Received: 02/27/07 09:45

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	1.0	02/27/07 15:57	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	102	%		1.0	02/27/07 15:57	RCS1	301-79-56		
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	47.	ug/l	5.0	1.0	02/28/07 05:01	DLK	71-43-2		
1,2-Dichloroethane	14.	ug/l	5.0	1.0	02/28/07 05:01	DLK	107-06-2		
Ethylbenzene	ND	ug/l	5.0	1.0	02/28/07 05:01	DLK	100-41-4		
Methyl-tert-butyl ether	100	ug/l	5.0	1.0	02/28/07 05:01	DLK	1634-04-4		
Naphthalene	88.	ug/l	5.0	1.0	02/28/07 05:01	DLK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	02/28/07 05:01	DLK	108-88-3		
Xylene (Total)	ND	ug/l	10.	1.0	02/28/07 05:01	DLK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	1.0	02/28/07 05:01	DLK			
o-Xylene	5.4	ug/l	5.0	1.0	02/28/07 05:01	DLK	95-47-6		
Toluene-d8 (S)	101	%		1.0	02/28/07 05:01	DLK	2037-26-5		
4-Bromofluorobenzene (S)	95	%		1.0	02/28/07 05:01	DLK	460-00-4		
Dibromofluoromethane (S)	104	%		1.0	02/28/07 05:01	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	100	%		1.0	02/28/07 05:01	DLK	17060-07-0		

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Lab Project Number: 92138929
Client Project ID: KMO#119 J04-3661-02

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

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QUALITY CONTROL DATA

Lab Project Number: 92138929
Client Project ID: KMO#119 J04-3661-02

QC Batch: 181696 — Analysis Method: EPA 8011
QC Batch Method: EPA 504.1 — Analysis Description: EDB and DBCP in Water
Associated Lab Samples: 928058874

METHOD BLANK: 928058882
Associated Lab Samples: 928058874

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	0.020	
1-Chloro-2-bromopropane (S)	%	100		

LABORATORY CONTROL SAMPLE & LCSD: 928058890 928058908

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0.2500	0.2768	0.2455	111	98	12	
1-Chloro-2-bromopropane (S)					109	99		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928058999 928059005

Parameter	Units	928032978 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0	0.2500	0.2393	0.2411	96	96	1	
1-Chloro-2-bromopropane (S)						103	105		

SAMPLE DUPLICATE: 928059013

Parameter	Units	928032986 Result	DUP Result	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
1-Chloro-2-bromopropane (S)	%	96	95		

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

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QUALITY CONTROL DATA

Lab Project Number: 92138929
Client Project ID: KMO#119 J04-3661-02

QC Batch: 181766 — Analysis Method: EPA 8260
QC Batch Method: EPA 8260 — Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 928058874

METHOD BLANK: 928061936
Associated Lab Samples: 928058874

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
1,2-Dichloroethane	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
Xylene (Total)	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	98		
4-Bromofluorobenzene (S)	%	99		
Dibromofluoromethane (S)	%	100		
1,2-Dichloroethane-d4 (S)	%	101		

LABORATORY CONTROL SAMPLE: 928061944

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	58.76	118	
1,2-Dichloroethane	ug/l	50.00	52.42	105	
Ethylbenzene	ug/l	50.00	60.65	121	
Methyl-tert-butyl ether	ug/l	50.00	53.97	108	
Naphthalene	ug/l	50.00	55.72	111	
Toluene	ug/l	50.00	59.46	119	
m&p-Xylene	ug/l	100.00	115.8	116	
o-Xylene	ug/l	50.00	59.11	118	
Toluene-d8 (S)				102	
4-Bromofluorobenzene (S)				102	
Dibromofluoromethane (S)				98	
1,2-Dichloroethane-d4 (S)				97	

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Fax: 704.875.9091

Lab Project Number: 92138929
Client Project ID: KMO#119 J04-3661-02

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 1

0999171

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: BLE	Report To: TREVOR BENTON	Attention: SAME
Address: 6004 PONDERS CT GREENVILLE, SC 29615	Copy To: SAME	Company Name:
		Address:
Email To: trevor@blecorp.com	Purchase Order No.:	Pace Quote Reference:
Phone: 864-288-1265 Fax:	Project Name: KMO #119	Pace Project Manager:
Requested Due Date/TAT: *24 HR - RUSH*	Project Number: 304-3661-02	Pace Profile #: 104-19

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ Other

SITE LOCATION: ☐GA ☐IL ☐IN ☐MI ☐MN ☐NC ☐OH ☑SC ☐WI ☐OTHER

Section D Required Client Information

SAMPLE ID

One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis:	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D.
1	MW-27	WT	G			2/26/07	1345		6				6					✓	8260B BTEX + NAPH + MTBE + 1,2 EDB Still EDB		92805874
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

92735125

Pace Project Number

Lab I.D.

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
TREVOR BENTON / BLE	2/26/07	1730	FEDEX	2/27/07	945

SAMPLE CONDITION

Temp in °C	Received on ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: TREVOR BENTON

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 02/26/07

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

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Phone: 828.254.7176
Fax: 828.252.4618

March 02, 2007

Mr. Trevor Benton
Bunnell-Lammons Engineering
6004 Ponders Ct.
Greenville, SC 29642

RE: Lab Project Number: 92139160
Client Project ID: KMO#119 J04-3661-023

Dear Mr. Benton:

Enclosed are the analytical results for sample(s) received by the laboratory on March 1, 2007. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Andy Stevens
andy.stevens@pacelabs.com
Project Manager

Enclosures

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Fax: 828.252.4618

Lab Project Number: 92139160
Client Project ID: KMO#119 J04-3661-023

Lab Sample No: 928070044 Project Sample Number: 92139160-001 Date Collected: 02/28/07 10:00
Client Sample ID: MW-24 Matrix: Water Date Received: 03/01/07 10:02

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	1.0	03/01/07 13:44	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	95	%		1.0	03/01/07 13:44	RCS1	301-79-56		
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	ND	ug/l	5.0	1.0	03/01/07 20:31	MCK	71-43-2		
1,2-Dichloroethane	ND	ug/l	5.0	1.0	03/01/07 20:31	MCK	107-06-2		
Ethylbenzene	ND	ug/l	5.0	1.0	03/01/07 20:31	MCK	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	03/01/07 20:31	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	03/01/07 20:31	MCK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	03/01/07 20:31	MCK	108-88-3		
Xylene (Total)	ND	ug/l	10.	1.0	03/01/07 20:31	MCK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	1.0	03/01/07 20:31	MCK			
o-Xylene	ND	ug/l	5.0	1.0	03/01/07 20:31	MCK	95-47-6		
Toluene-d8 (S)	85	%		1.0	03/01/07 20:31	MCK	2037-26-5	1	
4-Bromofluorobenzene (S)	98	%		1.0	03/01/07 20:31	MCK	460-00-4		
Dibromofluoromethane (S)	100	%		1.0	03/01/07 20:31	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	103	%		1.0	03/01/07 20:31	MCK	17060-07-0		

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Fax: 828.252.4618

Lab Project Number: 92139160
Client Project ID: KMO#119 J04-3661-023

Lab Sample No: 928070051 Project Sample Number: 92139160-002 Date Collected: 02/28/07 11:00
Client Sample ID: MW-26 Matrix: Water Date Received: 03/01/07 10:02

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	ND	ug/l	5.0	1.0	03/01/07 20:55	MCK	71-43-2		
Ethylbenzene	ND	ug/l	5.0	1.0	03/01/07 20:55	MCK	100-41-4		
Methyl-tert-butyl ether	13.	ug/l	5.0	1.0	03/01/07 20:55	MCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	03/01/07 20:55	MCK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	03/01/07 20:55	MCK	108-88-3		
Xylene (Total)	ND	ug/l	10.	1.0	03/01/07 20:55	MCK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	1.0	03/01/07 20:55	MCK			
o-Xylene	ND	ug/l	5.0	1.0	03/01/07 20:55	MCK	95-47-6		
Toluene-d8 (S)	100	%		1.0	03/01/07 20:55	MCK	2037-26-5		
4-Bromofluorobenzene (S)	101	%		1.0	03/01/07 20:55	MCK	460-00-4		
Dibromofluoromethane (S)	96	%		1.0	03/01/07 20:55	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	101	%		1.0	03/01/07 20:55	MCK	17060-07-0		

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Lab Project Number: 92139160
Client Project ID: KMO#119 J04-3661-023

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate
[1]	The surrogate recovery was outside QC acceptance limits due to matrix interference.

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QUALITY CONTROL DATA

Lab Project Number: 92139160
Client Project ID: KMO#119 J04-3661-023

QC Batch: 181965 Analysis Method: EPA 8011
QC Batch Method: EPA 504.1 Analysis Description: EDB and DBCP in Water
Associated Lab Samples: 928070044

METHOD BLANK: 928070432
Associated Lab Samples: 928070044

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	0.020	
1-Chloro-2-bromopropane (S)	%	87		

LABORATORY CONTROL SAMPLE & LCSD: 928070440 928070457

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0.2500	0.2457	0.2650	98	106	8	
1-Chloro-2-bromopropane (S)					101	99		

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QUALITY CONTROL DATA

Lab Project Number: 92139160
Client Project ID: KMO#119 J04-3661-023

QC Batch: 181966 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 928070044 928070051

METHOD BLANK: 928070465
Associated Lab Samples: 928070044 928070051

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
1,2-Dichloroethane	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
Xylene (Total)	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	100		
4-Bromofluorobenzene (S)	%	100		
Dibromofluoromethane (S)	%	98		
1,2-Dichloroethane-d4 (S)	%	102		

LABORATORY CONTROL SAMPLE: 928070473

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	58.38	117	
1,2-Dichloroethane	ug/l	50.00	57.09	114	
Ethylbenzene	ug/l	50.00	59.11	118	
Methyl-tert-butyl ether	ug/l	50.00	58.46	117	
Naphthalene	ug/l	50.00	54.49	109	
Toluene	ug/l	50.00	56.06	112	
m&p-Xylene	ug/l	100.00	118.5	119	
o-Xylene	ug/l	50.00	58.27	117	
Toluene-d8 (S)				99	
4-Bromofluorobenzene (S)				100	
Dibromofluoromethane (S)				100	
1,2-Dichloroethane-d4 (S)				100	

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Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 92139160
Client Project ID: KMO#119 J04-3661-023

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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Section A
Required Client Information:

Company: BLE
Address: 6004 Ponders Ct.
Greenville SC 29615
Email To: trevor@blecorp.com
Phone: 864-288-1265 Fax:
Requested Due Date/TAT: 24 HR - RUSH *

Section B
Required Project Information:

Report To: Trevor Benton
Copy To: Same
Purchase Order No.:
Project Name: KMO # 119
Project Number: 304-3661-02

Section C
Invoice Information:

Attention: Same
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: AJS
Pace Profile #: 1054-19

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ Other

SITE LOCATION

☐GA ☐IL ☐IN ☐MI ☐MN ☐NC
☐OH ☑SC ☐WI ☐OTHER

Section D
Required Client Information

SAMPLE ID

One Character per box.
(A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis: 8260B BTEX+MAP+MTBE+1,2 DCA	Analysis: 8260B BTEX+NAP+MTBE	Residual Chlorine (Y/N)	Filtered (Y/N)	Pace Project Number / Lab I.D
1	MW-24	WT	G			2/28/07	1000		6				6					✓	✓			92807004
2	MW-26	WT	G			2/28/07	1100		2				2						✓			051
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Residual Chlorine (Y/N): 92/39/10

Additional Comments:

RUSH *

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Trevor Benton / BLE	2/28/07	1700	T Adams	3/1	1007

SAMPLE CONDITION

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
6	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Trevor Benton
SIGNATURE of SAMPLER:
DATE Signed (MM / DD / YY):

SEE REVERSE SIDE FOR INSTRUCTIONS

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March 06, 2007

Mr. Trevor Benton
Bunnell-Lammons Engineering
6004 Ponders Ct.
Greenville, SC 29642

RE: Lab Project Number: 92139334
Client Project ID: KMO#119 J04-3661-02

Dear Mr. Benton:

Enclosed are the analytical results for sample(s) received by the laboratory on March 2, 2007. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Andy Stevens
andy.stevens@pacelabs.com
Project Manager

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Fax: 828.252.4618

Lab Project Number: 92139334
Client Project ID: KMO#119 J04-3661-02

Lab Sample No: 928079532 Project Sample Number: 92139334-001 Date Collected: 03/01/07 08:00
Client Sample ID: MW-28 Matrix: Water Date Received: 03/02/07 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	1.0	03/06/07	JEM	106-93-4		
1-Chloro-2-bromopropane (S)	90	%		1.0	03/06/07	JEM	301-79-56		
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	52.	ug/l	5.0	1.0	03/04/07 19:19	MCK	71-43-2		
1,2-Dichloroethane	ND	ug/l	5.0	1.0	03/04/07 19:19	MCK	107-06-2		
Ethylbenzene	ND	ug/l	5.0	1.0	03/04/07 19:19	MCK	100-41-4		
Methyl-tert-butyl ether	28.	ug/l	5.0	1.0	03/04/07 19:19	MCK	1634-04-4		
Naphthalene	10.	ug/l	5.0	1.0	03/04/07 19:19	MCK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	03/04/07 19:19	MCK	108-88-3		
Xylene (Total)	ND	ug/l	10.	1.0	03/04/07 19:19	MCK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	1.0	03/04/07 19:19	MCK			
o-Xylene	ND	ug/l	5.0	1.0	03/04/07 19:19	MCK	95-47-6		
Toluene-d8 (S)	98	%		1.0	03/04/07 19:19	MCK	2037-26-5		
4-Bromofluorobenzene (S)	111	%		1.0	03/04/07 19:19	MCK	460-00-4		
Dibromofluoromethane (S)	100	%		1.0	03/04/07 19:19	MCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	115	%		1.0	03/04/07 19:19	MCK	17060-07-0		

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Lab Project Number: 92139334
Client Project ID: KMO#119 J04-3661-02

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

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QUALITY CONTROL DATA

Lab Project Number: 92139334
Client Project ID: KMO#119 J04-3661-02

QC Batch: 182230 — Analysis Method: EPA 8011
QC Batch Method: EPA 504.1 — Analysis Description: EDB and DBCP in Water
Associated Lab Samples: 928079532

METHOD BLANK: 928084789
Associated Lab Samples: 928079532

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	0.020	
1-Chloro-2-bromopropane (S)	%	92		

LABORATORY CONTROL SAMPLE & LCSD: 928084797 928084805

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0.2500	0.2146	0.2193	86	88	2	
1-Chloro-2-bromopropane (S)					86	101		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928084813 928084821

Parameter	Units	928081751 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0	0.2500	0.1919	0.1924	77	77	0	
1-Chloro-2-bromopropane (S)						91	94		

SAMPLE DUPLICATE: 928084839

Parameter	Units	928081769 Result	DUP Result	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
1-Chloro-2-bromopropane (S)	%	89	85		

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QUALITY CONTROL DATA

Lab Project Number: 92139334
Client Project ID: KMO#119 J04-3661-02

QC Batch: 182154 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 928079532

METHOD BLANK: 928082700
Associated Lab Samples: 928079532

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
1,2-Dichloroethane	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
Xylene (Total)	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	101		
4-Bromofluorobenzene (S)	%	108		
Dibromofluoromethane (S)	%	94		
1,2-Dichloroethane-d4 (S)	%	107		

LABORATORY CONTROL SAMPLE: 928082718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	48.49	97	
1,2-Dichloroethane	ug/l	50.00	48.90	98	
Ethylbenzene	ug/l	50.00	50.78	102	
Methyl-tert-butyl ether	ug/l	50.00	45.78	92	
Naphthalene	ug/l	50.00	44.39	89	
Toluene	ug/l	50.00	49.38	99	
m&p-Xylene	ug/l	100.00	104.5	104	
o-Xylene	ug/l	50.00	51.24	102	
Toluene-d8 (S)				102	
4-Bromofluorobenzene (S)				110	
Dibromofluoromethane (S)				100	
1,2-Dichloroethane-d4 (S)				109	

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Lab Project Number: 92139334
Client Project ID: KMO#119 J04-3661-02

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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Page: 1 of 1

0999174

Section A
Required Client Information:

Company	BLE
Address	6004 PONDERS CT
	GREENVILLE SC 29615
Email To:	trevor@blecorp.com
Phone	864-288-1265
Fax	
Requested Due Date/TAT:	24 HR - RUSH

Section B
Required Project Information:

Report To:	TREVOR BENTON
Copy To:	
Purchase Order No.:	
Project Name:	KMO #119
Project Number:	304-3661-02

Section C
Invoice Information:

Attention:	SAME
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	AJS
Pace Profile #:	104-19

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ Other

SITE LOCATION

☐GA ☐IL ☐IN ☐MI ☐MN ☐NC ☐OH ☑SC ☐WI ☐OTHER

Section D Required Client Information

SAMPLE ID

One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis:	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	MW-28	WT	G			3/1/07	0800		6				6					✓	✓ 8260B BTEX+NAP+MTBE+EDB ✓ 8011 EDB		92139334 / 928079532
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
TREVOR BENTON / BLE	3/1/07	1700	JMOORE	3/2	730

SAMPLE CONDITION

Temp in °C	Received on ice	Custody Sealed Cooler	Samples Intact
4.0	Y/N (Y)	Y/N (Y)	Y/N (Y)
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: TREVOR BENTON

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY)

SEE REVERSE SIDE FOR INSTRUCTIONS

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March 09, 2007

Mr. Trevor Benton
Bunnell-Lammons Engineering
6004 Ponders Ct.
Greenville, SC 29642

RE: Lab Project Number: 92139572
Client Project ID: KMO#119 JOY-3661-02

Dear Mr. Benton:

Enclosed are the analytical results for sample(s) received by the laboratory on March 7, 2007. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Andy Stevens
andy.stevens@pacelabs.com
Project Manager

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Lab Project Number: 92139572
Client Project ID: KMO#119 JOY-3661-02

Lab Sample No: 928094549 Project Sample Number: 92139572-001 Date Collected: 03/05/07 11:00
Client Sample ID: MW-29 Matrix: Water Date Received: 03/07/07 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	50.	ug/l	5.0	1.0	03/08/07 07:31	DLK	71-43-2		
Ethylbenzene	ND	ug/l	5.0	1.0	03/08/07 07:31	DLK	100-41-4		
Methyl-tert-butyl ether	66.	ug/l	5.0	1.0	03/08/07 07:31	DLK	1634-04-4		
Naphthalene	38.	ug/l	5.0	1.0	03/08/07 07:31	DLK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	03/08/07 07:31	DLK	108-88-3		
Xylene (Total)	ND	ug/l	10.	1.0	03/08/07 07:31	DLK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	1.0	03/08/07 07:31	DLK			
o-Xylene	ND	ug/l	5.0	1.0	03/08/07 07:31	DLK	95-47-6		
Toluene-d8 (S)	100	%		1.0	03/08/07 07:31	DLK	2037-26-5		
4-Bromofluorobenzene (S)	94	%		1.0	03/08/07 07:31	DLK	460-00-4		
Dibromofluoromethane (S)	98	%		1.0	03/08/07 07:31	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	94	%		1.0	03/08/07 07:31	DLK	17060-07-0		

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Lab Project Number: 92139572
Client Project ID: KMO#119 JOY-3661-02

Lab Sample No: 928094564 Project Sample Number: 92139572-002 Date Collected: 03/06/07 15:00
Client Sample ID: MW-31 Matrix: Water Date Received: 03/07/07 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	ND	ug/l	5.0	1.0	03/08/07 06:37	DLK	71-43-2		
Ethylbenzene	ND	ug/l	5.0	1.0	03/08/07 06:37	DLK	100-41-4		
Methyl-tert-butyl ether	10.	ug/l	5.0	1.0	03/08/07 06:37	DLK	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	03/08/07 06:37	DLK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	03/08/07 06:37	DLK	108-88-3		
Xylene (Total)	ND	ug/l	10.	1.0	03/08/07 06:37	DLK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	1.0	03/08/07 06:37	DLK			
o-Xylene	ND	ug/l	5.0	1.0	03/08/07 06:37	DLK	95-47-6		
Toluene-d8 (S)	102	%		1.0	03/08/07 06:37	DLK	2037-26-5		
4-Bromofluorobenzene (S)	93	%		1.0	03/08/07 06:37	DLK	460-00-4		
Dibromofluoromethane (S)	96	%		1.0	03/08/07 06:37	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	99	%		1.0	03/08/07 06:37	DLK	17060-07-0		

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Lab Project Number: 92139572
Client Project ID: KMO#119 JOY-3661-02

Lab Sample No: 928094572 Project Sample Number: 92139572-003 Date Collected: 03/06/07 16:00
Client Sample ID: MW-32 Matrix: Water Date Received: 03/07/07 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	ND	ug/l	5.0	1.0	03/08/07 06:55	DLK	71-43-2		
Ethylbenzene	ND	ug/l	5.0	1.0	03/08/07 06:55	DLK	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	03/08/07 06:55	DLK	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	03/08/07 06:55	DLK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	03/08/07 06:55	DLK	108-88-3		
Xylene (Total)	ND	ug/l	10.	1.0	03/08/07 06:55	DLK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	1.0	03/08/07 06:55	DLK			
o-Xylene	ND	ug/l	5.0	1.0	03/08/07 06:55	DLK	95-47-6		
Toluene-d8 (S)	97	%		1.0	03/08/07 06:55	DLK	2037-26-5		
4-Bromofluorobenzene (S)	94	%		1.0	03/08/07 06:55	DLK	460-00-4		
Dibromofluoromethane (S)	99	%		1.0	03/08/07 06:55	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	100	%		1.0	03/08/07 06:55	DLK	17060-07-0		

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Lab Project Number: 92139572
Client Project ID: KMO#119 JOY-3661-02

Lab Sample No: 928094630 Project Sample Number: 92139572-004 Date Collected: 03/06/07 14:00
Client Sample ID: MW-30 Matrix: Water Date Received: 03/07/07 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	1.0	03/08/07 03:36	RCS1	106-93-4		
1-Chloro-2-bromopropane (S)	112	%		1.0	03/08/07 03:36	RCS1	301-79-56		
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	ND	ug/l	5.0	1.0	03/08/07 07:13	DLK	71-43-2		
1,2-Dichloroethane	ND	ug/l	5.0	1.0	03/08/07 07:13	DLK	107-06-2		
Ethylbenzene	ND	ug/l	5.0	1.0	03/08/07 07:13	DLK	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	03/08/07 07:13	DLK	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	03/08/07 07:13	DLK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	03/08/07 07:13	DLK	108-88-3		
Xylene (Total)	ND	ug/l	10.	1.0	03/08/07 07:13	DLK	1330-20-7		
m&p-Xylene	ND	ug/l	10.	1.0	03/08/07 07:13	DLK			
o-Xylene	ND	ug/l	5.0	1.0	03/08/07 07:13	DLK	95-47-6		
Toluene-d8 (S)	102	%		1.0	03/08/07 07:13	DLK	2037-26-5		
4-Bromofluorobenzene (S)	95	%		1.0	03/08/07 07:13	DLK	460-00-4		
Dibromofluoromethane (S)	104	%		1.0	03/08/07 07:13	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	105	%		1.0	03/08/07 07:13	DLK	17060-07-0		

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NC Wastewater 40
NC Drinking Water 37712
SC 99030
FL NELAP E87648

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NC Drinking Water 37706
SC 99006
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www.pacelabs.com

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Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 92139572
Client Project ID: KMO#119 JOY-3661-02

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

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QUALITY CONTROL DATA

Lab Project Number: 92139572
Client Project ID: KMO#119 JOY-3661-02

QC Batch: 182431 Analysis Method: EPA 8011
QC Batch Method: EPA 504.1 Analysis Description: EDB and DBCP in Water
Associated Lab Samples: 928094630

METHOD BLANK: 928097781
Associated Lab Samples: 928094630

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	0.020	
1-Chloro-2-bromopropane (S)	%	96		

LABORATORY CONTROL SAMPLE & LCSD: 928097799 928097807

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0.2500	0.2567	0.2420	103	97	6	
1-Chloro-2-bromopropane (S)					111	112		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928097823 928097831

Parameter	Units	928084607 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0	0.2500	0.3880	0.3869	155	155	0	1,1
1-Chloro-2-bromopropane (S)						121	120		

SAMPLE DUPLICATE: 928097849

Parameter	Units	928084615 Result	DUP Result	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
1-Chloro-2-bromopropane (S)	%	111	114		

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QUALITY CONTROL DATA

Lab Project Number: 92139572
Client Project ID: KMO#119 JOY-3661-02

QC Batch: 182419 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 928094549 928094564 928094572 928094630

METHOD BLANK: 928096387
Associated Lab Samples: 928094549 928094564 928094572 928094630

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
1,2-Dichloroethane	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
Xylene (Total)	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	103		
4-Bromofluorobenzene (S)	%	93		
Dibromofluoromethane (S)	%	99		
1,2-Dichloroethane-d4 (S)	%	102		

LABORATORY CONTROL SAMPLE: 928096395

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	56.45	113	
1,2-Dichloroethane	ug/l	50.00	55.99	112	
Ethylbenzene	ug/l	50.00	61.86	124	
Methyl-tert-butyl ether	ug/l	50.00	54.05	108	
Naphthalene	ug/l	50.00	54.19	108	
Toluene	ug/l	50.00	57.15	114	
m&p-Xylene	ug/l	100.00	118.7	119	
o-Xylene	ug/l	50.00	59.63	119	
Toluene-d8 (S)				106	
4-Bromofluorobenzene (S)				105	
Dibromofluoromethane (S)				101	
1,2-Dichloroethane-d4 (S)				104	

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Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 92139572
Client Project ID: KMO#119 JOY-3661-02

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate
[1]	The spike recovery was outside acceptance limits for the MS and /or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Pace Analytical®

Page: 1 of 1

0999175

Section A
Required Client Information:

Company	BLE
Address	6004 PONDERS CT
	GREENVILLE SC 29615
Email To:	trevor@blecorp.com
Phone	864-288-1265
Fax	
Requested Due Date/TAT:	24 HR - RUSH

Section B
Required Project Information:

Report To:	TREVOR BENTON
Copy To:	SAME
Purchase Order No.:	
Project Name:	KMO #119
Project Number:	304-3661-02

Section C
Invoice Information:

Attention:	SAME
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	AJS
Pace Profile #:	104 - 19

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ Other

SITE LOCATION ☐GA ☐IL ☐IN ☐MI ☐MN ☐NC ☐OH ☑SC ☐WI ☐OTHER

Section D
Required Client Information

SAMPLE ID

One Character per box.
(A-Z, 0-9 / .-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: BTEX+NAPH+MTBE 8260B	BTEX+MTBE 8021B	1,2,4-TMB	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D.
1	MW-29	WT	G			3/5/07	1100		3				HCl						X				92139572
2	MW-30	WT	G			3/6/07	1400		6				HCl							X	X		92809
3	MW-31	WT	G			3/6/07	1500		3				HCl						X				4030
4	MW-32	WT	G			3/6/07	1600		3				HCl						X				4564
5																							4572
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
TREVOR BENTON / BLE	3/5/07	1400	M. Mayer / BLE	3/5/07	1400
M. Mayer / BLE	3/6/07	1800	Fed Ex		

SAMPLE CONDITION

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Rick Mayer

SIGNATURE of SAMPLER:

DATE Signed (MM / DD / YY):

SEE REVERSE SIDE FOR INSTRUCTIONS

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Est. 1970

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court

Greenville, SC 29615

Report Summary

Thursday September 06, 2007

Report Number: L289575
Samples Received: 04/19/07
Client Project: 3661-02

Description: KMO 119

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Jimmy Hunt, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 09227, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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REPORT OF ANALYSIS

September 06,2007

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

ESC Sample # : L289575-01

Date Received : April 19, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-1R

Project # : 3661-02

Collected By : Trevor Benton
Collection Date : 04/18/07 14:10

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/19/07	1
Nitrate	BDL	100	ug/l	9056	04/19/07	1
Sulfate	18000	5000	ug/l	9056	04/19/07	1
Ferrous Iron	1000	50.	ug/l	3500Fe-B	04/19/07	1
Lead	27.	1.0	ug/l	6020	04/20/07	1
Volatile Organics						
Benzene	15000	100	ug/l	8260B	04/23/07	100
1,2-Dichloroethane	520	100	ug/l	8260B	04/23/07	100
Ethylbenzene	2400	100	ug/l	8260B	04/23/07	100
Methyl tert-butyl ether	3600	100	ug/l	8260B	04/23/07	100
Naphthalene	1200	500	ug/l	8260B	04/23/07	100
Toluene	22000	1200	ug/l	8260B	04/24/07	250
Xylenes, Total	14000	300	ug/l	8260B	04/23/07	100
Surrogate Recovery						
Toluene-d8	96.9		% Rec.	8260B	04/23/07	100
Dibromofluoromethane	101.		% Rec.	8260B	04/23/07	100
4-Bromofluorobenzene	86.7		% Rec.	8260B	04/23/07	100
Volatiles - Oxygenates						
Di-isopropyl ether	1300	50.	ug/l	8260B	04/26/07	10
Ethanol	BDL	2000	ug/l	8260B	04/26/07	10
Ethyl tert-butyl ether	BDL	100	ug/l	8260B	04/26/07	10
t-Amyl Alcohol	7300	1000	ug/l	8260B	04/26/07	10
tert-Butyl alcohol	1000	500	ug/l	8260B	04/26/07	10
tert-Amyl Methyl Ether	BDL	100	ug/l	8260B	04/26/07	10
tert-Butyl Formate	BDL	200	ug/l	8260B	04/26/07	10
3,3-Dimethyl-1-butanol	BDL	1000	ug/l	8260B	04/26/07	10
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	104.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	109.		% Rec.	8260B	04/26/07	1
1,2-Dichloroethane-d4	108.		% Rec.	8260B	04/26/07	1
Ethylene Dibromide	360	5.0	ug/l	8011	04/24/07	500
1,2-Dibromo-3-Chloropropane	BDL	10.	ug/l	8011	04/24/07	500

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 09/06/07 13:36 Printed: 09/06/07 13:40
L289575-01 (V8260OXY) - subcontracted to Pace Analytical Labs
L289575-01 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L289575-02

Site ID : ANDERSON, SC

Project # : 3661-02

Date Received : April 19, 2007
Description : KMO 119

Sample ID : MW-2

Collected By : Trevor Benton
Collection Date : 04/18/07 15:02

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/19/07	1
Nitrate	BDL	100	ug/l	9056	04/19/07	1
Sulfate	13000	5000	ug/l	9056	04/19/07	1
Ferrous Iron	8900	500	ug/l	3500Fe-B	04/19/07	10
Lead	BDL	1.0	ug/l	6020	04/20/07	1
Volatile Organics						
Benzene	2400	25.	ug/l	8260B	04/24/07	25
1,2-Dichloroethane	44.	25.	ug/l	8260B	04/24/07	25
Ethylbenzene	220	25.	ug/l	8260B	04/24/07	25
Methyl tert-butyl ether	440	25.	ug/l	8260B	04/24/07	25
Naphthalene	BDL	120	ug/l	8260B	04/24/07	25
Toluene	580	120	ug/l	8260B	04/24/07	25
Xylenes, Total	1800	75.	ug/l	8260B	04/24/07	25
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/24/07	25
Dibromofluoromethane	104.		% Rec.	8260B	04/24/07	25
4-Bromofluorobenzene	102.		% Rec.	8260B	04/24/07	25
Volatiles - Oxygenates						
Di-isopropyl ether	210	100	ug/l	8260B	04/27/07	20
Ethanol	BDL	200	ug/l	8260B	04/27/07	20
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/27/07	20
t-Amyl Alcohol	880	100	ug/l	8260B	04/27/07	20
tert-Butyl alcohol	BDL	1000	ug/l	8260B	04/27/07	20
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/27/07	20
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/27/07	20
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/27/07	20
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/27/07	1
Dibromofluoromethane	100.		% Rec.	8260B	04/27/07	1
4-Bromofluorobenzene	102.		% Rec.	8260B	04/27/07	1
1,2-Dichloroethane-d4	103.		% Rec.	8260B	04/27/07	1
Ethylene Dibromide	1.6	0.050	ug/l	8011	04/24/07	5
1,2-Dibromo-3-Chloropropane	0.16	0.10	ug/l	8011	04/24/07	5

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L289575-02 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L289575-03

Date Received : April 19, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-3

Project # : 3661-02

Collected By : Trevor Benton
Collection Date : 04/18/07 15:16

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/19/07	1
Nitrate	1400	100	ug/l	9056	04/19/07	1
Sulfate	BDL	5000	ug/l	9056	04/19/07	1
Ferrous Iron	290	50.	ug/l	3500Fe-B	04/19/07	1
Lead	BDL	1.0	ug/l	6020	04/20/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/24/07	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/24/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/24/07	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/24/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/24/07	1
Toluene	BDL	5.0	ug/l	8260B	04/24/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/24/07	1
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	04/24/07	1
Dibromofluoromethane	104.		% Rec.	8260B	04/24/07	1
4-Bromofluorobenzene	105.		% Rec.	8260B	04/24/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/26/07	1
Ethanol	BDL	200	ug/l	8260B	04/26/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/26/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/26/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/26/07	1
tert-Amyl Methyl Ether	BDL	1.0	ug/l	8260B	04/26/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/26/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	109.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	100.		% Rec.	8260B	04/26/07	1
1,2-Dichloroethane-d4	108.		% Rec.	8260B	04/26/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/24/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/24/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L289575-03 (V82600XY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

Date Received : April 19, 2007
Description : KMO 119

Sample ID : MW-4

Collected By : Trevor Benton
Collection Date : 04/18/07 16:28

ESC Sample # : L289575-04

Site ID : ANDERSON, SC

Project # : 3661-02

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/19/07	1
Nitrate	BDL	100	ug/l	9056	04/19/07	1
Sulfate	BDL	5000	ug/l	9056	04/19/07	1
Ferrous Iron	BDL	50.	ug/l	3500Fe-B	04/19/07	1
Lead	5.1	1.0	ug/l	6020	04/20/07	1
Volatile Organics						
Benzene	4.2	1.0	ug/l	8260B	04/23/07	1
1,2-Dichloroethane	1.3	1.0	ug/l	8260B	04/23/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/23/07	1
Methyl tert-butyl ether	4.9	1.0	ug/l	8260B	04/23/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/23/07	1
Toluene	BDL	5.0	ug/l	8260B	04/23/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/23/07	1
Surrogate Recovery						
Toluene-d8	96.1		% Rec.	8260B	04/23/07	1
Dibromofluoromethane	96.2		% Rec.	8260B	04/23/07	1
4-Bromofluorobenzene	86.7		% Rec.	8260B	04/23/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/26/07	1
Ethanol	BDL	200	ug/l	8260B	04/26/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/26/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/26/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/26/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/26/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/26/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	97.0		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	106.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	94.0		% Rec.	8260B	04/26/07	1
1,2-Dichloroethane-d4	106.		% Rec.	8260B	04/26/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/24/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/24/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 09/06/07 13:36 Printed: 09/06/07 13:40
L289575-04 (V8260OXY) - subcontracted to Pace Analytical Labs
L289575-04 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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SCIENCE CORP.

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L289575-05

Site ID : ANDERSON, SC

Project # : 3661-02

Date Received : April 19, 2007
Description : KMO 119

Sample ID : MW-5

Collected By : Trevor Benton
Collection Date : 04/18/07 16:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/19/07	1
Nitrate	BDL	100	ug/l	9056	04/19/07	1
Sulfate	BDL	5000	ug/l	9056	04/19/07	1
Ferrous Iron	BDL	50.	ug/l	3500Fe-B	04/19/07	1
Lead	32.	1.0	ug/l	6020	04/20/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/23/07	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/23/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/23/07	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/23/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/23/07	1
Toluene	BDL	5.0	ug/l	8260B	04/23/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/23/07	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/23/07	1
Dibromofluoromethane	102.		% Rec.	8260B	04/23/07	1
4-Bromofluorobenzene	87.6		% Rec.	8260B	04/23/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/26/07	1
Ethanol	BDL	200	ug/l	8260B	04/26/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/26/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/26/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/26/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/26/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/26/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	106.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	99.0		% Rec.	8260B	04/26/07	1
1,2-Dichloroethane-d4	107.		% Rec.	8260B	04/26/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/24/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/24/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
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L289575-05 (V82600XY) - subcontracted to Pace Analytical Labs
L289575-05 (V82600XY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L289575-06

Date Received : April 19, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-6

Project # : 3661-02

Collected By : Trevor Benton
Collection Date : 04/18/07 15:37

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/19/07	1
Nitrate	BDL	100	ug/l	9056	04/19/07	1
Sulfate	BDL	5000	ug/l	9056	04/19/07	1
Ferrous Iron	BDL	50.	ug/l	3500Fe-B	04/19/07	1
Lead	15.	1.0	ug/l	6020	04/20/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/23/07	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/23/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/23/07	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/23/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/23/07	1
Toluene	BDL	5.0	ug/l	8260B	04/23/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/23/07	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/23/07	1
Dibromofluoromethane	100.		% Rec.	8260B	04/23/07	1
4-Bromofluorobenzene	86.8		% Rec.	8260B	04/23/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/26/07	1
Ethanol	BDL	200	ug/l	8260B	04/26/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/26/07	1
t-Amyl Alcohol	BDL	50.	ug/l	8260B	04/26/07	1
tert-Butyl alcohol	BDL	10.	ug/l	8260B	04/26/07	1
tert-Amyl Methyl Ether	BDL	20.	ug/l	8260B	04/26/07	1
tert-Butyl Formate	BDL	100	ug/l	8260B	04/26/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	93.0		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	105.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	98.0		% Rec.	8260B	04/26/07	1
1,2-Dichloroethane-d4	113.		% Rec.	8260B	04/26/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/24/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/24/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L289575-06 (V8260OXY) - subcontracted to Pace Analytical Labs
L289575-06 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

Date Received : April 19, 2007
Description : KMO 119

Sample ID : MW-7

Collected By : Trevor Benton
Collection Date : 04/18/07 15:47

ESC Sample # : L289575-07

Site ID : ANDERSON, SC

Project # : 3661-02

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/19/07	1
Nitrate	1000	100	ug/l	9056	04/19/07	1
Sulfate	BDL	5000	ug/l	9056	04/19/07	1
Ferrous Iron	380	50.	ug/l	3500Fe-B	04/19/07	1
Lead	4.5	1.0	ug/l	6020	04/20/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/23/07	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/23/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/23/07	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/23/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/23/07	1
Toluene	BDL	5.0	ug/l	8260B	04/23/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/23/07	1
Surrogate Recovery						
Toluene-d8	98.8		% Rec.	8260B	04/23/07	1
Dibromofluoromethane	101.		% Rec.	8260B	04/23/07	1
4-Bromofluorobenzene	92.2		% Rec.	8260B	04/23/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/26/07	1
Ethanol	BDL	200	ug/l	8260B	04/26/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/26/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/26/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/26/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/26/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/26/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	98.0		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	109.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	98.0		% Rec.	8260B	04/26/07	1
1,2-Dichloroethane-d4	110.		% Rec.	8260B	04/26/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/24/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/24/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L289575-07 (V8260OXY) - subcontracted to Pace Analytical Labs
L289575-07 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L289575-08

Site ID : ANDERSON, SC

Project # : 3661-02

Date Received : April 19, 2007
Description : KMO 119

Sample ID : MW-8

Collected By : Trevor Benton
Collection Date : 04/18/07 16:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/19/07	1
Nitrate	150	100	ug/l	9056	04/19/07	1
Sulfate	BDL	5000	ug/l	9056	04/19/07	1
Ferrous Iron	BDL	50.	ug/l	3500Fe-B	04/19/07	1
Lead	18.	1.0	ug/l	6020	04/20/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/23/07	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/23/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/23/07	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/23/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/23/07	1
Toluene	BDL	5.0	ug/l	8260B	04/23/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/23/07	1
Surrogate Recovery						
Toluene-d8	98.7		% Rec.	8260B	04/23/07	1
Dibromofluoromethane	95.1		% Rec.	8260B	04/23/07	1
4-Bromofluorobenzene	87.5		% Rec.	8260B	04/23/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	104.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	97.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	104.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/24/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/24/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L289575-08 (V8260OXY) - subcontracted to Pace Analytical Labs
L289575-08 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

Date Received : April 19, 2007
Description : KMO 119

ESC Sample # : L289575-09

Sample ID : MW-1D

Site ID : ANDERSON, SC

Project # : 3661-02

Collected By : Trevor Benton
Collection Date : 04/18/07 14:28

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	790	40.	ppb	8015M	04/19/07	4
Nitrate	BDL	100	ug/l	9056	04/19/07	1
Sulfate	BDL	5000	ug/l	9056	04/19/07	1
Ferrous Iron	4400	250	ug/l	3500Fe-B	04/19/07	5
Lead	6.1	1.0	ug/l	6020	04/19/07	1
Volatile Organics						
Benzene	11000	100	ug/l	8260B	04/25/07	100
1,2-Dichloroethane	300	25.	ug/l	8260B	04/24/07	25
Ethylbenzene	740	25.	ug/l	8260B	04/24/07	25
Methyl tert-butyl ether	4300	25.	ug/l	8260B	04/24/07	25
Naphthalene	210	120	ug/l	8260B	04/24/07	25
Toluene	2500	120	ug/l	8260B	04/24/07	25
Xylenes, Total	2300	75.	ug/l	8260B	04/24/07	25
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	04/24/07	25
Dibromofluoromethane	100.		% Rec.	8260B	04/24/07	25
4-Bromofluorobenzene	104.		% Rec.	8260B	04/24/07	25
Volatiles - Oxygenates						
Di-isopropyl ether	1600	250	ug/l	8260B	04/29/07	50
Ethanol	BDL	10000	ug/l	8260B	04/29/07	50
Ethyl tert-butyl ether	BDL	500	ug/l	8260B	04/29/07	50
t-Amyl Alcohol	7600	5000	ug/l	8260B	04/29/07	50
tert-Butyl alcohol	BDL	2500	ug/l	8260B	04/29/07	50
tert-Amyl Methyl Ether	BDL	500	ug/l	8260B	04/29/07	50
tert-Butyl Formate	BDL	1000	ug/l	8260B	04/29/07	50
3,3-Dimethyl-1-butanol	BDL	5000	ug/l	8260B	04/29/07	50
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/29/07	1
Dibromofluoromethane	98.0		% Rec.	8260B	04/29/07	1
4-Bromofluorobenzene	101.		% Rec.	8260B	04/29/07	1
1,2-Dichloroethane-d4	96.0		% Rec.	8260B	04/29/07	1
Ethylene Dibromide	0.012	0.010	ug/l	8011	04/24/07	1
1,2-Dibromo-3-Chloropropane	0.027	0.020	ug/l	8011	04/24/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L289575-09 (V8260OXY) - subcontracted to Pace Analytical Labs
L289575-09 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

Date Received : April 19, 2007
Description : KMO 119

Sample ID : MW-16

Collected By : Trevor Benton
Collection Date : 04/18/07 15:45

ESC Sample # : L289575-10

Site ID : ANDERSON, SC

Project # : 3661-02

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/19/07	1
Nitrate	BDL	100	ug/l	9056	04/19/07	1
Sulfate	BDL	5000	ug/l	9056	04/19/07	1
Ferrous Iron	18000	1200	ug/l	3500Fe-B	04/19/07	25
Lead	4.6	1.0	ug/l	6020	04/20/07	1
Volatile Organics						
Benzene	5700	50.	ug/l	8260B	04/23/07	50
1,2-Dichloroethane	290	50.	ug/l	8260B	04/23/07	50
Ethylbenzene	2200	50.	ug/l	8260B	04/23/07	50
Methyl tert-butyl ether	3900	50.	ug/l	8260B	04/23/07	50
Naphthalene	3200	250	ug/l	8260B	04/23/07	50
Toluene	4300	250	ug/l	8260B	04/23/07	50
Xylenes, Total	9900	150	ug/l	8260B	04/23/07	50
Surrogate Recovery						
Toluene-d8	99.5		% Rec.	8260B	04/23/07	50
Dibromofluoromethane	95.7		% Rec.	8260B	04/23/07	50
4-Bromofluorobenzene	89.6		% Rec.	8260B	04/23/07	50
Volatiles - Oxygenates						
Di-isopropyl ether	670	50.	ug/l	8260B	04/29/07	10
Ethanol	BDL	2000	ug/l	8260B	04/29/07	10
Ethyl tert-butyl ether	BDL	100	ug/l	8260B	04/29/07	10
t-Amyl Alcohol	3700	1000	ug/l	8260B	04/29/07	10
tert-Butyl alcohol	BDL	500	ug/l	8260B	04/29/07	10
tert-Amyl Methyl Ether	BDL	100	ug/l	8260B	04/29/07	10
tert-Butyl Formate	BDL	200	ug/l	8260B	04/29/07	10
3,3-Dimethyl-1-butanol	BDL	1000	ug/l	8260B	04/29/07	10
Surrogate Recovery						
Toluene-d8	106.		% Rec.	8260B	04/29/07	1
Dibromofluoromethane	98.0		% Rec.	8260B	04/29/07	1
4-Bromofluorobenzene	104.		% Rec.	8260B	04/29/07	1
1,2-Dichloroethane-d4	98.0		% Rec.	8260B	04/29/07	1
Ethylene Dibromide	1.4	0.050	ug/l	8011	04/24/07	5
1,2-Dibromo-3-Chloropropane	BDL	0.10	ug/l	8011	04/24/07	5

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 09/06/07 13:36 Printed: 09/06/07 13:40
L289575-10 (V8260OXY) - subcontracted to Pace Analytical Labs
L289575-10 (V8260OXY) - subcontracted to Pace Analytical Services Inc

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L289575-11

Site ID : ANDERSON, SC

Project # : 3661-02

Date Received : April 19, 2007
Description : KMO 119

Sample ID : MW-17

Collected By : Trevor Benton
Collection Date : 04/18/07 16:08

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	490	100	ug/l	9056	04/19/07	1
Sulfate	BDL	5000	ug/l	9056	04/19/07	1
Ferrous Iron	410	50.	ug/l	3500Fe-B	04/19/07	1
Lead	2.9	1.0	ug/l	6020	04/20/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/25/07	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/25/07	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/25/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/25/07	1
Toluene	BDL	5.0	ug/l	8260B	04/25/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/25/07	1
Surrogate Recovery						
Toluene-d8	95.4		% Rec.	8260B	04/25/07	1
Dibromofluoromethane	98.3		% Rec.	8260B	04/25/07	1
4-Bromofluorobenzene	96.0		% Rec.	8260B	04/25/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	106.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	98.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	108.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/24/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/24/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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.
Reported: 09/06/07 13:36 Printed: 09/06/07 13:40
L289575-11 (V8260OXY) - subcontracted to Pace Analytical Labs
L289575-11 (V8260OXY) - subcontracted to Pace Analytical Services Inc

Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L289575-01	Naphthalene	J5
L289575-09	Benzene	J6

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

	Control Limits				(AQ)	(SS)
2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromfluoromethane	68-128	64-125
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	76-115	69-118
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	79-127	61-134

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Bunnell - Lammons Engineering, Inc.

6004 Ponders Court
Greenville,SC 29615

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody
Page 1 of 2

Prepared by:
ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (800) 767-5859
FAX (615) 758-5859

Report to: Mr. Trevor Benton

Email: trevor@blecorp.com

Project Description: KMO 119

City/State Collected

Phone: (864) 288-1265
FAX: (864) 288-4430

Client Project #: 3661-02

Lab Project #: BUNLAMGSC-KMO 119

Collected by (print): TREVOR BENTON

Site/Facility ID#: ANDERSON, SC

P.O.#:

Collected by (signature):

Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day.....100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed: STANDARD

Email? ___No X Yes
FAX? X No ___Yes

Acctnum: BUNLAMGSC (LAB USE ONLY)
Template/Prelogin: T42657/P207002
Cooler: 1
Shipped Via: FedEX Standard

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TERUSTL 250mlAmb-HCl	METHANE 40mlAmb-NoPres	Nitrate,Sulfate125ml HDPE-NoPres	PBG 500mlHDPE-HNO3	SV8011 40mlC-NaThio	V8260OXY 40mlAmb-HCl	V8260SC 40mlAmb-HCl	Remarks/Contaminant	Sample # (lab only)
MW-1R	GRAB	GW		4/18/07	1410	~~13~~ MS	X	X	X	X	X	X	X		1289515-01
MW-2		GW			1502	13	X	X	X	X	X	X	X		-02
MW-3		GW			1516	13	X	X	X	X	X	X	X		-03
MW-4		GW			1628	13	X	X	X	X	X	X	X		-04
MW-5		GW			1645	13	X	X	X	X	X	X	X		-05
MW-6		GW			1537	13	X	X	X	X	X	X	X		-06
MW-7		GW			1547	13	X	X	X	X	X	X	X		-07
MW-8	↓	GW		↓	1615	13	X	X	X	X	X	X	X		-08
~~MW-9~~		~~GW~~				13	X	X	X	X	X	X	X		

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

7199 3084 5476
7199 3084 5469

pH _____ Temp _____

Flow _____ Other _____

Remarks:

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.0 / 4.1 Bottles Received: 13 / 13	COC Seal Intact:
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/19/07 Time: 9:00	pH Checked: NCF:
	4/18/07	1830			

Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville,SC 29615

Alternate billing information:

Chain of Custody
Page 2 of 2

Prepared by:
ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (800) 767-5859
FAX (615) 758-5859

Report to: Mr. Trevor Benton
Email: trevor@blecorp.com

Project Description: KMO 119
City/State Collected:

Phone: (864) 288-1265
FAX: (864) 288-4430

Client Project #: 3661-02
Lab Project #: BUNLAMGSC-KMO 119

Collected by (print): TREVOR BENTON
Site/Facility ID#: ANDERSON, SC
P.O.#:

Collected by (signature):
Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day.....100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X Yes
FAX? X No ___Yes

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	8260USE-250mlAmb-HCl	METHANE 40mlAmb-NoPres	NH3-125mlHDPE-NoPres	PBG 500mlHDPE-HNO3	SV8011-40mlCr-NaThio	V8260OXY 40mlAmb-HCl	V8260SC-40mlAmb-HCl	Remarks/Contaminant	Sample # (lab only)
~~MW-10~~ MW-1D		GW			1428	13	X	X	X	X	X	X	X		
~~MW-11~~		~~GW~~				13	X	X	X	X	X	X	X		
~~MW-12~~		~~GW~~				13	X	X	X	X	X	X	X		
~~MW-13~~		~~GW~~				13	X	X	X	X	X	X	X		
~~MW-14~~		~~GW~~				13	X	X	X	X	X	X	X		
~~MW-15~~		~~GW~~				13	X	X	X	X	X	X	X		
MW-16		GW			1545	13	X	X	X	X	X	X	X		
MW-17		GW			1608	13	X	X	X	X	X	X	X		
~~MW-18~~		~~GW~~				13	X	X	X	X	X	X	X		

(lab use only)
Acctnum: BUNLAMGSC
Template/Prelog: T42657/P207002
Cooler: 1 of 1
Shipped Via: FedEx Standard

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	4/18/07	1830	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____
Temp: 2° Bottles Received: 14
Date: 4/19/07 Time: 933

Condition: (lab use only)
pH Checked: 2 NCF:

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Tax I.D. 62-0814289

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Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court

Greenville, SC 29615

Report Summary

Thursday September 06, 2007

Report Number: L290104
Samples Received: 04/21/07
Client Project: J04-3661-02

Description: KMO 119

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Jimmy Hunt, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 09227, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-01

Site ID : ANDERSON, SC

Project # : J04-3661-02

Date Received : April 21, 2007
Description : KMO 119

Sample ID : MW-19

Collected By : Trevor Benton
Collection Date : 04/20/07 10:10

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	BDL	50.	ug/l	3500Fe-B	04/21/07	1
Lead	1.6	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	12.	1.0	ug/l	8260B	04/25/07	1
1,2-Dichloroethane	34.	1.0	ug/l	8260B	04/25/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/25/07	1
Methyl tert-butyl ether	36.	1.0	ug/l	8260B	04/25/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/25/07	1
Toluene	BDL	5.0	ug/l	8260B	04/25/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/25/07	1
Surrogate Recovery						
Toluene-d8	95.5		% Rec.	8260B	04/25/07	1
Dibromofluoromethane	101.		% Rec.	8260B	04/25/07	1
4-Bromofluorobenzene	100.		% Rec.	8260B	04/25/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	110	5.0	ug/l	8260B	04/29/07	1
Ethanol	BDL	200	ug/l	8260B	04/29/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/29/07	1
t-Amyl Alcohol	750	100	ug/l	8260B	04/29/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/29/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/29/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/29/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/29/07	1
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	04/29/07	1
Dibromofluoromethane	97.0		% Rec.	8260B	04/29/07	1
4-Bromofluorobenzene	103.		% Rec.	8260B	04/29/07	1
1,2-Dichloroethane-d4	97.0		% Rec.	8260B	04/29/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/26/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/26/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 09/06/07 12:32 Printed: 09/06/07 15:05
L290104-01 (V82600XY) - subcontracted to Pace Analytical Labs
L290104-01 (V82600XY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-02

Date Received : April 21, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-20

Project # : J04-3661-02

Collected By : Trevor Benton
Collection Date : 04/20/07 09:58

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	2500	50.	ug/l	3500Fe-B	04/21/07	1
Lead	BDL	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/25/07	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/25/07	1
Methyl tert-butyl ether	2.1	1.0	ug/l	8260B	04/25/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/25/07	1
Toluene	BDL	5.0	ug/l	8260B	04/25/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/25/07	1
Surrogate Recovery						
Toluene-d8	97.1		% Rec.	8260B	04/25/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/25/07	1
4-Bromofluorobenzene	103.		% Rec.	8260B	04/25/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	107.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	97.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	110.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/26/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/26/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 09/06/07 12:32 Printed: 09/06/07 15:05
L290104-02 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-02 (V8260OXY) - subcontracted to Pace Analytical Services Inc

ENVIRONMENTAL
SCIENCE CORP.

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-03

Date Received : April 21, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-21

Project # : J04-3661-02

Collected By : Trevor Benton
Collection Date : 04/20/07 10:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	13000	1200	ug/l	3500Fe-B	04/21/07	25
Lead	BDL	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	1100	10.	ug/l	8260B	04/26/07	10
1,2-Dichloroethane	33.	10.	ug/l	8260B	04/26/07	10
Ethylbenzene	470	10.	ug/l	8260B	04/26/07	10
Methyl tert-butyl ether	220	10.	ug/l	8260B	04/26/07	10
Naphthalene	260	50.	ug/l	8260B	04/26/07	10
Toluene	690	50.	ug/l	8260B	04/26/07	10
Xylenes, Total	1700	30.	ug/l	8260B	04/26/07	10
Surrogate Recovery						
Toluene-d8	98.0		% Rec.	8260B	04/26/07	10
Dibromofluoromethane	102.		% Rec.	8260B	04/26/07	10
4-Bromofluorobenzene	103.		% Rec.	8260B	04/26/07	10
Volatiles - Oxygenates						
Di-isopropyl ether	130	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	660	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	100.		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	104.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	0.078	0.010	ug/l	8011	05/02/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	05/02/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L290104-03 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-03 (V8260OXY) - subcontracted to Pace Analytical Services Inc

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
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(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-04

Site ID : ANDERSON, SC

Project # : J04-3661-02

Date Received : April 21, 2007
Description : KMO 119

Sample ID : MW-22

Collected By : Trevor Benton
Collection Date : 04/20/07 10:55

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	10000	500	ug/l	3500Fe-B	04/21/07	10
Lead	BDL	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	880	5.0	ug/l	8260B	04/26/07	5
1,2-Dichloroethane	29.	5.0	ug/l	8260B	04/26/07	5
Ethylbenzene	630	5.0	ug/l	8260B	04/26/07	5
Methyl tert-butyl ether	200	5.0	ug/l	8260B	04/26/07	5
Naphthalene	430	25.	ug/l	8260B	04/26/07	5
Toluene	170	25.	ug/l	8260B	04/26/07	5
Xylenes, Total	1900	15.	ug/l	8260B	04/26/07	5
Surrogate Recovery						
Toluene-d8	97.9		% Rec.	8260B	04/26/07	5
Dibromofluoromethane	104.		% Rec.	8260B	04/26/07	5
4-Bromofluorobenzene	106.		% Rec.	8260B	04/26/07	5
Volatiles - Oxygenates						
Di-isopropyl ether	96.	5.0	ug/l	8260B	04/29/07	1
Ethanol	BDL	200	ug/l	8260B	04/29/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/29/07	1
t-Amyl Alcohol	660	100	ug/l	8260B	04/29/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/29/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/29/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/29/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/29/07	1
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	04/29/07	1
Dibromofluoromethane	95.0		% Rec.	8260B	04/29/07	1
4-Bromofluorobenzene	102.		% Rec.	8260B	04/29/07	1
1,2-Dichloroethane-d4	96.0		% Rec.	8260B	04/29/07	1
Ethylene Dibromide	0.034	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L290104-04 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-04 (V8260OXY) - subcontracted to Pace Analytical Services Inc

ENVIRONMENTAL
SCIENCE CORP.

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-05

Date Received : April 21, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-23

Project # : J04-3661-02

Collected By : Trevor Benton
Collection Date : 04/20/07 11:41

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	18000	2500	ug/l	3500Fe-B	04/21/07	50
Lead	1.2	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	1300	10.	ug/l	8260B	04/26/07	10
1,2-Dichloroethane	33.	10.	ug/l	8260B	04/26/07	10
Ethylbenzene	960	10.	ug/l	8260B	04/26/07	10
Methyl tert-butyl ether	220	10.	ug/l	8260B	04/26/07	10
Naphthalene	610	50.	ug/l	8260B	04/26/07	10
Toluene	890	50.	ug/l	8260B	04/26/07	10
Xylenes, Total	3400	30.	ug/l	8260B	04/26/07	10
Surrogate Recovery						
Toluene-d8	97.4		% Rec.	8260B	04/26/07	10
Dibromofluoromethane	102.		% Rec.	8260B	04/26/07	10
4-Bromofluorobenzene	103.		% Rec.	8260B	04/26/07	10
Volatiles - Oxygenates						
Di-isopropyl ether	140	10.	ug/l	8260B	04/29/07	2
Ethanol	BDL	400	ug/l	8260B	04/29/07	2
Ethyl tert-butyl ether	BDL	20.	ug/l	8260B	04/29/07	2
t-Amyl Alcohol	930	200	ug/l	8260B	04/29/07	2
tert-Butyl alcohol	BDL	100	ug/l	8260B	04/29/07	2
tert-Amyl Methyl Ether	BDL	20.	ug/l	8260B	04/29/07	2
tert-Butyl Formate	BDL	40.	ug/l	8260B	04/29/07	2
3,3-Dimethyl-1-butanol	BDL	200	ug/l	8260B	04/29/07	2
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/29/07	1
Dibromofluoromethane	97.0		% Rec.	8260B	04/29/07	1
4-Bromofluorobenzene	100.		% Rec.	8260B	04/29/07	1
1,2-Dichloroethane-d4	97.0		% Rec.	8260B	04/29/07	1
Ethylene Dibromide	0.28	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L290104-05 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-05 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-06

Site ID : ANDERSON, SC

Project # : J04-3661-02

Date Received : April 21, 2007
Description : KMO 119

Sample ID : MW-24

Collected By : Trevor Benton
Collection Date : 04/20/07 11:56

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/21/07	1
Sulfate	16000	5000	ug/l	9056	04/21/07	1
Ferrous Iron	22000	2500	ug/l	3500Fe-B	04/21/07	50
Lead	10.	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/26/07	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/26/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/26/07	1
Toluene	BDL	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	97.5		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	99.7		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	97.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	104.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L290104-06 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-06 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-07

Site ID : ANDERSON, SC

Project # : J04-3661-02

Date Received : April 21, 2007
Description : KMO 119

Sample ID : MW-25

Collected By : Trevor Benton
Collection Date : 04/20/07 12:12

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	500	50.	ug/l	3500Fe-B	04/21/07	1
Lead	BDL	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	6.0	1.0	ug/l	8260B	04/26/07	1
1,2-Dichloroethane	6.8	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	56.	1.0	ug/l	8260B	04/26/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/26/07	1
Toluene	BDL	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	4.1	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	97.4		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	104.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	104.		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	16.	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	98.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	104.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L290104-07 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-07 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-08

Date Received : April 21, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-26

Project # : J04-3661-02

Collected By : Trevor Benton
Collection Date : 04/20/07 14:43

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/21/07	1
Sulfate	13000	5000	ug/l	9056	04/21/07	1
Ferrous Iron	1800	50.	ug/l	3500Fe-B	04/21/07	1
Lead	1.9	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	130	1.0	ug/l	8260B	04/26/07	1
1,2-Dichloroethane	17.	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	42.	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	150	1.0	ug/l	8260B	04/26/07	1
Naphthalene	28.	5.0	ug/l	8260B	04/26/07	1
Toluene	50.	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	150	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	98.3		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	101.		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	63.	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	480	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	140	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	99.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	105.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 09/06/07 12:32 Printed: 09/06/07 15:05
L290104-08 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-08 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-09

Site ID : ANDERSON, SC

Project # : J04-3661-02

Date Received : April 21, 2007
Description : KMO 119

Sample ID : MW-27

Collected By : Trevor Benton
Collection Date : 04/20/07 14:40

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	290	50.	ug/l	3500Fe-B	04/21/07	1
Lead	1.8	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	9.7	1.0	ug/l	8260B	04/26/07	1
1,2-Dichloroethane	12.	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	1.0	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	88.	1.0	ug/l	8260B	04/26/07	1
Naphthalene	57.	5.0	ug/l	8260B	04/26/07	1
Toluene	BDL	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	97.2		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	102.		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	48.	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	230	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	97.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	105.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L290104-09 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-09 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-10

Site ID : ANDERSON, SC

Project # : J04-3661-02

Date Received : April 21, 2007
Description : KMO 119

Sample ID : MW-18

Collected By : Trevor Benton
Collection Date : 04/20/07 10:16

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	840	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	4400	250	ug/l	3500Fe-B	04/21/07	5
Lead	BDL	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/26/07	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/26/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/26/07	1
Toluene	BDL	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	97.0		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	104.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	101.		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	98.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	104.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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L290104-10 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-10 (V8260OXY) - subcontracted to Pace Analytical Services Inc

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
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Est. 1970

REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-11

Date Received : April 21, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-28

Project # : J04-3661-02

Collected By : Trevor Benton
Collection Date : 04/20/07 11:13

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	330	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	BDL	50.	ug/l	3500Fe-B	04/21/07	1
Lead	BDL	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	77.	1.0	ug/l	8260B	04/26/07	1
1,2-Dichloroethane	6.0	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	36.	1.0	ug/l	8260B	04/26/07	1
Naphthalene	12.	5.0	ug/l	8260B	04/26/07	1
Toluene	BDL	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	4.0	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	96.7		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	102.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	102.		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	28.	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	180	10.	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	96.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	104.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L290104-11 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-11 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-12

Date Received : April 21, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-29

Project # : J04-3661-02

Collected By : Trevor Benton
Collection Date : 04/20/07 09:12

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	540	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	150	50.	ug/l	3500Fe-B	04/21/07	1
Lead	BDL	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	1.8	1.0	ug/l	8260B	04/26/07	1
1,2-Dichloroethane	1.9	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	12.	1.0	ug/l	8260B	04/26/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/26/07	1
Toluene	BDL	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	97.0		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	101.		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	100	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	104.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	97.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	104.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L290104-12 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-12 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

Date Received : April 21, 2007
Description : KMO 119

Sample ID : MW-30

Collected By : Trevor Benton
Collection Date : 04/20/07 11:35

ESC Sample # : L290104-13

Site ID : ANDERSON, SC

Project # : J04-3661-02

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	BDL	50.	ug/l	3500Fe-B	04/21/07	1
Lead	1.2	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/26/07	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/26/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/26/07	1
Toluene	BDL	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	96.5		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	102.		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	104.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	97.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	106.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
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L290104-13 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-13 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-14

Site ID : ANDERSON, SC

Project # : J04-3661-02

Date Received : April 21, 2007
Description : KMO 119

Sample ID : MW-31

Collected By : Trevor Benton
Collection Date : 04/20/07 11:18

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	BDL	50.	ug/l	3500Fe-B	04/21/07	1
Lead	5.0	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/26/07	1
1,2-Dichloroethane	1.6	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	12.	1.0	ug/l	8260B	04/26/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/26/07	1
Toluene	BDL	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	97.4		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	104.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	101.		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	104.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	98.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	107.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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L290104-14 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-14 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-15

Date Received : April 21, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-32

Project # : J04-3661-02

Collected By : Trevor Benton
Collection Date : 04/20/07 11:53

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/23/07	1
Nitrate	770	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	180	50.	ug/l	3500Fe-B	04/21/07	1
Lead	2.3	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/26/07	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/26/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/26/07	1
Toluene	BDL	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	97.9		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	101.		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	104.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	96.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	106.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 09/06/07 12:32 Printed: 09/06/07 15:05
L290104-15 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-15 (V8260OXY) - subcontracted to Pace Analytical Services Inc

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REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-16

Date Received : April 21, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-9

Project # : J04-3661-02

Collected By : Trevor Benton
Collection Date : 04/20/07 07:58

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	13.	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/21/07	1
Sulfate	BDL	5000	ug/l	9056	04/21/07	1
Ferrous Iron	11000	1200	ug/l	3500Fe-B	04/21/07	25
Lead	2.8	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	4900	50.	ug/l	8260B	04/27/07	50
1,2-Dichloroethane	210	5.0	ug/l	8260B	04/26/07	5
Ethylbenzene	17.	5.0	ug/l	8260B	04/26/07	5
Methyl tert-butyl ether	98.	5.0	ug/l	8260B	04/26/07	5
Naphthalene	110	25.	ug/l	8260B	04/26/07	5
Toluene	38.	25.	ug/l	8260B	04/26/07	5
Xylenes, Total	37.	15.	ug/l	8260B	04/26/07	5
Surrogate Recovery						
Toluene-d8	94.9		% Rec.	8260B	04/26/07	5
Dibromofluoromethane	105.		% Rec.	8260B	04/26/07	5
4-Bromofluorobenzene	104.		% Rec.	8260B	04/26/07	5
Volatiles - Oxygenates						
Di-isopropyl ether	660	50.	ug/l	8260B	04/28/07	10
Ethanol	BDL	2000	ug/l	8260B	04/28/07	10
Ethyl tert-butyl ether	BDL	100	ug/l	8260B	04/28/07	10
t-Amyl Alcohol	5200	1000	ug/l	8260B	04/28/07	10
tert-Butyl alcohol	BDL	500	ug/l	8260B	04/28/07	10
tert-Amyl Methyl Ether	BDL	100	ug/l	8260B	04/28/07	10
tert-Butyl Formate	BDL	200	ug/l	8260B	04/28/07	10
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	10
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	100.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	99.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	99.0		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	0.045	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/06/07 12:32 Printed: 09/06/07 15:06
L290104-16 (V82600XY) - subcontracted to Pace Analytical Labs
L290104-16 (V82600XY) - subcontracted to Pace Analytical Services Inc

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-17

Date Received : April 21, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-11D

Project # : J04-3661-02

Collected By : Trevor Benton
Collection Date : 04/20/07 07:46

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	44.	10.	ppb	8015M	04/23/07	1
Nitrate	BDL	100	ug/l	9056	04/22/07	1
Sulfate	BDL	5000	ug/l	9056	04/22/07	1
Ferrous Iron	970	50.	ug/l	3500Fe-B	04/21/07	1
Lead	5.2	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	350	5.0	ug/l	8260B	04/26/07	5
1,2-Dichloroethane	22.	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	17.	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	260	5.0	ug/l	8260B	04/26/07	5
Naphthalene	13.	5.0	ug/l	8260B	04/26/07	1
Toluene	20.	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	44.	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	97.1		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	103.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	103.		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	90.	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	500	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	104.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	99.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	104.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/06/07 12:32 Printed: 09/06/07 15:06
L290104-17 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-17 (V8260OXY) - subcontracted to Pace Analytical Services Inc

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

ESC Sample # : L290104-18

Date Received : April 21, 2007
Description : KMO 119

Site ID : ANDERSON, SC

Sample ID : MW-12

Project # : J04-3661-02

Collected By : Trevor Benton
Collection Date : 04/20/07 07:38

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/26/07	1
Nitrate	900	100	ug/l	9056	04/22/07	1
Sulfate	BDL	5000	ug/l	9056	04/22/07	1
Ferrous Iron	BDL	50.	ug/l	3500Fe-B	04/21/07	1
Lead	4.6	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	BDL	1.0	ug/l	8260B	04/26/07	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/26/07	1
Naphthalene	BDL	5.0	ug/l	8260B	04/26/07	1
Toluene	BDL	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	97.0		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	105.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	103.		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	BDL	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	BDL	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	102.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	98.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	100.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/06/07 12:32 Printed: 09/06/07 15:06
L290104-18 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-18 (V8260OXY) - subcontracted to Pace Analytical Services Inc

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

Date Received : April 21, 2007
Description : KMO 119

ESC Sample # : L290104-19

Sample ID : MW-15

Site ID : ANDERSON, SC

Project # : J04-3661-02

Collected By : Trevor Benton
Collection Date : 04/20/07 08:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/26/07	1
Nitrate	BDL	100	ug/l	9056	04/22/07	1
Sulfate	BDL	5000	ug/l	9056	04/22/07	1
Ferrous Iron	4600	250	ug/l	3500Fe-B	04/21/07	5
Lead	3.2	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	730	5.0	ug/l	8260B	04/26/07	5
1,2-Dichloroethane	32.	1.0	ug/l	8260B	04/26/07	1
Ethylbenzene	5.1	1.0	ug/l	8260B	04/26/07	1
Methyl tert-butyl ether	170	1.0	ug/l	8260B	04/26/07	1
Naphthalene	210	25.	ug/l	8260B	04/26/07	5
Toluene	5.2	5.0	ug/l	8260B	04/26/07	1
Xylenes, Total	7.9	3.0	ug/l	8260B	04/26/07	1
Surrogate Recovery						
Toluene-d8	95.6		% Rec.	8260B	04/26/07	1
Dibromofluoromethane	102.		% Rec.	8260B	04/26/07	1
4-Bromofluorobenzene	102.		% Rec.	8260B	04/26/07	1
Volatiles - Oxygenates						
Di-isopropyl ether	120	5.0	ug/l	8260B	04/28/07	1
Ethanol	BDL	200	ug/l	8260B	04/28/07	1
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	1
t-Amyl Alcohol	660	100	ug/l	8260B	04/28/07	1
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	1
tert-Amyl Methyl Ether	BDL	10.	ug/l	8260B	04/28/07	1
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	1
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	104.		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	98.0		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	106.		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	0.020	0.010	ug/l	8011	04/27/07	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	04/27/07	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.
.
Reported: 09/06/07 12:32 Printed: 09/06/07 15:06
L290104-19 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-19 (V8260OXY) - subcontracted to Pace Analytical Services Inc

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Trevor Benton
Bunnell - Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615

September 06,2007

Date Received : April 21, 2007
Description : KMO 119

Sample ID : MW-13

Collected By : Trevor Benton
Collection Date : 04/20/07 08:48

ESC Sample # : L290104-20

Site ID : ANDERSON, SC

Project # : J04-3661-02

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	10.	ppb	8015M	04/26/07	1
Nitrate	BDL	100	ug/l	9056	04/22/07	1
Sulfate	BDL	5000	ug/l	9056	04/22/07	1
Ferrous Iron	24000	2500	ug/l	3500Fe-B	04/21/07	50
Lead	50.	1.0	ug/l	6020	04/22/07	1
Volatile Organics						
Benzene	8600	50.	ug/l	8260B	04/26/07	50
1,2-Dichloroethane	290	50.	ug/l	8260B	04/26/07	50
Ethylbenzene	2800	50.	ug/l	8260B	04/26/07	50
Methyl tert-butyl ether	2200	50.	ug/l	8260B	04/26/07	50
Naphthalene	1800	250	ug/l	8260B	04/26/07	50
Toluene	8400	250	ug/l	8260B	04/26/07	50
Xylenes, Total	13000	150	ug/l	8260B	04/26/07	50
Surrogate Recovery						
Toluene-d8	98.0		% Rec.	8260B	04/26/07	50
Dibromofluoromethane	104.		% Rec.	8260B	04/26/07	50
4-Bromofluorobenzene	103.		% Rec.	8260B	04/26/07	50
Volatiles - Oxygenates						
Di-isopropyl ether	1100	100	ug/l	8260B	04/28/07	20
Ethanol	BDL	200	ug/l	8260B	04/28/07	20
Ethyl tert-butyl ether	BDL	10.	ug/l	8260B	04/28/07	20
t-Amyl Alcohol	5600	2000	ug/l	8260B	04/28/07	20
tert-Butyl alcohol	BDL	50.	ug/l	8260B	04/28/07	20
tert-Amyl Methyl Ether	77.	10.	ug/l	8260B	04/28/07	20
tert-Butyl Formate	BDL	20.	ug/l	8260B	04/28/07	20
3,3-Dimethyl-1-butanol	BDL	100	ug/l	8260B	04/28/07	20
Surrogate Recovery						
Toluene-d8	80.0		% Rec.	8260B	04/28/07	1
Dibromofluoromethane	93.0		% Rec.	8260B	04/28/07	1
4-Bromofluorobenzene	108.		% Rec.	8260B	04/28/07	1
1,2-Dichloroethane-d4	95.0		% Rec.	8260B	04/28/07	1
Ethylene Dibromide	7.9	0.20	ug/l	8011	04/30/07	20
1,2-Dibromo-3-Chloropropane	BDL	0.40	ug/l	8011	04/30/07	20

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/06/07 12:32 Printed: 09/06/07 15:06
L290104-20 (V8260OXY) - subcontracted to Pace Analytical Labs
L290104-20 (V8260OXY) - subcontracted to Pace Analytical Services Inc

Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L290104-01	Ferrous Iron	T8
L290104-02	Ferrous Iron	T8
L290104-03	Ferrous Iron	T8
L290104-04	Ferrous Iron	T8
L290104-05	Ferrous Iron	T8
L290104-06	Ferrous Iron	T8
L290104-07	Ferrous Iron	T8
L290104-10	Ferrous Iron	T8
L290104-11	Ferrous Iron	T8
L290104-12	Ferrous Iron	T8
L290104-13	Ferrous Iron	T8
L290104-14	Ferrous Iron	T8
L290104-15	Ferrous Iron	T8
L290104-16	Ferrous Iron	T8
L290104-17	Ferrous Iron	T8
L290104-18	Ferrous Iron	T8
L290104-19	Ferrous Iron	T8
L290104-20	Ferrous Iron	T8

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

	Control Limits				(AQ)	(SS)
2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromfluoromethane	68-128	64-125
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	76-115	69-118
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	79-127	61-134

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Bunnell - Lammons Engineering, Inc.

6004 Ponders Court
Greenville,SC 29615

Alternate billing information:

Report to: Mr. Trevor Benton
Email: trevor@blecorp.com

Project Description: KMO 119
City/State Collected:

Phone: (864) 288-1265
FAX: (864) 288-4430

Client Project #: J01-3661-02
Lab Project #: BUNLAMGSC-KMO 119

Collected by (print):
Site/Facility ID#: ANDERSON, SC
P.O.#:

Collected by (signature):
Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day.....100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

Analysis/Container/Preservative

Chain of Custody
Page 1 of 2

Prepared by:
ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (800) 767-5859
FAX (615) 758-5859

Actnum: BUNLAMGSC (lab use only)
Template/Prelogin: T142657/P207002
Cooler: 1
Shipped Via: FedEx Standard

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	1 RBUSEE 250ml Amb-HCl	2 METHANE 40ml Amb-NoPres	3 Nitrate, Sulfate 125ml HDPE-NoPres	4 PBG 500ml HDPE-HNO3	5 SV8011 40ml Gl-NaThio	6 V8260OXY 40ml Amb-HCl	7 BTEX, NAPH, MTBE 40ml Amb-HCl - 1:2 DCA	Remarks/Contaminant	Sample # (lab only)
MW-28	GRAB	GW		4/20/07	1113	13	X	X	X	X	X	X	X		
MW-29		GW			0912	13	X	X	X	X	X	X	X		
MW-30		GW			1135	13	X	X	X	X	X	X	X		
MW-31		GW			1118	13	X	X	X	X	X	X	X		
MW-32		GW			1153	13	X	X	X	X	X	X	X		
~~MW-1D~~ MW-9		GW				13	X	X	X	X	X	X	X		
MW-11D		GW			0758	13	X	X	X	X	X	X	X		
MW-12		GW			0746	13	X	X	X	X	X	X	X		
MW-15		GW			0738	13	X	X	X	X	X	X	X		
* MW-13					0808	13	X	X	X	X	X	X	X		

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Bottles Received:	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	pH Checked: NCF:

4/20/07 1700

Bunnell - Lammons Engineering, Inc.

6004 Ponders Court
Greenville,SC 29615

Alternate billing information:

Chain of Custody
Page 1 of 2

Prepared by:
ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (800) 767-5859
FAX (615) 758-5859

Report to: Mr. Trevor Benton

Email: trevor@blecorp.com

Project Description: KMO 119

City/State Collected

Phone: (864) 288-1265
FAX: (864) 288-4430

Client Project #: Jo4-3661-02

Lab Project #: BUNLAMGSC-KMO 119

Collected by (print): TREVOR BENTON

Site/Facility ID#: ANDERSON, SC

P.O.#:

Collected by (signature):

Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day.....100%
___ Two Day.....50%
___ Three Day.....25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

Acctnum: BUNLAMGSC (lab use only)
Template/Prelogin: T42657/P207002
Cooler#:
Shipped Via: FedEx Standard

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	FERUSNEW 250ml Amb-HCl	METHANE 40ml Amb-NoPres	Nitrate,Sulfate 125ml HDPE-NoPres	PBG 500ml HDPE-HNO3	SV8OIE 40ml Cr-Na thio	V8260OXY 40ml Amb-HCl	V8260SG 40ml Amb-HCl	Remarks/Contaminant	Sample # (lab only)
MW-19	GRAB	GW		4/20/07	1010	13	X	X	X	X	X	X	X		
MW-20		GW			0958	13	X	X	X	X	X	X	X		
MW-21		GW			1045	13	X	X	X	X	X	X	X		
MW-22		GW			1055	13	X	X	X	X	X	X	X		
MW-23		GW			1411	13	X	X	X	X	X	X	X		
MW-24		GW			1156	13	X	X	X	X	X	X	X		
MW-25		GW			1212	13	X	X	X	X	X	X	X		
MW-26		GW			1443	13	X	X	X	X	X	X	X		
MW-27		GW			1440	13	X	X	X	X	X	X	X		
MW-18		GW			1016	13	X	X	X	X	X	X	X		

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
	4/20/07	1700			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Bottles Received:	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	pH Checked: NCF:

APPENDIX C

DUKE POWER BILLING INVOICE

Duke Power
A Duke Energy Company

DUKE POWER

Customer Billing Invoice

January 6, 2006

BUNNELL-LAMMONS ENGINEERING
Attn: TREVOR BENTON
6004 PONDERS CT
GREENVILLE , SC 29615

Reference: Job # 866227

Dear TREVOR BENTON:

In our discussion on January 05, 2006 , I quoted you a charge of $236.26 for the following purposes:

This is the charge for covering up the power lines at 1312 Williamston Rd as discussed and removing them after you've finished.

The amount charged, which includes all applicable taxes, is due upon receipt. Please return billing invoice and payment to:

Duke Energy
Attn: CIAC Billing
Mail Code: DT02V
9700 David Taylor Drive
Charlotte, NC 28262

Your job number should be referenced on your check or money order to ensure proper credit.

Your job will be scheduled after payment is received. Your delivery date for service may be impacted based on when your payment is processed.

If you have any questions concerning the work or charges, please call me at (864) 260-6043.

If you need to cancel this work request, please notify me immediately.

Duke Power appreciates your business and looks forward to continuing to serve your electric needs.

Sincerely,

John A Wright
Duke Power

INVOICE INFORMATION

Base Charge	$236.26
State Sales Tax	$0.00
Total Charge	**$236.26**

PD

APPENDIX D

TRANSPORTATION MANIFESTS AND DISPOSAL CERTIFICATES FOR SOIL AND GROUND WATER

Environmental Soils Inc.

PO Box 295 • Lattimore, NC 28089
Phone 704-434-0075 • Fax 704-434-9533

Non-Hazardous Waste Manifest #16738

Date 6/21/05 Load Number 01
(numbered sequentially as trucks are dispatched)

ENVIRONMENTAL CONSULTANT: BLE, INC.
Contact: Mr. Trevor Benton Phone: 864-288-1265 Fax: 864-288-4430
GENERATOR: Ken Moorehead Oil Company
Address: 2900 N. MAIN ST., Anderson, SC County: Anderson
Contact: Mr. Chris Moorehead Phone: 864-226-0676
WASTE ORIGINATION POINT: Complete Address:
1312 Williamston Road, Anderson, SC
Class & Type of Contaminate in soil Petroleum
SOURCE OF CONTAMINATION: (ex. UST or other source) UST System

GENERATORS CERTIFICATION OF WASTE CONSTITUENTS: ***In lieu of submitting analytical data (methods 8240 and 8270) verifying that the waste in question does not contain organic constituents other than those which would normally appear in analysis of virgin petroleum product residue, I am submitting this Certificate of Waste Constituents. I certify that I am familiar with the source of contamination of the soil and further certify the source, to the best of my knowledge, contains no contaminants other than that listed above.***

Generators Signature: Date:

TRANSPORTER: Excalibur Environmental Services, Inc.
Contact: Bradley Morris Phone: 864-967-9744
As the carrier, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured, and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.
Carrier Signature: Bradley Morris Date: 6/21/05

TRUCK #: 01 TAG #: VOLUME: 10 DRUMS
TRUCK DRIVER SIGNATURE: Bradley Morris DATE: 6/21/05

DESTINATION: Environmental Soils Inc. 910 Crowder Rd, Shelby, NC 28150 Dedicated Land Application Site Permit #SR0300038

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the Sate of North Carolina.

Facility Signature: EST Ray Towery Date: 6/21/05
Signature: William Brown Date: 6/21/05
Company Name Title:

White/Facility Canary/Invoice Pink/Carrier Goldenrod/Generator

Environmental Soils Inc.

PO Box 295 • Lattimore, NC 28089
Phone 704-434-0075 • Fax 704-434-9533

Non-Hazardous Waste Manifest #16739

Date 9-14-05 Load Number 01

(numbered sequentially as trucks are dispatched)

ENVIRONMENTAL CONSULTANT: BLE, INC.

Contact: Mr. Trevor Benton Phone: 864-288-1265 Fax: 864-288-4430

GENERATOR: Ken Moorehead Oil Company

Address: 2900 N. MAIN ST, Anderson, SC County: Anderson

Contact: Mr. Chris Moorhead Phone: 864-226-0676

WASTE ORIGINATION POINT: Complete Address: CITGO - KMO #119

1312 Williamston Rpad, Anderson, SC

Class & Type of Contaminate in soil Petroleum

SOURCE OF CONTAMINATION: (ex. UST or other source) UST System

GENERATORS CERTIFICATION OF WASTE CONSTITUENTS: In lieu of submitting analytical data (methods 8240 and 8270) verifying that the waste in question does not contain organic constituents other than those which would normally appear in analysis of virgin petroleum product residue, I am submitting this Certificate of Waste Constituents. I certify that I am familiar with the source of contamination of the soil and further certify the source, to the best of my knowledge, contains no contaminants other than that listed above.

Generators Signature: _____ Date: _____

TRANSPORTER: EXCALIBUR ENV. SERVICES, INC.

Contact: Bradley Morris Phone: 864-967-9744

As the carrier, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured, and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.

Carrier Signature: Bradley Morris Date: 9-14-05

TRUCK #: 01 TAG #: — VOLUME: 10 DRUMS

TRUCK DRIVER SIGNATURE: Bradley Morris DATE: 9-14-05

DESTINATION: Environmental Soils Inc. 910 Crowder Rd, Shelby, NC 28150 Dedicated Land Application Site Permit #SR0300038

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the Sate of North Carolina.

Facility Signature: EST - Ray Towery Date: 9/14/05

Signature: [illegible] Date: 9/14/05

Company Name _____ Title: _____

White/Facility Canary/Invoice Pink/Carrier Goldenrod/Generator

Environmental Soils Inc.

PO Box 295 • Lattimore, NC 28089
Phone 704-434-0075 • Fax 704-434-9533

Non-Hazardous Waste Manifest # 20620

Date 3-11-06 Load Number 01
(numbered sequentially as trucks are dispatched)

ENVIRONMENTAL CONSULTANT: BLE, Inc.
Contact: Mr. Trevor Benton Phone: 864-288-1265 Fax: 864-288-4430

GENERATOR: Ken Moorehead Oil Company
Address: 2900 N. Main St., Anderson, SC County: Anderson
Contact: Mr. Chris Moorehead Phone:

WASTE ORIGINATION POINT: Complete Address: CITGO - KMO # 119
1312 Williamston Road, Anderson, SC
Class & Type of Contaminate in soil: Petroleum

SOURCE OF CONTAMINATION: (ex. UST or other source): UST System

GENERATORS CERTIFICATION OF WASTE CONSTITUENTS: *In lieu of submitting analytical data (methods 8240 and 8270) verifying that the waste in question does not contain organic constituents other than those which would normally appear in analysis of virgin petroleum product residue, I am submitting this Certificate of Waste Constituents. I certify that I am familiar with the source of contamination of the soil and further certify the source, to the best of my knowledge, contains no contaminants other than that listed above.*

Generators Signature: —— Date: ——

TRANSPORTER: Excalibur Env. Services, Inc.
Contact: Bradley Morris Phone: 864-967-9744

As the carrier, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured, and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.
Carrier Signature: Bradley Morris Date: 3-11-06

TRUCK #: 01 TAG #: —— VOLUME: 24 drums
TRUCK DRIVER SIGNATURE: Bradley Morris DATE: 3-11-06

DESTINATION: Environmental Soils Inc. 910 Crowder Rd, Shelby, NC 28150 Dedicated Land Application Site Permit #SR0300038

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the Sate of North Carolina.

Facility Signature: Ray Towery Date: 3/11/06
Signature: Wilson Brown Date: 3/11/06
Company Name: ES T Title:

White/Facility Canary/Invoice Pink/Carrier Goldenrod/Generator

Environmental Soils Inc.

PO Box 295 • Lattimore, NC 28089
Phone 704-434-0075 • Fax 704-434-9533

Non-Hazardous Waste Manifest # 20623

Date 8/15/06 Load Number 01
(numbered sequentially as trucks are dispatched)

ENVIRONMENTAL CONSULTANT: BLE, INC.
Contact: Mr Trevor Benton Phone: 864-288-1265 Fax: 864-288-4430

GENERATOR: KEN MOOREHEAD OIL COMPANY
Address: 2900 N. MAIN ST., ANDERSON, SC County: ANDERSON
Contact: Mr. Chris Moorehead Phone: 864-226-0676

WASTE ORIGINATION POINT: Complete Address: CITGO - KMO #119
1312 WILLIAMSTON ROAD, ANDERSON, SC
Class & Type of Contaminate in soil Petroleum

SOURCE OF CONTAMINATION: (ex. UST or other source) UST System

GENERATORS CERTIFICATION OF WASTE CONSTITUENTS: *In lieu of submitting analytical data (methods 8240 and 8270) verifying that the waste in question does not contain organic constituents other than those which would normally appear in analysis of virgin petroleum product residue, I am submitting this Certificate of Waste Constituents. I certify that I am familiar with the source of contamination of the soil and further certify the source, to the best of my knowledge, contains no contaminants other than that listed above.*

Generators Signature: — Date: —

TRANSPORTER: EXCALIBUR ENV. SERVICES, INC.
Contact: Bradley Morris Phone: 864-967-9744

As the carrier, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured, and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.
Carrier Signature: Bradley Morris Date: 8/15/06

TRUCK #: 01 TAG #: — VOLUME: 4 DRUMS
TRUCK DRIVER SIGNATURE: Bradley Morris DATE: 8/15/06

DESTINATION: Environmental Soils Inc. 910 Crowder Rd, Shelby, NC 28150 Dedicated Land Application Site Permit #SR0300038

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the Sate of North Carolina.

Facility Signature: Ray Towery Date: 8/15/06
Signature: William Brown Date: 8/15/06
Company Name EST Title:

White/Facility Canary/Invoice Pink/Carrier Goldenrod/Generator

Excalibur Environmental Services, Inc.
PO Box 1751
Simpsonville, South Carolina 29680
(864) 967-9744

NON-HAZARDOUS
VIRGIN PETROLEUM-IMPACTED
MONITOR WELL PURGE WATER TREATMENT MANIFEST

Non-Hazardous Waste Treatment Manifest No. 130

Environmental Consultant Name/Address
Mr. Trevor Benton, PG
BLE, Inc.
6004 Ponders Court
Greenville, SC 29615

Generators Name/Address
Mr. Chris Moorehead
Moorehead Oil Company
820 South Main Street
Anderson, SC

Site Name/Address
KMO # 119
1312 Williamston Road
Anderson, SC

Source of Waste
UST System Release
SCDHEC Site ID No.
00505

Waste Description	Container (s) / Volume (g)	Treatment
Non-Hazardous Virgin Petroleum-Impacted MW Purge Water	2 drums	*GAC

***Granulated Activated Carbon Mobile Treatment Unit**

Generator Representative Certification
I hereby certify that the waste material listed above is fully and accurately described, that the waste material is non-hazardous, and that the waste material is not subject to federal hazardous waste regulations.

Name: [signature] FOR Moorhead Oil Co. **Date:** 6/1/07
(Generators Representative)

Waste Treatment Certification
Excalibur Environmental Services, Inc. has accepted custody of the waste material listed above and hereby certifies that the waste material has been treated by a GAC Mobile Treatment Unit.

Name: Bradley A. Morris **Date:** 6-1-07
Bradley A. Morris, President
Excalibur Environmental Services, Inc.

APPENDIX E

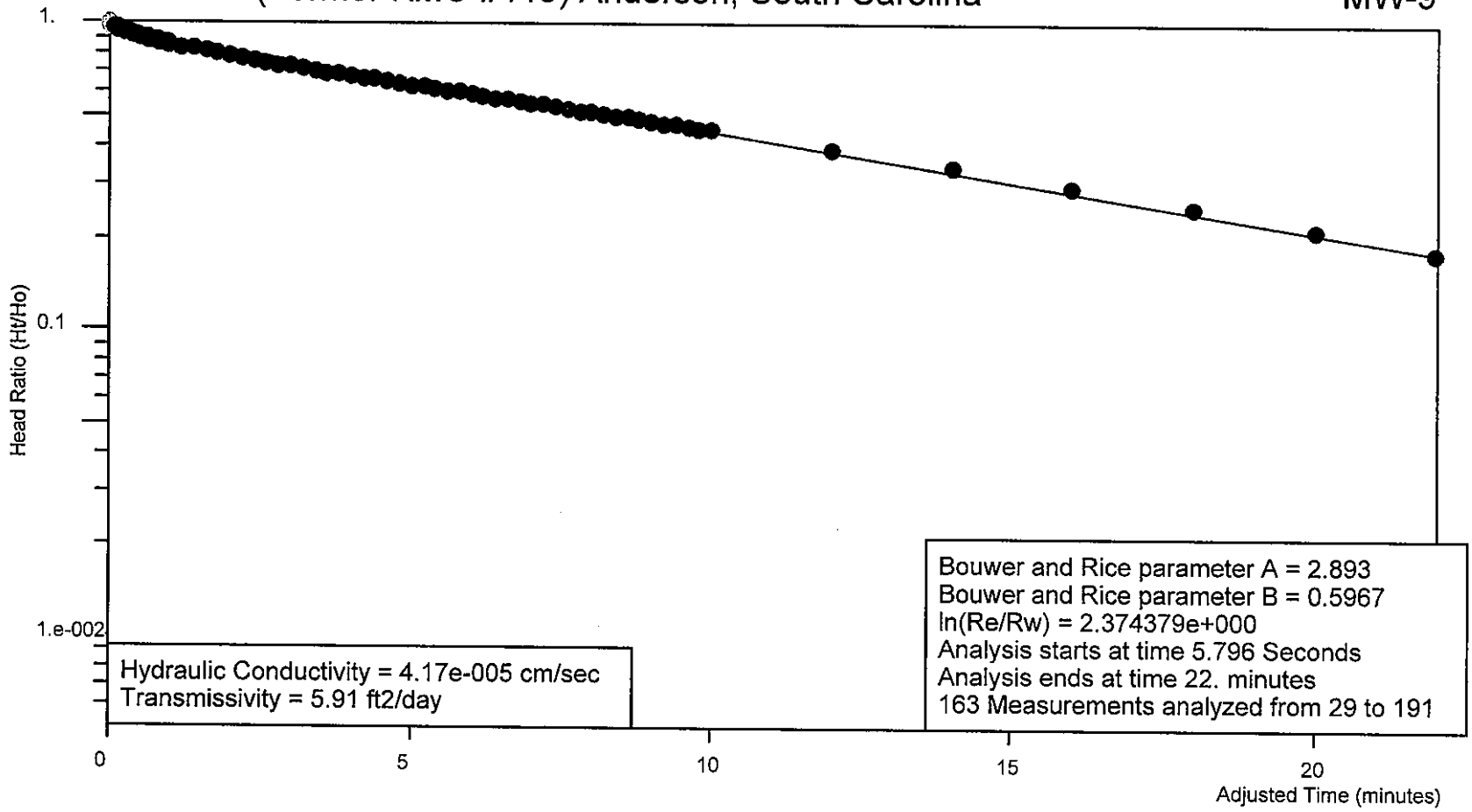
SLUG TEST DATA AND RESULTS AND GRAIN SIZE / HYDROMETER RESULT FOR GP-3 (6'-7') FROM TIER I ASSESSMENT REPORT

Rising Head Slug Test May 23, 2007

Bouwer and Rice Graph

M D Food Mart (Former KMO #119) Anderson, South Carolina

MW-9



Project Number: J05-3661-02 for Ken Moorhead Oil Company

Analysis by Bunnell-Lammons Engineering, Inc.

Ho is 7.297 feet at 0.198 Seconds

Rising Head Slug Test

Site Name:	M D Food Mart (Former KMO #119)
Location:	Anderson, South Carolina
Test Date:	May 23, 2007
Client:	Ken Moorhead Oil Company
Project Number:	J05-3661-02
Import File:	\\Pc020\Public PC020\Projects\IGWA, Tier I, Tier II\Moorhead Oil Co\KMO 1

Well Label:	MW-9
Aquifer Thickness:	50. feet
Screen Length:	7.7 feet
Casing Radius:	8.33e-002 feet
Effective Radius:	0.1667 feet
Static Water Level:	0. feet
Water Table to Screen Bottom:	7.7 feet
Anisotropy Ratio:	1.
Time Adjustment:	0.198 Seconds

Test starts with trial 0
There are 191 time and drawdown measurements
Maximum head is 7.297 feet
Minimum head is 0. feet

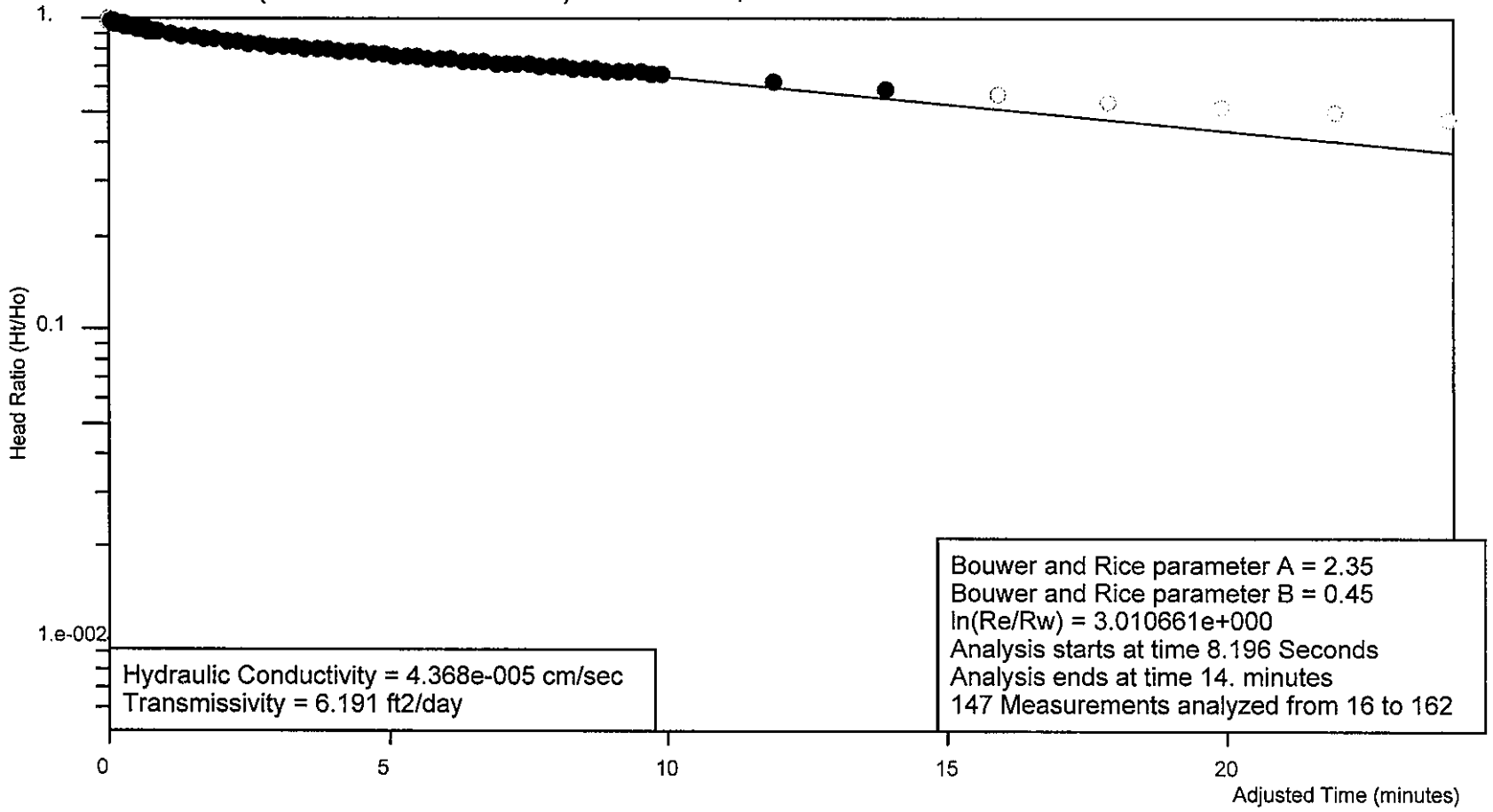
Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	3.3e-003	0.	7.297	7.297	1.
2	6.6e-003	3.3e-003	7.294	7.294	0.9996
3	1.e-002	6.7e-003	7.287	7.287	0.9986
4	1.33e-002	1.e-002	7.278	7.278	0.9974
5	1.66e-002	1.33e-002	7.268	7.268	0.996
6	2.e-002	1.67e-002	7.262	7.262	0.9952
7	2.33e-002	2.e-002	7.256	7.256	0.9944
8	2.66e-002	2.33e-002	7.249	7.249	0.9934
9	3.e-002	2.67e-002	7.24	7.24	0.9922
10	3.33e-002	3.e-002	7.233	7.233	0.9912
11	3.66e-002	3.33e-002	7.227	7.227	0.9904
12	4.e-002	3.67e-002	7.221	7.221	0.9896
13	4.33e-002	4.e-002	7.214	7.214	0.9886
14	4.66e-002	4.33e-002	7.208	7.208	0.9878
15	5.e-002	4.67e-002	7.202	7.202	0.987
16	5.33e-002	5.e-002	7.195	7.195	0.986
17	5.66e-002	5.33e-002	7.192	7.192	0.9856
18	6.e-002	5.67e-002	7.186	7.186	0.9848
19	6.33e-002	6.e-002	7.18	7.18	0.984
20	6.66e-002	6.33e-002	7.173	7.173	0.983
21	7.e-002	6.67e-002	7.17	7.17	0.9826
22	7.33e-002	7.e-002	7.164	7.164	0.9818
23	7.66e-002	7.33e-002	7.157	7.157	0.9808
24	8.e-002	7.67e-002	7.154	7.154	0.9804
25	8.33e-002	8.e-002	7.149	7.149	0.9797
26	8.66e-002	8.33e-002	7.142	7.142	0.9788
27	9.e-002	8.67e-002	7.138	7.138	0.9782
28	9.33e-002	9.e-002	7.132	7.132	0.9774
29	9.66e-002	9.33e-002	7.129	7.129	0.977
30	0.1	9.67e-002	7.123	7.123	0.9762
31	0.1033	0.1	7.119	7.119	0.9756
32	0.1066	0.1033	7.113	7.113	0.9748
33	0.11	0.1067	7.11	7.11	0.9744

34	0.1133	0.11	7.103	7.103	0.9734
35	0.1166	0.1133	7.097	7.097	0.9726
36	0.12	0.1167	7.094	7.094	0.9722
37	0.1233	0.12	7.091	7.091	0.9718
38	0.1266	0.1233	7.084	7.084	0.9708
39	0.13	0.1267	7.081	7.081	0.9704
40	0.1333	0.13	7.075	7.075	0.9696
41	0.1366	0.1333	7.072	7.072	0.9692
42	0.14	0.1367	7.069	7.069	0.9688
43	0.1433	0.14	7.062	7.062	0.9678
44	0.1466	0.1433	7.059	7.059	0.9674
45	0.15	0.1467	7.056	7.056	0.967
46	0.1533	0.15	7.05	7.05	0.9662
47	0.1566	0.1533	7.046	7.046	0.9656
48	0.16	0.1567	7.	7.	0.9593
49	0.1633	0.16	7.037	7.037	0.9644
50	0.1666	0.1633	7.034	7.034	0.964
51	0.17	0.1667	7.027	7.027	0.963
52	0.1733	0.17	7.021	7.021	0.9622
53	0.1766	0.1733	7.015	7.015	0.9614
54	0.18	0.1767	7.008	7.008	0.9604
55	0.1833	0.18	7.005	7.005	0.96
56	0.1866	0.1833	6.999	6.999	0.9592
57	0.19	0.1867	6.993	6.993	0.9583
58	0.1933	0.19	6.989	6.989	0.9578
59	0.1966	0.1933	6.983	6.983	0.957
60	0.2	0.1967	6.98	6.98	0.9566
61	0.2033	0.2	6.974	6.974	0.9557
62	0.2066	0.2033	6.97	6.97	0.9552
63	0.21	0.2067	6.964	6.964	0.9544
64	0.2133	0.21	6.958	6.958	0.9535
65	0.2166	0.2133	6.955	6.955	0.9531
66	0.22	0.2167	6.948	6.948	0.9522
67	0.2233	0.22	6.945	6.945	0.9518
68	0.2266	0.2233	6.942	6.942	0.9513
69	0.23	0.2267	6.936	6.936	0.9505
70	0.2333	0.23	6.932	6.932	0.95
71	0.2366	0.2333	6.928	6.928	0.9494
72	0.24	0.2367	6.923	6.923	0.9487
73	0.2433	0.24	6.917	6.917	0.9479
74	0.2466	0.2433	6.913	6.913	0.9474
75	0.25	0.2467	6.91	6.91	0.947
76	0.2533	0.25	6.904	6.904	0.9461
77	0.2566	0.2533	6.901	6.901	0.9457
78	0.26	0.2567	6.898	6.898	0.9453
79	0.2633	0.26	6.891	6.891	0.9444
80	0.2666	0.2633	6.888	6.888	0.9439
81	0.27	0.2667	6.882	6.882	0.9431
82	0.2733	0.27	6.879	6.879	0.9427
83	0.2766	0.2733	6.875	6.875	0.9422
84	0.28	0.2767	6.872	6.872	0.9418
85	0.2833	0.28	6.866	6.866	0.9409
86	0.2866	0.2833	6.863	6.863	0.9405
87	0.29	0.2867	6.86	6.86	0.9401
88	0.2933	0.29	6.853	6.853	0.9392
89	0.2966	0.2933	6.85	6.85	0.9387
90	0.3	0.2967	6.847	6.847	0.9383

148	2.6	2.597	5.462	5.462	0.7485
149	2.8	2.797	5.38	5.38	0.7373
150	3.	2.997	5.304	5.304	0.7269
151	3.2	3.197	5.231	5.231	0.7169
152	3.4	3.397	5.155	5.155	0.7065
153	3.6	3.597	5.085	5.085	0.6969
154	3.8	3.797	5.015	5.015	0.6873
155	4.	3.997	4.946	4.946	0.6778
156	4.2	4.197	4.879	4.879	0.6686
157	4.4	4.397	4.813	4.813	0.6596
158	4.6	4.597	4.749	4.749	0.6508
159	4.8	4.797	4.686	4.686	0.6422
160	5.	4.997	4.622	4.622	0.6334
161	5.2	5.197	4.559	4.559	0.6248
162	5.4	5.397	4.499	4.499	0.6166
163	5.6	5.597	4.437	4.437	0.6081
164	5.8	5.797	4.381	4.381	0.6004
165	6.	5.997	4.321	4.321	0.5922
166	6.2	6.197	4.264	4.264	0.5843
167	6.4	6.397	4.207	4.207	0.5765
168	6.6	6.597	4.15	4.15	0.5687
169	6.8	6.797	4.093	4.093	0.5609
170	7.	6.997	4.042	4.042	0.5539
171	7.2	7.197	3.988	3.988	0.5465
172	7.4	7.397	3.935	3.935	0.5393
173	7.6	7.597	3.881	3.881	0.5319
174	7.8	7.797	3.833	3.833	0.5253
175	8.	7.997	3.782	3.782	0.5183
176	8.2	8.197	3.732	3.732	0.5114
177	8.4	8.397	3.684	3.684	0.5049
178	8.6	8.597	3.633	3.633	0.4979
179	8.8	8.797	3.586	3.586	0.4914
180	9.	8.997	3.538	3.538	0.4849
181	9.2	9.197	3.488	3.488	0.478
182	9.4	9.397	3.44	3.44	0.4714
183	9.6	9.597	3.392	3.392	0.4648
184	9.8	9.797	3.345	3.345	0.4584
185	10.	9.997	3.301	3.301	0.4524
186	12.	12.	2.866	2.866	0.3928
187	14.	14.	2.492	2.492	0.3415
188	16.	16.	2.15	2.15	0.2946
189	18.	18.	1.848	1.848	0.2533
190	20.	20.	1.566	1.566	0.2146
191	22.	22.	1.325	1.325	0.1816

Falling Head Slug Test May 23, 2007 — Bouwer and Rice Graph

M D Food Mart (Former KMO #119) Anderson, South Carolina — MW-11D



Project Number: J05-3661-02 for Ken Moorhead Oil Company
Analysis by Bunnell-Lammons Engineering, Inc.

Ho is 3.914 feet at 5.196 Seconds

Falling Head Slug Test

Site Name:	M D Food Mart (Former KMO #119)
Location:	Anderson, South Carolina
Test Date:	May 23, 2007
Client:	Ken Moorhead Oil Company
Project Number:	J05-3661-02
Import File:	\\Pc020\Public PC020\Projects\IGWA, Tier I, Tier II\Moorhead Oil Co\KMO 1

Well Label:	MW-11D
Aquifer Thickness:	50. feet
Screen Length:	5. feet
Casing Radius:	8.33e-002 feet
Effective Radius:	0.1667 feet
Static Water Level:	0. feet
Water Table to Screen Bottom:	43.12 feet
Anisotropy Ratio:	1.
Time Adjustment:	5.196 Seconds

Test starts with trial 0
There are 167 time and drawdown measurements
Maximum head is 3.914 feet
Minimum head is 0. feet

Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	8.66e-002	0.	3.914	3.914	1.
2	9.e-002	3.4e-003	3.911	3.911	0.9992
3	9.33e-002	6.7e-003	3.907	3.907	0.9982
4	9.66e-002	1.e-002	3.901	3.901	0.9967
5	0.1	1.34e-002	3.901	3.901	0.9967
6	0.1033	1.67e-002	3.901	3.901	0.9967
7	0.1066	2.e-002	3.898	3.898	0.9959
8	0.11	2.34e-002	3.895	3.895	0.9951
9	0.1133	2.67e-002	3.895	3.895	0.9951
10	0.1166	3.e-002	3.892	3.892	0.9944
11	0.12	3.34e-002	3.889	3.889	0.9936
12	0.1233	3.67e-002	3.889	3.889	0.9936
13	0.1266	4.e-002	3.886	3.886	0.9928
14	0.13	4.34e-002	3.886	3.886	0.9928
15	0.1333	4.67e-002	3.882	3.882	0.9918
16	0.1366	5.e-002	3.882	3.882	0.9918
17	0.14	5.34e-002	3.879	3.879	0.9911
18	0.1433	5.67e-002	3.879	3.879	0.9911
19	0.1466	6.e-002	3.876	3.876	0.9903
20	0.15	6.34e-002	3.876	3.876	0.9903
21	0.1533	6.67e-002	3.873	3.873	0.9895
22	0.1566	7.e-002	3.873	3.873	0.9895
23	0.16	7.34e-002	3.869	3.869	0.9885
24	0.1633	7.67e-002	3.869	3.869	0.9885
25	0.1666	8.e-002	3.866	3.866	0.9877
26	0.17	8.34e-002	3.865	3.865	0.9875
27	0.1733	8.67e-002	3.863	3.863	0.987
28	0.1766	9.e-002	3.863	3.863	0.987
29	0.18	9.34e-002	3.86	3.86	0.9862
30	0.1833	9.67e-002	3.86	3.86	0.9862
31	0.1866	0.1	3.857	3.857	0.9854
32	0.19	0.1034	3.857	3.857	0.9854
33	0.1933	0.1067	3.853	3.853	0.9844

34	0.1966	0.11	3.85	3.85	0.9836
35	0.2	0.1134	3.85	3.85	0.9836
36	0.2033	0.1167	3.847	3.847	0.9829
37	0.2066	0.12	3.847	3.847	0.9829
38	0.21	0.1234	3.844	3.844	0.9821
39	0.2133	0.1267	3.844	3.844	0.9821
40	0.2166	0.13	3.844	3.844	0.9821
41	0.22	0.1334	3.841	3.841	0.9813
42	0.2233	0.1367	3.838	3.838	0.9806
43	0.2266	0.14	3.838	3.838	0.9806
44	0.23	0.1434	3.835	3.835	0.9798
45	0.2333	0.1467	3.835	3.835	0.9798
46	0.2366	0.15	3.831	3.831	0.9788
47	0.24	0.1534	3.831	3.831	0.9788
48	0.2433	0.1567	3.828	3.828	0.978
49	0.2466	0.16	3.826	3.826	0.9775
50	0.25	0.1634	3.825	3.825	0.9773
51	0.2533	0.1667	3.825	3.825	0.9773
52	0.2566	0.17	3.825	3.825	0.9773
53	0.26	0.1734	3.822	3.822	0.9765
54	0.2633	0.1767	3.822	3.822	0.9765
55	0.2666	0.18	3.819	3.819	0.9757
56	0.27	0.1834	3.819	3.819	0.9757
57	0.2733	0.1867	3.816	3.816	0.975
58	0.2766	0.19	3.816	3.816	0.975
59	0.28	0.1934	3.812	3.812	0.9739
60	0.2833	0.1967	3.812	3.812	0.9739
61	0.2866	0.2	3.809	3.809	0.9732
62	0.29	0.2034	3.809	3.809	0.9732
63	0.2933	0.2067	3.809	3.809	0.9732
64	0.2966	0.21	3.806	3.806	0.9724
65	0.3	0.2134	3.806	3.806	0.9724
66	0.3033	0.2167	3.803	3.803	0.9716
67	0.3066	0.22	3.803	3.803	0.9716
68	0.31	0.2234	3.8	3.8	0.9709
69	0.3133	0.2267	3.8	3.8	0.9709
70	0.3166	0.23	3.796	3.796	0.9699
71	0.32	0.2334	3.796	3.796	0.9699
72	0.3233	0.2367	3.795	3.795	0.9696
73	0.3266	0.24	3.793	3.793	0.9691
74	0.33	0.2434	3.793	3.793	0.9691
75	0.3333	0.2467	3.79	3.79	0.9683
76	0.35	0.2634	3.787	3.787	0.9676
77	0.3666	0.28	3.781	3.781	0.966
78	0.3833	0.2967	3.771	3.771	0.9635
79	0.4	0.3134	3.768	3.768	0.9627
80	0.4166	0.33	3.761	3.761	0.9609
81	0.4333	0.3467	3.752	3.752	0.9586
82	0.45	0.3634	3.746	3.746	0.9571
83	0.4666	0.38	3.742	3.742	0.9561
84	0.4833	0.3967	3.736	3.736	0.9545
85	0.5	0.4134	3.73	3.73	0.953
86	0.5166	0.43	3.723	3.723	0.9512
87	0.5333	0.4467	3.717	3.717	0.9497
88	0.55	0.4634	3.71	3.71	0.9479
89	0.5666	0.48	3.704	3.704	0.9463
90	0.5833	0.4967	3.701	3.701	0.9456

91	0.6	0.5134	3.695	3.695	0.944
92	0.6166	0.53	3.688	3.688	0.9423
93	0.6333	0.5467	3.682	3.682	0.9407
94	0.65	0.5634	3.679	3.679	0.94
95	0.6666	0.58	3.672	3.672	0.9382
96	0.6833	0.5967	3.666	3.666	0.9366
97	0.7	0.6134	3.663	3.663	0.9359
98	0.7166	0.63	3.656	3.656	0.9341
99	0.7333	0.6467	3.653	3.653	0.9333
100	0.75	0.6634	3.647	3.647	0.9318
101	0.7666	0.68	3.641	3.641	0.9303
102	0.7833	0.6967	3.637	3.637	0.9292
103	0.8	0.7134	3.631	3.631	0.9277
104	0.8166	0.73	3.628	3.628	0.9269
105	0.8333	0.7467	3.621	3.621	0.9251
106	0.85	0.7634	3.618	3.618	0.9244
107	0.8666	0.78	3.612	3.612	0.9228
108	0.8833	0.7967	3.609	3.609	0.9221
109	0.9	0.8134	3.602	3.602	0.9203
110	0.9166	0.83	3.599	3.599	0.9195
111	0.9333	0.8467	3.596	3.596	0.9188
112	0.95	0.8634	3.59	3.59	0.9172
113	0.9666	0.88	3.586	3.586	0.9162
114	0.9833	0.8967	3.58	3.58	0.9147
115	1.	0.9134	3.577	3.577	0.9139
116	1.2	1.113	3.526	3.526	0.9009
117	1.4	1.313	3.481	3.481	0.8894
118	1.6	1.513	3.44	3.44	0.8789
119	1.8	1.713	3.408	3.408	0.8707
120	2.	1.913	3.377	3.377	0.8628
121	2.2	2.113	3.345	3.345	0.8546
122	2.4	2.313	3.316	3.316	0.8472
123	2.6	2.513	3.287	3.287	0.8398
124	2.8	2.713	3.262	3.262	0.8334
125	3.	2.913	3.237	3.237	0.827
126	3.2	3.113	3.214	3.214	0.8212
127	3.4	3.313	3.192	3.192	0.8155
128	3.6	3.513	3.167	3.167	0.8091
129	3.8	3.713	3.144	3.144	0.8033
130	4.	3.913	3.125	3.125	0.7984
131	4.2	4.113	3.103	3.103	0.7928
132	4.4	4.313	3.081	3.081	0.7872
133	4.6	4.513	3.062	3.062	0.7823
134	4.8	4.713	3.039	3.039	0.7764
135	5.	4.913	3.02	3.02	0.7716
136	5.2	5.113	3.001	3.001	0.7667
137	5.4	5.313	2.982	2.982	0.7619
138	5.6	5.513	2.963	2.963	0.757
139	5.8	5.713	2.944	2.944	0.7522
140	6.	5.913	2.925	2.925	0.7473
141	6.2	6.113	2.91	2.91	0.7435
142	6.4	6.313	2.89	2.89	0.7384
143	6.6	6.513	2.871	2.871	0.7335
144	6.8	6.713	2.855	2.855	0.7294
145	7.	6.913	2.836	2.836	0.7246
146	7.2	7.113	2.82	2.82	0.7205
147	7.4	7.313	2.804	2.804	0.7164

91	0.3033	0.3	6.844	6.844	0.9379
92	0.3066	0.3033	6.837	6.837	0.937
93	0.31	0.3067	6.834	6.834	0.9365
94	0.3133	0.31	6.831	6.831	0.9361
95	0.3166	0.3133	6.828	6.828	0.9357
96	0.32	0.3167	6.822	6.822	0.9349
97	0.3233	0.32	6.818	6.818	0.9344
98	0.3266	0.3233	6.815	6.815	0.9339
99	0.33	0.3267	6.812	6.812	0.9335
100	0.3333	0.33	6.809	6.809	0.9331
101	0.35	0.3467	6.79	6.79	0.9305
102	0.3666	0.3633	6.771	6.771	0.9279
103	0.3833	0.38	6.755	6.755	0.9257
104	0.4	0.3967	6.736	6.736	0.9231
105	0.4166	0.4133	6.72	6.72	0.9209
106	0.4333	0.43	6.704	6.704	0.9187
107	0.45	0.4467	6.685	6.685	0.9161
108	0.4666	0.4633	6.669	6.669	0.9139
109	0.4833	0.48	6.654	6.654	0.9119
110	0.5	0.4967	6.641	6.641	0.9101
111	0.5166	0.5133	6.625	6.625	0.9079
112	0.5333	0.53	6.609	6.609	0.9057
113	0.55	0.5467	6.597	6.597	0.9041
114	0.5666	0.5633	6.581	6.581	0.9019
115	0.5833	0.58	6.568	6.568	0.9001
116	0.6	0.5967	6.555	6.555	0.8983
117	0.6166	0.6133	6.54	6.54	0.8963
118	0.6333	0.63	6.53	6.53	0.8949
119	0.65	0.6467	6.517	6.517	0.8931
120	0.6666	0.6633	6.505	6.505	0.8915
121	0.6833	0.68	6.492	6.492	0.8897
122	0.7	0.6967	6.479	6.479	0.8879
123	0.7166	0.7133	6.467	6.467	0.8863
124	0.7333	0.73	6.457	6.457	0.8849
125	0.75	0.7467	6.445	6.445	0.8832
126	0.7666	0.7633	6.432	6.432	0.8815
127	0.7833	0.78	6.419	6.419	0.8797
128	0.8	0.7967	6.41	6.41	0.8784
129	0.8166	0.8133	6.4	6.4	0.8771
130	0.8333	0.83	6.387	6.387	0.8753
131	0.85	0.8467	6.375	6.375	0.8736
132	0.8666	0.8633	6.365	6.365	0.8723
133	0.8833	0.88	6.356	6.356	0.871
134	0.9	0.8967	6.343	6.343	0.8693
135	0.9166	0.9133	6.334	6.334	0.868
136	0.9333	0.93	6.321	6.321	0.8662
137	0.95	0.9467	6.311	6.311	0.8649
138	0.9666	0.9633	6.302	6.302	0.8636
139	0.9833	0.98	6.292	6.292	0.8623
140	1.	0.9967	6.201	6.201	0.8498
141	1.2	1.197	6.153	6.153	0.8432
142	1.4	1.397	6.039	6.039	0.8276
143	1.6	1.597	5.928	5.928	0.8124
144	1.8	1.797	5.827	5.827	0.7985
145	2.	1.997	5.725	5.725	0.7846
146	2.2	2.197	5.63	5.63	0.7715
147	2.4	2.397	5.545	5.545	0.7599

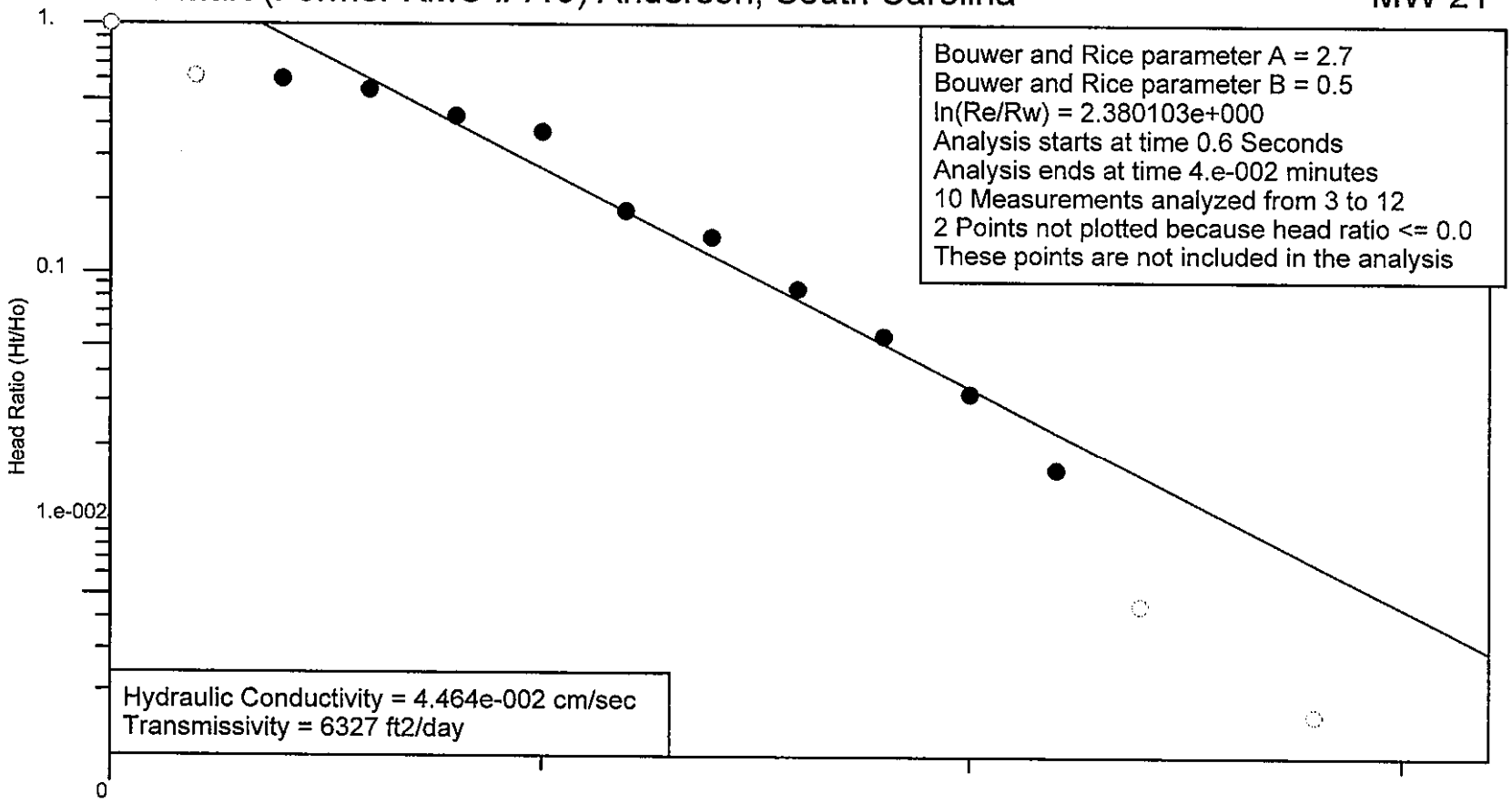
148	7.6	7.513	2.788	2.788	0.7123
149	7.8	7.713	2.769	2.769	0.7075
150	8.	7.913	2.753	2.753	0.7034
151	8.2	8.113	2.737	2.737	0.6993
152	8.4	8.313	2.721	2.721	0.6952
153	8.6	8.513	2.709	2.709	0.6921
154	8.8	8.713	2.693	2.693	0.688
155	9.	8.913	2.677	2.677	0.684
156	9.2	9.113	2.661	2.661	0.6799
157	9.4	9.313	2.645	2.645	0.6758
158	9.6	9.513	2.632	2.632	0.6725
159	9.8	9.713	2.616	2.616	0.6684
160	10.	9.913	2.604	2.604	0.6653
161	12.	11.91	2.47	2.47	0.6311
162	14.	13.91	2.343	2.343	0.5986
163	16.	15.91	2.235	2.235	0.571
164	18.	17.91	2.133	2.133	0.545
165	20.	19.91	2.034	2.034	0.5197
166	22.	21.91	1.948	1.948	0.4977
167	24.	23.91	1.869	1.869	0.4775

Rising Head Slug Test May 23, 2007

Bouwer and Rice Graph

M D Food Mart (Former KMO #119) Anderson, South Carolina

MW-21



Ho is 5.531 feet at 0.198 Seconds

Project Number: J05-3661-02 for Ken Moorhead Oil Company

Analysis by Bunnell-Lammons Engineering, Inc.

Rising Head Slug Test

Site Name:	M D Food Mart (Former KMO #119)
Location:	Anderson, South Carolina
Test Date:	May 23, 2007
Client:	Ken Moorhead Oil Company
Project Number:	J05-3661-02
Import File:	\\Pc020\Public PC020\Projects\IGWA, Tier I, Tier II\Moorhead Oil Co\KMO 1

Well Label:	MW-21
Aquifer Thickness:	50. feet
Screen Length:	10. feet
Casing Radius:	8.33e-002 feet
Effective Radius:	0.25 feet
Static Water Level:	0. feet
Water Table to Screen Bottom:	11.16 feet
Anisotropy Ratio:	1.
Time Adjustment:	0.198 Seconds

Test starts with trial 0
There are 16 time and drawdown measurements
Maximum head is 5.531 feet
Minimum head is 0. feet

Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	3.3e-003	0.	5.531	5.531	1.
2	6.6e-003	3.3e-003	3.432	3.432	0.6205
3	1.e-002	6.7e-003	3.337	3.337	0.6033
4	1.33e-002	1.e-002	3.074	3.074	0.5558
5	1.66e-002	1.33e-002	2.382	2.382	0.4307
6	2.e-002	1.67e-002	2.059	2.059	0.3723
7	2.33e-002	2.e-002	0.993	0.993	0.1795
8	2.66e-002	2.33e-002	0.771	0.771	0.1394
9	3.e-002	2.67e-002	0.479	0.479	8.66e-002
10	3.33e-002	3.e-002	0.304	0.304	5.496e-002
11	3.66e-002	3.33e-002	0.18	0.18	3.254e-002
12	4.e-002	3.67e-002	8.8e-002	8.8e-002	1.591e-002
13	4.33e-002	4.e-002	2.5e-002	2.5e-002	4.52e-003
14	4.66e-002	4.33e-002	6.e-003	6.e-003	1.085e-003
15	5.e-002	4.67e-002	9.e-003	9.e-003	1.627e-003
16	5.33e-002	5.e-002	0.	0.	0.

SOIL LABORATORY TEST ASSIGNMENT

BUNNELL-LAMMONS ENGINEERING, INC.
1200 WOODRUFF ROAD, SUITE B-7
GREENVILLE, SOUTH CAROLINA 29607
PHONE: (864) 288 - 1265 FAX: (864) 288 - 4430

ASSIGNMENT NUMBER
1721

PROJECT NAME : **MOORHEAD OIL**

BLE PROJECT NO.: **J04-3661-04**

BLE PROJECT MANAGER: **TREVOR BENTON**

SAMPLES RECEIVED BY: JM (INITIALS) DATE: 8/11/2004

TESTING ASSIGNED BY: TB (INITIALS) DATE: 8/11/2004

REQUESTED COMPLETION DATE: ASAP

ASSIGNMENT COMPLETE PY (INITIALS) DATE: 8/27/2004

OTHER LABORATORY: _____ (COMPANY) _____ (LOCATION)

SHIPPED BY: _____ (SHIPPING AGENCY) _____ (DATE)

ACCEPTED

SAMPLE DESIGNATION				MOISTURE CONTENT	PI	PARTICLE SIZE ANALYSIS		% FINER NO. 200	PROCTOR		PERMEABILITY		CONST. HEAD PERM	ADDITIONAL TESTING
SAMPLE ID.	DEPTH IN FEET FROM	DEPTH IN FEET TO	TYPE			SIEVES ONLY	WITH HYDROMETER		STD.	MOD.	UD.	RMLD.		
				D-2216	D-4318	D-422		D-1140	D-698	D-1557	D-5084		D-2434	***
GP-3	6.0	7.0	BG				X							

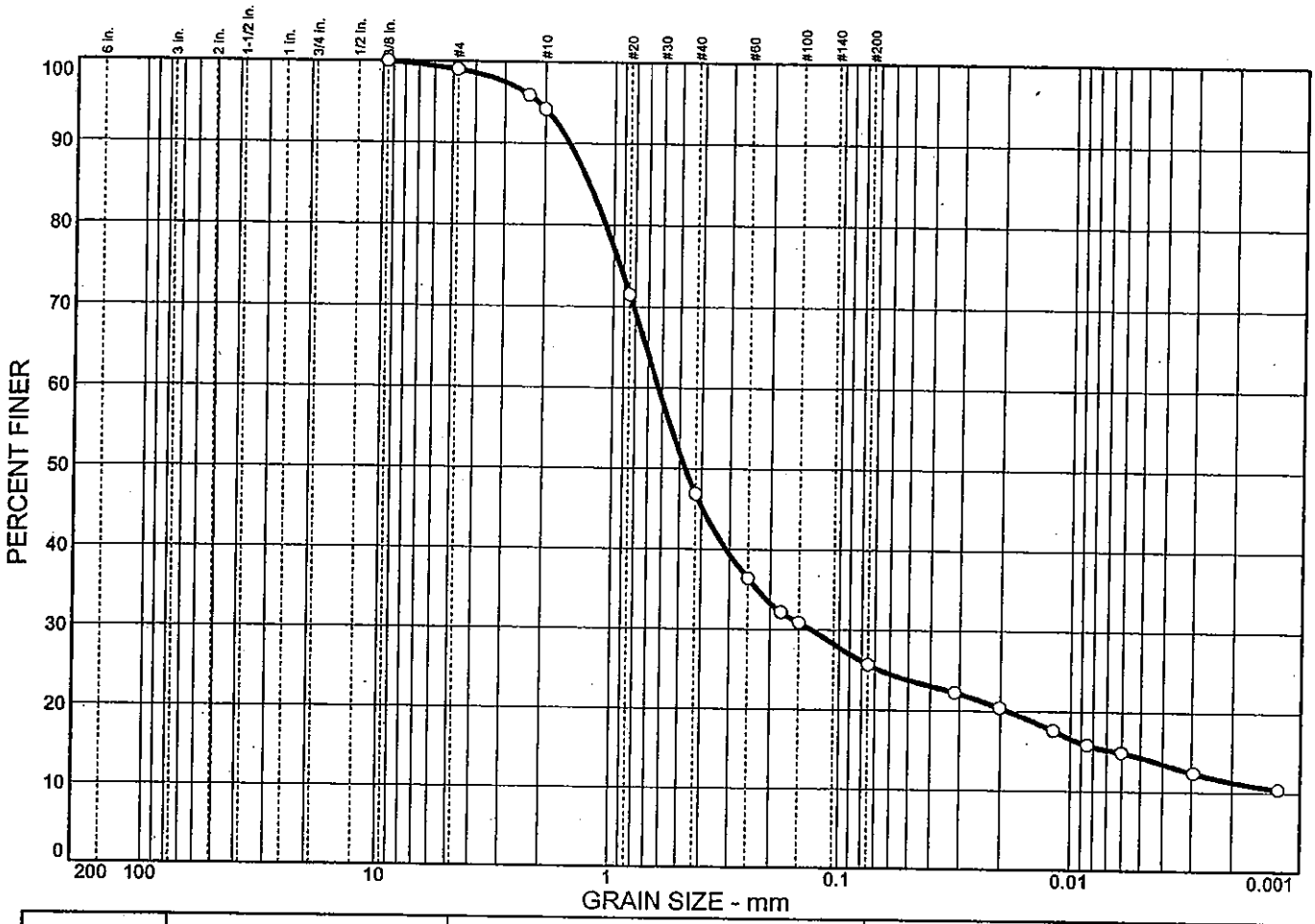
Comments: _____

ASSIGN TESTING WITH AN X.
[redacted] INDICATES BILLING INCLUDED WITH OTHER TEST
SAMPLE TYPE: JAR=J, BAGGIE=BG, UD. TUBE=UD, BULK=BK

***ADDITIONAL TESTING: ENTER APPROPRIATE LETTER IN ADDITIONAL TESTING COLUMN. FML DESTRUCT=D
SPECIFIC GRAVITY=SG, CBR=CBR, UNIT WEIGHT=UW, pH=PH, CATION EXCHANGE=CEC, ORG. CARB. CON.=OCC
NOTE: ALL TEST PROCEDURES ARE ASTM UNLESS OTHERWISE SPECIFIED ---- AASHTO _____

'01 BILLING PERIOD 7-31-04 TO 8-27-04

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	1.0	4.8	47.3	21.2	11.4	14.3

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	DESCRIPTION	USCS
○	Boring	GP-3		Reddish brown silty fi.-med. SAND	

Particle Size Distribution Report

BUNNELL-LAMMONS ENGINEERING, INC.

Client: Ken Moorhead Oil

Project: Moorhead Oil

Project No.: J04-3661-04

Plate

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

UST DOCKET 101

MS EUNICE FULLER
KEN MOORHEAD OIL INCORPORATED
PO BOX 2587
ANDERSON SC 29622-2587

APR 15 2009

Re: AFVR and Assessment Report Directive
M D Food Mart (Former KMO #119), 1312 Williamston Road, Anderson, SC
UST Permit #00505; CA #35670; MWA #UMW-22652
Release Reported December 20, 1989
Tier II Plan and Associated Cost Agreement received March 16, 2009
Anderson County

Dear Ms. Fuller:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC), has reviewed the referenced plan submitted by Bunnell-Lammons Engineering Incorporated. The UST Program agrees with your site rehabilitation contractor that four Aggressive Fluid and Vapor Recovery (AFVR) events to remove free phase product and additional assessment activities to define the extent of product and dissolved phase petroleum Chemicals of Concern (CoC) will be necessary.

Cost agreement 35670 has been approved in the amount shown on the enclosed cost agreement form for one AFVR event on monitoring wells MW-1R and MW-16, a separate event on MW-2, a separate event on MW-11, and an event on MW-10 and MW-14, tax map information, installation of seventeen monitoring wells, groundwater sampling event of the monitoring well network and the private well, plus report preparation. Please be aware that the February 1, 2006 SUPERB Allowable Costs sheet states, "If vertical and horizontal extent of chemicals of concern are not fully defined by this tier report, additional mobilizations may not be approved by the Department." Approval for ten shallow and seven deep monitoring wells has been provided to your site rehabilitation contractor. A copy is enclosed for your information. If any monitoring wells are "dry" based on the recent drought, please contact the UST Program for approval to replace these dry wells. Groundwater samples from all private wells within 1,000 feet of the facility should be collected and analyzed for BTEX, naphthalene, and MtBE. Groundwater samples from all monitoring wells associated with the release should be collected approximately 30 days after the last AFVR event and analyzed for BTEX, naphthalene, MtBE, lead, EDB, and 1,2 DCA in accordance with *Analytical Methodology for Groundwater and Soil Assessment Guidelines* dated August 24, 2005. A copy of this publication is available on line at http://www.scdhec.gov/eqc/admin/html/..%5C..ust%5Cpubs%5Canalmet.pdf.

The AFVR/ Assessment Report and invoice are due within 100 days from the date of this letter. The AFVR/Assessment Report submitted at the completion of these activities should include the following:

- A narrative portion documenting the AFVR event noting site conditions, the name of the AFVR, contractor, field personnel, date, time each AFVR event started and ended, ambient air temperature general weather conditions during the AFVR event, and the estimated amount in gallons of the petroleum products removed as a liquid or vapor for the event. AFVR data reported must include product recovery rate, volatile air emission concentration, vacuum radius of influence measurements

taken at 30-minute intervals during the event and gauging data from adjacent wells. All wells containing free phase product should be gauged at the beginning and end of each AFVR event. Disposal manifests for the AFVR event should be included as part of the final report.

- A narrative portion documenting current site conditions during the groundwater sampling event noting the names of field personnel, date, time, ambient air temperature, and general weather conditions during the sampling event. The report shall also contain well purging data, pH, specific conductivity, water temperature, PID readings (where applicable) and turbidity comments.
- Geological cross sections that include the new shallow and deep monitoring wells.
- Boring logs and well logs (DHEC form 1903) signed by a well driller licensed in the state of South Carolina for each new well.
- Groundwater elevations, depth to groundwater, measurable free product thickness (where applicable), total well depth and screened interval for all monitoring wells associated with the site, unless otherwise directed by the Program, shall be presented in tabular form. Groundwater laboratory analytical data for all monitoring wells for this and all previous sampling events shall be presented in tabular format.
- A CoC map based on current groundwater laboratory analytical data. The groundwater data should be adjacent to the relevant monitoring well location.
- A groundwater elevation contour map of the site based on current groundwater potentiometric data.
- Tax map information for this and adjacent properties.
- Manifests for any contaminated soil and/or groundwater removed from the site for treatment and/or disposal.
- Signature and seal by a professional geologist or engineer registered in the State of South Carolina.

Bunnell-Lammons Engineering Incorporated can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account for approved costs. An interim well drilling invoice may be submitted for well installation. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available. Please note, if unnecessary dilutions are completed resulting in reporting limits of individual CoC in excess of Risk-Based Screening Levels (RBSLs), the data cannot be used. In those cases, the Program may deny payment for any non-detect analysis where the reporting limit exceeds the RBSL. The UST Program encourages the use of 'J' values as necessary so the appropriate action can be determined for a release. **Please be aware that a total of $317,096.00 has been reimbursed to date and your site rehabilitation contractor has requested an additional $132,286.11 in assessment activities. Ken Moorhead Oil Company would be responsible for rehabilitation costs that would exceed the $1 million SUPERB limit.**

Please be advised that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor. **Please note that you and/or your contractor are responsible for obtaining all off-site access agreements and/or encroachment permits necessary for this scope of work.**

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Program is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Program for the cost to be paid. The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Department grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the CoC concentrations, based on laboratory analysis, are below RBSLs, please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence or inquiries regarding this project, please reference UST permit number 00505. If you have any questions, please contact me at (803) 896-6669, fax me at (803) 896-6245, or e-mail me at shradeaa@dhec.sc.gov if you have questions or need additional information.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Monitoring Well Approval (MWA)
Approved Cost Agreement (ACA)

cc: Bunnell-Lammons Engineering Inc., 6004 Ponders Ct., Greenville, SC 29615 (with enc.)
Technical File (with enc.)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

Monitoring Well Approval

Approval is hereby granted to:	Bunnell-Lammons Engineering, Incorporated
(On behalf of:):	Ken Moorhead Oil Company
Facility:	M D Food Mart (Former KMO #119), 1312 Williamston Road, Anderson, SC
UST Permit Number:	00505
County:	Anderson

This approval is for the installation of up to ten shallow and seven deep pit cased groundwater monitoring wells. The monitoring wells are to be installed in the approved locations. Monitoring wells are to be installed following the South Carolina Well Standards, R.61-71, and the applicable guidance documents.

Please note that R.61-71 requires the following:

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.
2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.
3. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted to the Department within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f
4. All analytical data and water levels obtained from each monitoring well shall be submitted to the Department within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.
5. If any of the information provided to the Department changes, notification to Arthur Shrader (tel: (803) 896-6669 or e-mail: shradeaa@dhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.
6. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.
7. Monitoring wells shall have Department approval prior to abandonment as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated April 26, 2002. A copy of this approval should be on the site during well installation.

Date of Issuance: **March 16, 2009** **Approval #:** **UMW-22652**

Arthur Shrader, Hydrogeologist
Assessment Section
Division of Assessment and Corrective Action
Bureau of Land and Waste Management

Approved Cost Agreement 35670

Facility: 00505 M D FOOD MART
SHRADEAA
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
01 PLAN					
		B TAX MAPS	1.0000	50.00	50.00
03 COMPREHENSIVE SURVEY					
		COMPREHENSIVE SURVEY	1.0000	1,000.00	1,000.00
04 MOB/DEMOB					
		A EQUIPMENT	5.0000	575.00	2,875.00
		B PERSONNEL	8.0000	290.00	2,320.00
09 WELL INSTALLATION					
		B WATER TABLE (DRILLED)	480.0000	38.00	18,240.00
		C TELESCOPING	420.0000	58.00	24,360.00
		D ROCK DRILLING	540.0000	58.00	31,320.00
10 SAMPLE COLLECTION					
		A GROUND WATER	29.0000	55.00	1,595.00
		C WATER SUPPLY	1.0000	25.00	25.00
		D GROUNDWATER NO-PURGE	28.0000	35.00	980.00
		F SAMPLE BELOW PRODUCT	3.0000	50.00	150.00
11 ANALYSES	GW GROUNDWATER				
		A BTEX+NAPTH+MTBE	61.0000	100.00	6,100.00
		BB 1,2-DCA	61.0000	10.75	655.75
		E LEAD	61.0000	20.00	1,220.00
		F EDB	61.0000	55.00	3,355.00
17 DISPOSAL					
		A1 WASTEWATER - PURGING/SAMPLING	4.0000	90.00	360.00
		A2 WASTEWATER - PUMPING TEST	2,000.0000	0.60	1,200.00
		C SOIL (TREATMENT/DISPOSAL)	30.0000	50.00	1,500.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	110,425.75	16,563.86
23 EFR					
		A 8 HOUR EVENT	4.0000	3,000.00	12,000.00
		C OFF GAS TREATMENT	32.0000	35.00	1,120.00
			Total Amount		126,989.61

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

ADDITIONAL GROUNDWATER ASSESSMENT

Former KMO #119
1312 Williamston Road
Anderson, South Carolina
UST Permit # 00505; Cost Agreement # 35670

Prepared For

Moorhead Oil Company
P.O. Box 2587
Anderson, South Carolina 29662

Prepared By

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, South Carolina 29615
SCDHEC UCC #010

January 5, 2010

BLE Project Number J09-3661-04

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

January 5, 2010

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
Underground Storage Tank Program
2600 Bull Street
Columbia, S.C. 29201-1708

Attention: Mr. Arthur Shrader, Hydrogeologist

Subject: **Additional Groundwater Assessment**
Former KMO #119
1312 Williamston Road
Anderson, South Carolina
UST Permit #00505; Cost Agreement #35670
BLE Project No. J09-3661-04

Dear Mr. Shrader:

As authorized, Bunnell-Lammons Engineering, Inc. (BLE) has completed an Additional Groundwater Assessment at the subject site. This report describes the work performed and presents the results obtained, along with our comments and recommendations.

We appreciate the opportunity to be of service on behalf of Moorhead Oil Company regarding these environmental issues. Please do not hesitate to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina No. 2395

Thomas L. Lammons, P.G.
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Kris Moorhead, P.O. Box 2587, Anderson, South Carolina 29662

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

BACKGROUND INFORMATION

The subject property is located at 1312 Williamston Road in Anderson, South Carolina (Figure 1). Prior to 2004, the site was owned by the Ken Moorhead Oil Company and operated as a Citgo fueling station. Currently, the site is owned and operated by DEV Enterprises, LLC and is utilized as a convenience store where gasoline and kerosene fuels are sold (Citgo).

Four gasoline underground storage tanks (USTs) were located on the northeastern portion of the site. A soil assessment performed in December 1989 discovered minor petroleum contamination in the area around the USTs. The South Carolina Department of Health and Environmental Control (SCDHEC) issued a No Further Action status to the site in June 1990. In December 1991, the USTs and associated equipment were removed. Please note, the current UST system has been relocated and updated with required leak detection devices.

In June 2004 a Phase II property transaction was conducted on the site. Results from the Phase II report indicated concentrations of petroleum hydrocarbons in groundwater. Pursuant to these results, the SCDHEC required a Tier I Assessment be performed with regard to the former UST system. The Tier I Assessment was completed by BLE in August 2004. Results from the Tier I Assessment indicated significant petroleum hydrocarbon impact to the groundwater along the eastern and northeastern portion of the site. Based on the Tier I results, a Tier II Assessment was required and completed by BLE in 2007. To further define the horizontal and vertical extent of groundwater contamination, an addendum to the Tier II Assessment was completed by BLE in 2008. Due to significant petroleum contamination detected in the bedrock aquifer, SCDHEC has required an additional groundwater assessment be performed in order to further define the off-site horizontal and vertical extent of groundwater contamination. This report describes the additional groundwater assessment activities.

COMPLETED SCOPE OF SERVICE

Specific tasks completed and reported herein are as follows:

- Installation of 12 shallow and deep (bedrock) Type II monitoring wells and two deep, pit cased (telescoping - Type III) monitoring wells.
- Performance of four eight-hour Aggressive Fluid Vapor Recovery (AFVR) events (Event #1 - MW-1R, MW-16, Event #2 - MW-2, Event #3 - MW-11, Event #4 - MW-10 and MW-14).
- Sampling of the on-site/off-site monitoring wells and one off-site drinking water well to obtain concurrent groundwater chemistry data.

MONITORING WELL INSTALLATION

As approved by SCDHEC, fourteen new groundwater monitoring wells were installed to further evaluate the on-site and off-site horizontal and vertical extent of the petroleum contaminant plume. Monitoring well locations are shown on Figure 2. Additionally, a tax map providing adjacent property owner information is provided as Figure 3. Justification for the new wells is shown below:

MW-1DDD and MW-11DDD	Type III bedrock monitoring wells installed adjacent to MW-1DD and MW-11DD, respectively, to monitor the vertical migration of groundwater contaminants in the source area.
MW-5R, MW-13R, MW-27R, MW-30R, MW-31R, and MW-32R	Type II replacement monitoring wells installed to replace their adjacent dry well counterparts.

MW-27D, MW-27DD, MW-33D, MW-33DD, and MW-37D	Bedrock monitoring wells installed downgradient of the source area to monitor the vertical migration of contaminants. These wells were installed to elevations corresponding with existing wells MW-1D/MW-1DD and MW-11D/MW-1DD.
MW-45	Type II sidegradient monitoring well installed in residual soils to evaluate the horizontal extent of groundwater contamination west of the source area.

Monitoring wells MW-30R, MW-31R, and MW-32R were installed utilizing 4 ¼-inch inner diameter (ID), hollow stem augers, advanced by a CME 750X ATV drill rig. Monitoring wells MW-5R, MW-13R, MW-27R, MW-27D, MW-27DD, MW-33D, MW-37D, and MW-45 were installed using a Schramm air rotary drill rig utilizing a 6-inch air rotary bit and/or 6-inch air hammer (when necessary). Monitoring wells MW-1DDD, MW-11DDD, and MW-33DD were installed using a Schramm drilling rig utilizing 10-inch and 6-inch air hammer bits.

Monitoring wells MW-5R and MW-45 were installed in residual soils, monitoring wells MW-27R, MW-30R, MW-31R, MW-32R, and MW-33D were installed in the PWR/bedrock transition zone, and monitoring wells MW-1DDD, MW-1DDD, MW-13R, MW-27D, MW-27DD, MW-33DD, and MW-37D were installed in bedrock. Wells MW-1DDD and MW-11DDD were installed as Type III monitoring wells. Additionally, due to the presence of a significant water bearing zone causing soil washout at 86 feet below ground surface (bgs) in the MW-33DD boring, a 6-inch diameter outer casing was installed to secure the borehole. Therefore, MW-33DD was also installed as a Type III monitoring well. The remaining wells were installed as Type II monitoring wells.

The Type II monitoring wells consisted of 2-inch inner diameter (ID), schedule 40 PVC casing with flush-threaded joints. The bottom section of each respective well was a manufactured well screen

with 0.010-inch wide machined slots. The well screen was ten feet in length for MW-5R, MW-13R, MW-27R, MW-30R, MW-31R, MW-32R, and MW-45. The well screen was five feet in length for the remainder of the wells. The well screens were installed to the depth of the boring. Standard sand filter pack, bentonite seal and grout was installed to the ground surface in each well. Drilling procedures for Type II wells are described in Appendix A.

The Type III, telescoping monitoring wells were installed with a Schramm drilling rig utilizing 10-inch OD and 6-inch OD air hammer drilling techniques. The telescoping wells were constructed with a 6-inch inner diameter (ID) schedule 40 PVC outer casing installed in a 10-inch nominal diameter borehole. The outer casing for MW-1DDD was installed to a total depth of 150 feet below ground surface (bgs), the outer casing for MW-11DDD was installed to a total depth of 170 feet bgs, and the outer casing for MW-33DD was installed to 94 feet bgs. The casings were then pressure grouted to the ground surface and allowed to cure for at least 24 hours. After curing, a 6-inch OD air hammer bit was utilized to advance the borehole through the outer casing to a termination depth of 241.8 feet bgs in MW-1DDD, 94, 230.4 feet bgs in MW-11DD, and 131.1 feet bgs in MW-33DD. A 2-inch ID schedule 40 PVC casing with flush-threaded joints was installed in each borehole. The bottom 5-foot section of each well was a manufactured well screen with 0.010-inch machine slots. Standard filter sand pack, bentonite seal and grout was installed to the ground surface. Due to the presence of massive bedrock without apparent water bearing fractures in MW-11DDD, the filter pack sand was extended approximately 20 feet above the top of the well screen to capture potential groundwater in this zone which may be seeping through microfractures in the rock. Drilling procedures for Type III wells are described in Appendix A.

At assigned intervals, drill cuttings were collected for soil classification. Representative portions of the test samples were visually examined and classified in the field. To help prevent cross-contamination, downhole drilling equipment was steam cleaned between borings. Surveyed monitoring well locations are shown on Figure 4. Monitoring well boring logs are included in Appendix A and monitoring well construction data is provided on Table 1.

Drill cuttings generated during the installation of the monitoring wells were contained in 55-gallon drums, on-site. These wastes were transported off site for disposal. Waste transportation and disposal records are in Appendix B.

Figure 5 provides hydrogeologic cross-sections through select existing monitoring wells and the newly installed monitoring wells. The cross-sections depict the surveyed ground surface elevation, subsurface lithologies, monitoring wells and their respective screened intervals, and the static groundwater potentiometric elevation contours during the most recent sampling event.

AGGRESSIVE FLUID VAPOR RECOVERY EVENTS

On July 20, July 23, July 30, and August 4, 2009, four separate 8-hour AFVR events were conducted in wells MW-1R and MW-16 (July 20), MW-2 (July 23), MW-11 (July 30), and MW-10 and MW-14 (August 4). A hydrogeologist from BLE, Trevor J. Benton, P.G., was on site for observation and monitoring. The AFVR events were performed by Caro Vac AFVR Services, LLC (Caro Vac) of Simpsonville, South Carolina. Prior to the AFVR events, BLE personnel gauged free-phase petroleum product in MW-1R (1.77 feet), MW-2 (0.63 feet), MW-10 (0.27 feet), MW-11 (0.44 feet), MW-14 (0.32 feet), and MW-16 (sheen). Free-product measurements were made using a Solinst® Interface Meter Model 122. Depths and measurements are shown as feet below the top of PVC casing (btoc), unless noted otherwise. A site and well location plan is shown as Figure 4.

JULY 20, 2009 AFVR EVENT – MW-1R & MW-16

The AFVR event initiated at 10:00 and concluded at 18:00. The general weather conditions observed during this period of time were partly cloudy skies; winds varied between 5 to 10 miles per hour (mph) with an ambient temperature between 80º and 85º Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 22 to 23 inches of mercury was applied to MW-1R and MW-16. The depth to water was measured every 30 minutes in wells MW-1D and MW-2 to evaluate drawdown in the affected area of the AFVR event.

Due to the close proximity of the site to a residential area, volatile air emissions were treated on-site by Caro Vac personnel utilizing a vapor exhaust chiller and a granulated activated carbon (GAC) unit. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable Photo-Ionization Detector (PID) (Model PGM 7600). Gauging data observed during the event is shown in Table 2.

At the completion of the AFVR event, a total volume of 40 gallons of petroleum impacted groundwater was determined to have been recovered from MW-1R and MW-16. A sheen of free-phase product was observed in the liquid collection containers following the completion of the AFVR event. Please note, the measurement of free-product thickness in the recovery tank is affected by product emulsification with groundwater which occurs as a result of the AFVR process. Additionally, petroleum product losses occur from volatilization during an AFVR event. The liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness measurement. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix B.

A total of approximately 3.13 pounds of gasoline vapor which is equivalent to approximately 0.50 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 2A.

Monitoring wells MW-1R and MW-16 were gauged immediately following the conclusion of the event and no free-phase product was observed in the wells. Total water level/free-product changes for this event are shown in Table 2.

JULY 23, 2009 AFVR EVENT – MW-2

The AFVR event initiated at 09:45 and concluded at 17:45. The general weather conditions observed during this period of time were mostly cloudy skies; winds varied between 0 to 10 mph with an ambient temperature between 75º and 85º Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 25 inches of mercury was applied to MW-2. The depth to groundwater/free-product was measured every 30 minutes in wells MW-1R and MW-3.

Due to the close proximity of the site to a residential area, volatile air emissions were treated on-site by Caro Vac personnel utilizing a vapor exhaust chiller and a GAC unit. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable PID (Model PGM 7600). Gauging data observed during the event is shown in Table 3.

At the completion of the AFVR event, a total volume of 50 gallons of petroleum impacted groundwater was determined to have been recovered from MW-2. A sheen of free-phase product was observed in the liquid collection containers following the completion of the AFVR event. Please note, the measurement of free-product thickness in the recovery tank is affected by product emulsification with groundwater which occurs as a result of the AFVR process. Additionally, petroleum product losses occur from volatilization during an AFVR event. The liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness measurement. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix B.

A total of approximately 2.35 pounds of gasoline vapor which is equivalent to approximately 0.38 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 3A.

Monitoring well MW-2 was gauged immediately following the conclusion of the event and no free-phase product was observed in the well. Total water level/free-product changes for this event are shown in Table 3.

JULY 30, 2009 AFVR EVENT – MW-11

The AFVR event initiated at 09:45 and concluded at 17:45. The general weather conditions observed during this period of time were partly cloudy skies; winds varied between 0 to 10 mph with an ambient temperature between 80º and 85º Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 25 inches of mercury was applied to MW-2. The depth to groundwater was measured every 30 minutes in wells MW-11D, MW-16, and MW-41.

Due to the close proximity of the site to a residential area, volatile air emissions were treated on-site by Caro Vac personnel utilizing a vapor exhaust chiller and a GAC unit. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable PID (Model PGM 7600). Gauging data observed during the event is shown in Table 4.

At the completion of the AFVR event, a total volume of 85 gallons of petroleum impacted groundwater was determined to have been recovered from MW-2. A sheen of free-phase product was observed in the liquid collection containers following the completion of the AFVR event. Please note, the measurement of free-product thickness in the recovery tank is affected by product emulsification with groundwater which occurs as a result of the AFVR process. Additionally, petroleum product losses occur from volatilization during an AFVR event. The liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness measurement. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix B.

A total of approximately 1.06 pounds of gasoline vapor which is equivalent to approximately 0.17 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 4A.

Monitoring well MW-11 was gauged immediately following the conclusion of the event and no free-phase product was observed in the well. Total water level/free-product changes for this event are shown in Table 4.

AUGUST 4, 2009 AFVR EVENT – MW-10 & MW-14

The AFVR event initiated at 10:00 and concluded at 18:00. The general weather conditions observed during this period of time were mostly sunny skies; winds varied between 0 to 10 mph with an ambient temperature between 85° and 90° Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 22 to 24 inches of mercury was applied to MW-10 and MW-14, respectively. The depth to groundwater/free-product was measured every 30 minutes in wells MW-39, MW-40, and MW-41.

Due to the close proximity of the site to a residential area, volatile air emissions were treated on-site by Caro Vac personnel utilizing a vapor exhaust chiller and a GAC unit. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable PID (Model PGM 7600). Gauging data observed during the event is shown in Table 5.

At the completion of the AFVR event, a total volume of 320 gallons of petroleum impacted groundwater was determined to have been recovered from MW-2. Additionally, approximately three gallons of free-phase product was observed in the liquid collection containers following the completion of the AFVR event. Please note, the measurement of free-product thickness in the recovery tank is affected by product emulsification with groundwater which occurs as a result of the AFVR process. Additionally, petroleum product losses occur from volatilization during an AFVR event. The liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness measurement. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix B.

A total of approximately 1.93 pounds of gasoline vapor which is equivalent to approximately 0.31 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 5A.

Monitoring wells MW-10 and MW-14 were gauged immediately following the conclusion of the event and 0.36 feet of free-product and 0.01 feet of free-product, respectively, was observed in the wells. Total water level/free-product changes for this event are shown in Table 5.

GROUNDWATER SAMPLING

Sixty-six groundwater monitoring wells (eight on-site and fifty-eight off-site) are currently associated with the site:

On-Site	Off-Site
MW-1R, MW-1D, MW-1DD, MW-1DDD, MW-2, MW-3, MW-4, and MW-16	MW-5R, MW-5 through MW-11, MW-6D, MW-7D, MW-10D, MW-11D, MW-11DD, MW-11DDD, MW-12, MW-13, MW-13R, MW-14, MW-14D, MW-15, MW-17 through MW-27, MW-27R, MW-27D, MW-27DD, MW-28, MW-29, MW-30, MW-30R, MW-31, MW-31R, MW-32, MW-32R, MW-33, MW-33D, MW-33DD, MW-34 through MW-37, MW-37D, and MW-38 through MW-45

One drinking water well (DW-1) is located approximately 110 feet southeast of the site and two hand dug wells are located 580 feet north and 560 feet northeast of the site. Monitoring well locations and the drinking water well locations are shown on Figure 2.

Water levels and free-product measurements were collected from the site on September 9, 2009 (Table 2). Well locations and a groundwater elevation contour map, which shows the occurrence and direction of groundwater flow in the uppermost aquifer, is shown as Figure 6.

The new monitoring wells were developed by purging until it was determined that groundwater flow through the well screen was not inhibited by silt or fine sand. Pursuant to SCDHEC's directive, purging was not required for existing monitoring wells where the well screen was bracketing the water table during the time of sampling. Therefore, only existing monitoring wells MW-1D, MW-1DD, MW-6D, MW-7D, MW-10D, MW-11D, MW-11DD, MW-14D, MW-20, MW-21, MW-24, MW-26, MW-36, MW-37, and MW-39 through MW-42) were purged prior to sampling. Monitoring wells MW-13, MW-27, MW-30, MW-31, MW-32, and the hand dug wells were dry at

the time of sampling. Monitoring well purging and sampling field procedures and logs are in Appendix C.

The monitoring wells were sampled on September 8 through 10, 2009. Free-phase petroleum product was gauged in MW-1R (1.92 feet), MW-2 (0.02 feet), MW-10 (0.06 feet), MW-11 (0.21 feet), MW-14 (0.09 feet), and MW-16 (0.02 feet) using a Solinst® Interface Meter Model 122. As requested by SCDHEC, groundwater samples were also collected from these locations for laboratory analysis. Groundwater sample containers were marked in the field with identifying numbers, properly preserved, placed into sample coolers, secured, and maintained at less than 4 degrees Celsius. The samples and chain-of-custody records were delivered to Genapure Analytical Services, Inc. in Boca Raton, Florida for analysis. Each monitoring well sample was analyzed for BTEX, naphthalene, MTBE, and 1,2-DCA by EPA Method 8260B, EDB by EPA Method 8011, and total lead by EPA Method 6010B. Well MW-8 was not sampled for total lead due to an insufficient water column for sample collection. Groundwater analytical results are summarized in Table 6 and are shown on Figure 7. Laboratory data sheets are provided in Appendix D

Purge water generated during monitoring well sampling was contained in sealed 55-gallon drums on-site. These wastes were transported off site for disposal. Waste transportation and disposal records for the purge water are in Appendix B.

RESULTS OF LABORATORY ANALYSES

Of the 61 groundwater samples collected for laboratory analysis, 29 wells detected petroleum hydrocarbons above South Carolina Risk-Based Screening Levels[1] (RBSLs). Free-phase petroleum product was also measured in monitoring wells MW-1R, MW-2, MW-10, MW-11, MW-14, and MW-16. Additionally, total lead was detected above RBSLs in 22 monitoring wells and the drinking

[1] South Carolina Risk-Based Corrective Action for Petroleum Releases, May 15, 2001.

water well (DW-1). The results of the groundwater samples are summarized in Table 6 and are shown on Figure 7. Laboratory data sheets are in Appendix D.

CONCLUSIONS

- Groundwater flow and contaminant transport is to the north from the UST system release. The depth to groundwater in the unconfined aquifer ranges from 29.42 (MW-8) feet bgs to 84.54 (MW-1DDD) feet bgs across the study area;

- The horizontal extent of groundwater contamination has been substantially defined by "non detect" monitoring wells located at the plume perimeter. Petroleum contaminants are present in groundwater off-site beneath adjacent properties to the north;

- The depth to bedrock ranges from 37 feet bgs (MW-21 and MW-22) to92 feet bgs (MW-33DD) across the study area. Petroleum hydrocarbons are detected above RBSLs in downgradient bedrock monitoring well clusters, MW-10, MW-11, MW-14, MW-27, MW-33, and MW-37;

- Free-phase petroleum product was present in monitoring wells MW-1R (1.92 feet), MW-2 (0.02 feet), MW-10 (0.06 feet), MW-11 (0.21 feet), MW-14 (0.09 feet), and MW-16 (0,02 feet) at the time of sampling. These free-phase accumulations have been reduced by periodic AFVR events since November 2006;

- During the September 8-10, 2009 sampling event, detected constituents that exceed RBSLs are benzene, toluene, ethylbenzene, xylenes, naphthalene, MTBE, 1.2-DCA, and total lead;

- Two hand dug wells are present on the north adjoining property, and were dry during the September 8-10, 2009 sampling event.

RECOMMENDATIONS

In an effort to reduce COC concentrations that are migrating into the deeper bedrock aquifer, we recommend a series of additional 8-hour AFVR events and/or the installation of passive free-product skimmers to be installed in monitoring wells MW-1R, MW-2, MW-10, MW-11, MW-14, and MW-16. We believe that an aggressive attempt at removing the source (free-product) of the contaminants will positively impact the COC concentrations in the deep, vertical extent monitoring wells. The AFVR events will remove free-phase petroleum product, high levels of dissolved petroleum contaminants, and vapor phase petroleum hydrocarbons. Additionally, the AFVR events can help stimulate aerobic activity by improving oxygen flow through the subsurface. Passive free-product skimmers can be utilized in conjunction with the AFVR events to remove free-product from the monitoring wells as it accumulates between events.

After completion of the final AFVR event we recommend a comprehensive groundwater sampling event of all wells be performed at the site.

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Moorhead Oil Company. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

ASSESSMENT COMPONENT INVOICE

The Assessment Component Invoice will be sent under separate cover to Mrs. Robertha Dorsey of the SCDHEC accounting department.

TABLES

TABLE 1

Monitoring Well and Groundwater Surface Elevation Data

Moorhead Oil Company - Former KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #35670
BLE Project Number J09-3661-04

Monitoring Well	TOC Elev.	Ground Elev.	GW Depth BTOC	Free-Product Thickness	GW Elevation	Bedrock Depth BGS	Well Depth BGS	Screened Interval Depth	Screened Interval Elevation
MW-1	101.31	101.50			Abandoned			NA - NA	NA - NA
MW-1R**	100.89	101.32	42.08	**1.92**	58.81	NA	44.0	33.80 - 43.80	67.09 - 57.09
MW-1D	101.50	101.63	45.70	None	55.80	51.0	106.6	101.40 - 106.40	0.10 - -4.90
MW-1DD	101.13	101.13	48.33	None	52.80	56.0	142.0	136.80 - 141.80	-35.67 - -40.67
MW-1DDD	101.56	101.56	84.54	None	17.02	56.0	241.8	236.60 - 241.60	-135.04 - -140.04
MW-2**	97.00	97.16	37.63	**0.02**	59.37	NA	42.5	32.52 - 42.52	64.48 - 54.48
MW-3	94.72	94.80	35.66	None	59.06	NA	40.4	30.40 - 40.40	64.32 - 54.32
MW-4	97.61	97.80	41.83	None	55.78	NA	47.1	36.90 - 46.90	60.71 - 50.71
MW-5	89.23	89.48	30.75	None	58.48	NA	32.3	22.10 - 32.10	67.13 - 57.13
MW-5R	89.38	89.57	30.90	None	58.48	NA	36.4	26.20 - 36.20	63.18 - 53.18
MW-6	101.74	101.99	41.60	None	60.14	NA	43.3	33.10 - 43.10	68.64 - 58.64
MW-6D	101.43	101.84	42.24	None	59.19	54.6	54.6	49.40 - 54.40	52.03 - 47.03
MW-7	96.50	96.88	37.25	None	59.25	NA	39.5	29.30 - 39.30	67.20 - 57.20
MW-7D	96.56	96.88	37.48	None	59.08	59.1	59.1	53.90 - 58.90	42.66 - 37.66
MW-8	87.94	88.16	29.20	None	58.74	NA	30.6	20.40 - 30.40	67.54 - 57.54
MW-9	102.33	102.54	46.50	None	55.83	44.0	52.7	42.50 - 52.50	59.83 - 49.83
MW-10**	99.78	100.02	43.05	**0.06**	56.73	42.0	50.9	40.70 - 50.70	59.08 - 49.08
MW-10D	100.03	100.07	48.69	None	51.34	42.0	94.8	89.60 - 94.60	10.43 - 5.43
MW-11**	98.46	98.74	45.67	**0.21**	52.79	47.0	51.5	41.30 - 51.30	57.16 - 47.16
MW-11D	98.49	98.67	47.02	None	51.47	44.5	90.4	85.20 - 90.20	13.29 - 8.29
MW-11DD	98.48	98.63	57.58	None	40.90	47.0	161.5	156.30 - 161.30	-57.82 - -62.82
MW-11DDD	98.38	98.38	84.54	None	13.84	47.0	230.4	225.20 - 230.20	-126.82 - -131.82
MW-12	97.25	97.53	45.27	None	51.98	NA	53.0	42.80 - 52.80	54.45 - 44.45
MW-13	99.08	99.25		Dry		47.0	48.3	38.10 - 48.10	60.98 - 50.98
MW-13R	99.10	99.47	46.64	None	52.46	47.0	56.4	46.20 - 56.20	52.90 - 42.90
MW-14**	94.99	95.22	43.18	**0.09**	51.81	46.0	50.6	40.40 - 50.40	54.59 - 44.59
MW-14D	95.17	95.20	43.78	None	51.39	46.0	81.7	76.50 - 81.50	18.67 - 13.67
MW-15	96.64	96.88	45.09	None	51.55	47.0	51.3	41.10 - 51.10	55.54 - 45.54
MW-16**	99.91	100.08	41.32	**0.02**	58.59	38.0	49.0	38.80 - 48.80	61.11 - 51.11
MW-17	103.40	103.90	44.58	None	58.82	NA	48.7	38.50 - 48.50	64.90 - 54.90
MW-18	108.17	105.09	53.04	None	55.13	53.0	55.9	45.70 - 55.70	62.47 - 52.47
MW-19	104.15	101.06	53.13	None	51.02	NA	55.1	44.90 - 54.90	59.25 - 49.25
MW-20	97.96	94.73	46.96	None	51.00	40.0	82.0	61.80 - 81.80	36.16 - 16.16
MW-21	87.23	83.56	36.88	None	50.35	37.0	43.9	33.70 - 43.70	53.53 - 43.53
MW-22	84.09	80.46	40.36	None	43.73	37.0	45.2	35.00 - 45.00	49.09 - 39.09
MW-23	88.00	84.72	39.85	None	48.15	38.0	45.5	35.30 - 45.30	52.70 - 42.70
MW-24	81.89	78.51	52.97	None	28.92	42.0	77.1	56.90 - 76.90	24.99 - 4.99
MW-25	87.36	83.86	55.56	None	31.80	NA	57.8	47.60 - 57.60	39.76 - 29.76
MW-26	85.06	81.65	48.33	None	36.73	43.0	77.3	57.10 - 77.10	27.96 - 7.96
MW-27	76.31	72.91		Dry		NA	44.7	34.50 - 44.50	41.81 - 31.81
MW-27R	74.93	72.09	46.89	None	28.04	52.0	53.1	42.90 - 52.90	32.03 - 22.03
MW-27D	74.79	72.32	47.87	None	26.92	52.0	69.6	64.40 - 69.40	10.39 - 5.39
MW-27DD	75.51	72.84	64.84	None	10.67	52.0	134.9	129.70 - 134.70	-54.19 - -59.19
MW-28	98.33	95.07	49.08	None	49.25	NA	51.7	41.50 - 51.50	56.83 - 46.83
MW-29	95.60	95.77	45.97	None	49.63	46.0	55.1	44.90 - 54.90	50.70 - 40.70
MW-30	61.37	58.42		Dry		NA	33.2	23.00 - 33.00	38.37 - 28.37
MW-30R	60.80	58.23	33.87	None	26.93	NA	40.0	29.80 - 39.80	31.00 - 21.00
MW-31	67.41	64.10		Dry		NA	40.0	29.80 - 39.80	37.61 - 27.61
MW-31R	66.29	63.36	39.69	None	26.60	NA	46.3	36.10 - 46.10	30.19 - 20.19
MW-32	61.57	58.61		Dry		NA	32.4	22.20 - 32.20	39.37 - 29.37
MW-32R	61.23	58.22	34.25	None	26.98	NA	40.1	29.90 - 39.90	31.33 - 21.33
MW-33	71.29	68.17	47.20	None	24.09	NA	48.8	38.60 - 48.60	32.69 - 22.69
MW-33D	72.27	68.85	48.24	None	24.03	NA	65.6	60.40 - 65.40	11.87 - 6.87
MW-33DD	71.65	68.84	50.35	None	21.30	92.0	131.1	125.90 - 130.90	-54.25 - -59.25
MW-34	71.40	68.02	48.17	None	23.23	43.8	50.6	40.40 - 50.40	31.00 - 21.00
MW-35	81.22	78.11	51.56	None	29.66	48.5	56.4	46.20 - 56.20	35.02 - 25.02
MW-36	89.46	89.77	47.18	None	42.28	40.0	61.0	50.80 - 60.80	38.66 - 28.66
MW-37	94.07	94.10	45.38	None	48.69	42.0	101.8	91.60 - 101.60	2.47 - -7.53
MW-37D	94.25	94.49	46.83	None	47.42	42.0	134.6	129.40 - 134.40	-35.15 - -40.15
MW-38	104.98	101.99	54.85	None	50.13	43.5	57.4	47.20 - 57.20	57.78 - 47.78
MW-39	98.77	98.91	45.92	None	52.85	42.0	56.2	36.00 - 56.00	62.77 - 42.77
MW-40	97.75	97.95	45.55	None	52.20	41.0	55.9	35.70 - 55.70	62.05 - 42.05
MW-41	98.97	99.03	43.13	None	55.84	44.0	55.5	35.30 - 55.30	63.67 - 43.67
MW-42	83.75	80.58	44.44	None	39.31	42.0	55.8	45.60 - 55.60	38.15 - 28.15
MW-43	52.51	49.56	35.19	None	17.32	NA	39.6	29.40 - 39.40	23.11 - 13.11
MW-44	56.80	53.77	35.28	None	21.52	NA	39.5	29.30 - 39.30	27.50 - 17.50
MW-45	92.03	92.62	35.51	None	56.52	NA	41.5	31.30 - 41.30	60.73 - 50.73

NOTES:

Groundwater levels were measured on 9/9/09

Measurements are in feet; elevations are relative to an arbitrary site datu

BTOC - below top of casing

BGS - below ground surface

NA - Not Applicable

**Petroleum free-product measured in wells MW-1R (1.92'), MW-2 (0.02'), MW-10 (0.06'), MW-11 (0.21'), MW-14 (0.09'), and MW-16 (0.02').

Groundwater elevation data for MW-1R, MW-2, MW-10, MW-11, MW-14, and MW-16 has been corrected for free-produc thickness using a density of 0.70 g/cc

TABLE 2

AFVR Gauging Data (MW-1R & MW-16) - July 20, 2009
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #35670
BLE Project Number J09-3661-04

	Monitoring Well Gauging Data				Air Emmissions	
	Vacuum (in.of Hg)		Depth to Free-Product/Groundwater (feet BTOC)		Influent (ppm)	Effluent (ppm)
Time	MW-1R	MW-16	MW-1D	MW-2		
10:00	22.0	22.0	45.37	36.50/37.11	1,317	26.0
10:30	22.0	22.0	45.37	36.54/37.17	1,014	23.0
11:00	22.0	22.0	45.36	36.58/37.20	994	21.0
11:30	22.0	22.0	45.36	36.58/37.20	903	21.0
12:00	22.0	22.0	45.36	36.58/37.20	857	18.0
12:30	23.0	22.0	45.35	36.58/37.19	775	18.0
13:00	23.0	22.0	45.35	36.58/37.19	619	15.0
13:30	23.0	22.0	45.35	36.58/37.18	611	15.0
14:00	23.0	22.0	45.35	36.58/37.18	578	15.0
14:30	23.0	22.0	45.35	36.58/37.18	503	13.0
15:00	23.0	22.0	45.35	36.58/37.17	463	13.0
15:30	23.0	22.0	45.36	36.58/37.17	419	13.0
16:00	23.0	22.0	45.36	36.58/37.17	327	12.0
16:30	23.0	22.0	45.36	36.57/37.17	287	12.0
17:00	23.0	22.0	45.36	36.57/37.17	263	12.0
17:30	23.0	22.0	45.37	36.57/37.17	187	10.0
18:00	23.0	22.0	45.37	36.57/37.17	157	10.0

NOTES:

AFVR event performed on July 20, 2009

Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).

1.77' (MW-1R) feet of free-product was detected prior to AFVR

inches of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

TABLE 2A

AFVR Emissions Field Data - July 20, 2009
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #35670
BLE Project Number J09-3661-04

WELL ID #: MW-1R and MW-16

AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS								
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
7/20/2009	1000	22	1,836	3	156	91.7	1,317	00:00	50.36	2,020.35	8,081.41	4	4,032.31	2.52E-04	0.76	0.88	0.14
7/20/2009	1030	22	1,831	3	156	89.5	1,014	00:30	50.22	1,555.53	6,222.13	4	3,104.60	1.94E-04	0.58	0.68	0.11
7/20/2009	1100	2	1,827	3	168	87.2	994	01:00	49.15	1,524.85	6,099.41	4	3,043.37	1.90E-04	0.56	0.65	0.10
7/20/2009	1130	23	1,832	3	168	84.7	903	01:30	49.29	1,385.25	5,541.01	4	2,764.75	1.73E-04	0.51	0.59	0.09
7/20/2009	1200	23	1,834	3	170	83.4	857	02:00	49.18	1,314.69	5,258.74	4	2,623.91	1.64E-04	0.48	0.56	0.09
7/20/2009	1230	23	1,831	3	170	80.1	775	02:30	49.10	1,188.89	4,755.57	4	2,372.85	1.48E-04	0.44	0.51	0.08
7/20/2009	1300	23	1,835	3	170	78.2	619	03:00	49.21	949.58	3,798.32	4	1,895.22	1.18E-04	0.35	0.40	0.06
7/20/2009	1330	23	1,829	3	170	76.7	611	03:30	49.05	937.31	3,749.23	4	1,870.72	1.17E-04	0.34	0.40	0.06
7/20/2009	1400	23	1,827	3	178	74.3	578	04:00	48.38	886.68	3,546.74	4	1,769.69	1.10E-04	0.32	0.37	0.06
7/20/2009	1430	23	1,820	3	178	72.5	503	04:30	48.20	771.63	3,086.52	4	1,540.05	9.61E-05	0.28	0.32	0.05
7/20/2009	1500	23	1,818	3	178	71.6	463	05:00	48.14	710.27	2,841.07	4	1,417.59	8.85E-05	0.26	0.30	0.05
7/20/2009	1530	23	1,815	3	176	69.6	419	05:30	48.21	642.77	2,571.08	4	1,282.87	8.01E-05	0.23	0.27	0.04
7/20/2009	1600	23	1,813	3	176	69.2	327	06:00	48.16	501.64	2,006.55	4	1,001.19	6.25E-05	0.18	0.21	0.03
7/20/2009	1630	23	1,811	3	176	68.8	287	06:30	48.11	440.27	1,761.10	4	878.72	5.49E-05	0.16	0.18	0.03
7/20/2009	1700	23	1,805	3	176	68.5	263	07:00	47.95	403.46	1,613.83	4	805.24	5.03E-05	0.14	0.17	0.03
7/20/2009	1730	23	1,799	3	176	68.0	187	07:30	47.79	286.87	1,147.47	4	572.55	3.57E-05	0.10	0.12	0.02
7/20/2009	1800	23	1,794	3	176	67.3	157	08:00	47.66	240.85	963.39	4	480.69	3.00E-05	0.09	0.10	0.02
Average Values		22	1,821	3	172	76.5	604		48.72	927.11	3,708.45	4	1850.37	0.000115519	0.34	0.39	0.06
B_{ws}	0.348	B_{wsw}	0.21														

Total Pounds of Carbon Recovered as Emissions: 2.70

Total Pounds of Gasoline Recovered as Emissions: 3.13

Total Gallons of Gasoline Recovered as Emissions: 0.50

NOTES:

AFVR Event performed on July 20, 2009
Vacuum applied to monitoring wells MW-1R and MW-16
1.77' (MW-1R) feet of free-product was detected prior to AFVR
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wsw} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By: IAI
Checked By: TZS

TABLE 3

AFVR Gauging Data (MW-2) - July 23, 2009
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #35670
BLE Project Number J09-3661-04

	Monitoring Well Gauging Data			Air Emmissions	
	Vacuum (in.of Hg)	Depth to Free-Product/Groundwater (feet BTOC)		Influent (ppm)	Effluent (ppm)
Time	MW-2	MW-1R	MW-3		
9:45	25	41.31/41.93	34.49	2,817	43
10:15	25	41.30/41.93	34.50	1,984	36
10:45	25	41.29/41.94	34.51	1,137	28
11:15	25	41.29/41.93	34.51	779	21
11:45	25	41.29/41.92	34.51	421	16
12:15	25	41.29/41.92	34.50	416	16
12:45	25	41.28/41.92	34.50	408	16
13:15	25	41.27/41.92	34.50	387	15
13:45	25	41.26/41.92	34.50	367	15
14:15	25	41.25/41.92	34.50	316	13
14:45	25	41.25/41.92	34.49	245	13
15:15	25	41.25/41.92	34.49	231	13
15:45	25	41.24/41.92	34.49	212	12
16:15	25	41.24/41.92	34.49	182	12
16:45	25	41.27/41.92	34.49	158	10
17:15	25	41.25/41.92	34.49	133	10
17:45	25	41.24/41.92	34.49	127	10

NOTES:

AFVR event performed on July 23, 2009

Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).

0.63' of free-product was detected prior to AFVR in MW-2.

in. of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

TABLE 3A

AFVR Emissions Field Data - August 17, 2009
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #35670
BLE Project Number J09-3661-04

WELL ID #: MW-2

AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS								
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
7/23/2009	0945	25	1,374	3	138	90.3	2,817	00:00	34.87	4,810.82	19,243.26	4	9,601.65	5.99E-04	1.25	1.45	0.23
7/23/2009	1015	25	1,372	3	166	89.5	1,984	00:30	33.26	3,388.24	13,552.94	4	6,762.39	4.22E-04	0.84	0.98	0.16
7/23/2009	1045	25	1,367	3	166	89.2	1,137	01:00	33.14	1,941.75	7,766.98	4	3,875.42	2.42E-04	0.48	0.56	0.09
7/23/2009	1115	25	1,364	3	166	90.4	779	01:30	33.07	1,330.36	5,321.44	4	2,655.19	1.66E-04	0.33	0.38	0.06
7/23/2009	1145	25	1,360	3	166	89.6	421	02:00	32.97	718.98	2,875.90	4	1,434.96	8.96E-05	0.18	0.21	0.03
7/23/2009	1215	25	1,357	3	166	88.2	416	02:30	32.90	710.44	2,841.75	4	1,417.92	8.85E-05	0.17	0.20	0.03
7/23/2009	1245	25	1,352	3	166	89.3	408	03:00	32.78	696.77	2,787.10	4	1,390.65	8.68E-05	0.17	0.20	0.03
7/23/2009	1315	25	1,350	3	166	89.7	387	03:30	32.73	660.91	2,643.64	4	1,319.08	8.23E-05	0.16	0.19	0.03
7/23/2009	1345	25	1,347	3	164	88.6	367	04:00	32.76	626.76	2,507.02	4	1,250.91	7.81E-05	0.15	0.18	0.03
7/23/2009	1415	25	1,344	3	164	86.3	316	04:30	32.69	539.66	2,158.63	4	1,077.07	6.72E-05	0.13	0.15	0.02
7/23/2009	1445	25	1,341	3	164	86.0	245	05:00	32.61	418.41	1,673.62	4	835.07	5.21E-05	0.10	0.12	0.02
7/23/2009	1515	25	1,336	3	164	86.5	231	05:30	32.49	394.50	1,577.99	4	787.36	4.92E-05	0.10	0.11	0.02
7/23/2009	1545	25	1,331	3	164	87.2	212	06:00	32.37	362.05	1,448.20	4	722.59	4.51E-05	0.09	0.10	0.02
7/23/2009	1615	25	1,325	3	164	86.3	182	06:30	32.23	310.82	1,243.26	4	620.34	3.87E-05	0.07	0.09	0.01
7/23/2009	1645	25	1,318	3	164	87.8	158	07:00	32.06	269.83	1,079.32	4	538.54	3.36E-05	0.06	0.07	0.01
7/23/2009	1715	25	1,314	3	164	86.7	133	07:30	31.96	227.13	908.54	4	453.33	2.83E-05	0.05	0.06	0.01
7/23/2009	1745	25	1,308	3	164	86.3	127	08:00	31.81	216.89	867.55	4	432.88	2.70E-05	0.05	0.06	0.01
Average Values		25	1,345	3	163	88.1	607		32.75	1,036.72	4,146.89	4	2069.14	0.000129176	0.25	0.29	0.05
B_{ws}	0.414	B_{wsw}	0.25														

Total Pounds of Carbon Recovered as Emissions: 2.03

Total Pounds of Gasoline Recovered as Emissions: 2.35

Total Gallons of Gasoline Recovered as Emissions: 0.38

NOTES:

AFVR event performed on July 23, 2009
Vacuum applied to monitoring well MW-2.
0.63' of free-product was detected prior to AFVR in MW-2.
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wsw} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By: IAI
Checked By: TZS

TABLE 4

AFVR Gauging Data (MW-11) - July 30, 2009
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #35670
BLE Project Number J09-3661-04

	Monitoring Well Gauging Data				Air Emmissions	
	Vacuum (in.of Hg)	Depth to Groundwater (feet BTOC)			Influent (ppm)	Effluent (ppm)
Time	MW-11	MW-11D	MW-16	MW-41		
9:45	25	47.00	41.22	43.57	751	19
10:15	25	47.05	41.22	43.58	567	18
10:45	25	47.08	41.22	43.59	348	17
11:15	25	47.09	41.23	43.59	312	14
11:45	25	47.09	41.22	43.60	229	14
12:15	25	47.09	41.23	43.60	217	12
12:45	25	47.09	41.23	43.60	206	12
13:15	25	47.09	41.22	43.59	194	12
13:45	25	47.09	41.22	43.58	183	12
14:15	25	47.09	41.22	43.58	179	10
14:45	25	47.09	41.22	43.58	177	10
15:15	25	47.09	41.22	43.58	172	10
15:45	25	47.09	41.23	43.58	166	10
16:15	25	47.09	41.22	43.59	163	9
16:45	25	47.09	41.22	43.60	160	9
17:15	25	47.09	41.22	43.60	156	8
17:45	25	47.09	41.22	43.61	155	9

NOTES:

AFVR event performed on July 30, 2009

Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).

0.44' free-product was detected in MW-11 prior to AFVR event

in. of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

TABLE 4A

AFVR Emissions Field Data - July 30, 2009
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #35670
BLE Project Number J09-3661-04

WELL ID #: MW-1, MW-21, MW-23, and MW-24

AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS								
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
7/30/2009	0945	25	1,473	3	136	92.6	751	00:00	41.76	1,152.08	4,608.30	4	2,299.37	1.44E-04	0.36	0.42	0.07
7/30/2009	1015	25	1,470	3	136	92.0	567	00:30	41.67	869.81	3,479.24	4	1,736.01	1.08E-04	0.27	0.31	0.05
7/30/2009	1045	25	1,468	3	168	91.7	348	01:00	39.49	533.85	2,135.41	4	1,065.49	6.65E-05	0.16	0.18	0.03
7/30/2009	1115	25	1,464	3	168	91.3	312	01:30	39.39	478.63	1,914.50	4	955.26	5.96E-05	0.14	0.16	0.03
7/30/2009	1145	25	1,460	3	164	90.7	229	02:00	39.53	351.30	1,405.20	4	701.14	4.38E-05	0.10	0.12	0.02
7/30/2009	1215	25	1,457	3	164	90.3	217	02:30	39.45	332.89	1,331.56	4	664.40	4.15E-05	0.10	0.11	0.02
7/30/2009	1245	25	1,452	3	162	89.3	206	03:00	39.44	316.02	1,264.06	4	630.72	3.94E-05	0.09	0.11	0.02
7/30/2009	1315	25	1,444	3	162	88.5	194	03:30	39.22	297.61	1,190.43	4	593.98	3.71E-05	0.09	0.10	0.02
7/30/2009	1345	25	1,437	3	164	87.2	183	04:00	38.91	280.73	1,122.93	4	560.30	3.50E-05	0.08	0.09	0.02
7/30/2009	1415	25	1,427	3	164	85.8	179	04:30	38.64	274.60	1,098.38	4	548.05	3.42E-05	0.08	0.09	0.01
7/30/2009	1445	25	1,420	3	164	85.2	177	05:00	38.45	271.53	1,086.11	4	541.93	3.38E-05	0.08	0.09	0.01
7/30/2009	1515	25	1,416	3	164	83.7	172	05:30	38.34	263.86	1,055.43	4	526.62	3.29E-05	0.08	0.09	0.01
7/30/2009	1545	25	1,405	3	164	83.1	166	06:00	38.04	254.65	1,018.61	4	508.25	3.17E-05	0.07	0.08	0.01
7/30/2009	1615	25	1,400	3	164	81.6	163	06:30	37.91	250.05	1,000.20	4	499.06	3.12E-05	0.07	0.08	0.01
7/30/2009	1645	25	1,396	3	166	80.2	160	07:00	37.68	245.45	981.80	4	489.88	3.06E-05	0.07	0.08	0.01
7/30/2009	1715	25	1,392	3	166	79.2	156	07:30	37.57	239.31	957.25	4	477.63	2.98E-05	0.07	0.08	0.01
7/30/2009	1745	25	1,387	3	166	77.3	155	08:00	37.43	237.78	951.11	4	474.57	2.96E-05	0.07	0.08	0.01
Average Values		25	1,433	3	161	86.5	255		38.99	391.18	1,564.74	4	780.74	4.87418E-05	0.11	0.13	0.02
B_{ws}	0.348	B_{wsw}	0.21														

Total Pounds of Carbon Recovered as Emissions: 0.91
Total Pounds of Gasoline Recovered as Emissions: 1.06
Total Gallons of Gasoline Recovered as Emissions: 0.17

NOTES:

AFVR event performed on July 30, 2009
Vacuum applied to monitoring well MW-11.
0.44' free-product was detected in MW-11 prior to AFVR event
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wsw} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By: IAI
Checked By: TZS

TABLE 5

AFVR Gauging Data (MW-11) - August 4, 2009
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #35670
BLE Project Number J09-3661-04

	Monitoring Well Gauging Data					Air Emmissions	
	Vacuum (in.of Hg)		Depth to Groundwater (feet BTOC)			Influent (ppm)	Effluent (ppm)
Time	MW-10	MW-14	MW-39	MW-40	MW-41		
10:00	22	24	46.22	45.59	43.53	872	19
10:30	22	24	46.22	45.62	43.56	638	17
11:00	22	24	46.22	45.63	43.59	474	15
11:30	22	24	46.22	45.64	43.59	434	15
12:00	22	24	46.22	45.66	43.59	404	15
12:30	22	24	46.23	45.67	43.60	389	14
13:00	22	24	46.23	45.67	43.60	377	14
13:30	22	24	46.22	45.67	43.59	359	14
14:00	22	24	46.22	45.68	43.59	351	14
14:30	22	24	46.23	45.69	43.59	347	14
15:00	22	24	46.22	45.71	43.59	342	14
15:30	22	24	46.22	45.72	43.59	336	14
16:00	22	24	46.22	45.72	43.59	328	14
16:30	22	24	46.22	45.72	43.60	325	13
17:00	22	24	46.22	45.72	43.59	322	13
17:30	22	24	46.23	45.72	43.59	316	13
18:00	22	24	46.22	45.72	43.59	311	13

NOTES:

AFVR event performed on August 4, 2009

Vapor concentrations measured using a portable MiniRAE® 2000
Photo-Ionization Detector (PID).

0.27' (MW-10) and 0.32' (MW-14) of free-product was detected prior to AFVR

in. of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

TABLE 5A

AFVR Emissions Field Data - August 4, 2009
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #35670
BLE Project Number J09-3661-04

WELL ID #: MW-10 and MW-14

AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS								
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
8/4/2009	1000	24	1,644	3	146	89.6	872	00:00	41.17	1,489.18	5,956.74	4	2,972.18	1.86E-04	0.46	0.53	0.08
8/4/2009	1030	24	1,641	3	174	87.2	638	00:30	39.28	1,089.56	4,358.25	4	2,174.60	1.36E-04	0.32	0.37	0.06
8/4/2009	1100	24	1,638	3	174	86.4	474	01:00	39.21	809.49	3,237.95	4	1,615.61	1.01E-04	0.24	0.27	0.04
8/4/2009	1130	24	1,635	3	180	83.5	434	01:30	38.77	741.18	2,964.71	4	1,479.27	9.24E-05	0.21	0.25	0.04
8/4/2009	1200	24	1,637	3	180	82.7	404	02:00	38.82	689.94	2,759.77	4	1,377.02	8.60E-05	0.20	0.23	0.04
8/4/2009	1230	24	1,642	3	180	81.5	389	02:30	38.94	664.33	2,657.31	4	1,325.89	8.28E-05	0.19	0.22	0.04
8/4/2009	1300	24	1,656	3	180	78.2	377	03:00	39.27	643.83	2,575.33	4	1,284.99	8.02E-05	0.19	0.22	0.03
8/4/2009	1330	24	1,666	3	180	78.4	359	03:30	39.51	613.09	2,452.37	4	1,223.64	7.64E-05	0.18	0.21	0.03
8/4/2009	1400	24	1,675	3	180	77.2	351	04:00	39.72	599.43	2,397.72	4	1,196.37	7.47E-05	0.18	0.21	0.03
8/4/2009	1430	24	1,678	3	180	75.3	347	04:30	39.79	592.60	2,370.40	4	1,182.74	7.38E-05	0.18	0.20	0.03
8/4/2009	1500	24	1,692	3	180	76.3	342	05:00	40.12	584.06	2,336.24	4	1,165.69	7.28E-05	0.18	0.20	0.03
8/4/2009	1530	24	1,707	3	180	75.0	336	05:30	40.48	573.81	2,295.26	4	1,145.24	7.15E-05	0.17	0.20	0.03
8/4/2009	1600	24	1,735	3	180	74.1	328	06:00	41.14	560.15	2,240.61	4	1,117.98	6.98E-05	0.17	0.20	0.03
8/4/2009	1630	24	1,744	3	180	72.6	325	06:30	41.36	555.03	2,220.11	4	1,107.75	6.92E-05	0.17	0.20	0.03
8/4/2009	1700	24	1,757	3	180	73.7	322	07:00	41.66	549.91	2,199.62	4	1,097.53	6.85E-05	0.17	0.20	0.03
8/4/2009	1730	24	1,761	3	180	73.3	316	07:30	41.76	539.66	2,158.63	4	1,077.07	6.72E-05	0.17	0.19	0.03
8/4/2009	1800	24	1,772	3	180	72.6	311	08:00	42.02	531.12	2,124.48	4	1,060.03	6.62E-05	0.17	0.19	0.03
Average Values		24	1,687	3	177	78.7	407		40.18	695.67	2,782.68	4	1388.45	8.67E-05	0.21	0.24	0.04

B_{ws}	0.414	B_{wsw}	0.25

Total Pounds of Carbon Recovered as Emissions: 1.67

Total Pounds of Gasoline Recovered as Emissions: 1.93

Total Gallons of Gasoline Recovered as Emissions: 0.31

NOTES:

AFVR event performed on August 4, 2009
Vacuum applied to monitoring wells MW-10 and MW-14.
0.27' (MW-10) and 0.32' (MW-14) of free-product was detected prior to AFVR
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wsw} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By: IAI
Checked By: TZS

TABLE 6

Historical Groundwater Analytical Data
Moorhead Oil Company - Former KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #35670
BLE Project Number J09-3661-04

Well ID	Date Sampled	FP Thickness (Feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
SC DHEC RBSL		N/E	5	1,000	700	10,000	N/E	40	25	0.05	5
DW-1	4/5/2005	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.019	<5.0
MW-1R	4/18/2007	None	**15,000**	**22,000**	**2,400**	**14,000**	53,400	**3,600**	**1,200**	**360**	**520**
	9/9/2008	**0.84**	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
	9/10/2009	**1.92**	**25,100**	**37,500**	**3,320**	**18,780**	84,700	**4,340**	**1,550**	**429**	**813J**
MW-1D	4/18/2007	None	**11,000**	**2,500**	**740**	2,300	16,540	**4,300**	**210**	0.012	**300**
	9/10/2008	None	**8,310**	**2,770**	677	1,310	13,067	**4,540**	**307**	N/D	**345**
	9/10/2009	None	**11,300**	**4,950**	587	2,123	18,960	**4,950**	**136**	<0.019	**221**
MW-1DD	9/10/2008	None	**149**	26.8	14.1	21.6	211.5	**115**	5.22	N/D	**8.69**
	9/10/2009	None	**182**	339	36.0	151	708	**72.6**	15.4	**0.41**	**7.3**
MW-1DDD	9/10/2009	None	**1,580**	**1,110**	132	613	3,435	**970**	**42.8**	**0.19**	**57.7**
MW-2	7/27/2004	None	**13,100**	**23,600**	**3,580**	**16,300**	56,580	**1,510**	**2,800**	N/T	N/T
	4/18/2007	None	**2,400**	580	220	1,800	5,000	**440**	N/D	**1.6**	**44.0**
	9/9/2008	**1.84**	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2009	**0.02**	**9,460**	**26,000**	**3,390**	**14,230**	53,080	**167**	**1,030**	**82.9**	**48.7J**
MW-3	7/27/2004	None	4.7	N/D	N/D	2.1	6.8	3.5	N/D	N/T	N/T
	4/18/2007	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/10/2008	None	**9.30**	N/D	N/D	2.70	12.0	N/D	N/D	N/D	N/D
	9/9/2009	None	1.9J	<5.0	<5.0	<10.0	1.9J	<5.0	<5.0	<0.020	<5.0
MW-4	4/18/2007	None	4.2	N/D	N/D	N/D	4.2	4.9	N/D	N/D	N/D
	9/10/2008	None	**42.3**	N/D	N/D	N/D	42.3	37.6	N/D	N/D	**10.4**
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.019	<5.0
MW-5	4/18/2007	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
	9/8/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-5R	9/10/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.019	<5.0
MW-6	4/18/2007	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.019	<5.0
MW-6D	9/10/2008	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/10/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.019	<5.0
MW-7	4/18/2007	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.020	<5.0

TABLE 6

Historical Groundwater Analytical Data
Moorhead Oil Company - Former KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #35670
BLE Project Number J09-3661-04

Well ID	Date Sampled	FP Thickness (Feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
SC DHEC RBSL		N/E	5	1,000	700	10,000	N/E	40	25	0.05	5
MW-7D	9/10/2008	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/10/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.019	<5.0
MW-8	4/18/2007	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.019	<5.0
MW-9	4/20/2007	None	**4,900**	38.0	17.0	37.0	4,992	**98.0**	**110**	0.045	**210**
	9/10/2008	None	**1,850**	14.1	N/D	N/D	1,864	**405**	21.3	0.028	**167**
	9/9/2009	None	**1,240**	<100	<100	<200	1,240	**404**	<100	<0.019	**168**
MW-10	4/20/2007	**0.24**	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2008	**0.38**	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2009	**0.06**	**7,080**	**30,500**	**4,400**	**23,990**	65,970	**252**	**1,450**	**9.30**	**37.9J**
MW-10D	9/11/2008	None	**68.4**	7.54	5.09	17.30	98.33	**818**	3.16	N/D	**29.0**
	9/10/2009	None	**107**	12.0	8.4	12.2J	139.6J	**987**	4.1J	<0.019	**30.9**
MW-11	4/20/2007	**0.33**	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2008	**0.75**	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2009	**0.21**	**817**	**4,500**	**2,540**	**14,780**	22,637	**43.5J**	**1,690**	**1.7**	<50.0
MW-11D	4/20/2007	None	**350**	20.0	17.0	44.0	431	**260**	13.0	N/D	**22.0**
	9/11/2008	None	**415**	72.5	35.5	94.3	617	**282**	22.0	N/D	**17.7**
	9/10/2009	None	**749**	385	116	466	1,716	**493**	**58.2**	<0.019	**37.1**
MW-11DD	9/11/2008	None	**8,430***	**4,990***	**712**	3,030	3,742	**4,050**	**182**	N/D	**186**
	9/10/2009	None	**11,000**	**6,470**	**748**	3,600	21,818	**5,310**	**266**	<0.019	**486**
MW-11DDD	9/10/2009	None	**987**	381	61.4	261.1	1,690.5	**615**	16.2	<0.019	**56.9**
MW-12	4/20/2007	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/10/2008	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.020	<5.0
MW-13	4/20/2007	None	**8,600**	**8,400**	**2,800**	**13,000**	32,800	**2,200**	**1,800**	**7.9**	**290**
	9/10/2008	None	Dry	Dry	Dry	Dry	Dry	Dry	Dry	**1.32**	Dry
	9/9/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-13R	9/9/2009	None	**1,280**	612	489	2,150	4,531	**241**	<50.0	**1.2**	**51.9**
MW-14	4/20/2007	**0.38**	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2008	**0.28**	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2009	**0.09**	**50.1J**	475	**1,760**	8,860	11,145.1J	<100	**1,300**	<0.019	<100

TABLE 6

Historical Groundwater Analytical Data
Moorhead Oil Company - Former KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #35670
BLE Project Number J09-3661-04

Well ID	Date Sampled	FP Thickness (Feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
SC DHEC RBSL		N/E	5	1,000	700	10,000	N/E	40	25	0.05	5
MW-14D	9/11/2008	None	**511**	24.9	7.82	88.7	632	**241**	**115**	N/D	**21.7**
	9/10/2009	None	**484**	8.4	<5.0	40.4	532.8	**186**	**108**	<0.019	**25.3**
MW-15	4/20/2007	None	**730**	5.2	5.1	7.9	748	**170**	**210**	0.02	**32.0**
	9/10/2008	None	**436**	15.9	52.6	51.2	556	**165**	**324**	0.014	N/D
	9/9/2009	None	**224**	89.5	171	358	842.5	**49.5**	**346**	<0.020	**9.4J**
MW-16	4/18/2007	None	**5,700**	**4,300**	**2,200**	9,900	22,100	**3,900**	**3,200**	**1.4**	**290**
	9/9/2008	**0.12**	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2009	**0.02**	**6,630**	**3,950**	**1,890**	**14,250**	26,720	**1,250**	**2,480**	**4.1**	**117J**
MW-17	4/18/2007	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/10/2008	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.020	<5.0
MW-18	4/20/2007	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/10/2008	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.019	<5.0
MW-19	4/20/2007	None	**12.0**	N/D	N/D	N/D	12.0	36.0	N/D	N/D	**34.0**
	9/11/2008	None	**149**	12.0	3.58	N/D	164.58	**84.6**	**104**	N/D	**57.4**
	9/9/2009	None	**167**	8.6	6.9	7.8J	190.3J	**74.3**	**80.0**	<0.019	**61.2**
MW-20	4/20/2007	None	N/D	N/D	N/D	N/D	N/D	2.1	N/D	N/D	N/D
	9/12/2008	None	N/D	N/D	N/D	N/D	N/D	1.85	N/D	N/D	N/D
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.020	<5.0
MW-21	4/20/2007	None	**1,100**	690	470	1,700	3,960	**220**	**260**	**0.078**	**33.0**
	9/11/2008	None	**741**	928	**1,080**	3,960	6,709	**109**	**773**	0.030	N/D
	9/9/2009	None	**392**	695	699	3,099	4,885	**64.5**	**458**	<0.019	**11.1**
MW-22	4/20/2007	None	**880**	170	630	1,900	3,580	**200**	**430**	0.034	**29.0**
	9/11/2008	None	**589**	88.5	**730**	1,680	3,087.5	**79.7**	**582**	N/D	N/D
	9/9/2009	None	**222**	68.0	373	772	1,435	32.7	**277**	<0.019	**5.7**
MW-23	4/20/2007	None	**1,300**	890	**960**	3,400	6,550	**220**	**610**	**0.280**	**33.0**
	9/11/2008	None	**1,220**	65.1	**845**	655	2,785.1	**264**	**513**	N/D	**27.6**
	9/9/2009	None	**434**	81.4	442	462	1,419.4	**95.4**	**281**	<0.019	**13.2**
MW-24	4/20/2007	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/12/2008	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.019	<5.0
MW-25	4/20/2007	None	**6.0**	N/D	N/D	4.1	10.1	**56.0**	N/D	N/D	**6.8**
	9/11/2008	None	N/D	N/D	N/D	1.39	1.39	2.82	1.33	N/D	1.15
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	5.0	<5.0	<0.019	<5.0

TABLE 6

Historical Groundwater Analytical Data
Moorhead Oil Company - Former KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #35670
BLE Project Number J09-3661-04

Well ID	Date Sampled	FP Thickness (Feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
SC DHEC RBSL		N/E	5	1,000	700	10,000	N/E	40	25	0.05	5
MW-26	4/20/2007	None	**130**	50.0	42.0	150	372	**150**	**28.0**	N/D	**17.0**
	9/12/2008	None	**68.4**	N/D	N/D	N/D	68.4	**139**	11.6	N/D	**15.8**
	9/9/2009	None	2.7J	<5.0	1.4J	2.2J	6.3J	35.1	3.3J	<0.019	3.6J
MW-27	4/20/2007	None	9.70	N/D	1.0	N/D	10.7	**88.0**	**57.0**	N/D	**12.0**
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
	9/9/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-27R	9/8/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	5.7	<5.0	<0.020	<5.0
MW-27D	9/8/2009	None	1.2J	<5.0	<5.0	<10.0	1.2J	**62.6**	<5.0	<0.019	**6.6**
MW-27DD	9/8/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	18.7	<5.0	<0.020	2.7J
MW-28	4/20/2007	None	**77.0**	N/D	N/D	4.0	81.0	36.0	12.0	N/D	**6.0**
	9/11/2008	None	**274**	N/D	N/D	11.7	285.7	**110**	**86.6**	N/D	**16.0**
	9/9/2009	None	**429**	<5.0	<5.0	11.1J	440.1J	**207**	**83.8**	<0.020	**39.9**
MW-29	4/20/2007	None	1.8	N/D	N/D	N/D	1.8	12.0	N/D	N/D	1.9
	9/11/2008	None	**6.09**	2.69	N/D	5.23	14.01	**85.0**	**25.4**	N/D	**8.94**
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	9.3	<5.0	<0.020	4.6J
MW-30	4/20/2007	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
	9/8/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-30R	9/8/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.020	<5.0
MW-31	4/20/2007	None	N/D	N/D	N/D	N/D	N/D	12.0	N/D	N/D	1.6
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
	9/8/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-31R	9/8/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	9.1	<5.0	<0.020	2.0J
MW-32	4/20/2007	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
	9/8/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-32R	9/8/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.020	<5.0
MW-33	9/11/2008	None	N/D	N/D	N/D	1.39	1.39	**92.9**	2.36	N/D	**6.64**
	9/8/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	**99.9**	<5.0	<0.020	**8.8**
MW-33D	9/8/2009	None	**173**	<5.0	<5.0	38.8	211.8	**232**	13.1	<0.019	**28.8**
MW-33DD	9/8/2009	None	**7.6**	<5.0	<5.0	<10.0	7.6	38.9	<5.0	<0.019	4.6J
MW-34	9/11/2008	None	N/D	N/D	N/D	N/D	N/D	2.76	N/D	N/D	N/D
	9/8/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	3.4J	<5.0	<0.020	<5.0
MW-35	9/12/2008	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/8/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.020	<5.0

TABLE 6

Historical Groundwater Analytical Data
Moorhead Oil Company - Former KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #35670
BLE Project Number J09-3661-04

Well ID	Date Sampled	FP Thickness (Feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
SC DHEC RBSL		N/E	5	1,000	700	10,000	N/E	40	25	0.05	5
MW-36	9/12/2008	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/8/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.019	<5.0
MW-37	9/12/2008	None	**50.6**	N/D	N/D	N/D	50.6	**53.2**	2.83	N/D	1.10
	9/10/2009	None	**25.1**	<5.0	<5.0	<10.0	25.1	**60.8**	9.8	<0.019	2.3J
MW-37D	9/10/2009	None	**21.3**	<5.0	<5.0	<10.0	21.3	**51.6**	<5.0	<0.020	2.8J
MW-38	9/12/2008	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.020	<5.0
MW-39	9/11/2008	None	**10.1**	1.31	N/D	7.21	18.62	15.3	1.36	N/D	N/D
	9/9/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	17.7	<5.0	<0.020	<5.0
MW-40	9/11/2008	None	**45.1**	N/D	4.63	6.69	56.42	5.41	5.04	N/D	N/D
	9/9/2009	None	4.3J	<5.0	<5.0	<10.0	4.3J	4.2J	<5.0	<0.020	<5.0
MW-41	9/11/2008	None	**106**	7.28	8.07	87.5	208.85	**132**	11.9	**0.160**	**8.45**
	9/9/2009	None	**7.7**	7.3	<5.0	31.6	46.6	**126**	<5.0	<0.019	**9.7**
MW-42	9/12/2008	None	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
	9/8/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.020	<5.0
MW-43	9/11/2008	None	N/D	N/D	N/D	N/D	N/D	14.5	N/D	N/D	1.59
	9/8/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	9.1	<5.0	<0.019	1.6J
MW-44	9/12/2008	None	N/D	N/D	N/D	N/D	N/D	34.6	N/D	N/D	3.00
	9/8/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	29.5	<5.0	<0.019	2.7J
MW-45	9/10/2009	None	<5.0	<5.0	<5.0	<10.0	N/D	<5.0	<5.0	<0.019	<5.0

Notes:
RBSL = Risk-Based Screening Level
Shaded cells indicate COC concentrations that exceed RBSLs
MW-1 through MW-3 were installed during the Tier I phase of work.
MW-1 was compromised during grout injection for the installation of MW-1D. The well was properly abandoned and MW-1R was installed in its place.
µg/L - micrograms per liter - parts per billion
N/D = Not Detected (at the laboratory detection limit)
N/T = Not Tested
N/E = A RBSL has not been established for this constituent
* - Recoveries outside control limits due to high level of target analyte in the spiked sample.

TABLE 6A

Hystorical Groundwater Analytical Data - (Total Lead and Intrinsic Parameters)
Moorhead Oil Company - Former KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #35670
BLE Project Number J09-3661-04

Well ID	Date Sampled	Lead (µg/L)	Ferrous Iron (µg/L)	Nitrates (µg/L)	Sulfates (µg/L)	Methane (µg/L)	Dissolved Oxygen (µg/L)
SC DHEC RBSL		15	N/E	N/E	N/E	N/E	N/E
DW-1	4/5/2005	N/D	N/T	N/T	N/T	N/T	4.91
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry
	9/9/2009	**81.5**	N/T	N/T	N/T	N/T	N/T
MW-1R	4/1/8/2007	**27.0**	1,000	N/D	18,000	N/D	0.60
	9/9/2008	N/T	N/T	N/T	N/T	N/T	N/T
	9/10/2009	**46.3**	N/T	N/T	N/T	N/T	0.56
MW-1D	4/18/2007	6.1	4,400	N/D	N/D	790	0.58
	9/9/2008	N/D	N/D	689	N/D	N/T	2.16
	9/10/2009	<5.0	N/T	N/T	N/T	N/T	0.86
MW-1DD	9/10/2008	N/D	N/D	N/D	11,900	N/T	1.25
	9/10/2009	<5.0	N/T	N/T	N/T	N/T	1.63
MW-1DDD	9/10/2009	<5.0	N/T	N/T	N/T	N/T	0.74
MW-2	7/27/2004	13.0	N/T	N/T	N/T	N/T	N/T
	4/18/2007	N/D	8,900	N/D	13,000	N/D	1.02
	9/9/2008	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	0.63
MW-3	7/27/2004	N/D	N/T	N/T	N/T	N/T	N/T
	4/18/2007	N/D	290	1,400	N/D	N/D	1.99
	9/10/2008	**1,430**	N/D	985	N/D	N/T	1.81
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	0.66
MW-4	4/18/2007	5.1	N/D	N/D	N/D	N/D	3.36
	9/10/2008	N/D	N/D	N/D	N/D	N/T	1.82
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	1.63
MW-5	4/18/2007	**32.0**	N/D	N/D	N/D	N/D	6.51
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry
	9/8/2009	Dry	Dry	Dry	Dry	Dry	Dry
MW-5R	9/10/2009	**75.9**	N/T	N/T	N/T	N/T	2.44

Prepared By: IAI
Checked By:TZS

TABLE 6A

Hystorical Groundwater Analytical Data - (Total Lead and Intrinsic Parameters)
Moorhead Oil Company - Former KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #35670
BLE Project Number J09-3661-04

Well ID	Date Sampled	Lead (µg/L)	Ferrous Iron (µg/L)	Nitrates (µg/L)	Sulfates (µg/L)	Methane (µg/L)	Dissolved Oxygen (µg/L)
SC DHEC RBSL		15	N/E	N/E	N/E	N/E	N/E
MW-6	4/18/2007	15.0	N/D	N/D	N/D	N/D	5.12
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry
	9/9/2009	**466**	N/T	N/T	N/T	N/T	1.17
MW-6D	9/10/2008	N/D	N/D	755	N/D	N/T	3.44
	9/10/2009	<5.0	N/T	N/T	N/T	N/T	1.30
MW-7	4/18/2007	4.5	380	1,000	N/D	N/D	5.28
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry
	9/9/2009	**136**	N/T	N/T	N/T	N/T	1.98
MW-7D	9/10/2008	N/D	N/D	867	N/D	N/T	0.94
	9/10/2009	<5.0	N/T	N/T	N/T	N/T	0.92
MW-8	4/18/2007	**18.0**	N/D	150	N/D	N/D	7.10
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry
	9/9/2009	N/T	N/T	N/T	N/T	N/T	NT
MW-9	4/20/2007	2.80	11,000	N/D	N/D	13.0	1.19
	9/10/2008	**85.3**	1,010	N/D	7,150	N/T	0.39
	9/9/2009	8.5	N/T	N/T	N/T	N/T	0.41
MW-10	4/20/2007	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2008	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2009	**16.8**	N/T	N/T	N/T	N/T	0.77
MW-10D	9/11/2008	N/D	N/D	N/D	18,500	N/T	1.01
	9/10/2009	<5.0	N/T	N/T	N/T	N/T	0.63
MW-11	4/20/2007	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2008	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2009	**32.8**	N/T	N/T	N/T	N/T	0.44
MW-11D	4/20/2007	5.2	970	N/D	N/D	44.0	0.71
	9/11/2008	N/D	N/D	N/D	49,500	N/T	1.29
	9/10/2009	<5.0	N/T	N/T	N/T	N/T	0.70

Prepared By: IAI
Checked By:TZS

TABLE 6A

Hystorical Groundwater Analytical Data - (Total Lead and Intrinsic Parameters)
Moorhead Oil Company - Former KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #35670
BLE Project Number J09-3661-04

Well ID	Date Sampled	Lead (µg/L)	Ferrous Iron (µg/L)	Nitrates (µg/L)	Sulfates (µg/L)	Methane (µg/L)	Dissolved Oxygen (µg/L)
SC DHEC RBSL		15	N/E	N/E	N/E	N/E	N/E
MW-11DD	9/11/2008	N/D	N/D	N/D	72,900	N/T	1.39
	9/10/2009	6.2	N/T	N/T	N/T	N/T	2.22
MW-11DDD	9/10/2009	**18.6**	N/T	N/T	N/T	N/T	1.16
MW-12	4/20/2007	4.60	N/D	900	N/D	N/D	5.01
	9/10/2008	**64.3**	N/D	2,530	N/D	N/T	5.54
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	2.46
MW-13	4/20/2007	**50.0**	24,000	N/D	N/D	N/D	0.68
	9/10/2008	Dry	Dry	Dry	Dry	Dry	Dry
	9/9/2009	Dry	Dry	Dry	Dry	Dry	Dry
MW-13R	9/9/2009	**45.8**	N/T	N/T	N/T	N/T	0.58
MW-14	4/20/2007	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2008	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2009	6.5	N/T	N/T	N/T	N/T	0.73
MW-14D	9/11/2008	N/D	N/D	N/D	7,410	N/T	1.01
	9/10/2009	<5.0	N/T	N/T	N/T	N/T	0.87
MW-15	4/20/2007	3.2	4,600	N/D	N/D	N/D	0.71
	9/10/2008	**113**	940	N/D	N/D	N/T	1.14
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	0.77
MW-16	4/18/2007	4.6	18,000	N/D	N/D	N/D	0.46
	9/9/2008	N/T	N/T	N/T	N/T	N/T	N/T
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	0.22
MW-17	4/18/2007	2.9	410	490	N/D	N/D	3.78
	9/10/2008	N/D	N/D	971	N/D	N/T	0.60
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	0.32
MW-18	4/20/2007	N/D	4,400	840	N/D	N/D	4.20
	9/10/2008	**26.9**	N/D	1110	N/D	N/T	3.08
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	1.53
MW-19	4/20/2007	1.6	N/D	N/D	N/D	N/D	1.05
	9/11/2008	**40.8**	N/D	N/D	N/D	N/T	0.75
	9/9/2009	**169**	N/T	N/T	N/T	N/T	0.63
MW-20	4/20/2007	N/D	2,500	N/D	N/D	N/D	1.05
	9/12/2008	14.8	N/D	N/D	29,700	N/T	2.02
	9/9/2009	**19.0**	N/T	N/T	N/T	N/T	2.42

Prepared By: IAI
Checked By:TZS

TABLE 6A

Hystorical Groundwater Analytical Data - (Total Lead and Intrinsic Parameters)
Moorhead Oil Company - Former KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #35670
BLE Project Number J09-3661-04

Well ID	Date Sampled	Lead (µg/L)	Ferrous Iron (µg/L)	Nitrates (µg/L)	Sulfates (µg/L)	Methane (µg/L)	Dissolved Oxygen (µg/L)
SC DHEC RBSL		15	N/E	N/E	N/E	N/E	N/E
MW-21	4/20/2007	N/D	13,000	N/D	N/D	N/D	0.81
	9/11/2008	N/D	2,400	N/D	N/D	N/T	1.13
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	0.32
MW-22	4/20/2007	N/D	10,000	N/D	N/D	N/D	0.98
	9/11/2008	N/D	2,190	N/D	N/D	N/T	1.09
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	0.42
MW-23	4/20/2007	1.2	18,000	N/D	N/D	N/D	0.82
	9/11/2008	N/D	930	N/D	N/D	N/T	1.12
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	0.72
MW-24	4/20/2007	10.0	22,000	N/D	16,000	N/D	1.82
	9/12/2008	N/D	N/D	N/D	21,200	N/T	1.99
	9/9/2009	6.2	N/T	N/T	N/T	N/T	2.48
MW-25	4/20/2007	N/D	500	N/D	N/D	N/D	3.22
	9/11/2008	**41.6**	N/D	607	N/D	N/T	1.69
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	2.39
MW-26	4/20/2007	1.9	1,800	N/D	13,000	N/D	3.78
	9/12/2008	**29.0**	N/D	N/D	6,440	N/T	2.66
	9/9/2009	**15.2**	N/T	N/T	N/T	N/T	0.49
MW-27	4/20/2007	1.8	290	N/D	N/D	N/D	3.23
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry
	9/9/2009	Dry	Dry	Dry	Dry	Dry	Dry
MW-27R	9/8/2009	**75.5**	N/T	N/T	N/T	N/T	3.60
MW-27D	9/8/2009	**22.9**	N/T	N/T	N/T	N/T	1.49
MW-27DD	9/8/2009	5.2	N/T	N/T	N/T	N/T	1.34
MW-28	4/20/2007	N/D	N/D	330	N/D	N/D	2.64
	9/11/2008	**23.5**	N/D	N/D	N/D	N/T	1.36
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	3.91
MW-29	4/20/2007	N/D	150	540	N/D	N/D	5.40
	9/11/2008	N/D	260	N/D	N/D	N/T	0.96
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	2.55
MW-30	4/20/2007	1.2	N/D	N/D	N/D	N/D	7.74
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry
	9/8/2009	Dry	Dry	Dry	Dry	Dry	Dry

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TABLE 6A

Hystorical Groundwater Analytical Data - (Total Lead and Intrinsic Parameters)
Moorhead Oil Company - Former KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #35670
BLE Project Number J09-3661-04

Well ID	Date Sampled	Lead (µg/L)	Ferrous Iron (µg/L)	Nitrates (µg/L)	Sulfates (µg/L)	Methane (µg/L)	Dissolved Oxygen (µg/L)
SC DHEC RBSL		15	N/E	N/E	N/E	N/E	N/E
MW-30R	9/8/2009	**180**	N/T	N/T	N/T	N/T	5.51
MW-31	4/20/2007	5.0	N/D	N/D	N/D	N/D	7.15
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry
	9/8/2009	Dry	Dry	Dry	Dry	Dry	Dry
MW-31R	9/8/2009	**218**	N/T	N/T	N/T	N/T	0.76
MW-32	4/20/2007	2.3	180	770	N/D	N/D	7.67
	9/9/2008	Dry	Dry	Dry	Dry	Dry	Dry
	9/8/2009	Dry	Dry	Dry	Dry	Dry	Dry
MW-32R	9/8/2009	**38.2**	N/T	N/T	N/T	N/T	4.76
MW-33	9/11/2008	**77.4**	N/D	N/D	N/D	N/T	6.75
	9/8/2009	<5.0	N/T	N/T	N/T	N/T	3.49
MW-33D	9/8/2009	10.1	N/T	N/T	N/T	N/T	5.47
MW-33DD	9/8/2009	<5.0	N/T	N/T	N/T	N/T	1.81
MW-34	9/11/2008	**48.5**	N/D	1,070	N/D	N/T	8.11
	9/8/2009	<5.0	N/T	N/T	N/T	N/T	3.01
MW-35	9/12/2008	**23.0**	N/D	1,860	5,820	N/T	5.61
	9/8/2009	**38.4**	N/T	N/T	N/T	N/T	4.41
MW-36	9/12/2008	**24.5**	320	1,650	N/D	N/T	4.51
	9/8/2009	**29.8**	N/T	N/T	N/T	N/T	2.21
MW-37	9/12/2008	N/D	N/D	N/D	11,000	N/T	1.86
	9/10/2009	<5.0	N/T	N/T	N/T	N/T	0.54
MW-37D	9/10/2009	11.5	N/T	N/T	N/T	N/T	0.77
MW-38	9/12/2008	**18.9**	N/D	74.4	519	N/T	4.72
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	1.98
MW-39	9/11/2008	**17.3**	N/D	N/D	40,600	N/T	1.10
	9/9/2009	**112**	N/T	N/T	N/T	N/T	0.38
MW-40	9/11/2008	**37.5**	680	1,250	19,600	N/T	0.98
	9/9/2009	**57.2**	N/T	N/T	N/T	N/T	0.32
MW-41	9/11/2008	**33.2**	650	N/D	68,300	N/T	1.22
	9/9/2009	<5.0	N/T	N/T	N/T	N/T	0.38
MW-42	9/12/2008	**22.8**	N/D	N/D	16,700	N/T	1.60
	9/8/2009	**23.4**	N/T	N/T	N/T	N/T	1.14

Prepared By: IAI
Checked By:TZS

TABLE 6A

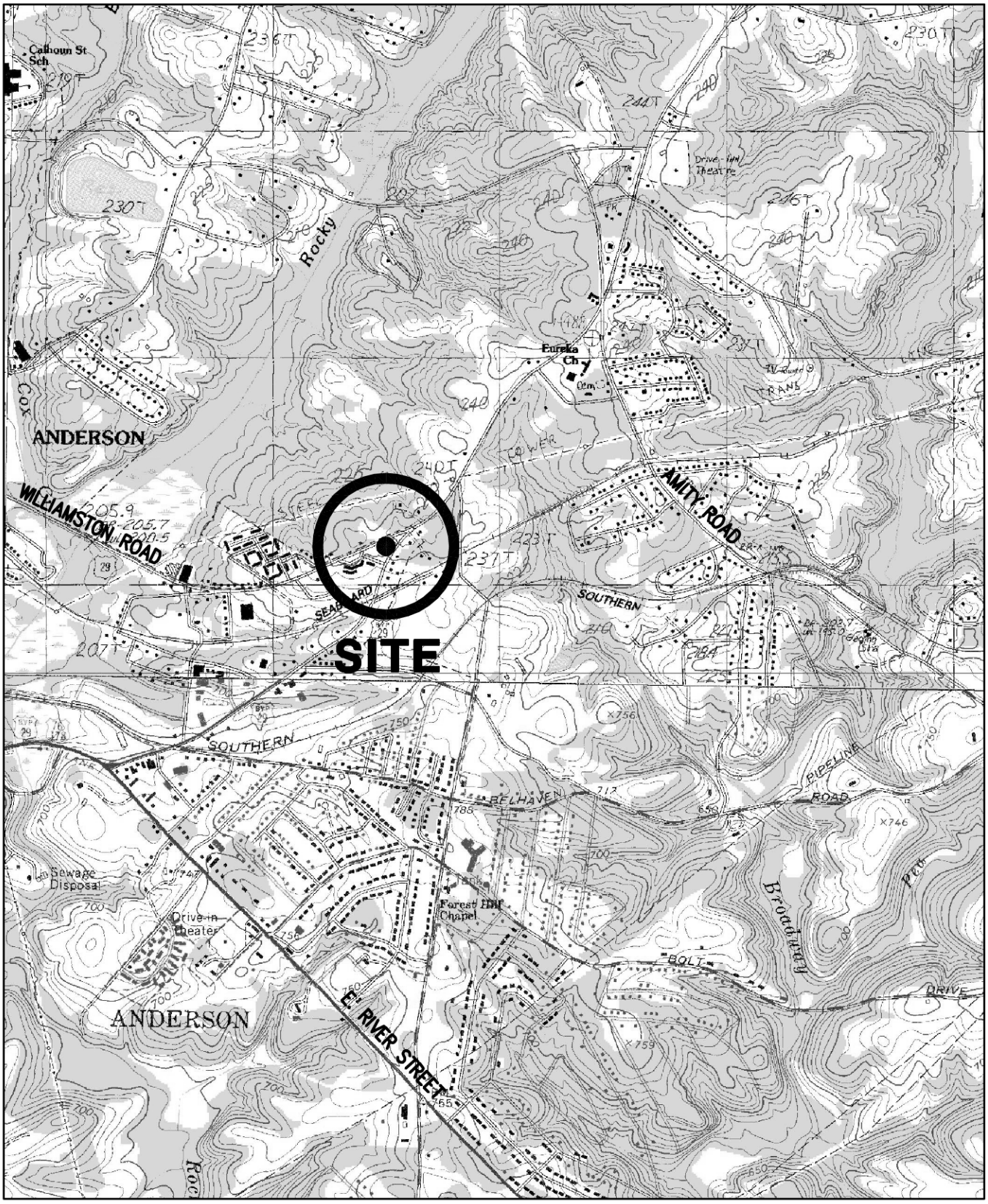
Hystorical Groundwater Analytical Data - (Total Lead and Intrinsic Parameters)
Moorhead Oil Company - Former KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #35670
BLE Project Number J09-3661-04

Well ID	Date Sampled	Lead (µg/L)	Ferrous Iron (µg/L)	Nitrates (µg/L)	Sulfates (µg/L)	Methane (µg/L)	Dissolved Oxygen (µg/L)
SC DHEC RBSL		15	N/E	N/E	N/E	N/E	N/E
MW-43	9/11/2008	**21.0**	N/D	1,950	N/D	N/T	6.04
	9/8/2009	<5.0	N/T	N/T	N/T	N/T	3.17
MW-44	9/12/2008	**235**	N/D	1,030	N/D	N/T	4.77
	9/8/2009	<5.0	N/T	N/T	N/T	N/T	3.07
MW-45	9/10/2009	**55.7**	N/T	N/T	N/T	N/T	1.46

Notes:
RBSL = Risk-Based Screening Level
Shaded cells indicate COC concentrations that exceed RBSLs
MW-1 was compromised during grout injection for the installation of MW-1D. The well was properly abandoned and MW-1R was installed in its place.
µg/L - micrograms per liter - parts per billion
mg/L - milligrams per liter - parts per million
N/D = Not Detected (at the laboratory detection limit)
N/T = Not Tested
N/E = A RBSL has not been established for this constituent
*-Recoveries outside control limits due to high level of target analyte in the spiked sample.

Prepared By: IAI
Checked By:TZS

FIGURES

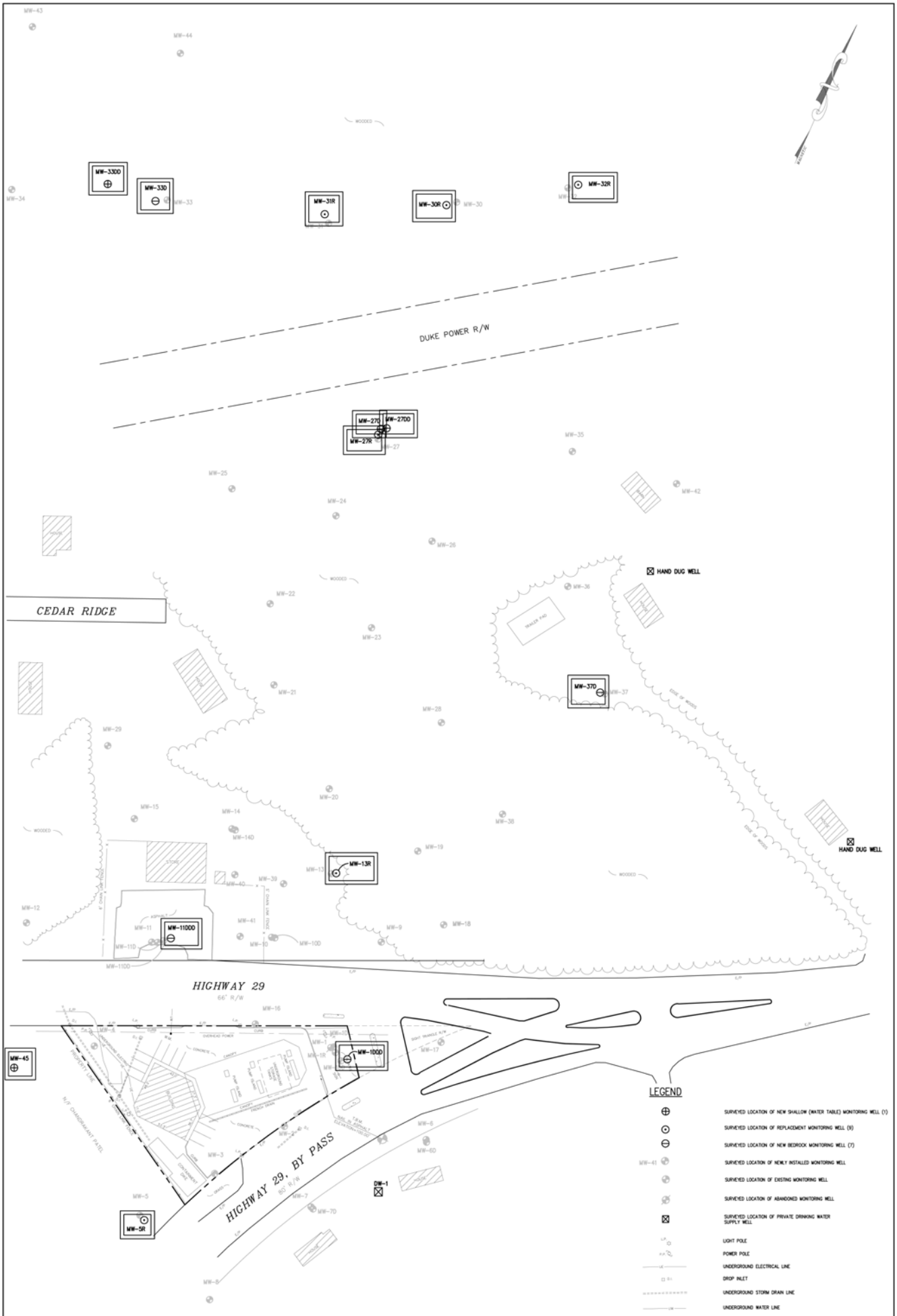


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, BELTON WEST AND SAYLORS CROSSROADS, S.C. QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: ACE	DATE: 11-16-09	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP MOORHEAD OIL COMPANY - KMO 119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
CHECKED: TJB	CAD: MOOREHEAD-04SLM		
APPROVED:	JOB NO: J09-3661-04		FIGURE 1



REFERENCE:
DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY EAS PROFESSIONALS, INC. DATED 9-14-09.

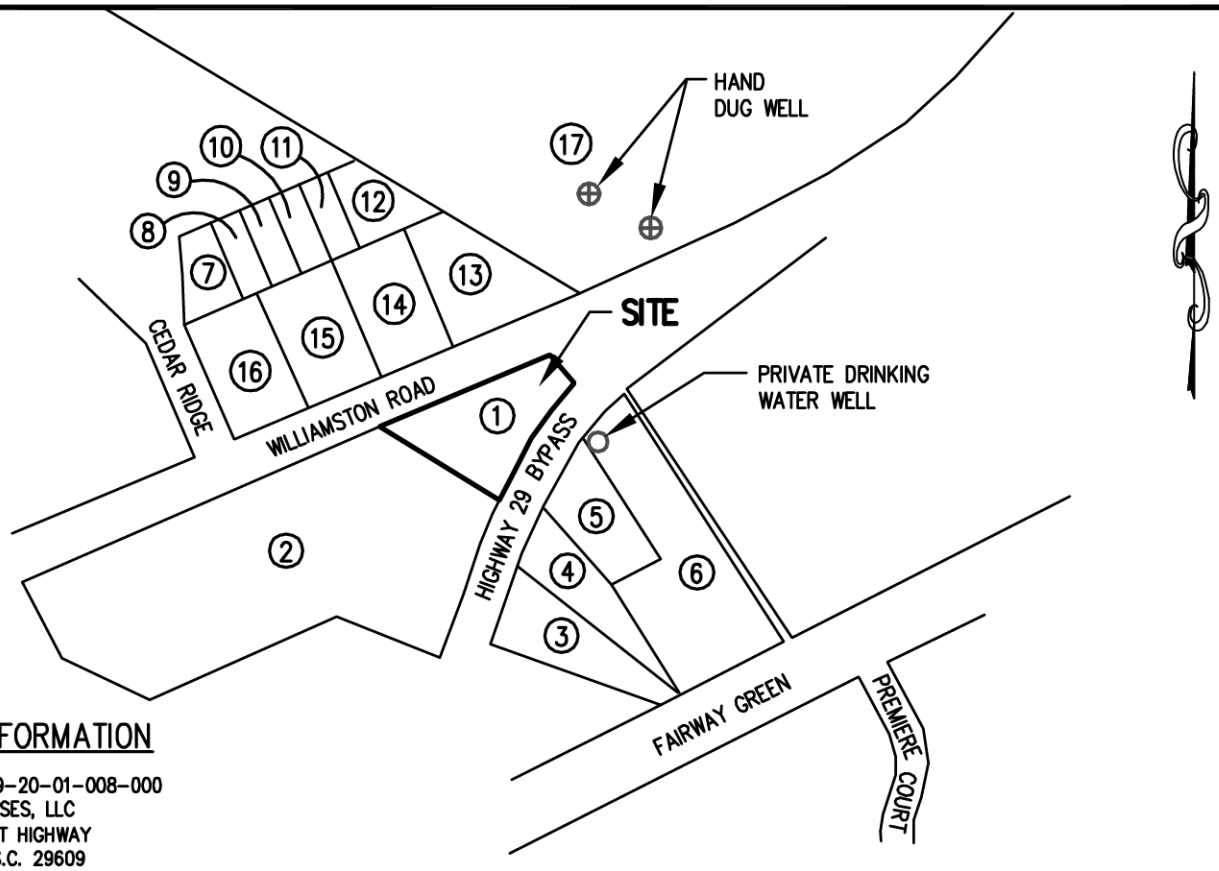
REVISIONS		
No.	DESCRIPTION	BY
1		
2		

DRAWN	ACE
CHECKED	TJB
APPROVED	
DATE	12-09-09
FILE	KM0119-04NSAM
JOB NO.	J09-3661-04

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

SITE ASSESSMENT MAP
FORMER KMO #119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE NO. 2



PARCEL INFORMATION

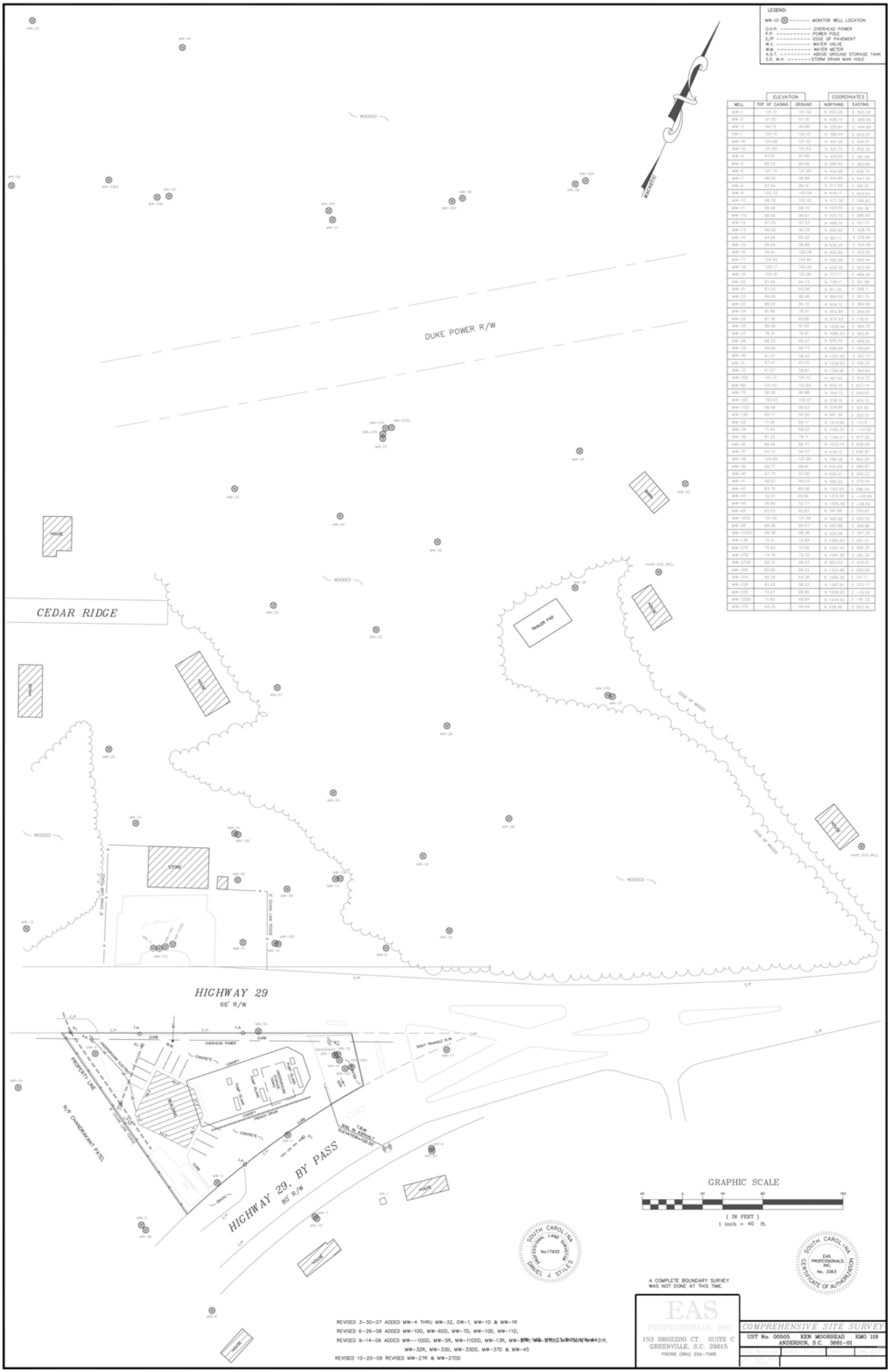
1. TAX MAP #149-20-01-008-000
   DEV ENTERPRISES, LLC
   1304 POINSETT HIGHWAY
   GREENVILLE, S.C. 29609
   PHYSICAL ADDRESS: 1312 WILLIAMSTON ROAD
2. TAX MAP #149-20-01-009-000
   KARTIK PATEL
   1310 WILLIAMSTON ROAD
   ANDERSON, S.C. 29621
   PHYSICAL ADDRESS: 1310 WILLIAMSTON ROAD
3. TAX MAP #149-21-02-003-000
   GLENDA POOR LIFE ESTATE
   608 HIGHWAY 29 NORTH
   ANDERSON, S.C. 29621
   PHYSICAL ADDRESS: 608 HIGHWAY 29 BY PASS
4. TAX MAP #149-21-02-004-000
   ROSIE VICKERY AND WALTON C. ALLEN ESTATE
   12703 E. 40TH STREET, APARTMENT 907
   TULSA, OK 74146-3511
   PHYSICAL ADDRESS: 610 HIGHWAY 29 BY PASS
5. TAX MAP #149-21-02-005-000
   COREY D. JULIEN
   612 HIGHWAY 29 NORTH
   ANDERSON, S.C. 29624
   PHYSICAL ADDRESS: 612 HIGHWAY 29 BY PASS
6. TAX MAP #149-21-02-008-000
   JAMES R. KAY
   106 GEER DRIVE
   ANDERSON, S.C. 29621-6518
   PHYSICAL ADDRESS: 106 GEER DRIVE
7. TAX MAP #149-23-02-001-000
   BEATRICE G. AND CHARLES S. BRYANT
   153 WOODCREST LANE
   GASTON, S.C. 29053
   PHYSICAL ADDRESS: 100 CEDAR RIDGE
8. TAX MAP #149-23-02-002-000
   THI PROPERTY DEVELOPMENT, LLC
   149 TINY GREER ROAD
   HONEA PATH, S.C. 29654
   PHYSICAL ADDRESS: 102 CEDAR RIDGE
9. TAX MAP #149-23-02-003-000
   LOIS CHAPMAN
   5491 KEMMIE LANE
   MABLETON, GA. 30126
   PHYSICAL ADDRESS: 104 CEDAR RIDGE
10. TAX MAP #149-23-02-004-000
    THI PROPERTY DEVELOPMENT, LLC
    149 TINY GREER ROAD
    HONEA PATH, S.C. 29654
    PHYSICAL ADDRESS: 106 CEDAR RIDGE
11. TAX MAP #149-23-02-005-000
    THI PROPERTY DEVELOPMENT, LLC
    149 TINY GREER ROAD
    HONEA PATH, S.C. 29654
    PHYSICAL ADDRESS: 108 CEDAR RIDGE
12. TAX MAP #149-23-02-006-000
    CC HAL, LLC
    200 WHITNEY STREET
    EATONTON, GA. 31024
    PHYSICAL ADDRESS: 110 CEDAR RIDGE
13. TAX MAP #149-23-02-007-000
    LARRY N. PRESHER
    2514 McKINLEY DRIVE
    ANDERSON, S.C. 29621-6731
    PHYSICAL ADDRESS: LOT F U.S. HIGHWAY 29
14. TAX MAP #149-23-02-008-000
    LARRY N. PRESHER
    2514 McKINLEY DRIVE
    ANDERSON, S.C. 29621
    PHYSICAL ADDRESS: LOT E U.S. HIGHWAY 29
15. TAX MAP #149-23-02-009-000
    LARRY N. PRESHER
    2514 McKINLEY DRIVE
    ANDERSON, S.C. 29621-6731
    PHYSICAL ADDRESS: LOT D U.S. HIGHWAY 29
16. TAX MAP #149-23-02-010-000
    LARRY N. PRESHER
    2514 McKINLEY DRIVE
    ANDERSON, S.C. 29621-6731
    PHYSICAL ADDRESS: LOT C U.S. HIGHWAY 29
17. TAX MAP #175-00-09-006-000
    GARY J. HARPER, JR.
    712 TIMBERLAKE ROAD
    ANDERSON, S.C. 29625
    PHYSICAL ADDRESS: HIGHWAY 29S

300 150 0 300 600

APPROXIMATE SCALE IN FEET

REFERENCE:
ANDERSON COUNTY, S.C. GOVERNMENT.

DRAWN: ACE	DATE: 11-16-09	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	TAX MAP MOORHEAD OIL COMPANY – KMO 119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA	FIGURE 3
CHECKED: TJB	CAD: KMO119-04TAX			
APPROVED:	JOB NO: J09-3661-04			

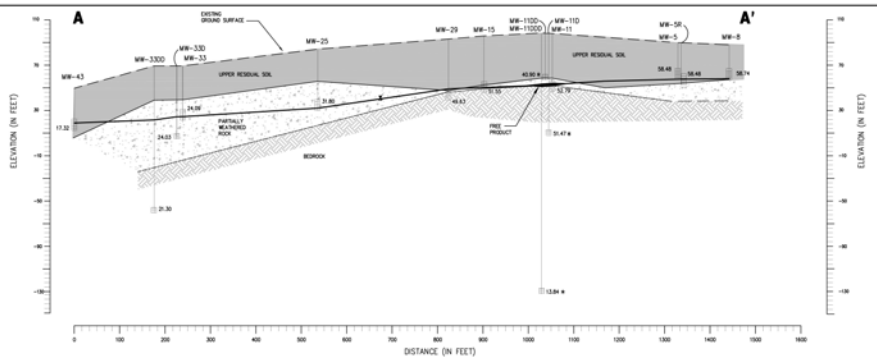


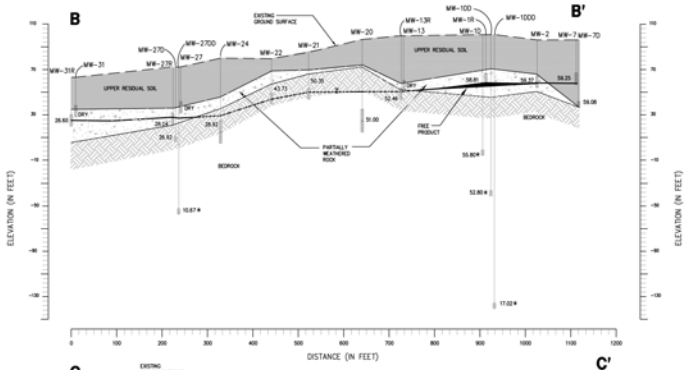
WELL	ELEVATION TOP OF CASING	ELEVATION GROUND	COORDINATES NORTHING	COORDINATES EASTING
MW-1	101.24	101.50	N 100.00	E 500.00
MW-2	97.00	97.16	N 438.14	E 489.55
MW-3	94.72	94.80	N 335.91	E 444.65
DW-1	100.10	100.10	N 386.44	E 603.07
MW-1R	100.82	101.32	N 467.29	E 506.21
MW-10	101.50	101.63	N 561.73	E 502.32
MW-4	97.61	97.80	N 454.00	E 281.09
MW-5	89.33	89.48	N 266.62	E 393.84
MW-6	101.74	101.99	N 454.28	E 625.75
MW-7	96.50	96.68	N 344.85	E 547.34
MW-8	87.94	88.16	N 217.53	E 491.91
MW-9	102.33	102.54	N 618.17	E 503.03
MW-10	99.78	100.02	N 577.36	E 399.93
MW-11	98.46	98.74	N 533.55	E 291.36
MW-11D	98.49	98.67	N 535.73	E 296.93
MW-12	97.25	97.53	N 489.76	E 167.77
MW-13	99.08	99.25	N 660.60	E 428.75
MW-14	94.99	95.22	N 661.11	E 316.60
MW-15	96.64	96.88	N 630.25	E 224.45
MW-16	99.91	100.08	N 490.65	E 425.60
MW-17	103.40	103.90	N 550.28	E 599.44
MW-18	108.17	105.09	N 659.76	E 553.50
MW-19	104.15	105.06	N 717.11	E 499.24
MW-20	97.96	94.73	N 736.11	E 391.89
MW-21	97.23	93.56	N 811.20	E 299.11
MW-22	94.09	80.46	N 884.50	E 261.15
MW-23	88.00	84.72	N 904.13	E 364.56
MW-24	81.89	78.31	N 982.84	E 285.65
MW-25	87.36	83.86	N 974.63	E 178.51
MW-26	85.06	81.63	N 1008.94	E 384.72
MW-27	76.31	72.91	N 1080.93	E 292.81
MW-28	88.33	85.07	N 845.33	E 468.05
MW-29	95.60	95.77	N 686.69	E 168.84
MW-30	61.57	58.42	N 1331.92	E 267.77
MW-31	67.41	64.10	N 1259.63	E 158.33
MW-32	61.57	58.61	N 1361.81	E 364.64
MW-100	101.13	101.13	N 481.93	E 514.72
MW-60	101.43	101.84	N 462.10	E 627.14
MW-70	96.56	96.88	N 343.72	E 549.97
MW-110	100.63	100.37	N 578.16	E 403.12
MW-1100	98.48	98.53	N 529.99	E 301.60
MW-1400	95.17	95.20	N 661.39	E 322.12
MW-33	71.29	68.17	N 1214.66	E -0.16
MW-34	71.40	68.02	N 1160.35	E -147.81
MW-35	81.22	78.11	N 1148.41	E 477.20
MW-36	89.46	89.77	N 1023.14	E 528.59
MW-37	94.10	94.07	N 939.12	E 606.87
MW-38	104.99	101.99	N 786.08	E 562.20
MW-39	98.77	98.91	N 631.69	E 366.87
MW-40	97.79	97.95	N 620.01	E 340.23
MW-41	98.97	99.03	N 565.23	E 370.45
MW-42	83.75	80.58	N 1182.65	E 586.64
MW-43	52.51	49.58	N 1378.08	E -191.84
MW-44	56.80	53.77	N 1355.48	E -48.42
MW-45	92.03	92.62	N 941.68	E 224.87
MW-100D	101.56	101.56	N 465.98	E 520.05
MW-5R	89.38	89.57	N 263.86	E 398.86
MW-1100D	98.38	98.38	N 535.08	E 307.25
MW-13R	75.51	72.84	N 1084.82	E 291.12
MW-27R	74.93	72.09	N 1084.42	E 295.35
MW-27D	74.79	72.32	N 1091.38	E 291.30
MW-27DD	69.10	66.47	N 1653.01	E 433.01
MW-32R	60.80	58.23	N 1324.96	E 359.59
MW-31R	66.29	63.36	N 1266.39	E 151.11
MW-32R	61.23	58.22	N 1397.91	E 372.77
MW-330	72.37	68.85	N 1208.85	E -10.50
MW-3300	71.65	68.64	N 1204.93	E -61.53
MW-370	94.25	94.49	N 936.48	E 602.16

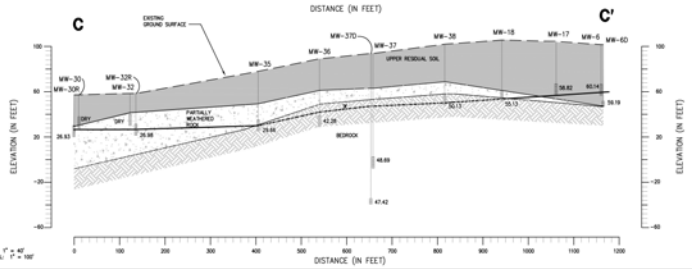
REVISED 3-30-07 ADDED MW-4 THRU MW-32, DW-1, MW-10 & MW-1R
REVISED 6-26-08 ADDED MW-100, MW-600, MW-70, MW-100, MW-110,
REVISED 9-14-09 ADDED MW-1100, MW-5R, MW-1100D, MW-13R, MW-[illegible] MW-32R, MW-330, MW-3300, MW-370 & MW-45
REVISED 10-20-09 REVISED MW-27R & MW-27DD

EAS PROFESSIONALS, INC.
153 BROZZINI CT. SUITE C
GREENVILLE, S.C. 29615
PHONE (864) 234-7368

COMPREHENSIVE SITE SURVEY
UST No. 00505 KEN MOORHEAD KMO 119
ANDERSON, S.C. 3861-01



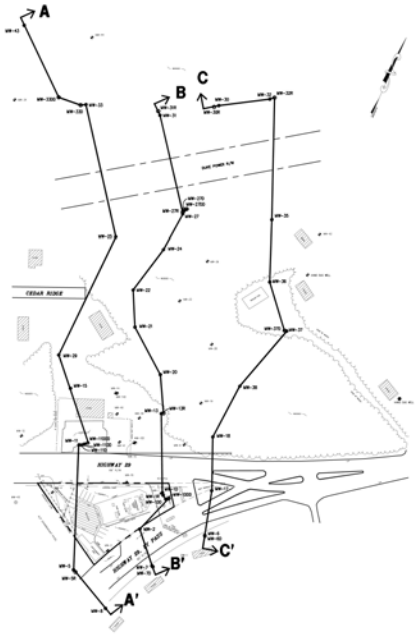




SCALES:
VERTICAL: 1" = 40'
HORIZONTAL: 1" = 100'

LEGEND

- GROUNDWATER LEVEL (MEASURED ON 9-9-09)
- 43.73 GROUNDWATER ELEVATION (IN FEET)
- 50.21 ✱ GROUNDWATER ELEVATION NOT USED FOR CONTOURING DUE TO THE DEPTH OF THE SCREENED INTERVAL
- SCREENED INTERVAL



PROFILE LOCATION PLAN

SCALE: 1" = 100'

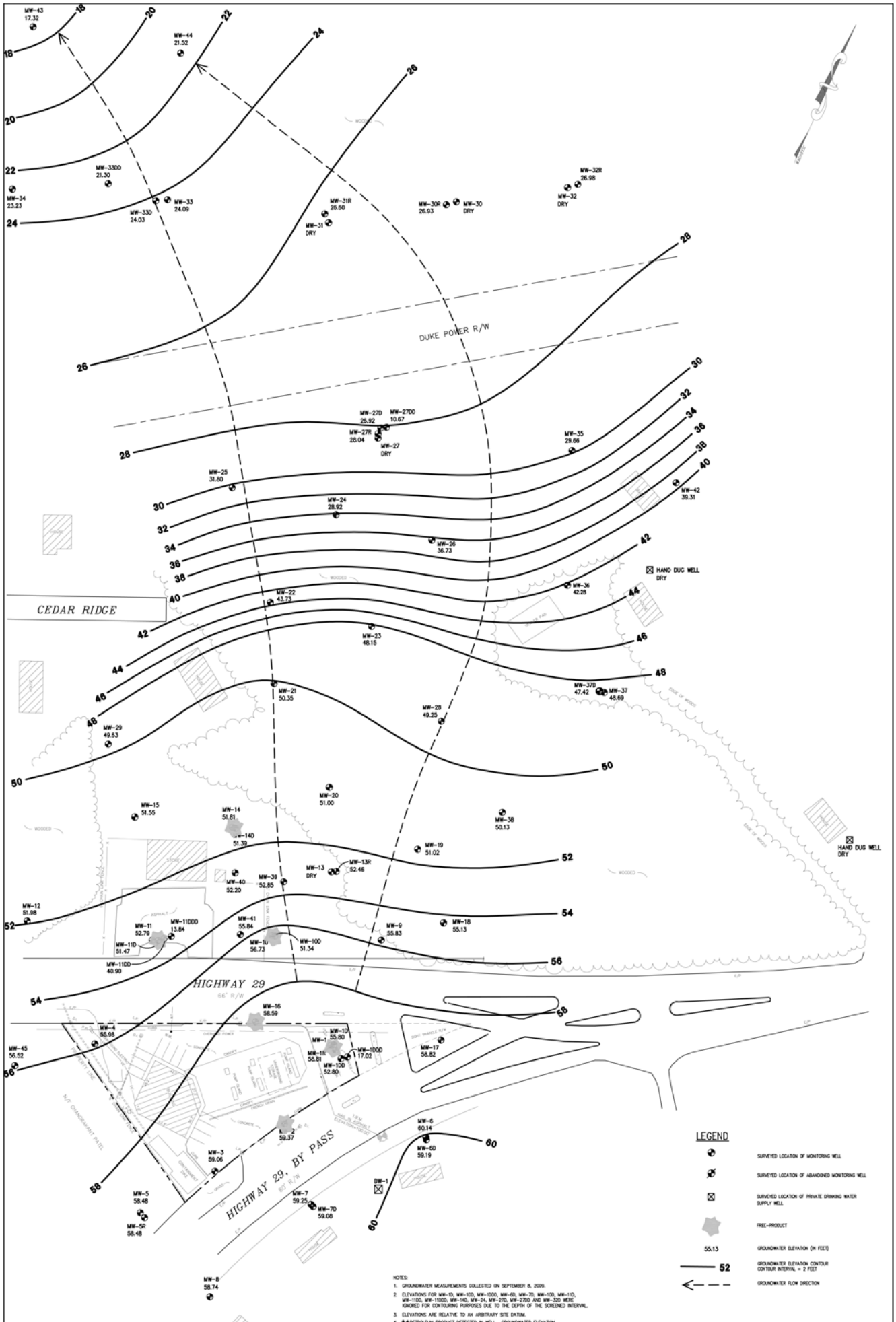
REVISIONS		
No.	DESCRIPTION	BY

DRAWN:	ACE
CHECKED:	TJB
APPROVED:	
DATE:	11-4-09
CAD FILE:	KMO119-04PROFR
JOB NO.	J09-3661-04

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
1804 PICKENS COURT
GREENVILLE, SOUTH CAROLINA 29609
PHONE: (864)288-1264 FAX: (864)288-1265

SUBSURFACE GEOLOGIC PROFILES A-A', B-B' AND C-C'
FORMER KMG #119
UST PERMIT #20325
ANDERSON, SOUTH CAROLINA

FIGURE NO.
5



REVISIONS		
No.	DESCRIPTION	BY
1		
2		

DRAWN	ACE
CHECKED	TJB
APPROVED	
DATE	10-20-09
FILE	KM0119-04POT
JOB NO.	J09-3661-04

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

GROUNDWATER POTENTIOMETRIC MAP – SEPTEMBER 8, 2009
FORMER KMO #119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

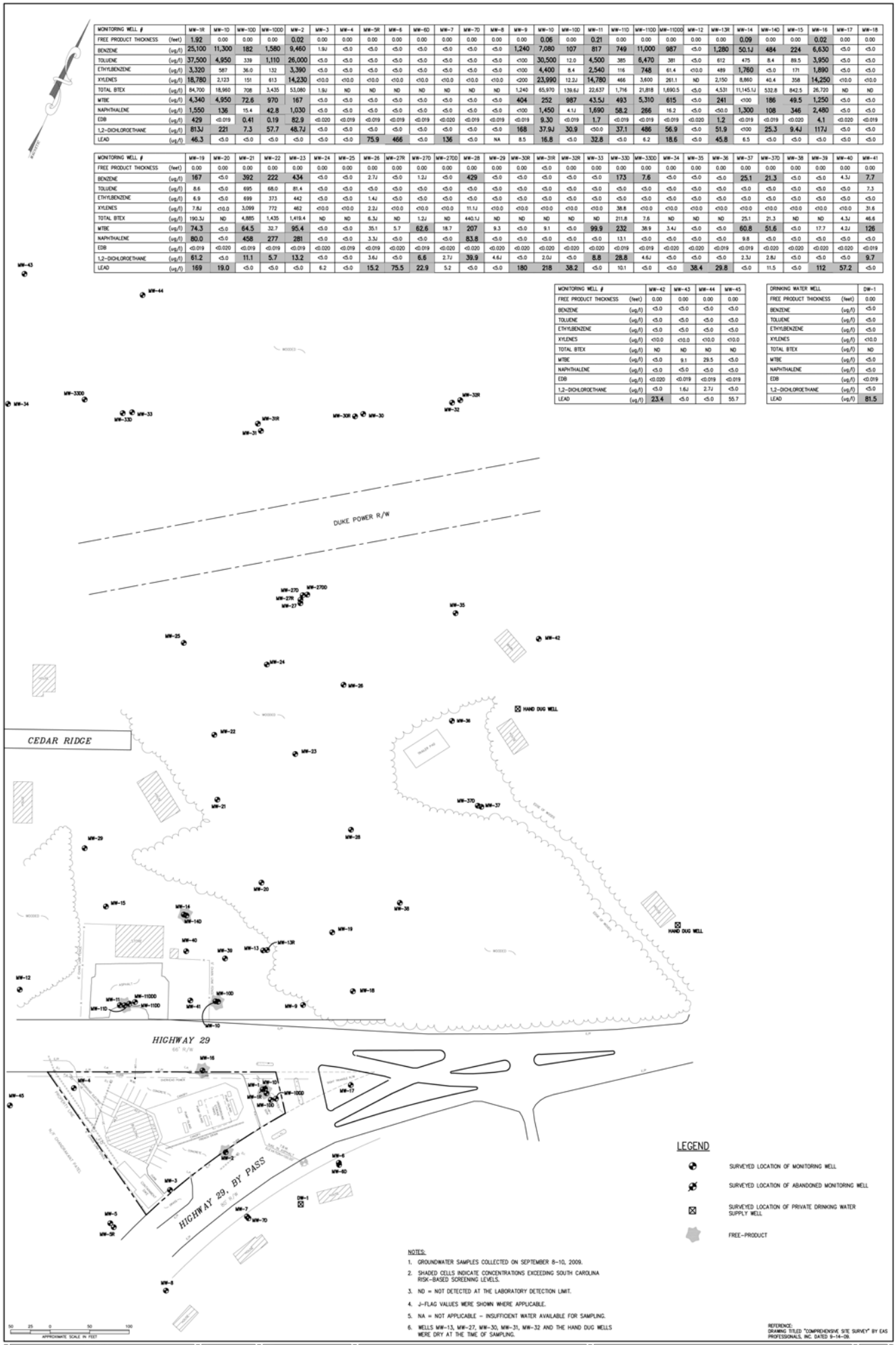
FIGURE NO. 6

MONITORING WELL #		MW-1R	MW-1D	MW-1DD	MW-1DDD	MW-2	MW-3	MW-4	MW-5R	MW-6	MW-6D	MW-7	MW-7D	MW-8	MW-9	MW-10	MW-10D	MW-11	MW-11D	MW-11DD	MW-11DDD	MW-12	MW-13R	MW-14	MW-14D	MW-15	MW-16	MW-17	MW-18
FREE PRODUCT THICKNESS	(feet)	1.92	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.02	0.00	0.00
BENZENE	(ug/l)	25,100	11,300	182	1,580	9,460	1.9J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1,240	7,080	107	817	749	11,000	987	<5.0	1,280	50.1J	484	224	6,630	<5.0	<5.0
TOLUENE	(ug/l)	37,500	4,950	339	1,110	26,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<100	30,500	12.0	4,500	385	6,470	381	<5.0	612	475	8.4	89.5	3,950	<5.0	<5.0
ETHYLBENZENE	(ug/l)	3,320	587	36.0	132	3,390	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<100	4,400	8.4	2,540	116	748	61.4	<10.0	489	1,760	<5.0	171	1,890	<5.0	<5.0
XYLENES	(ug/l)	18,780	2,123	151	613	14,230	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<200	23,990	12.2J	14,780	466	3,600	261.1	ND	2,150	8,860	40.4	358	14,250	<10.0	<10.0
TOTAL BTEX	(ug/l)	84,700	18,960	708	3,435	53,080	1.9J	ND	ND	ND	ND	ND	ND	ND	1,240	65,970	139.6J	22,637	1,716	21,818	1,690.5	<5.0	4,531	11,145.1J	532.8	842.5	26,720	ND	ND
MTBE	(ug/l)	4,340	4,950	72.6	970	167	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	404	252	987	43.5J	493	5,310	615	<5.0	241	<100	186	49.5	1,250	<5.0	<5.0
NAPHTHALENE	(ug/l)	1,550	136	15.4	42.8	1,030	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<100	1,450	4.1J	1,690	58.2	266	16.2	<5.0	<50.0	1,300	108	346	2,480	<5.0	<5.0
EDB	(ug/l)	429	<0.019	0.41	0.19	82.9	<0.020	<0.019	<0.019	<0.019	<0.019	<0.019	<0.020	<0.019	<0.019	9.30	<0.019	1.7	<0.019	<0.019	<0.019	<0.020	1.2	<0.019	<0.019	<0.020	4.1	<0.020	<0.019
1,2-DICHLOROETHANE	(ug/l)	813J	221	7.3	57.7	48.7J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	168	37.9J	30.9	<50.0	37.1	486	56.9	<5.0	51.9	<100	25.3	9.4J	117J	<5.0	<5.0
LEAD	(ug/l)	46.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	75.9	466	<5.0	136	<5.0	NA	8.5	16.8	<5.0	32.8	<5.0	6.2	18.6	<5.0	45.8	6.5	<5.0	<5.0	<5.0	<5.0	<5.0

MONITORING WELL #		MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26	MW-27R	MW-27D	MW-27DD	MW-28	MW-29	MW-30R	MW-31R	MW-32R	MW-33	MW-33D	MW-33DD	MW-34	MW-35	MW-36	MW-37	MW-37D	MW-38	MW-39	MW-40	MW-41
FREE PRODUCT THICKNESS	(feet)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<5.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BENZENE	(ug/l)	167	<5.0	392	222	434	<5.0	<5.0	2.7J	<5.0	1.2J	<5.0	429	<5.0	<5.0	<5.0	<5.0	<5.0	173	7.6	<5.0	<5.0	<5.0	25.1	21.3	<5.0	<5.0	4.3J	7.7
TOLUENE	(ug/l)	8.6	<5.0	695	68.0	81.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7.3
ETHYLBENZENE	(ug/l)	6.9	<5.0	699	373	442	<5.0	<5.0	1.4J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
XYLENES	(ug/l)	7.8J	<10.0	3,099	772	462	<10.0	<10.0	2.2J	<10.0	<10.0	<10.0	11.1J	<10.0	<10.0	<10.0	<10.0	38.8	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	31.6
TOTAL BTEX	(ug/l)	190.3J	ND	4,885	1,435	1,419.4	ND	ND	6.3J	ND	1.2J	ND	440.1J	ND	ND	ND	ND	211.8	7.6	ND	ND	ND	ND	25.1	21.3	ND	ND	4.3J	46.6
MTBE	(ug/l)	74.3	<5.0	64.5	32.7	95.4	<5.0	<5.0	35.1	5.7	62.6	18.7	207	9.3	<5.0	9.1	<5.0	99.9	232	38.9	3.4J	<5.0	<5.0	60.8	51.6	<5.0	17.7	4.2J	126
NAPHTHALENE	(ug/l)	80.0	<5.0	458	277	281	<5.0	<5.0	3.3J	<5.0	<5.0	<5.0	83.8	<5.0	<5.0	<5.0	<5.0	13.1	<5.0	<5.0	<5.0	<5.0	<5.0	9.8	<5.0	<5.0	<5.0	<5.0	<5.0
EDB	(ug/l)	<0.019	<0.020	<0.019	<0.019	<0.019	<0.020	<0.019	<0.019	<0.020	<0.019	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.019	<0.019	<0.020	<0.020	<0.019	<0.019	<0.019	<0.020	<0.020	<0.020	<0.019
1,2-DICHLOROETHANE	(ug/l)	61.2	<5.0	11.1	5.7	13.2	<5.0	<5.0	3.6J	<5.0	6.6	2.7J	39.9	4.6J	<5.0	2.0J	<5.0	8.8	28.8	4.6J	<5.0	<5.0	<5.0	2.3J	2.8J	<5.0	<5.0	<5.0	9.7
LEAD	(ug/l)	169	19.0	<5.0	<5.0	<5.0	6.2	<5.0	15.2	75.5	22.9	5.2	<5.0	<5.0	180	218	38.2	<5.0	10.1	<5.0	<5.0	38.4	29.8	<5.0	11.5	<5.0	112	57.2	<5.0

MONITORING WELL #		MW-42	MW-43	MW-44	MW-45
FREE PRODUCT THICKNESS	(feet)	0.00	0.00	0.00	0.00
BENZENE	(ug/l)	<5.0	<5.0	<5.0	<5.0
TOLUENE	(ug/l)	<5.0	<5.0	<5.0	<5.0
ETHYLBENZENE	(ug/l)	<5.0	<5.0	<5.0	<5.0
XYLENES	(ug/l)	<10.0	<10.0	<10.0	<10.0
TOTAL BTEX	(ug/l)	ND	ND	ND	ND
MTBE	(ug/l)	<5.0	9.1	29.5	<5.0
NAPHTHALENE	(ug/l)	<5.0	<5.0	<5.0	<5.0
EDB	(ug/l)	<0.020	<0.019	<0.019	<0.019
1,2-DICHLOROETHANE	(ug/l)	<5.0	1.6J	2.7J	<5.0
LEAD	(ug/l)	23.4	<5.0	<5.0	55.7

DRINKING WATER WELL		DW-1
FREE PRODUCT THICKNESS	(feet)	0.00
BENZENE	(ug/l)	<5.0
TOLUENE	(ug/l)	<5.0
ETHYLBENZENE	(ug/l)	<5.0
XYLENES	(ug/l)	<10.0
TOTAL BTEX	(ug/l)	ND
MTBE	(ug/l)	<5.0
NAPHTHALENE	(ug/l)	<5.0
EDB	(ug/l)	<0.019
1,2-DICHLOROETHANE	(ug/l)	<5.0
LEAD	(ug/l)	81.5



LEGEND

- SURVEYED LOCATION OF MONITORING WELL
- SURVEYED LOCATION OF ABANDONED MONITORING WELL
- SURVEYED LOCATION OF PRIVATE DRINKING WATER SUPPLY WELL
- FREE-PRODUCT

NOTES:

1. GROUNDWATER SAMPLES COLLECTED ON SEPTEMBER 8-10, 2009.
2. SHADED CELLS INDICATE CONCENTRATIONS EXCEEDING SOUTH CAROLINA RISK-BASED SCREENING LEVELS.
3. ND = NOT DETECTED AT THE LABORATORY DETECTION LIMIT.
4. J-FLAG VALUES WERE SHOWN WHERE APPLICABLE.
5. NA = NOT APPLICABLE - INSUFFICIENT WATER AVAILABLE FOR SAMPLING.
6. WELLS MW-13, MW-27, MW-30, MW-31, MW-32 AND THE HAND DUG WELLS WERE DRY AT THE TIME OF SAMPLING.

50 25 0 50 100
APPROXIMATE SCALE IN FEET

REFERENCE:
DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY EAS PROFESSIONALS, INC. DATED 9-14-09.

REVISIONS		
No.	DESCRIPTION	BY
1		
2		

DRAWN	ACE
CHECKED	IAI
APPROVED	
DATE	10-15-09
FILE	KMO119-04GWCOC
JOB NO:	J09-3661-04

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

GROUNDWATER COC MAP
FORMER KMO #119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE NO. 7

APPENDICES

APPENDIX A

DRILLING PROCEDURES AND MONITORING WELL CONSTRUCTION DIAGRAMS

APPENDIX A

MONITORING WELL CONSTRUCTION PROCEDURES

Type II Well

Type II groundwater monitoring wells consisted of 2-inch polyvinyl chloride (PVC) Schedule 40 casing with flush-threaded joints installed in a 8.25-inch nominal diameter augered borehole or 6-inch air rotary borehole. The bottom (5 or 10-foot) section of each well was a manufactured well screen with 0.010-inch wide machined slots. The well screen was installed to the depth of the boring.

Type III Well

In the Type III well installation, a 10-inch nominal diameter boring was advanced through the overburden soils and bedrock using air hammer drilling techniques. A 6-inch diameter PVC casing was installed to the termination depth of each borehole. The annular space between the hole and the 6-inch casing was pressure grouted with a cement/bentonite grout mixture to ground surface. The grout was allowed to set-up and cure for a minimum of 24 hours. After the grout cured, the borings were advanced to a depth of the next occurrence of groundwater. The borings were advanced from the base of the 6-inch casing to a using air hammer drilling techniques. A monitoring well was installed, constructed of 2-inch PVC Schedule 40 casing with flush-threaded joints and a manufactured well screen with 0.010-inch wide machined slots. The well screen was 5 feet in length.

A. General

In the Type II and Type III wells, a washed sand filter pack was emplaced around the outside of the pipe from the bottom of the well casing to at least 2 feet above the top of the well screen. The sand filter pack was used to stabilize the formation and to help yield a less turbid ground-water sample.

A two-foot thick (minimum) bentonite seal was installed on top of the sand filter pack to seal the monitoring well at the desired level. The well annulus was then grouted to the surface with a cement/bentonite grout mixture. A PVC cap and a steel protective cover or steel, bolted manhole cover was secured over each wellhead.

KEY TO SOIL CLASSIFICATIONS AND CONSISTENCY DESCRIPTIONS

BUNNELL-LAMMONS ENGINEERING, INC.
GREENVILLE, SOUTH CAROLINA

Penetration Resistance* Blows per Foot	Relative Density
SANDS	
0 to 4	Very Loose
5 to 10	Loose
11 to 20	Firm
21 to 30	Very Firm
31 to 50	Dense
over 50	Very Dense

Penetration Resistance* Blows per Foot	Consistency
SILTS and CLAYS	
0 to 2	Very Soft
3 to 4	Soft
5 to 8	Firm
9 to 15	Stiff
16 to 30	Very Stiff
31 to 50	Hard
over 50	Very Hard

*ASTM D 1586

Particle Size Identification

Boulder: Greater than 300 mm
Cobble: 75 to 300 mm
Gravel:
Coarse - 19 to 75 mm
Fine - 4.75 to 19 mm
Sand:
Coarse - 2 to 4.75 mm
Medium - 0.425 to 2 mm
Fine - 0.075 to 0.425 mm
Silt & Clay: Less than 0.075 mm

KEY TO DRILLING SYMBOLS

Grab Sample

Split Spoon Sample

Undisturbed Sample

NR = No reaction to HCL

NA = Not applicable

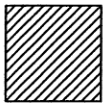
NS = No sample

Groundwater Table at Time of Drilling

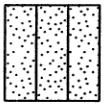
Groundwater Table 24 Hours after Completion of Drilling

KEY TO SOIL CLASSIFICATIONS

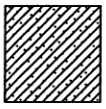
Well-graded Gravel
GW

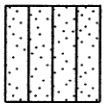

Low Plasticity Clay
CL

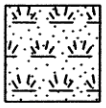
Clayey Silt
MH


Silty Sand
SM

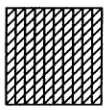
Poorly-graded Gravel
GP

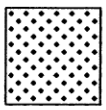

Sandy Clay
CLS


Sandy Silt
MLS


Topsoil
TOPSOIL

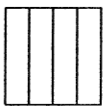
Partially Weathered Rock
BLDRCBBL


Silty Clay
CL-ML

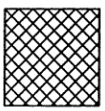

Sand
SW

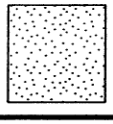
Trash
MUCKPEAT

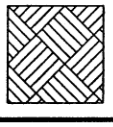
High Plasticity Clay
CH

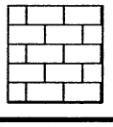

Silt
ML

Clayey Sand
SC


Fill
FILL


Poorly Graded Sand
SP


Bedrock
BEDROCK


Limestone
LIMESTONE

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-1DDD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-16-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 101.56

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 233 AFTER 83 DAYS: ▼ 84.54 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
100 / 0	Red, dry, slightly fine to medium sandy, clayey SILT		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover
95 / 5	Reddish-brown, dry, micaceous, fine to medium sandy SILT with slight clay		Top of casing elev. = 101.56 feet Ground surface elev. = 101.56 feet Elevations are relative to an arbitrary site datum
90 / 10			
85 / 15			
80 / 20			Neat cement, 0 to 223 feet
75 / 25	Reddish-brown, moist, micaceous, fine to medium sandy SILT with slight clay		
70 / 30	PARTIALLY WEATHERED ROCK which sampled as grayish-brown, moist, micaceous, silty, fine to coarse SAND		6-inch outer casing set to 150 feet and grouted to the ground surface
65 / 35			

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-1DDD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-16-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 101.56

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 233 AFTER 83 DAYS: ▼ 84.54 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
60 / 45	**PARTIALLY WEATHERED ROCK which sampled as grayish-brown, moist, micaceous, silty, fine to coarse SAND**		
55 / 50			
50 / 55			
45 / 60	**BEDROCK - Gray and black, biotite gneiss (very fresh rock with minimal fractures)**		Neat cement, 0 to 223 feet
40 / 65			
35 / 70			6-inch outer casing set to 150 feet and grouted to the ground surface
30 / 75			
25			

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LOCATION: Anderson, South Carolina ELEVATION: 101.56

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 233 AFTER 83 DAYS: ▼ 84.54 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
20 / 85			
15 / 90			
10 / 95			
5 / 100	**BEDROCK - Gray and black, biotite gneiss (very fresh rock with minimal fractures)**		Neat cement, 0 to 223 feet
0 / 105			
-5 / 110			6-inch outer casing set to 150 feet and grouted to the ground surface
-10 / 115			
-15			

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-1DDD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-16-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 101.56

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 233 AFTER 83 DAYS: ▼ 84.54 CAVING> ▨

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
-20 / 125			
-25 / 130			
-30 / 135			
-35 / 140	**BEDROCK - Gray and black, biotite gneiss (very fresh rock with minimal fractures)**		Neat cement, 0 to 223 feet
-40 / 145	**Competent BEDROCK - no fractures noted**		6-inch outer casing set to 150 feet and grouted to the ground surface
-45 / 150			
-50 / 155			
-55			

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GROUNDWATER MONITORING WELL NO. MW-1DDD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-16-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 101.56

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 233 AFTER 83 DAYS: ▼ 84.54 CAVING> ▨

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
-60 / 165			
-65 / 170			
-70 / 175			
-75 / 180	Competent BEDROCK - no fractures noted		Neat cement, 0 to 223 feet
-80 / 185			
-85 / 190			
-90 / 195			
-95			

GEOT_WELLNBWD 3661-04.GPJ 11/12/09

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

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PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-16-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 101.56

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 233 AFTER 83 DAYS: ▼ 84.54 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
-100 / 205			
-105 / 210			Neat cement, 0 to 223 feet
-110 / 215			
-115 / 220	Competent BEDROCK - no fractures noted		
-120 / 225			Bentonite seal, 223 to 225 feet
-125	Minor fracture at 226 feet with minimal water		
-130 / 230	▽		
-135 / 235	Minor fracture at 238 feet with minimal water		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 236.6 to 241.6 feet

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BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-1DDD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-16-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 101.56

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 233 AFTER 83 DAYS: ▼ 84.54 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
-140 / 245	Competent BEDROCK - no fractures noted		Pipe cap
	Boring terminated at 242 feet. Groundwater encountered at 233 feet at time of drilling and at 84.54 feet after 83 days.		Total well depth, 241.8 feet
-145 / 250			
-150 / 255			
-155 / 260			
-160 / 265			
-165 / 270			
-170 / 275			
-175			

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-5R

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04
CLIENT: Moorhead Oil Company DATE START: 6-18-09 END: 6-19-09
LOCATION: Anderson, South Carolina ELEVATION: 89.57
DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton
DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer
DEPTH TO - WATER> INITIAL: ▽ 33 AFTER 83 DAYS: ▼ 30.90 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
85 / 5	6-inches of GRASS and TOPSOIL Reddish-brown and brown, dry, slightly micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 89.38 feet Ground surface elev. = 89.57 feet Elevations are relative to an arbitrary site datum
80 / 10	Brown and orangish-brown, dry, micaceous, fine to medium sandy SILT		Neat cement, 0 to 19.6 feet
75 / 15			
70 / 20	Brown and orangish-brown, moist to wet, micaceous, fine to medium sandy SILT intermixed with silty, fine to medium sand stringers		Bentonite seal, 19.6 to 22 feet Filter pack, sand 22 to 36.4 feet
65 / 25			
60 / 30			
55 / 35			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 26.2 to 36.2 feet Pipe cap Total well depth, 36.4 feet
50	Boring terminated at 36.4 feet. Groundwater encountered at 33.0 feet at time of drilling and at 30.90 feet after 83 days.		

GROUNDWATER MONITORING WELL NO. MW-11DDD

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04
CLIENT: Moorhead Oil Company DATE START: 6-17-09 END: 6-19-09
LOCATION: Anderson, South Carolina ELEVATION: 98.38
DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton
DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer
DEPTH TO - WATER> INITIAL: ▽ 212 AFTER 83 DAYS: ▼ 84.54 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
95 / 0	6-inches of ASPHALT and GRAVEL Reddish-brown, dry, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover
95 / 5	Reddish-brown and brown, dry, micaceous, clayey SILT		Top of casing elev. = 98.38 feet Ground surface elev. = 98.38 feet
90 / 10			
85 / 15			
80 / 20	Brown, dry to moist, micaceous, fine to medium sandy SILT intermixed with brown and white, micaceous, silty, fine to medium sand zones		Neat cement, 0 to 203 feet
75 / 25			
70 / 30			6-inch outer casing set to 170 feet and grouted to the ground surface
65 / 35			
60			

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-11DDD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-17-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 98.38

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 212 AFTER 83 DAYS: ▼ 84.54 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
55 / 45	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, micaceous, silty, fine to coarse SAND		
55 / 45	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, micaceous, silty, fine to coarse SAND		
50 / 50	BEDROCK - Grayish-brown and black BIOTITE GNEISS		
45 / 55			
40 / 60			Neat cement, 0 to 203 feet
35 / 65			
30 / 70			6-inch outer casing set to 170 feet and grouted to the ground surface
25 / 75			
20			

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-11DDD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-17-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 98.38

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 212 AFTER 83 DAYS: ▼ 84.54 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
15 / 85			
10 / 90			
5 / 95			
0 / 100	BEDROCK - Grayish-brown and black BIOTITE GNEISS		Neat cement, 0 to 203 feet
-5 / 105			
-10 / 110			6-inch outer casing set to 170 feet and grouted to the ground surface
-15 / 115			
-20			

BLB INC.

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-11DDD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04
CLIENT: Moorhead Oil Company DATE START: 6-17-09 END: 6-19-09
LOCATION: Anderson, South Carolina ELEVATION: 98.38
DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton
DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer
DEPTH TO - WATER> INITIAL: ▽ 212 AFTER 83 DAYS: ▼ 84.54 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
-25 / 125			
-30 / 130			
-35 / 135			
-40 / 140	BEDROCK - Grayish-brown and black BIOTITE GNEISS		Neat cement, 0 to 203 feet
-45 / 145			
-50 / 150			6-inch outer casing set to 170 feet and grouted to the ground surface
-55 / 155			
-60			

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-11DDD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04
CLIENT: Moorhead Oil Company DATE START: 6-17-09 END: 6-19-09
LOCATION: Anderson, South Carolina ELEVATION: 98.38
DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton
DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer
DEPTH TO - WATER> INITIAL: ▽ 212 AFTER 83 DAYS: ▼ 84.54 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
-65 / 165	BEDROCK - Grayish-brown and black BIOTITE GNEISS		6-inch outer casing set to 170 feet and grouted to the ground surface
-70	Small fracture with minor water		
170	Competent BEDROCK - no fractures noted		
-75 / 175			
-80 / 180			Neat cement, 0 to 203 feet
-85 / 185			
-90 / 190			
-95 / 195			
-100			

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-11DDD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-17-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 98.38

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 212 AFTER 83 DAYS: ▼ 84.54 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
-105 / 205	BEDROCK - Grayish-brown and black BIOTITE GNEISS		Neat cement, 0 to 203 feet
			Bentonite seal, 203 to 205 feet
	Small fracture - no apparent water		Filter pack, sand 205 to 231 feet
-110 / 210	Small fracture - minor water		
-115 / 215			
-120 / 220			
-125 / 225			
	Small fracture - minor water		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 225.2 to 230.2 feet
-130 / 230			Pipe cap
	Boring terminated at 231 feet. Groundwater encountered at 212 feet at time of drilling and at 84.54 feet after 83 days.		Total well depth, 230.4 feet
-135 / 235			
-140			

GEOT_WELLNBWD 3661-04.GPJ 11/12/09

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-13R

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-16-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 99.47

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 50 AFTER 83 DAYS: ▼ 49.64 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
95 / 5	6-inches of TOPSOIL Reddish-brown, dry, slightly fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel bolted manhole cover Top of casing elev. = 99.10 feet Ground surface elev. = 99.47 feet
90 / 10	Reddish-brown, dry, micaceous, fine to medium sandy SILT with slight clay		
85 / 15			
80 / 20	Light brown, dry, micaceous, fine to medium sandy SILT		Neat cement, 0 to 41 feet
75 / 25			
70 / 30			
65 / 35			
60			

GEOT_WELLNBWD 3661-04.GPJ 11/12/09

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-13R

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-16-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 99.47

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 50 AFTER 83 DAYS: ▼ 49.64 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
55 / 45	Light brown, dry, micaceous, fine to medium sandy SILT		Neat cement, 0 to 41 feet
	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and brown, moist to wet, micaceous, silty, fine to coarse SAND		Bentonite seal, 41 to 44 feet Filter pack, sand 44 to 56.4 feet
50 / 50 ▼	BEDROCK - gray and black, BIOTITE GNEISS		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 46.2 to 56.2 feet
45 / 55			Pipe cap
	Boring terminated at 56.4 feet. Groundwater encountered at 50 feet at time of drilling and at 49.64 feet after 83 days.		Total well depth, 56.4 feet
40 / 60			
35 / 65			
30 / 70			
25 / 75			
20			

GEOT_WELLNBWD 3661-04.GPJ 11/12/09

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-27R

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04
CLIENT: Moorhead Oil Company DATE START: 6-18-09 END: 6-19-09
LOCATION: Anderson, South Carolina ELEVATION: 72.09
DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton
DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer
DEPTH TO - WATER> INITIAL: ▽ 48 AFTER 83 DAYS: ▼ 46.89 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
70 / 0	6-inches of TOPSOIL Brown, moist, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 2.84-foot stick-up with a 4" x 4" x 5' long stand-up steel protective cover secured with a 2' x 2' x 6" thick concrete pad
65 / 5	Dark brown, moist, micaceous, fine to medium sandy SILT with slight clay		Top of casing elev. = 74.93 feet Ground surface elev. = 72.09 feet
60 / 10	Brown, dry, micaceous, fine to medium sandy SILT		
55 / 15			Neat cement, 0 to 37.4 feet
50 / 20			
45 / 25	Brown to grayish-brown, dry, very micaceous, silty, fine to medium SAND		
40 / 30			
35 / 35	PARTIALLY WEATHERED ROCK which sampled as gray and black, dry to moist, micaceous, silty, fine to coarse SAND		Bentonite seal, 37.4 to 40.9 feet
	PARTIALLY WEATHERED ROCK which sampled as light		

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-27R

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-18-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 72.09

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 48 AFTER 83 DAYS: ▼ 46.89 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
30 / 45	grayish-brown and black, moist to wet, very micaceous, silty, fine to coarse SAND		Filter pack, sand 40.9 to 53.1 feet
25 / 50			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 42.9 to 52.9 feet
20 / 55	BEDROCK - gray and black BIOTITE GNEISS		Pipe cap
15 / 60	Boring terminated at 53.1 feet. Groundwater encountered at 48 feet at time of drilling and at 46.89 feet after 83 days.		Total well depth, 53.1 feet
10 / 65			
5 / 70			
0 / 75			
-5			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

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BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-27D

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-18-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 72.32

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 48 AFTER 83 DAYS: ▼ 47.87 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
70 / 0	6-inches of TOPSOIL Brown, moist, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 2.47-foot stick-up with a 4" x 4" x 5' long stand-up steel protective cover secured with a 2' x 2' x 6" thick concrete pad
65 / 5	Dark brown, moist, micaceous, fine to medium sandy SILT with slight clay		Top of casing elev. = 74.79 feet Ground surface elev. = 72.32 feet
60 / 10	Brown, dry, micaceous, fine to medium sandy SILT		
55 / 15			
50 / 20			Neat cement, 0 to 58.0 feet
45 / 25	Brown to grayish-brown, dry, very micaceous, silty, fine to medium SAND		
40 / 30			
35 / 35	PARTIALLY WEATHERED ROCK which sampled as gray and black, dry to moist, micaceous, silty, fine to coarse SAND		
	PARTIALLY WEATHERED ROCK which sampled as light		

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

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BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-27D

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-18-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 72.32

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 48 AFTER 83 DAYS: ▼ 47.87 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
30 / 45	grayish-brown and black, moist to wet, very micaceous, silty, fine to coarse SAND		
25 / 50			
20 / 55	BEDROCK - gray and black BIOTITE GNEISS		
15 / 60	Small water bearing fracture at 60 feet		Bentonite seal, 58.0 to 62.0 feet
10 / 65	Small water bearing fracture at 64 feet		Filter pack, sand 62.0 to 69.6 feet
5 / 70	Small water bearing fracture at 67 feet		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 64.4 to 69.4 feet
0 / 75	Boring terminated at 69.6 feet. Groundwater encountered at 48 feet at time of drilling and at 47.87 feet after 83 days.		Pipe cap Total well depth, 69.6 feet
-5			

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-27DD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-18-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 72.84

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ _____ AFTER 24 DAYS: ▼ _____ CAVING> _____

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
70 / 0	6-inches of TOPSOIL Brown, moist, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 2.67-foot stick-up with a 4" x 4" x 5' long stand-up steel protective cover secured with a 2' x 2' x 6" thick concrete pad
65 / 5	Dark brown, moist, micaceous, fine to medium sandy SILT with slight clay		Top of casing elev. = 75.51 feet Ground surface elev. = 72.84 feet
60 / 10	Brown, dry, micaceous, fine to medium sandy SILT		
55 / 15			
50 / 20			Neat cement, 0 to 125.0 feet
45 / 25	Brown to grayish-brown, dry, very micaceous, silty, fine to medium SAND		
40 / 30			
35 / 35	PARTIALLY WEATHERED ROCK which sampled as gray and black, dry to moist, micaceous, silty, fine to coarse SAND		
	PARTIALLY WEATHERED ROCK which sampled as light		

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-27DD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-18-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 72.84

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ _____ AFTER 24 DAYS: ▼ _____ CAVING> _____

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
30 / 45	grayish-brown and black, moist to wet, very micaceous, silty, fine to coarse SAND		
25 / 50			
20 / 55	Competent BEDROCK - no fractures noted		
15 / 60			Neat cement, 0 to 125.0 feet
10 / 65			
5 / 70			
0 / 75			
-5			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-27DD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-18-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 72.84

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ _____ AFTER 24 DAYS: ▼ _____ CAVING> _____

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
-10 / 85	Competent BEDROCK - no fractures noted		
-15 / 90			
-20 / 95			
-25 / 100			Neat cement, 0 to 125.0 feet
-30 / 105			
-35 / 110			
-40 / 115			
-45	Small fracture at 118 feet - no water noted		

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-27DD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-18-09 END: 6-19-09

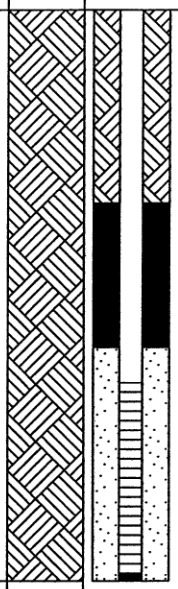
LOCATION: Anderson, South Carolina ELEVATION: 72.84

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ _____ AFTER 24 DAYS: ▼ _____ CAVING> _____

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
-50 / 125	Competent BEDROCK - no fractures noted		Neat cement, 0 to 125.0 feet
-55 / 130	Small fractue at 130 feet - no water noted		Bentonite seal, 125.0 to 128.8 feet Filter pack, sand 128.8 to 134.9 feet 2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 129.7 to 134.7 feet
-60 / 135	Small water bearing fracture at 134 feet		Pipe cap
-65 / 140	Boring terminated at 134.9 feet. No groundwater encountered at time of drilling or after 24 hours.		Total well depth, 134.9 feet
-70 / 145			
-75 / 150			
-80 / 155			
-85			



GEOT_WELLNBWD 3661-04.GPJ 1/4/10

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BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-30R

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-30-09 END: 7-1-09

LOCATION: Anderson, South Carolina ELEVATION: 58.23

DRILLER: Landprobe, M. King LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 4-1/4 inch ID hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 34.5 AFTER 71 DAYS: ▼ 33.87 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
55 / 0	6-inches of TOPSOIL Reddish-brown, moist, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 2.57-foot stick-up with a 4" x 4" x 5' long stand-up steel protective cover secured with a 2' x 2' x 6" thick concrete pad
50 / 5	Reddish-brown to brown, moist, very micaceous, fine to medium sandy SILT		Neat cement, 0 to 25.0 feet
45 / 10			
40 / 15			
35 / 20	Light brown, moist, very micaceous, silty, fine to medium SAND		Bentonite seal, 25.0 to 27.0 feet Filter pack, sand 27.0 to 40.1 feet
30 / 25	PARTIALLY WEATHERED ROCK which sampled as brown and gray, wet, micaceous, silty, fine to coarse SAND		
25 / 30	▽		
20 / 35			2-inch diameter, 0.010-inch slotted Schedule 40 well screen, 29.9 to 39.9 feet

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BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-30R

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-30-09 END: 7-1-09

LOCATION: Anderson, South Carolina ELEVATION: 58.23

DRILLER: Landprobe, M. King LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 4-1/4 inch ID hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 34.5 AFTER 71 DAYS: ▼ 33.87 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
15 / 45	**Boring terminated at 40.1 feet. Groundwater encountered at 34.5 feet at time of drilling and at 33.87 feet after 71 days.**		Pipe cap Total well depth, 40.1 feet
10 / 50			
5 / 55			
0 / 60			
-5 / 65			
-10 / 70			
-15 / 75			
-20			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-31R

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-30-09 END: 7-1-09

LOCATION: Anderson, South Carolina ELEVATION: 63.36

DRILLER: Landprobe, M. King LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 4-1/4 inch ID hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 40 AFTER 71 DAYS: ▼ 39.69 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
60 / 0	6-inches of TOPSOIL Reddish-brown, moist, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 2.93-foot stick-up with a 4" x 4" x 5' long stand-up steel protective cover secured with a 2' x 2' x 6" thick concrete pad Top of casing elev. = 66.29 feet Ground surface elev. = 63.36 feet
55 / 5	Reddish-brown and brown, moist, micaceous, fine to medium sandy SILT		
50 / 10			
45 / 15			Neat cement, 0 to 31.0 feet
40 / 20			
35 / 25	Brown, moist, very micaceous, silty, fine to medium SAND		
30 / 30	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, moist to wet, micaceous, silty, fine to coarse SAND		Bentonite seal, 31.0 to 33.0 feet Filter pack, sand 33.0 to 46.3 feet
25 / 35			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

BLB INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-31R

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

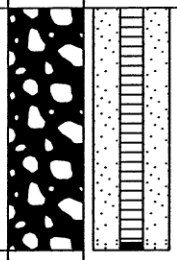
CLIENT: Moorhead Oil Company DATE START: 6-30-09 END: 7-1-09

LOCATION: Anderson, South Carolina ELEVATION: 63.36

DRILLER: Landprobe, M. King LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 4-1/4 inch ID hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 40 AFTER 71 DAYS: ▼ 39.69 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
20 / 45	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, moist to wet, micaceous, silty, fine to coarse SAND		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 36.1 to 46.1 feet
15 / 50	Boring terminated at 46.3 feet. Groundwater encountered at 40 feet at time of drilling and at 39.69 feet after 71 days.		Pipe cap Total well depth, 46.3 feet
10 / 55			
5 / 60			
0 / 65			
-5 / 70			
-10 / 75			
-15			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-32R

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-30-09 END: 7-1-09

LOCATION: Anderson, South Carolina ELEVATION: 58.22

DRILLER: Landprobe, M. King LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 4-1/4 inch ID hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 35.5 AFTER 71 DAYS: ▼ 34.25 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
55 / 5	6-inches of TOPSOIL Reddish-brown, dry, slightly micaceous, slightly fine to medium sandy, silty CLAY		SURFACE COMPLETION 3.01-foot stick-up with a 4" x 4" x 5' long stand-up steel protective cover secured with a 2' x 2' x 6" thick concrete pad Top of casing elev. = 61.23 feet Ground surface elev. = 58.22 feet
50 / 10	Reddish-brown and brown, dry, micaceous, fine to medium sandy SILT		Neat cement, 0 to 24.0 feet
45 / 15			
40 / 20	Intermixed layers of light brown, moist, micaceous, fine to medium sandy SILT and PARTIALLY WEATHERED ROCK which sampled as light grayish-brown and black, micaceous, silty, fine to coarse SAND		
35 / 25			Bentonite seal, 24.0 to 26.0 feet Filter pack, sand 26.0 to 40.1 feet
30 / 30			
25 / 35 ▼ ▽			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 29.9 to 39.9 feet
20			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-32R

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-30-09 END: 7-1-09

LOCATION: Anderson, South Carolina ELEVATION: 58.22

DRILLER: Landprobe, M. King LOGGED BY: T. Benton

DRILLING METHOD: CME 750X ATV; 4-1/4 inch ID hollow stem auger

DEPTH TO - WATER> INITIAL: ▽ 35.5 AFTER 71 DAYS: ▼ 34.25 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
15 / 45	**Boring terminated at 40.1 feet. Groundwater encountered at 35.5 feet at time of drilling and at 34.25 feet after 71 days.**		Pipe cap Total well depth, 40.1 feet
10 / 50			
5 / 55			
0 / 60			
-5 / 65			
-10 / 70			
-15 / 75			
-20			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONTORING WELL NO. MW-33D

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-18-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 68.85

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 50.5 AFTER 83 DAYS: ▼ 48.24 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
65 / 5	6-inches of ORGANIC DEBRIS Reddish-brown, moist, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION 3.42-foot stick-up with a 4" x 4" x 5' long stand-up steel protective cover secured with a 2' x 2' x 6" thick concrete pad Top of casing elev. = 72.27 feet
60 / 10	Reddish-brown, moist, micaceous, fine to medium sandy SILT		Ground surface elev. = 68.85 feet
55 / 15			
50 / 20			
45 / 25	Brown, moist, very micaceous, silty, fine to medium SAND		Neat cement, 0 to 55.2 feet
40 / 30	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, moist to wet, very micaceous, silty, fine to coarse SAND		
35 / 35			
30			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

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BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONTORING WELL NO. MW-33D

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

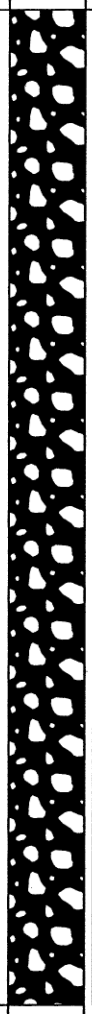
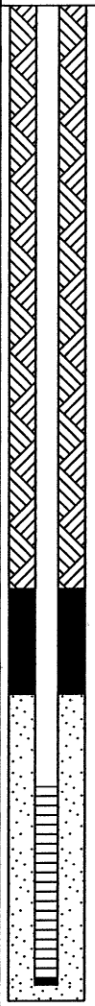
CLIENT: Moorhead Oil Company DATE START: 6-18-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 68.85

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 50.5 AFTER 83 DAYS: ▼ 48.24 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
25 / 45	**PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, moist to wet, very micaceous, silty, fine to coarse SAND**		 Neat cement, 0 to 55.2 feet Bentonite seal, 55.2 to 58.0 feet Filter pack, sand 58.0 to 65.6 feet 2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 60.4 to 65.4 feet Pipe cap
20 / 50 ▽			
15 / 55			
10 / 60			
5 / 65			
0 / 70	**Boring terminated at 66.0 feet. Groundwater encountered at 50.5 feet at time of drilling and at 48.24 feet after 83 days.**		Total well depth, 65.6 feet
-5 / 75			
-10			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONTORING WELL NO. MW-33DD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-25-09 END: 6-26-09

LOCATION: Anderson, South Carolina ELEVATION: 68.84

DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 50.5 AFTER 76 DAYS: ▼ 50.35 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
65 / 0	6-inches of ORGANIC DEBRIS		SURFACE COMPLETION 3.42-foot stick-up with a 4" x 4" x 5' long stand-up steel protective cover secured with a 2' x 2' x 6" thick concrete pad
	Reddish-brown, moist, micaceous, fine to medium sandy, silty CLAY		Top of casing elev. = 71.65 feet
60 / 5	Reddish-brown, moist, micaceous, fine to medium sandy SILT		Ground surface elev. = 68.84 feet
55 / 10			
50 / 15			
45 / 20			Neat cement, 0 to 120.0 feet
40 / 25	Brown, moist, very micaceous, silty, fine to medium SAND		6-inch outer casing set to 94 feet and grouted to the ground surface
35 / 30	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, moist to wet, very micaceous, silty, fine to coarse SAND		
30 / 35			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONTORING WELL NO. MW-33DD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-25-09 END: 6-26-09

LOCATION: Anderson, South Carolina ELEVATION: 68.84

DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 50.5 AFTER 76 DAYS: ▼ 50.35 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
25 / 45	PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, moist to wet, very micaceous, silty, fine to coarse SAND		
20 / 50 ▼			
15 / 55			
10 / 60			Neat cement, 0 to 120.0 feet
5 / 65			
0 / 70			6-inch outer casing set to 94 feet and grouted to the ground surface
-5 / 75			
-10			

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONTORING WELL NO. MW-33DD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-25-09 END: 6-26-09

LOCATION: Anderson, South Carolina ELEVATION: 68.84

DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 50.5 AFTER 76 DAYS: ▼ 50.35 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
-15 / 85	**PARTIALLY WEATHERED ROCK which sampled as grayish-brown and black, moist to wet, very micaceous, silty, fine to coarse SAND**		6-inch outer casing set to 94 feet and grouted to the ground surface
-20 / 90			
-25 / 95	**BEDROCK - gray and black BIOTITE GNEISS**		
-30 / 100			Neat cement, 0 to 120.0 feet
-35 / 105			
-40 / 110			
-45 / 115			
-50			

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONTORING WELL NO. MW-33DD

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-25-09 END: 6-26-09

LOCATION: Anderson, South Carolina ELEVATION: 68.84

DRILLER: Landprobe, K. Thomas LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 10-inch and 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 50.5 AFTER 76 DAYS: ▼ 50.35 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
-55 / 125	**BEDROCK - gray and black BIOTITE GNEISS**		Bentonite seal, 120.0 to 124.0 feet
			Filter pack, sand 124.0 to 131.1 feet
-60 / 130			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 125.9 to 130.9 feet
			Pipe cap
-65 / 135	**Boring terminated at 131.1 feet. Groundwater encountered at 50.5 feet at time of drilling and at 50.35 feet after 76 days.**		Total well depth, 131.1 feet
-70 / 140			
-75 / 145			
-80 / 150			
-85 / 155			
-90			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-37D

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-16-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 94.49

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 56.5 AFTER 85 DAYS: ▼ 46.83 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
90 / 5	6-inches of TOPSOIL and GRAVEL Brown and reddish-brown, dry, micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETION Flush-mount below ground surface secured with an 8-inch diameter steel, bolted manhole cover Top of casing elev. = 94.25 feet
	Reddish-brown, micaceous, fine to medium sandy SILT		Ground surface elev. = 94.49 feet
85 / 10			
80 / 15			
75 / 20			Neat cement, 0 to 124.0 feet
70 / 25	Grayish-brown, dry, very micaceous, silty, fine to medium SAND		
65 / 30			
60 / 35	PARTIALLY WEATHERED ROCK which sampled as grayish-brown, moist, micaceous, silty, fine to coarse SAND		
55			

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-37D

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-16-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 94.49

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 56.5 AFTER 85 DAYS: ▼ 46.83 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
50 – 45	PARTIALLY WEATHERED ROCK which sampled as grayish-brown, moist, micaceous, silty, fine to coarse SAND		
	BEDROCK - Gray and black BIOTITE GNEISS		
45 – 50			
40 – 55			
35 – 60			Neat cement, 0 to 124.0 feet
30 – 65			
25 – 70			
20 – 75			
15			

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-37D

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-16-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 94.49

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 56.5 AFTER 85 DAYS: ▼ 46.83 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
10 / 85	**BEDROCK - Gray and black BIOTITE GNEISS**		
5 / 90			
0 / 95			
-5 / 100			Neat cement, 0 to 124.0 feet
	Small fracture at 102 feet - no water		
-10 / 105			
-15 / 110			
-20 / 115			
-25			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-37D

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-16-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 94.49

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 56.5 AFTER 85 DAYS: ▼ 46.83 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
-30 / 125	Small fracture at 124 feet - minor water		Bentonite seal, 124.0 to 127.0 feet
			Filter pack, sand 127.0 to 135.0 feet
-35 / 130			2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 129.4 to 134.4 feet
	Small fracture at 133 feet- minor water		
-40 / 135			Pipe cap
	Boring terminated at 135.0 feet. Groundwater encountered at 56.5 feet at time of drilling and at 46.83 feet after 85 days.		Total well depth, 134.6 feet
-45 / 140			
-50 / 145			
-55 / 150			
-60 / 155			
-65			

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-45

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-19-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 92.62

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 36 AFTER 82 DAYS: ▼ 35.51 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
90 / 0	6-inches of VEGETATION and TOPSOIL Reddish-brown, dry, slightly micaceous, fine to medium sandy, silty CLAY		SURFACE COMPLETIO Flush mount below ground surface secured with an 8-inch steel, bolted manhole cover
85 / 5	Reddish-brown to brown, dry, micaceous, fine to medium sandy SILT with slight clay		Top of casing elev. = 92.03 feet Ground surface elev. = 92.62 feet
80 / 10			Neat cement, 0 to 24.2 feet
75 / 15			
70 / 20	Light brown and grayish-brown, dry, micaceous, fine to medium sandy SILT		
65 / 25			Bentonite seal, 24.2 to 27.4 feet Filter pack, sand 27.4 to 41.5 feet
60 / 30			
55 / 35 ▼	Brown and tan, moist to wet, very micaceous, silty, fine to medium SAND		2-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 31.3 to 41.3 feet

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUNDWATER MONITORING WELL NO. MW-45

PROJECT: Former KMO #119 PROJECT NO.: J09-3661-04

CLIENT: Moorhead Oil Company DATE START: 6-19-09 END: 6-19-09

LOCATION: Anderson, South Carolina ELEVATION: 92.62

DRILLER: Landprobe, T. Coon LOGGED BY: T. Benton

DRILLING METHOD: Schramm T450 Air Rotary Rig; 6-inch air hammer

DEPTH TO - WATER> INITIAL: ▽ 36 AFTER 82 DAYS: ▼ 35.51 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
50 / 45 / 45 / 50 / 40 / 55 / 35 / 60 / 30 / 65 / 25 / 70 / 20 / 75 / 15	Brown and tan, moist to wet, very micaceous, silty, fine to medium SAND		Pipe cap
	Boring terminated at 41.5 feet. Groundwater encountered at 36 feet at time of drilling and at 35.51 feet after 82 days.		Total well depth, 41.5 feet

GEOT_WELLNBWD 3661-04.GPJ 1/4/10

MW-1 - DDD

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: MOORHEAD OIL COMPANY (last) (first)
Address: P.O. BOX 2587
City: ANDERSON State: SC Zip: 29662
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: ANDERSON
Name: FORMER KMO #119
Street Address: 1312 WILLIAMSTON RD
City: ANDERSON, SC Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
225' to 223'
Bentonite Seal

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

7. PERMIT NUMBER: UST PERMIT #00505

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

9. WELL DEPTH (completed) 242 ft. Date Started: 6-16-09 Date Completed: 6-19-09

10. CASING: ☐ Threaded ☐ Welded
Diam.: 6"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
6" in. to 150 ft. depth
2" in. to 242 ft. depth
Height: Above ☒ Below
Surface 6 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 5'
Set Between: 243 ft. and 237 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 242' ft. to 285' ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 203 ft. to surface 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: TOM COON CERT. NO.: 1961
Address: (Print) 6004 Ponders CT Greenville SC 29615
Level: A B C (D) (circle one)
Telephone No.: 864-527-9324 Fax No.:

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: Tom Coon (Well Driller) Date: 6-19-09

If D Level Driller, provide supervising driller's name:
Ronnie Rowe #1264

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

MW# 5-R

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Moorhead Oil Company (last) (first)
Address: P.O. Box 2587
City: Anderson State: SC Zip: 29662
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: 1312 Williamston Rd
Street Address:
City: Anderson Zip:
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
22' to 19.6
Bentonite Seal

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 36 ft. Date Started: 6-18-09 Date Completed: 6-19-09

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2" in. to 36 ft. depth
_____ in. to _____ ft. depth
Height: Above (Below) Surface 6" ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 10'
Set Between: 36 ft. and 26 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 36 ft. to 22 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 19.6 ft. to surface 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: Tom Coon CERT. NO.: 1961
Address: (Print) 6004 Ponders Ct Greenville SC 29615
Level: A B C (D) (circle one)
Telephone No.: 864-527-9324 Fax No.:

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: Tom Coon Well Driller Date: 6-19-09

If D Level Driller, provide supervising driller's name:
Ronnie Rowe # 1264

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

MW# 11 - DDD

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: Moorhead Oil Company (last) (first)
Address: P.O. Box 2587
City: Anderson State: SC Zip: 29662
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: Former Kmo #119
Street Address: 1312 Williamston Rd
City: Anderson Zip:
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
205' to 203'
Bentonite Seal

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 230 ft. Date Started: 6-17-09 Date Completed: 6-19-09

10. CASING: ☐ Threaded ☐ Welded
Diam.: 6"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
6" in. to 170' ft. depth
2" in. to 230' ft. depth
Height: Above (Below)
Surface 6" ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 5'
Set Between: 230 ft. and 225 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 230' ft. to 205' ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 203' ft. to surface 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: Tom Cook CERT. NO.: 1961
Address: (Print) 6004 Ponders CT Level: A B C (D) (circle one)
Greenville SC 29615
Telephone No.: 864-527-9324 Fax No.:

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: T. Cook (Well Driller) Date: 6-19-09

If D Level Driller, provide supervising driller's name:
Ronnie Rowe #1264

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

MW # 13-R

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: Moorhead Oil Company (last) (first)
Address: P.O. Box 2587
City: Anderson State: SC Zip: 29662
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: Former Kmo #119
Street Address: 1312 Williamston Rd
City: Anderson Zip:
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
See attached log		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
44' to 41'
Bentonite Seal

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 56 ft. Date Started: 6-16-09 Date Completed: 6-19-09

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2" in. to 56 ft. depth
_____ in. to _____ ft. depth
Height: Above ☒ Below Surface 6" ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 10'
Set Between: 56 ft. and 46 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 56 ft. to 44 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 41 ft. to surface 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: Tom Coon CERT. NO.: 1961
Address: (Print) 6004 Ponders CT Level: A B C (D) (circle one)
Greenville SC 29615
Telephone No.: 864-527-9324 Fax No.:

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: Tom Coon Date: 6-19-09
Well Driller

If D Level Driller, provide supervising driller's name:
Ronnie Rowe #1264

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

MW # 27-R

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: MOORHEAD OIL COMPANY (last) (first)
Address: P.O. BOX 2587
City: ANDERSON State: SC Zip: 29662
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: ANDERSON
Name: FORMER KMC #119
Street Address: 1312 WILLIAMSTON RD
City: ANDERSON Zip:
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
40.9 to 37.4
Bentonite Seal

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

7. PERMIT NUMBER: UST PERMIT #00585

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

9. WELL DEPTH (completed) Date Started: 6-18-09
53 ft. Date Completed: 6-19-09

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2" in. to 53 ft. depth
_____ in. to _____ ft. depth
Height: Above ⊗ Below Surface 6" ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 010 Length: 10'
Set Between: 53 ft. and 43 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 53 ft. to 40.9 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 37.4 ft. to SURFACE 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: Tom Cook CERT. NO.: 1961
Address: (Print) 6004 Ponders CT Level: A B C (D) (circle one)
Greenville SC 29615
Telephone No.: 864-527-9324 Fax No.:

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: Tom Cook Date: 6-19-09
Well Driller

If D Level Driller, provide supervising driller's name:
Ronnie Rowe #1264

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

MW # 27-D

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: MOORHEAD OIL COMPANY (last) (first)
Address: P.O. BOX 2587
City: ANDERSON State: SC Zip: 29622
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: ANDERSON
Name: FORMER KMC #119
Street Address: 1312 WILLIAMSTON RD
City: ANDERSON Zip:
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

5. REMARKS:
62' to 58'
Bentonite Seal

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

7. PERMIT NUMBER: UST PERMIT #00505

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

9. WELL DEPTH (completed) 69 ft. Date Started: 6-18-09 Date Completed: 6-19-09

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2" in. to 69' ft. depth
_____ in. to _____ ft. depth
Height: Above ☒ Below
Surface 6" ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 5'
Set Between: 69 ft. and 64 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 69 ft. to 62 ft.
Effective size # 2 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 58 ft. to surface 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: Tom Coon CERT. NO.: 1961
Address: (Print) 6004 Ponders CT Greenville SC 29615
Level: A B C (D) (circle one)
Telephone No.: 864-527-9324 Fax No.:

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: T. Coon Well Driller Date: 6-19-09

If D Level Driller, provide supervising driller's name:
Ronnie Rowe # 1204

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

MW # 27-DD

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: MOORHEAD OIL Co. (last) (first)
Address: P.O. Box 2587
City: ANDERSON State: SC Zip: 29662
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: ANDERSON
Name: FORMER Kme #119
Street Address: 1312 WILLIAMSTON RD
City: ANDERSON Zip:
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED Log		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
128.8 to 125'
Bentonite Seal

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

7. PERMIT NUMBER: UST PERMIT # 00505

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

9. WELL DEPTH (completed) Date Started: 6-18-09
136 ft. Date Completed: 6-19-09

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2" in. to 136 ft. depth
_____ in. to _____ ft. depth
Height: Above (Below)
Surface 6" ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 5'
Set Between: 136' ft. and 131' 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 136 ft. to 128.8 ft.
Effective size # 02 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 125' ft. to Surface 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: Tom Coon CERT. NO.: 1961
Address: (Print) 6004 Ponders CT Level: A B C (D) (circle one)
Greenville SC 29615
Telephone No.: 864-527-9324 Fax No.:

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: Tom Coon (Well Driller) Date: 6-19-09

If D Level Driller, provide supervising driller's name:
Ronnie Rowe #1264

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

DHEC
PROMOTE PROTECT PROSPER

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

MW-30R

1. WELL OWNER INFORMATION:
Name: Moorehead Oil Company (last) (first)
Address: P.o Box 2587
City: Anderson State: SC Zip: 29662
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: Former Kmo #119
Street Address: 1312 Williamston Rd
City: Anderson Zip: 29662
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☐ No
Give Details Below
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

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

7. PERMIT NUMBER: UST Permit # 00505

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

9. WELL DEPTH (completed) 39 ft. MW-30R
Date Started: 6-30-09
Date Completed: 9-1-09

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 29 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface 2 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 10
Set Between: 29 ft. and 39 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL NA 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 27 ft.
Effective size #2 Uniformity Coefficient Sand

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 29 25 ft. to 0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: NA 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: Kings Drilling CERT. NO.: 1089
Address: (Print) Level: A (B) C D (circle one)
160 Woodside Rd Lexington SC 29072
Telephone No: (803) 348-8741 Fax No.:

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: Brennon S King Well Driller Date: 7-1-09

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

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

DHEC
PROMOTE PROTECT PROSPER

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

MW-31R

1. WELL OWNER INFORMATION:
Name: MOORHEAD OIL Co. (last) (first)
Address: P.O. BOX 2587
City: ANDERSON State: SC Zip: 29662
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: ANDERSON
Name: FORMER EMC #119
Street Address: 1512 WILLIAMSTON RD
City: ANDERSON Zip: 29662
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☐ No
Give Details Below
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

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

7. PERMIT NUMBER ~~HW 307~~ UST PERMIT # 00505

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

9. WELL DEPTH (completed) 46 ft. Date Started: 6-30-09 Date Completed: 7-1-09

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 38 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface 2 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 10
Set Between: 36 ft. and 46 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 46 ft. to 33 ft.
Effective size #2 Uniformity Coefficient Round

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 31 ft. to 0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: NA 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: Kings Drilling CERT. NO.: 1089
Address: (Print) Level: A (B) C D (circle one)
160 Woodside Rd Lexington SC 29072
Telephone No. (803) 348-8741 Fax No.:

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: Brenson L King Well Driller Date: 7-1-09

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

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

DHEC
PROMOTE PROTECT PROSPER

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

MW-32R

1. WELL OWNER INFORMATION:
Name: Moorhead Oil Co. (last) (first)
Address: P.O. Box 2587
City: Anderson State: SC Zip: 29622
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: Former Kmo #119
Street Address: 1312 Williamston Rd
City: Anderson Zip: 29622
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☐ No
Give Details Below
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		
5. REMARKS:		

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

7. PERMIT NUMBER: UST PERMIT #00505

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

9. WELL DEPTH (completed) 39 ft. MW-32R Date Started: 6-30-09
Date Completed: 7-1-09

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 29 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface 3 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 10
Set Between: 29 ft. and 39 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL NA 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 26 ft.
Effective size #2 Uniformity Coefficient Rand

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 24 ft. to 0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: NA 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: Brunson & Ray CERT. NO.: 1089
Address: (Print) Level: A (B) C D (circle one)
160 Woodrich Rd Lexington SC 29072
Telephone No.: (803) 348-8741 Fax No.:

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: Brunson & Ray Date: 7-1-09
Well Driller

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

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

MW # 33-D

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: MORRHEAD OIL CO. (last) (first)
Address: P.O. BOX 2587
City: ANDERSON State: SC Zip: 29662
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: ANDERSON
Name: FORMER KMART #119
Street Address: 1312 WILLIAMSTON RD
City: ANDERSON Zip:
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
58' to 55.2'
Bentonite Seal

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

7. PERMIT NUMBER: UST PERMIT #00505

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

9. WELL DEPTH (completed) 65 ft. Date Started: 6-18-09 Date Completed: 6-19-09

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2" in. to 65 ft. depth
_____ in. to _____ ft. depth
Height: Above ☒ Below Surface 6" ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 3'
Set Between: 65 ft. and 60 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 65 ft. to 38 ft.
Effective size # 2 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 55.2 ft. to surface 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: Tom Cook CERT. NO.: 1961
Address: (Print) 6004 Pondes CT Level: A B C (D) (circle one)
Greenville SC 29615
Telephone No.: 864-527-9324 Fax No.:

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: Tom Cook Date: 6-19-09
Well Driller

If D Level Driller, provide supervising driller's name:
Ronnie Rowe #1264

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

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

DHEC — PROMOTE PROTECT PROSPER

1. Well Owner Information:
Name: Moorhead Oil Co. (last) (first)
Address: P.O. Box 2587
City: Anderson State: SC zip: 29622
Phone: Work:
Home:

2. Location of Well: County: Anderson
Name: KMO 119
Address: 512 Williamston Rd
City: Anderson zip:
Latitude: Longitude:

3. Public System Name: **Public System Number:**

4. Abandonment: (yes/ no) No
Grouted Depth: from to ft.

Formation Description	Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		

5. Remarks: Bentonite seal 124' - 120'

6. Type:

Mud Rotary	Jetted	Bored
Dug	Air Rotary xxx	Driven
Cable tool	Auger	

7. Permit Number: #00505 MW-33 DD

8. Use:

Residential	Public Supply	Process
Irrigation	Air Conditioning	Emergency
Test Well	Monitor Well xxx	Replacement

9. Well Depth (completed) 131 ft. Date Started: 6/25/09 Date Completed: 6/26/09

10. Casing: Threaded xxx Welded
Diameter: 2"
Type: PVC
6" in. to 94 ft. depth
2" in. to 131 ft. depth
Height: Above
Surface: 2.5 ft. Weight: lb./ft.
Drive Shoe: No

11. Screen:
Type: PVC Diameter: 2"
Slot/Gauge: 0.01 Length: 5
Set Between: 131 ft. and 126 ft.
ft. and ft.
Sieve Analysis: Y/N

12. Static Water Level: ft. below land surface after 24 hours.

13. Pumping Level below land surface.
ft. after hrs Pumping GPM
Pumping Test: No
Yield: gpm

14. Water Quality:
Chemical Analysis: No Bacterial Analysis: No

15. Artificial Filter (filter pack) Y/N Yes
Installed from: 140 ft. to 124 ft.
Effective Size: 20/40 Uniformity Coefficient

16. Well Grouted? Yes

Neat Cement	Bentonite	Bentonite/Cement xxx	other

Depth: from 120 ft. to 0 ft.

17. Nearest Source of Possible Contamination: ft. direction
Type:
Well disinfected No Type: Amount:

18. Pump: Date installed: N/A
Mfr. Name: Model no.:
H.P.: Volts: Length of pipe: ft.
Capacity: gpm
TYPE:
Submersible Jet (shallow) Turbine
Jet (deep) Reciprocating Centrifugal

19. Well Driller Kevin Thomas Cert No. 1155
Address: 6004 Ponders Court Level A
Greenville SC 29615
Telephone: 864-527-9324 Fax: 864-288-4430

20. Water Well Driller's Certification: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Kevin Thomas
Date: 7/2/09

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

MW# 37-D

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: Moorhead Oil Co. (last) (first)
Address: P.O. Box 2587
City: Anderson State: SC Zip: 29662
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: Former Exxo #119
Street Address: 1312 Williamston Rd
City: Anderson Zip:
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
127' to 124'
Bentonite Seal

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 135 ft. Date Started: 6-16-09 Date Completed: 6-19-09

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2" in. to 135 ft. depth
_____ in. to _____ ft. depth
Height: Above ☒/Below Surface 6" ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 5'
Set Between: 135 ft. and 130 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 135' ft. to 127' ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 124 ft. to Surface 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: Tom Coon CERT. NO.: 1961
Address: (Print) 6004 Ponders Ct Greenville SC 29615
Level: A B C D (circle one)
Telephone No.: 864-527-9324 Fax No.:

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: Tom Coon (Well Driller) Date: 6-19-09

If D Level Driller, provide supervising driller's name:
Ronnie Rowe #1264

MW* 45

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Moorhead Oil Company (last) (first)
Address: P.O. Box 2587
City: Anderson State: SC Zip: 29622
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name: Former Kme #119
Street Address: 1312 Williamston Rd
City: Anderson Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED LOG		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
27.4 to 24.2
Bentonite Seal

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

7. PERMIT NUMBER: UST Permit #00505

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

9. WELL DEPTH (completed) 40.6 ft. Date Started: 6-18-09 Date Completed: 6-19-09

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2" in. to 40.6 ft. depth
_____ in. to _____ ft. depth
Height: Above (Below)
Surface 6" ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 10'
Set Between: 40.6 ft. and 30.6 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. 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 40.6 ft. to 27.4 ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 24.2 ft. to surface 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: Tom Cook CERT. NO.: 1961
Address: (Print) 6004 Ponders Ct Level: A B C (D) (circle one)
Greenville SC 29615
Telephone No.: 864-527-9324 Fax No.:

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: Tom Cook (Well Driller) Date: 6-19-09

If D Level Driller, provide supervising driller's name:
Ronnie Rowe # 1264

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

APPENDIX B

WASTE TRANSPORTATION AND DISPOSAL RECORDS

Environmental Soils Inc.

PO Box 295 • Lattimore, NC 28089
Phone 704-434-0075 • Fax 704-434-9533

Non-Hazardous Waste Manifest # 29784

Date 6-26-09 Load Number 01

(numbered sequentially as trucks are dispatched)

ENVIRONMENTAL CONSULTANT: Bunnell-Lammons Engineering, Inc

Contact: Trevor Benton Phone: 864-288-1265 Fax: 864-288-4430

GENERATOR: Moorhead Oil Company, Inc

Address: P.O. Box 2287, Anderson, SC 29622 County: Anderson

Contact: Eunice Fuller Phone:

WASTE ORIGINATION POINT: Complete Address: Kwik #119 - 1312 Williamston Rd, Anderson, SC

Class & Type of Contaminate in soil Petroleum

SOURCE OF CONTAMINATION: (ex. UST or other source) UST - UST Permit # 00505

GENERATORS CERTIFICATION OF WASTE CONSTITUENTS: In lieu of submitting analytical data (methods 8240 and 8270) verifying that the waste in question does not contain organic constituents other than those which would normally appear in analysis of virgin petroleum product residue, I am submitting this Certificate of Waste Constituents. I certify that I am familiar with the source of contamination of the soil and further certify the source, to the best of my knowledge, contains no contaminants other than that listed above.

Generators Signature: [signature] Agent for Moorhead Oil Co, Inc Date: 6-19-09

TRANSPORTER: Excalibur Env. ~~Soils~~ Services, Inc.

Contact: Bradley Morris Phone: 864-967-9744

As the carrier, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured, and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.

Carrier Signature: Bradley Morris Date: 6-26-09

TRUCK #: 01 TAG #: VOLUME: 51 DRUMS

TRUCK DRIVER SIGNATURE: Bradley Morris DATE: 6-26-09

DESTINATION: Environmental Soils Inc. 910 Crowder Rd, Shelby, NC 28150 Dedicated Land Application Site Permit #SR0300038

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the Sate of North Carolina.

Facility Signature: Ray Towery Date: 6/26/09

Signature: William Brown Date: 6/26/09

Company Name ESI Title:

White/Facility Canary/Invoice Pink/Carrier Goldenrod/Generator

Environmental Soils Inc.

PO Box 295 • Lattimore, NC 28089
Phone 704-434-0075 • Fax 704-434-9533

Non-Hazardous Waste Manifest # 29785

Date 8-12-09 Load Number 01

(numbered sequentially as trucks are dispatched)

ENVIRONMENTAL CONSULTANT: BLE, INC

Contact: TREVOR BENTON Phone: 864-288-1265 Fax: 864-288-4430

GENERATOR: MOORHEAD OIL COMPANY, INC

Address: P.O. BOX 2587, ANDERSON, SC 29622 County: ANDERSON

Contact: EUNICE FULLER Phone:

WASTE ORIGINATION POINT: Complete Address: FORMER KWIK #119, 1312 WILLIAMSTON RD, ANDERSON, SC

Class & Type of Contaminate in soil PETROLEUM UST ; UST PERMIT # 00505

SOURCE OF CONTAMINATION: (ex. UST or other source) UST

GENERATORS CERTIFICATION OF WASTE CONSTITUENTS: In lieu of submitting analytical data (methods 8240 and 8270) verifying that the waste in question does not contain organic constituents other than those which would normally appear in analysis of virgin petroleum product residue, I am submitting this Certificate of Waste Constituents. I certify that I am familiar with the source of contamination of the soil and further certify the source, to the best of my knowledge, contains no contaminants other than that listed above.

Generators Signature: Eunice C Fuller Date: 7/13/09

TRANSPORTER: EXCALIBUR ENV. SERVICES, INC.

Contact: Bradley A. Morris Phone: 864-967-9744

As the carrier, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured, and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.

Carrier Signature: Bradley A. Morris Date: 8-12-09

TRUCK #: 01 TAG #: — VOLUME: 4 DRUMS

TRUCK DRIVER SIGNATURE: Bradley A. Morris DATE: 8-12-09

DESTINATION: Environmental Soils Inc. 910 Crowder Rd, Shelby, NC 28150 Dedicated Land Application Site Permit #SR0300038

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the Sate of North Carolina.

Facility Signature: RAY FOWLER Date: 8/12/09

Signature: William Rivers Date: 8/12/09

Company Name ESI Title:

White/Facility Canary/Invoice Pink/Carrier Goldenrod/Generator

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 297

2. Page 1 of 1

3. Generator's Name and Mailing Address
KMO #119
1312 Williamston Rd.
Anderson, SC

CARO-VAC AFVR
P.O. Box 996
Mauldin, SC

4. Generator's Phone

5. Transporter 1 Company Name
CARO-VAC AFVR

6. US EPA ID Number

A. State Transporter's ID

B. Transporter Phone 864-967-9744

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 S. MAIN ST.
MAULDIN, SC 29662

10. US EPA ID Number
SCR000762468

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Impacted Water			90	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
SCDHEC ID # 00505

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Agent for KMO #119

Printed/Typed Name: Bradley A. Morris
Signature: Bradley A. Morris
Date: Month 7 Day 24 Year 09

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Bradley A. Morris
Signature: Bradley A. Morris
Date: Month 7 Day 24 Year 09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name: Eddie Clark
Signature: Eddie Clark
Date: Month 7 Day 24 Year 09

NON-HAZARDOUS WASTE

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 301

2. Page 1 of 1

3. Generator's Name and Mailing Address
KMO #119
1312 WILLIAMSTON RD.
ANDERSON, SC

4. Generator's Phone ( )

c/o Caro-Vac AFVR Services, LLC
P. O. Box 996
Mauldin, SC 29662

5. Transporter 1 Company Name
Caro-Vac AFVR Services, LLC

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone 864-967-9744

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 South Main Street
Mauldin, SC 29662

10. US EPA ID Number
SCR000762468

E. State Facility's ID

F. Facility's Phone 864-962-9953

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Impacted Water, Profile # 6229			85	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

SCDHEC Site ID # 00505

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Bradley A. Morris (Agent for Gen.)
Signature: Bradley Morris
Date: Month 08 Day 06 Year 09

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Bradley A. Morris
Signature: Bradley Morris
Date: Month 08 Day 06 Year 09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name: JUSTIN DUNCAN
Signature:
Date: Month 08 Day 06 Year 09

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 304

2. Page 1 of 1

3. Generator's Name and Mailing Address
KMO # 119
1312 WILLIAMSTON RD
ANDERSON, SC
c/o Caro-Vac AFVR Services, LLC
P. O. Box 996
Mauldin, SC 29662

5. Transporter 1 Company Name
Caro-Vac AFVR Services, LLC

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone 864-967-9744

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 South Main Street
Mauldin, SC 29662

10. US EPA ID Number
SCR000762468

E. State Facility's ID

F. Facility's Phone 864-962-9953

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Impacted Water, Profile # 6229			320	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

SCDHEC Site ID # 00505

GENERATOR

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Bradley A. Morris (Agent for Gen.)
Signature: Bradley Morris
Date: Month 08 Day 06 Year 09

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Bradley A. Morris
Signature: Bradley Morris
Date: Month 08 Day 06 Year 09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

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

VLS

Printed/Typed Name: JOSTIN DUNCAN
Signature:
Date: Month 08 Day 06 Year 09

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 312

2. Page 1 of 1

3. Generator's Name and Mailing Address
KMO #119
1312 Williamston Rd.
Anderson, SC
c/o Caro-Vac AFVR Services, LLC
P. O. Box 996
Mauldin, SC 29662

4. Generator's Phone

5. Transporter 1 Company Name
Caro-Vac AFVR Services, LLC

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone 864-967-9744

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 South Main Street
Mauldin, SC 29662

10. US EPA ID Number
SCR000762468

E. State Facility's ID

F. Facility's Phone 864-962-9953

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Impacted Water, Profile # 6229			4 DRUMS	
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

SCDHEC Site ID # 00505

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.

GENERATOR

Printed/Typed Name: Bradley A. Morris (Agent for Gen.)
Signature: Bradley A. Morris
Date: Month 9 Day 21 Year 09

17. Transporter 1 Acknowledgement of Receipt of Materials

TRANSPORTER

Printed/Typed Name: Bradley A. Morris
Signature: Bradley A. Morris
Date: Month 9 Day 21 Year 09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

19. Discrepancy Indication Space

FACILITY

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

Printed/Typed Name: Justin Duncan
Signature:
Date: Month 09 Day 21 Year 09

APPENDIX C

MONITORING WELL PURGING AND SAMPLING PROCEDURES AND LOGS

APPENDIX C - CONTINUED

MONITORING WELL PURGING AND SAMPLING PROCEDURES

Pursuant to SCDHEC's directive, purging was not required for monitoring wells where the well screens bracket the water table during the time of sampling (with the exception of new well development). Therefore, the monitoring wells which required purging were purged prior to sample collection to remove any stagnant water from the well so that the samples collected were representative of the groundwater quality in the vicinity of each well. For wells that recovered quickly, a minimum of three volumes of water was evacuated. Wells that were evacuated to dryness with less than three well volumes being removed were sampled as soon as the well had recovered enough to yield sufficient volume for a sample.
Specific conductance, pH, water temperature, and dissolved oxygen were measured periodically during well evacuation using instruments, which were calibrated as required.

The monitoring wells were purged using 42-inch long disposable bailers attached to an unused polypropylene cord or a downhole pump with disposable polyethylene tubing. To minimize the potential for cross-contamination between wells, a new clean bailer or new tubing was used for each well.

Samples for VOC analysis were placed in laboratory prepared 40-milliliter glass vials with Teflon ® lined lids and marked with identifying numbers. The VOC samples were preserved using hydrochloric acid (HCl). The total lead samples were placed in a 250 mL plastic container and preserved with nitric acid (HNO_3). The sample containers were maintained at approximately 4° Celsius in a refrigerated sample cooler. The sample cooler was shipped to Pace Analytical Services, Inc. in Huntersville, North Carolina via overnight delivery service for analysis.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Ivan A. Irizarry	9/11/2009:0840	Pace Analytical	9/12/09:0900
Relinquished by	Date/Time	Received by	Date/Time

Well # MW-1R

Well Diameter (D): 2 inch of 44.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	1.92	ft
Total Well Depth (TWD)	43.57	ft btoc
Depth to Groundwater (DGW)	42.08	ft btoc
Length of Water Colum (LWC = TWD-DGW)	1.49	ft
1 Casing Volume (LWC*C) = 1.49 X .17 =	0.25	gals
3 Casing Volumes = 3 X 0.25 =	0.76	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling: 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1550							
pH (s.u)	6.59							
Specific Conductivity (µS)	569							
Water Temperature (°C)	20.8							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Cloudy							
Dissolved Oxygen (mg/l)	0.56							

Remarks: Well sampled below 1.92 feet of free-phase product at 1550 on September 10, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Ivan A. Irizarry	9/11/2009:0840	Pace Analytical	9/12/09:0900
Relinquished by	Date/Time	Received by	Date/Time

Well # MW-1D

Well Diameter (D) 2 inch of 106.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness N/A ft
Total Well Depth (TWD) 106.47 ft btoc
Depth to Groundwater (DGW) 45.70 ft btoc
Length of Water Colum (LWC = TWD-DGW) 60.77 ft
1 Casing Volume (LWC*C) = 60.77 X .17 = 10.33 gals
3 Casing Volumes = 3 X 10.33 = 31.050 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 13.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	10.4						
Time (military)	1657	1725						
pH (s.u)	8.51	7.48						
Specific Conductivity (µS)	122	456						
Water Temperature (°C)	20.1	20.6						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy	Cloudy						
Dissolved Oxygen (mg/l)	0.86							

Remarks: Well purged dry after 13.0 gallons removed. Well sampled at 1735 on September 10, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Ivan A. Irizarry	9/11/2009:0840	Pace Analytical	9/12/09:0900
Relinquished by	Date/Time	Received by	Date/Time

Well # MW-1DD

Well Diameter (D) 2 inch of 142.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness N/A ft
Total Well Depth (TWD) 142.00 ft btoc
Depth to Groundwater (DGW) 48.33 ft btoc
Length of Water Colum (LWC = TWD-DGW) 93.67 ft
1 Casing Volume (LWC*C) = 93.67 X .17 = 15.92 gals
3 Casing Volumes = 3 X 15.92 = 47.76 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 24.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	16.0						
Time (military)	1627	1656						
pH (s.u)	9.95	9.12						
Specific Conductivity (µS)	261	234						
Water Temperature (°C)	20.3	20.4						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Clear						
Dissolved Oxygen (mg/l)	1.63							

Remarks: Well purged dry after 24.5 gallons removed. Well sampled at 1700 on September 10, 2009. Slight petroleum odor noted at time of sampling.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Ivan A. Irizarry	9/11/09:0840	Pace Analytical	9/12/09:0900
Relinquished by	Date/Time	Received by	Date/Time

Well # MW-1DDD

Well Diameter (D) 2 inch of 241.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 241.80 ft btoc
Depth to Groundwater (DGW) 84.54 ft btoc
Length of Water Colum (LWC = TWD-DGW) 157.26 ft
1 Casing Volume (LWC*C) = 157.26 X .17 = 26.73 gals
3 Casing Volumes = 3 X 26.73 = 80.19 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 32.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	27.0						
Time (military)	1540	1558						
pH (s.u)	9.11	9.77						
Specific Conductivity (µS)	1372	1275						
Water Temperature (°C)	20.4	21.5						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Sli. Cloudy						
Dissolved Oxygen (mg/l)	0.74							

Remarks: Well purged dry after 32.5 gallons removed. Well sampled at 1610 on September 10, 2009. Slight petroleum odor noted at time of sampling.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-2

Well Diameter (D) 2 inch of 42.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness 0.02 ft
Total Well Depth (TWD) 42.36 ft btoc
Depth to Groundwater (DGW) 37.63 ft btoc
Length of Water Colum (LWC = TWD-DGW) 4.73 ft
1 Casing Volume (LWC*C) = 4.73 X .17 = 0.80 gals
3 Casing Volumes = 3 X 0.80 = 2.49 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1550							
pH (s.u)	6.17							
Specific Conductivity (µS)	195							
Water Temperature (°C)	21.5							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	0.63							

Remarks: Well sampled below 0.02 feet of free-phase product at 1550 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-3

Well Diameter (D) 2 inch of 40.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 40.32 ft btoc
Depth to Groundwater (DGW) 35.66 ft btoc
Length of Water Colum (LWC = TWD-DGW) 4.66 ft
1 Casing Volume (LWC*C) = 4.66 X .17 = 0.79 gals
3 Casing Volumes = 3 X 0.79 = 2.70 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1620							
pH (s.u)	5.94							
Specific Conductivity (µS)	73.0							
Water Temperature (°C)	21.4							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	0.66							

Remarks: Well sampled at 1620 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-4

Well Diameter (D) 2 inch of 47.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 46.91 ft btoc
Depth to Groundwater (DGW) 41.83 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.08 ft
1 Casing Volume (LWC*C) = 5.08 X .17 = 0.86 gals
3 Casing Volumes = 3 X 0.86 = 2.70 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1651							
pH (s.u)	6.72							
Specific Conductivity (µS)	63.7							
Water Temperature (°C)	21.2							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	1.63							

Remarks: Well sampled at 1651 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-5

Well Diameter (D) 2 inch of 32.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	N/A	ft			
Total Well Depth (TWD)	32.05	ft	btoc		
Depth to Groundwater (DGW)	30.75	ft	btoc		
Length of Water Colum (LWC = TWD-DGW)				1.30	ft
1 Casing Volume (LWC*C) =	1.30	X	.17	= 0.22	gals
3 Casing Volumes = 3 X	0.22	=		0.78	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)								
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Well not sampled.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/11/09:0840	Pace Analytical	9/12/09:0900

Well # MW-5R

Well Diameter (D) 2 inch of 36.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 36.21 ft btoc
Depth to Groundwater (DGW) 30.90 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.31 ft
1 Casing Volume (LWC*C) = 5.31 X .17 = 0.90 gals
3 Casing Volumes = 3 X 0.90 = 2.71 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 3.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	1.0	2.0	3.0				
Time (military)	1539	1545	1551	1556				
pH (s.u)	8.07	8.10	8.11	8.12				
Specific Conductivity (µS)	52.9	62.3	46.7	45.8				
Water Temperature (°C)	20.2	19.9	19.1	19.3				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy	Cloudy	Cloudy	Cloudy				
Dissolved Oxygen (mg/l)	2.44							

Remarks: Well sampled at 1556 on September 10, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-6

Well Diameter (D): 2 inch of 43.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness: N/A ft
Total Well Depth (TWD): 43.05 ft btoc
Depth to Groundwater (DGW): 41.60 ft btoc
Length of Water Colum (LWC = TWD-DGW): 1.45 ft
1 Casing Volume (LWC*C) = 1.45 X .17 = 0.25 gals
3 Casing Volumes = 3 X 0.25 = 0.74 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling: 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1655							
pH (s.u)	5.12							
Specific Conductivity (µS)	59.6							
Water Temperature (°C)	23.8							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Cloudy							
Dissolved Oxygen (mg/l)	1.17							

Remarks: Well sampled at 1655 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/11/09:0840	Pace Analytical	9/12/09:0900

Well # MW-6D

Well Diameter (D) 2 inch of 54.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 54.19 ft btoc
Depth to Groundwater (DGW) 42.24 ft btoc
Length of Water Colum (LWC = TWD-DGW) 11.95 ft
1 Casing Volume (LWC*C) = 11.95 X .17 = 2.03 gals
3 Casing Volumes = 3 X 2.03 = 6.09 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 2.1 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	2.1						
Time (military)	1452	1630						
pH (s.u)	7.09	7.53						
Specific Conductivity (µS)	76.2	63.1						
Water Temperature (°C)	18.3	19.1						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Cloudy	Cloudy						
Dissolved Oxygen (mg/l)	1.30							

Remarks: Well purged dry after 2.1 gallons removed. Well sampled at 1630 on September 10, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-7

Well Diameter (D) 2 inch of 39.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 39.12 ft btoc
Depth to Groundwater (DGW) 37.25 ft btoc
Length of Water Colum (LWC = TWD-DGW) 1.87 ft
1 Casing Volume (LWC*C) = 1.87 X .17 = 0.32 gals
3 Casing Volumes = 3 X 0.32 = 1.14 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1702							
pH (s.u)	4.76							
Specific Conductivity (µS)	45.0							
Water Temperature (°C)	20.6							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Cloudy							
Dissolved Oxygen (mg/l)	1.98							

Remarks: Well sampled at 1702 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/11/09:0840	Pace Analytical	9/12/09:0900

Well # MW-7D

Well Diameter (D) 2 inch of 59.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 58.78 ft btoc
Depth to Groundwater (DGW) 37.48 ft btoc
Length of Water Colum (LWC = TWD-DGW) 21.30 ft
1 Casing Volume (LWC*C) = 21.30 X .17 = 3.62 gals
3 Casing Volumes = 3 X 3.62 = 11.04 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 3.7 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	3.7						
Time (military)	1435	1615						
pH (s.u)	7.95	8.08						
Specific Conductivity (µS)	88.6	73.1						
Water Temperature (°C)	19.8	19.2						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy	Sli. Cloudy						
Dissolved Oxygen (mg/l)	0.92							

Remarks: Well purged dry after 3.7 gallons removed. Well sampled at 1615 on September 10, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/11/09:0840	Pace Analytical	9/12/09:0900

Well # MW-8

Well Diameter (D) 2 inch of 30.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 30.38 ft btoc
Depth to Groundwater (DGW) 29.20 ft btoc
Length of Water Colum (LWC = TWD-DGW) 1.18 ft
1 Casing Volume (LWC*C) = 1.18 X .17 = 0.20 gals
3 Casing Volumes = 3 X 0.20 = 0.72 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Insufficient water in well for full sampling. Four voas collected at 1645 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-9

Well Diameter (D) 2 inch of 52.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 52.49 ft btoc
Depth to Groundwater (DGW) 46.50 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.99 ft
1 Casing Volume (LWC*C) = 5.99 X .17 = 1.02 gals
3 Casing Volumes = 3 X 1.02 = 3.15 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1313							
pH (s.u)	5.96							
Specific Conductivity (µS)	361							
Water Temperature (°C)	19.3							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy							
Dissolved Oxygen (mg/l)	0.41							

Remarks: Well sampled at 1313 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-10

Well Diameter (D) 2 inch of 50.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness 0.06 ft
Total Well Depth (TWD) 50.66 ft btoc
Depth to Groundwater (DGW) 43.05 ft btoc
Length of Water Colum (LWC = TWD-DGW) 7.61 ft
1 Casing Volume (LWC*C) = 7.61 X .17 = 1.29 gals
3 Casing Volumes = 3 X 1.29 = 3.99 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1338							
pH (s.u)	6.24							
Specific Conductivity (µS)	405							
Water Temperature (°C)	20.9							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	0.77							

Remarks: Well sampled below 0.06 feet of free-phase product at 1338 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/11/09:0840	Pace Analytical	9/12/09:0900

Well # MW-10D

Well Diameter (D) 2 inch of 94.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 94.76 ft btoc
Depth to Groundwater (DGW) 48.69 ft btoc
Length of Water Colum (LWC = TWD-DGW) 46.07 ft
1 Casing Volume (LWC*C) = 46.07 X .17 = 7.83 gals
3 Casing Volumes = 3 X 7.83 = 23.50 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 23.7 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	7.9	15.8	23.7				
Time (military)	1228	1240	1250	1300				
pH (s.u)	8.45	9.06	9.11	9.61				
Specific Conductivity (µS)	292	301	306	334				
Water Temperature (°C)	20.3	19.4	19.4	19.1				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Clear	Clear	Clear				
Dissolved Oxygen (mg/l)	0.63							

Remarks: Well sampled at 1300 on September 10, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-11

Well Diameter (D) 2 inch of 51.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness 0.21 ft
Total Well Depth (TWD) 51.22 ft btoc
Depth to Groundwater (DGW) 45.67 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.55 ft
1 Casing Volume (LWC*C) = 5.55 X .17 = 0.94 gals
3 Casing Volumes = 3 X 0.94 = 2.91 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1449							
pH (s.u)	6.37							
Specific Conductivity (µS)	379							
Water Temperature (°C)	21.4							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy							
Dissolved Oxygen (mg/l)	0.44							

Remarks: Well sampled below 0.21 feet of free-phase product at 1449 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/11/09:0840	Pace Analytical	9/12/09:0900

Well # MW-11D

Well Diameter (D) 2 inch of 90.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 90.22 ft btoc
Depth to Groundwater (DGW) 47.02 ft btoc
Length of Water Colum (LWC = TWD-DGW) 43.20 ft
1 Casing Volume (LWC*C) = 43.20 X .17 = 7.34 gals
3 Casing Volumes = 3 X 7.34 = 22.03 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 19.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	7.5	15.0					
Time (military)	1417	1425	1443					
pH (s.u)	8.17	8.19	8.16					
Specific Conductivity (µS)	233	202	200					
Water Temperature (°C)	21.7	21.1	22.1					
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Sli. Cloudy	Sli. Cloudy					
Dissolved Oxygen (mg/l)	0.70							

Remarks: Well purged dry after 19.5 gallons removed. Well sampled at 1458 on September 10, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/11/09:0840	Pace Analytical	9/12/09:0900

Well # MW-11DD

Well Diameter (D) 2 inch of 161.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 161.35 ft btoc
Depth to Groundwater (DGW) 57.58 ft btoc
Length of Water Colum (LWC = TWD-DGW) 103.77 ft
1 Casing Volume (LWC*C) = 103.77 X .17 = 17.64 gals
3 Casing Volumes = 3 X 17.64 = 53.01 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 25.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	18.0						
Time (military)	1325	1340						
pH (s.u)	9.63	7.83						
Specific Conductivity (µS)	547	532						
Water Temperature (°C)	22.0	20.7						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy						
Dissolved Oxygen (mg/l)	2.22							

Remarks: Well purged dry after 25.5 gallons removed. Well sampled at 1400 on September 10, 2009. Very strong petroleum odor noted at time of sampling.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/11/09:0840	Pace Analytical	9/12/09:0900

Well # MW-11DDD

Well Diameter (D) 2 inch of 230.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 230.40 ft btoc
Depth to Groundwater (DGW) 84.54 ft btoc
Length of Water Colum (LWC = TWD-DGW) 145.86 ft
1 Casing Volume (LWC*C) = 145.86 X .17 = 24.80 gals
3 Casing Volumes = 3 X 24.80 = 74.40 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 25.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	25.0						
Time (military)	1127	1240						
pH (s.u)	11.60	11.63						
Specific Conductivity (µS)	5920	5970						
Water Temperature (°C)	21.6	23.4						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Clear						
Dissolved Oxygen (mg/l)	1.16							

Remarks: Well purged dry after 25.0 gallons removed. Well sampled at 1240 on September 10, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-12

Well Diameter (D) 2 inch of 53.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 52.72 ft btoc
Depth to Groundwater (DGW) 45.27 ft btoc
Length of Water Colum (LWC = TWD-DGW) 7.45 ft
1 Casing Volume (LWC*C) = 7.45 X .17 = 1.27 gals
3 Casing Volumes = 3 X 1.27 = 3.93 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1349							
pH (s.u)	6.37							
Specific Conductivity (µS)	55.4							
Water Temperature (°C)	20.2							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy							
Dissolved Oxygen (mg/l)	2.46							

Remarks: Well sampled at 1349 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-13

Well Diameter (D) 2 inch of 48.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 48.13 ft btoc
Depth to Groundwater (DGW) dry ft btoc
Length of Water Colum (LWC = TWD-DGW) NA ft
1 Casing Volume (LWC*C) = NA X .17 = NA gals
3 Casing Volumes = 3 X NA = NA gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)								
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Well dry at time of sampling.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-13R

Well Diameter (D) 2 inch of 56.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 56.03 ft btoc
Depth to Groundwater (DGW) 46.64 ft btoc
Length of Water Colum (LWC = TWD-DGW) 9.39 ft
1 Casing Volume (LWC*C) = 9.39 X .17 = 1.60 gals
3 Casing Volumes = 3 X 1.60 = 4.79 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 1.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	1.5						
Time (military)	1440	1445						
pH (s.u)	6.59	6.45						
Specific Conductivity (µS)	550.00	623.00						
Water Temperature (°C)	21.1	18.4						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy						
Dissolved Oxygen (mg/l)	0.58							

Remarks: Well purged dry after 1.5 gallons removed. Well sampled at 1450 on September 9, 2009. Strong petroleum odor noted at time of sampling.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date	September 8, 2009
Field Personnel	Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions	Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F)	86
Facility Name:	KMO #119
Site ID#	00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605
Relinquished by	Date/Time	Received by	Date/Time

Well #	MW-14
Well Diameter (D)	2 inch of 50.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2	
for a 2 inch well C = 0.163	
for a 4 inch well C = 0.652	
*Free Product Thickness	0.09 ft
Total Well Depth (TWD)	50.37 ft btoc
Depth to Groundwater (DGW)	43.18 ft btoc
Length of Water Colum (LWC = TWD-DGW)	7.19 ft
1 Casing Volume (LWC*C) =	7.19 X .17 = 1.22 gals
3 Casing Volumes = 3 X	1.22 = 3.67 gals
(Standard Purge Volume)	
Total Volume of Water Purged Before Sampling	0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1335							
pH (s.u)	6.38							
Specific Conductivity (µS)	241							
Water Temperature (°C)	19.2							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	0.73							

Remarks: Well sampled below 0.09 feet of free-phase product at 1335 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Ivan A. Irizarry	9/11/09:0840	Pace Analytical	9/12/09:0900
Relinquished by	Date/Time	Received by	Date/Time

Well # MW-14D

Well Diameter (D) 2 inch of 81.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 81.67 ft btoc
Depth to Groundwater (DGW) 43.78 ft btoc
Length of Water Colum (LWC = TWD-DGW) 37.89 ft
1 Casing Volume (LWC*C) = 37.89 X .17 = 6.44 gals
3 Casing Volumes = 3 X 6.44 = 19.35 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 19.5 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	6.5	13.0	19.5				
Time (military)	1128	1137	1153	1205				
pH (s.u)	9.27	9.47	8.58	8.49				
Specific Conductivity (µS)	384	400	418	420				
Water Temperature (°C)	19.2	18.6	18.7	18.8				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy	Sli. Cloudy	Sli. Cloudy	Sli. Cloudy				
Dissolved Oxygen (mg/l)	0.87							

Remarks: Well Sampled at 1205 on September 10, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-15

Well Diameter (D) 2 inch of 51.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 51.06 ft btoc
Depth to Groundwater (DGW) 45.09 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.97 ft
1 Casing Volume (LWC*C) = 5.97 X .17 = 1.01 gals
3 Casing Volumes = 3 X 1.01 = 3.18 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1355							
pH (s.u)	6.32							
Specific Conductivity (µS)	252							
Water Temperature (°C)	19.5							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy							
Dissolved Oxygen (mg/l)	0.77							

Remarks: Well sampled at 1355 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-16

Well Diameter (D) 2 inch of 49.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness 0.02 ft
Total Well Depth (TWD) 48.83 ft btoc
Depth to Groundwater (DGW) 41.32 ft btoc
Length of Water Colum (LWC = TWD-DGW) 7.51 ft
1 Casing Volume (LWC*C) = 7.51 X .17 = 1.28 gals
3 Casing Volumes = 3 X 1.28 = 3.90 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1530							
pH (s.u)	6.48							
Specific Conductivity (µS)	638							
Water Temperature (°C)	21.1							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	0.22							

Remarks: Well sampled below 0.02 feet of free-phase product at 1530 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-17

Well Diameter (D) 2 inch of 48.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 48.20 ft btoc
Depth to Groundwater (DGW) 44.58 ft btoc
Length of Water Colum (LWC = TWD-DGW) 3.62 ft
1 Casing Volume (LWC*C) = 3.62 X .17 = 0.62 gals
3 Casing Volumes = 3 X 0.62 = 1.85 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1510							
pH (s.u)	6.10							
Specific Conductivity (µS)	94.3							
Water Temperature (°C)	23.0							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy							
Dissolved Oxygen (mg/l)	0.32							

Remarks: Well sampled at 1510 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-18

Well Diameter (D) 2 inch of 55.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 58.98 ft btoc
Depth to Groundwater (DGW) 53.04 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.94 ft
1 Casing Volume (LWC*C) = 5.94 X .17 = 1.01 gals
3 Casing Volumes = 3 X 1.01 = 3.03 gals
(Standard Purge Volume)
Note: Well has 3.08 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1220							
pH (s.u)	6.09							
Specific Conductivity (µS)	164.3							
Water Temperature (°C)	19.3							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	1.53							

Remarks: Well sampled at 1220 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-19

Well Diameter (D) 2 inch of 55.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 58.19 ft btoc
Depth to Groundwater (DGW) 53.13 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.06 ft
1 Casing Volume (LWC*C) = 5.06 X .17 = 0.86 gals
3 Casing Volumes = 3 X 0.86 = 2.58 gals
(Standard Purge Volume)
Note: Well has 3.09 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling wiil not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1230							
pH (s.u)	6.09							
Specific Conductivity (µS)	80.4							
Water Temperature (°C)	18.8							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy							
Dissolved Oxygen (mg/l)	0.63							

Remarks: Well sampled at 1230 on September 9, 2009. Very strong petroleum odor noted at time of sampling.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605
Relinquished by	Date/Time	Received by	Date/Time

Well # MW-20

Well Diameter (D) 2 inch of 82.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 85.23 ft btoc
Depth to Groundwater (DGW) 46.96 ft btoc
Length of Water Colum (LWC = TWD-DGW) 38.27 ft
1 Casing Volume (LWC*C) = 38.27 X .17 = 6.51 gals
3 Casing Volumes = 3 X 6.51 = 19.53 gals
(Standard Purge Volume)
Note: Well has 3.23 feet of stick-up.

Total Volume of Water Purged Before Sampling 7.5 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	6.5						
Time (military)	1128	1140						
pH (s.u)	6.25	6.14						
Specific Conductivity (µS)	234	252						
Water Temperature (°C)	20.0	18.2						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy						
Dissolved Oxygen (mg/l)	2.42							

Remarks: Well purged dry after 7.5 gallons removed. Well sampled at 1155 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605
Relinquished by	Date/Time	Received by	Date/Time

Well # MW-21

Well Diameter (D) 2 inch of 43.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 47.57 ft btoc
Depth to Groundwater (DGW) 36.88 ft btoc
Length of Water Colum (LWC = TWD-DGW) 10.69 ft
1 Casing Volume (LWC*C) = 10.69 X .17 = 1.82 gals
3 Casing Volumes = 3 X 1.82 = 5.46 gals
(Standard Purge Volume)
Note: Well has 3.67 feet of stick-up.

Total Volume of Water Purged Before Sampling 5.7 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	1.9	3.8	5.7				
Time (military)	1123	1133	1141	1153				
pH (s.u)	6.72	6.25	6.06	6.25				
Specific Conductivity (µS)	299	265	268	276				
Water Temperature (°C)	18.0	18.0	17.9	19.0				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Sli. Cloudy	Sli. Cloudy	Sli. Cloudy				
Dissolved Oxygen (mg/l)	0.32							

Remarks: Well sampled at 1153 on September 9, 2009. Very light sheen noted at time of sampling.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-22

Well Diameter (D) 2 inch of 45.20 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 48.83 ft btoc
Depth to Groundwater (DGW) 40.36 ft btoc
Length of Water Colum (LWC = TWD-DGW) 8.47 ft
1 Casing Volume (LWC*C) = 8.47 X .17 = 1.44 gals
3 Casing Volumes = 3 X 1.44 = 4.32 gals
(Standard Purge Volume)
Note: Well has 3.63 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling wiil not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	0927							
pH (s.u)	5.50							
Specific Conductivity (µS)	202							
Water Temperature (°C)	18.3							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	0.42							

Remarks: Well sampled at 0927 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-23

Well Diameter (D) 2 inch of 45.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 48.78 ft btoc
Depth to Groundwater (DGW) 39.85 ft btoc
Length of Water Colum (LWC = TWD-DGW) 8.93 ft
1 Casing Volume (LWC*C) = 8.93 X .17 = 1.52 gals
3 Casing Volumes = 3 X 1.52 = 4.55 gals
(Standard Purge Volume)
Note: Well has 3.28 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	0920							
pH (s.u)	6.63							
Specific Conductivity (µS)	4,160							
Water Temperature (°C)	18.0							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	0.72							

Remarks: Well sampled at 0920 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-24

Well Diameter (D) 2 inch of 77.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 80.48 ft btoc
Depth to Groundwater (DGW) 52.97 ft btoc
Length of Water Colum (LWC = TWD-DGW) 27.51 ft
1 Casing Volume (LWC*C) = 27.51 X .17 = 4.68 gals
3 Casing Volumes = 3 X 4.68 = 14.03 gals
(Standard Purge Volume)
Note: Well has 3.38 feet of stick-up.

Total Volume of Water Purged Before Sampling 14.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	5.0	10.0	14.0				
Time (military)	950	1010	1025	1040				
pH (s.u)	6.28	6.73	6.55	6.96				
Specific Conductivity (µS)	228	282	291	273				
Water Temperature (°C)	17.2	17.0	17.3	17.4				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Clear	Sli. Cloudy	Sli. Cloudy				
Dissolved Oxygen (mg/l)	2.48							

Remarks: Well sampled at 1040 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-25

Well Diameter (D) 2 inch of 57.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 61.30 ft btoc
Depth to Groundwater (DGW) 55.56 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.74 ft
1 Casing Volume (LWC*C) = 5.74 X .17 = 0.98 gals
3 Casing Volumes = 3 X 0.98 = 2.93 gals
(Standard Purge Volume)
Note: Well has 3.50 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	0910							
pH (s.u)	6.03							
Specific Conductivity (µS)	147.2							
Water Temperature (°C)	17.9							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy							
Dissolved Oxygen (mg/l)	2.39							

Remarks: Well sampled at 0910 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-26

Well Diameter (D) 2 inch of 77.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 80.71 ft btoc
Depth to Groundwater (DGW) 48.33 ft btoc
Length of Water Colum (LWC = TWD-DGW) 32.38 ft
1 Casing Volume (LWC*C) = 32.38 X .17 = 5.50 gals
3 Casing Volumes = 3 X 5.50 = 16.51 gals
(Standard Purge Volume)
Note: Well has 3.41 feet of stick-up.

Total Volume of Water Purged Before Sampling 11.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	5.5	11.0					
Time (military)	1003	1022	1047					
pH (s.u)	6.49	6.70	6.81					
Specific Conductivity (µS)	459	342	482					
Water Temperature (°C)	17.5	17.6	17.8					
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Sli. Cloudy	Cloudy					
Dissolved Oxygen (mg/l)	0.49							

Remarks: Well purged dry after 11.0 gallons removed. Well sampled at 1047 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-27

Well Diameter (D) 2 inch of 44.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 48.10 ft btoc
Depth to Groundwater (DGW) Dry ft btoc
Length of Water Colum (LWC = TWD-DGW) NA ft
1 Casing Volume (LWC*C) = NA X .17 = NA gals
3 Casing Volumes = 3 X NA = NA gals
(Standard Purge Volume)
Note: Well has 3.40 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)								
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Well dry at time of sampling.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-27R

Well Diameter (D) 2 inch of 53.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 55.94 ft btoc
Depth to Groundwater (DGW) 46.89 ft btoc
Length of Water Colum (LWC = TWD-DGW) 9.05 ft
1 Casing Volume (LWC*C) = 9.05 X .17 = 1.54 gals
3 Casing Volumes = 3 X 1.54 = 3.18 gals
(Standard Purge Volume)

Note: Well has 2.84 feet of stick-up.

Total Volume of Water Purged Before Sampling 3.3 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	1.1	2.2	3.3				
Time (military)	1122	1127	1133	1141				
pH (s.u)	5.80	6.39	5.88	6.65				
Specific Conductivity (µS)	128.1	140.3	143.9	159.3				
Water Temperature (°C)	16.7	16.8	16.7	16.7				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Cloudy	Cloudy	Cloudy	Cloudy				
Dissolved Oxygen (mg/l)	3.60							

Remarks: Well sampled at 1141 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-27D

Well Diameter (D) 2 inch of 69.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 72.07 ft btoc
Depth to Groundwater (DGW) 47.87 ft btoc
Length of Water Colum (LWC = TWD-DGW) 24.20 ft
1 Casing Volume (LWC*C) = 24.20 X .17 = 4.11 gals
3 Casing Volumes = 3 X 4.11 = 12.34 gals
(Standard Purge Volume)
Note: Well has 2.47 feet of stick-up.

Total Volume of Water Purged Before Sampling 7.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	4.0						
Time (military)	1125	1140						
pH (s.u)	6.14	6.14						
Specific Conductivity (µS)	377	410						
Water Temperature (°C)	17.1	18.1						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Cloudy	Cloudy						
Dissolved Oxygen (mg/l)	1.49							

Remarks: Well purged dry after 7.0 gallons removed. Well sampled at 1150 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-27DD

Well Diameter (D) 2 inch of 134.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 137.57 ft btoc
Depth to Groundwater (DGW) 64.84 ft btoc
Length of Water Colum (LWC = TWD-DGW) 72.73 ft
1 Casing Volume (LWC*C) = 72.73 X .17 = 12.36 gals
3 Casing Volumes = 3 X 12.36 = 37.09 gals
(Standard Purge Volume)
Note: Well has 2.67 feet of stick-up.

Total Volume of Water Purged Before Sampling 13.3 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	12.0						
Time (military)	1203	1305						
pH (s.u)	6.22	6.99						
Specific Conductivity (µS)	188	186						
Water Temperature (°C)	19.8	17.2						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy	Cloudy						
Dissolved Oxygen (mg/l)	1.34							

Remarks: Well purged dry after 13.3 gallons removed. Well sampled at 1315 on Septemebr 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-28

Well Diameter (D) 2 inch of 51.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 54.96 ft btoc
Depth to Groundwater (DGW) 49.08 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.88 ft
1 Casing Volume (LWC*C) = 5.88 X .17 = 1.00 gals
3 Casing Volumes = 3 X 1.00 = 3.00 gals
(Standard Purge Volume)
Note: Well has 3.26 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1056							
pH (s.u)	6.75							
Specific Conductivity (µS)	484							
Water Temperature (°C)	17.9							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	3.91							

Remarks: Well sampled at 1056 September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-29

Well Diameter (D) 2 inch of 55.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 54.93 ft btoc
Depth to Groundwater (DGW) 45.97 ft btoc
Length of Water Colum (LWC = TWD-DGW) 8.96 ft
1 Casing Volume (LWC*C) = 8.96 X .17 = 1.52 gals
3 Casing Volumes = 3 X 1.52 = 4.65 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1315							
pH (s.u)	6.25							
Specific Conductivity (µS)	125.1							
Water Temperature (°C)	18.7							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	2.55							

Remarks: Well sampled at 1315 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-30

Well Diameter (D) 2 inch of 33.20 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 36.15 ft btoc
Depth to Groundwater (DGW) Dry ft btoc
Length of Water Colum (LWC = TWD-DGW) NA ft
1 Casing Volume (LWC*C) = NA X .17 = NA gals
3 Casing Volumes = 3 X NA = NA gals
(Standard Purge Volume)
Note: Well has 2.95 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)								
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Well dry at time of sampling.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-30R

Well Diameter (D) 2 inch of 40.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 42.57 ft btoc
Depth to Groundwater (DGW) 33.87 ft btoc
Length of Water Colum (LWC = TWD-DGW) 8.70 ft
1 Casing Volume (LWC*C) = 8.70 X .17 = 1.48 gals
3 Casing Volumes = 3 X 1.48 = 3.12 gals
(Standard Purge Volume)
Note: Well has 2.57 feet of stick-up.

Total Volume of Water Purged Before Sampling 3.3 gals
*If free product is present over 1/8 inch, sampling wiil not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	1.0	2.0	3.3				
Time (military)	0935	0940	0947	1000				
pH (s.u)	6.89	5.53	5.33	5.32				
Specific Conductivity (µS)	61.8	58.7	58.6	58.5				
Water Temperature (°C)	18.2	16.3	15.6	15.5				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy	Cloudy	Cloudy	Cloudy				
Dissolved Oxygen (mg/l)	5.51							

Remarks: Well sampled at 1000 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-31

Well Diameter (D) 2 inch of 40.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 43.31 ft btoc
Depth to Groundwater (DGW) Dry ft btoc
Length of Water Colum (LWC = TWD-DGW) NA ft
1 Casing Volume (LWC*C) = NA X .17 = NA gals
3 Casing Volumes = 3 X NA = NA gals
(Standard Purge Volume)
Note: Well has 3.31 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)								
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Well dry at time of sampling.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-31R

Well Diameter (D) 2 inch of 46.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 49.23 ft btoc
Depth to Groundwater (DGW) 39.69 ft btoc
Length of Water Colum (LWC = TWD-DGW) 9.54 ft
1 Casing Volume (LWC*C) = 9.54 X .17 = 1.62 gals
3 Casing Volumes = 3 X 1.62 = 4.87 gals
(Standard Purge Volume)
Note: Well has 2.93 feet of stick-up.

Total Volume of Water Purged Before Sampling 3.5 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	1.1	2.2	3.5				
Time (military)	1015	1030	1040	1050				
pH (s.u)	5.24	5.54	5.58	5.60				
Specific Conductivity (µS)	112.3	101.6	103.7	102.3				
Water Temperature (°C)	16.6	16.4	16.5	16.7				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy	Cloudy	Cloudy	Cloudy				
Dissolved Oxygen (mg/l)	0.76							

Remarks: Well sampled at 1050 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-32

Well Diameter (D) 2 inch of 32.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 35.36 ft btoc
Depth to Groundwater (DGW) Dry ft btoc
Length of Water Colum (LWC = TWD-DGW) NA ft
1 Casing Volume (LWC*C) = NA X .17 = NA gals
3 Casing Volumes = 3 X NA = NA gals
(Standard Purge Volume)
Note: Well has 2.96 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)								
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Well dry at time of sampling.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-32R

Well Diameter (D) 2 inch of 40.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 43.11 ft btoc
Depth to Groundwater (DGW) 34.25 ft btoc
Length of Water Colum (LWC = TWD-DGW) 8.86 ft
1 Casing Volume (LWC*C) = 8.86 X .17 = 1.51 gals
3 Casing Volumes = 3 X 1.51 = 4.52 gals
(Standard Purge Volume)
Note: Well has 3.01 feet of stick-up.

Total Volume of Water Purged Before Sampling 4.5 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	1.5	3.0	4.5				
Time (military)	1006	1011	1017	1030				
pH (s.u)	5.26	5.14	5.25	5.52				
Specific Conductivity (µS)	66.1	75.6	72.8	74.5				
Water Temperature (°C)	16.9	16.7	16.3	16.7				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy	Cloudy	Cloudy	Cloudy				
Dissolved Oxygen (mg/l)	4.76							

Remarks: Well sampled at 1030 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-33

Well Diameter (D) 2 inch of 48.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 51.92 ft btoc
Depth to Groundwater (DGW) 47.20 ft btoc
Length of Water Colum (LWC = TWD-DGW) 4.72 ft
1 Casing Volume (LWC*C) = 4.72 X .17 = 0.80 gals
3 Casing Volumes = 3 X 0.80 = 2.41 gals
(Standard Purge Volume)
Note: Well has 3.12 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling wiil not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1326							
pH (s.u)	6.07							
Specific Conductivity (µS)	66.1							
Water Temperature (°C)	17.6							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy							
Dissolved Oxygen (mg/l)	3.49							

Remarks: Well sampled at 1326 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-33D

Well Diameter (D) 2 inch of 65.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 69.02 ft btoc
Depth to Groundwater (DGW) 48.24 ft btoc
Length of Water Colum (LWC = TWD-DGW) 20.78 ft
1 Casing Volume (LWC*C) = 20.78 X .17 = 3.53 gals
3 Casing Volumes = 3 X 3.53 = 10.60 gals
(Standard Purge Volume)

Note: Well has 3.42 feet of stick-up.

Total Volume of Water Purged Before Sampling 10.6 gals

*If free product is present over 1/8 inch, sampling wiil not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	3.5	7.0	10.6				
Time (military)	1350	1400	1405	1410				
pH (s.u)	5.74	5.89	5.90	5.97				
Specific Conductivity (µS)	89.9	82.0	83.3	80.4				
Water Temperature (°C)	19.3	18.0	17.9	17.5				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Cloudy	Cloudy	Cloudy	Cloudy				
Dissolved Oxygen (mg/l)	5.47							

Remarks: Well sampled at 1410 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605
Relinquished by	Date/Time	Received by	Date/Time

Well # MW-33DD

Well Diameter (D) 2 inch of 131.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	N/A	ft
Total Well Depth (TWD)	133.91	ft btoc
Depth to Groundwater (DGW)	50.35	ft btoc
Length of Water Colum (LWC = TWD-DGW)	83.56	ft
1 Casing Volume (LWC*C) =	83.56 X .17 =	14.21 gals
3 Casing Volumes = 3 X	14.21 =	41.19 gals

(Standard Purge Volume)

Note: Well has 2.81 feet of stick-up.

Total Volume of Water Purged Before Sampling: 14.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	13.7						
Time (military)	1425	1450						
pH (s.u)	5.98	5.72						
Specific Conductivity (µS)	188.4	193						
Water Temperature (°C)	20.2	18.3						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy	Sli. Cloudy						
Dissolved Oxygen (mg/l)	1.81							

Remarks: Well purged dry after 14.5 gallons removed. Well sampled at 1505 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-34

Well Diameter (D) 2 inch of 50.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 53.98 ft btoc
Depth to Groundwater (DGW) 48.17 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.81 ft
1 Casing Volume (LWC*C) = 5.81 X .17 = 0.99 gals
3 Casing Volumes = 3 X 0.99 = 2.91 gals
(Standard Purge Volume)
Note: Well has 3.38 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1430							
pH (s.u)	5.58							
Specific Conductivity (µS)	90.6							
Water Temperature (°C)	18.8							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	3.01							

Remarks: Well sampled at 1430 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-35

Well Diameter (D) 2 inch of 56.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 59.51 ft btoc
Depth to Groundwater (DGW) 51.56 ft btoc
Length of Water Colum (LWC = TWD-DGW) 7.95 ft
1 Casing Volume (LWC*C) = 7.95 X .17 = 1.35 gals
3 Casing Volumes = 3 X 1.35 = 4.05 gals
(Standard Purge Volume)
Note: Well has 3.11 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1530							
pH (s.u)	6.27							
Specific Conductivity (µS)	89.2							
Water Temperature (°C)	17.5							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	4.41							

Remarks: Well sampled at 1530 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605
Relinquished by	Date/Time	Received by	Date/Time

Well # MW-36

Well Diameter (D) 2 inch of 61.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 60.69 ft btoc
Depth to Groundwater (DGW) 47.18 ft btoc
Length of Water Colum (LWC = TWD-DGW) 13.51 ft
1 Casing Volume (LWC*C) = 13.51 X .17 = 2.30 gals
3 Casing Volumes = 3 X 2.30 = 6.89 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 7.3 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	2.5	5.0	7.3				
Time (military)	1555	1603	1610	1620				
pH (s.u)	6.80	6.00	6.68	5.98				
Specific Conductivity (µS)	100.6	94.2	101.2	97.6				
Water Temperature (°C)	17.2	16.9	16.6	17.4				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy	Sli. Cloudy	Cloudy	Cloudy				
Dissolved Oxygen (mg/l)	2.21							

Remarks: Well sampled at 1620 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/11/09:0840	Pace Analytical	9/12/09:0900

Well # MW-37

Well Diameter (D) 2 inch of 101.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 101.77 ft btoc
Depth to Groundwater (DGW) 45.38 ft btoc
Length of Water Colum (LWC = TWD-DGW) 56.39 ft
1 Casing Volume (LWC*C) = 56.39 X .17 = 9.59 gals
3 Casing Volumes = 3 X 9.59 = 28.76 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 10.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	10.0						
Time (military)	1040	1045						
pH (s.u)	11.17	11.29						
Specific Conductivity (µS)	1,218	1,659						
Water Temperature (°C)	17.6	17.6						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Clear						
Dissolved Oxygen (mg/l)	0.54							

Remarks: Well purged dry after 10.0 gallons removed. Well sampled at 1055 on September 10, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/11/09:0840	Pace Analytical	9/12/09:0900

Well # MW-37D

Well Diameter (D) 2 inch of 134.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 134.36 ft btoc
Depth to Groundwater (DGW) 46.83 ft btoc
Length of Water Colum (LWC = TWD-DGW) 87.53 ft
1 Casing Volume (LWC*C) = 87.53 X .17 = 14.88 gals
3 Casing Volumes = 3 X 14.88 = 44.64 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 15.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	15.0						
Time (military)	0940	1010						
pH (s.u)	6.34	7.78						
Specific Conductivity (µS)	443	490						
Water Temperature (°C)	18.4	18.9						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Cloudy	Cloudy						
Dissolved Oxygen (mg/l)	0.77							

Remarks: Well purged dry after 15.0 gallons removed. Well sampled at 1016 on September 10, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-38

Well Diameter (D) 2 inch of 57.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 60.39 ft btoc
Depth to Groundwater (DGW) 54.85 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.54 ft
1 Casing Volume (LWC*C) = 5.54 X .17 = 0.94 gals
3 Casing Volumes = 3 X 0.94 = 2.82 gals
(Standard Purge Volume)
Note: Well has 2.99 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1215							
pH (s.u)	6.46							
Specific Conductivity (µS)	73.3							
Water Temperature (°C)	18.6							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear							
Dissolved Oxygen (mg/l)	1.98							

Remarks: Well sampled at 1215 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-39

Well Diameter (D) 2 inch of 56.20 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 56.06 ft btoc
Depth to Groundwater (DGW) 45.92 ft btoc
Length of Water Colum (LWC = TWD-DGW) 10.14 ft
1 Casing Volume (LWC*C) = 10.14 X .17 = 1.72 gals
3 Casing Volumes = 3 X 1.72 = 5.17 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 5.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	1.8	3.5					
Time (military)	1400	1405	1420					
pH (s.u)	6.22	6.39	6.48					
Specific Conductivity (µS)	666	675	680					
Water Temperature (°C)	18.9	18.7	18.8					
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Sli. Cloudy	Sli. Cloudy					
Dissolved Oxygen (mg/l)	0.38							

Remarks: Well purged dry after 5.0 gallons removed. Well sampled at 1425 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-40

Well Diameter (D) 2 inch of 55.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 55.70 ft btoc
Depth to Groundwater (DGW) 45.55 ft btoc
Length of Water Colum (LWC = TWD-DGW) 10.15 ft
1 Casing Volume (LWC*C) = 10.15 X .17 = 1.73 gals
3 Casing Volumes = 3 X 1.73 = 5.18 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	2.0	4.0	6.0				
Time (military)	1442	1448	1454	1524				
pH (s.u)	6.48	6.32	6.49	6.16				
Specific Conductivity (µS)	576	593	640	659				
Water Temperature (°C)	18.7	19.3	19.7	19.8				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Sli. Cloudy	Sli. Cloudy	Cloudy				
Dissolved Oxygen (mg/l)	0.32							

Remarks: Well sampled at 1524 on September 9, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-41

Well Diameter (D) 2 inch of 55.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 55.44 ft btoc
Depth to Groundwater (DGW) 43.13 ft btoc
Length of Water Colum (LWC = TWD-DGW) 12.31 ft
1 Casing Volume (LWC*C) = 12.31 X .17 = 2.09 gals
3 Casing Volumes = 3 X 2.09 = 6.28 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 6.3 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	2.1	4.2	6.3				
Time (military)	1400	1408	1414	1423				
pH (s.u)	5.85	6.32	6.01	6.44				
Specific Conductivity (µS)	702	666	726	776				
Water Temperature (°C)	19.6	19.7	19.5	19.8				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Sli. Cloudy				
Dissolved Oxygen (mg/l)	0.38							

Remarks: Well sampled at 1423 on September 9, 2009. Strong petroleum odor noted at time of sampling.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-42

Well Diameter (D) 2 inch of 55.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 58.97 ft btoc
Depth to Groundwater (DGW) 44.44 ft btoc
Length of Water Colum (LWC = TWD-DGW) 14.53 ft
1 Casing Volume (LWC*C) = 14.53 X .17 = 2.47 gals
3 Casing Volumes = 3 X 2.47 = 7.41 gals
(Standard Purge Volume)
Note: Well has 3.17 feet of stick-up.

Total Volume of Water Purged Before Sampling 7.5 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	2.5	5.0	7.5				
Time (military)	1533	1543	1554	1605				
pH (s.u)	5.98	5.88	6.62	6.11				
Specific Conductivity (µS)	188	190	197	190				
Water Temperature (°C)	18.0	17.4	17.2	17.6				
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy	Cloudy	Cloudy				
Dissolved Oxygen (mg/l)	1.14							

Remarks: Well sampled at 1605 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-43

Well Diameter (D) 2 inch of 39.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 42.55 ft btoc
Depth to Groundwater (DGW) 35.19 ft btoc
Length of Water Colum (LWC = TWD-DGW) 7.36 ft
1 Casing Volume (LWC*C) = 7.36 X .17 = 1.25 gals
3 Casing Volumes = 3 X 1.25 = 3.75 gals
(Standard Purge Volume)
Note: Well has 2.95 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1402							
pH (s.u)	5.78							
Specific Conductivity (µS)	83.4							
Water Temperature (°C)	17.9							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy							
Dissolved Oxygen (mg/l)	3.17							

Remarks: Well sampled at 1402 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/10/09:0800	Pace Analytical	9/11/09:1605

Well # MW-44

Well Diameter (D) 2 inch of 39.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 42.53 ft btoc
Depth to Groundwater (DGW) 35.28 ft btoc
Length of Water Colum (LWC = TWD-DGW) 7.25 ft
1 Casing Volume (LWC*C) = 7.25 X .17 = 1.23 gals
3 Casing Volumes = 3 X 1.23 = 3.69 gals
(Standard Purge Volume)
Note: Well has 3.03 feet of stick-up.

Total Volume of Water Purged Before Sampling 0.0 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--							
Time (military)	1450							
pH (s.u)	5.89							
Specific Conductivity (µS)	65.6							
Water Temperature (°C)	18.1							
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy							
Dissolved Oxygen (mg/l)	3.07							

Remarks: Well sampled at 1450 on September 8, 2009.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date: September 8, 2009
Field Personnel: Ivan Irizarry, Trever Slack, and Terence Livingston
General weather Conditions: Sunny to Partly Cloudy to Overcast
Ambient Air Temperature (°F): 86

Facility Name: KMO #119 Site ID#: 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Ivan A. Irizarry	9/11/09:840	Pace Analytical	9/12/09:0900

Well # MW-45

Well Diameter (D) 2 inch of 41.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness N/A ft
Total Well Depth (TWD) 40.91 ft btoc
Depth to Groundwater (DGW) 35.51 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.40 ft
1 Casing Volume (LWC*C) = 5.40 X .17 = 0.92 gals
3 Casing Volumes = 3 X 0.92 = 3.06 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 2.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	1.1	2.0					
Time (military)	1333	1340	1350					
pH (s.u)	8.89	8.59	8.43					
Specific Conductivity (µS)	32.0	26.5	24.3					
Water Temperature (°C)	18.9	18.3	18.0					
Turbidity (subjective: clear, slightly cloudy, cloudy)	Sli. Cloudy	Cloudy	Cloudy					
Dissolved Oxygen (mg/l)	1.46							

Remarks: Well purged dry after 2.0 gallons removed. Well sampled at 1350 on September 10, 2009.

APPENDIX D

LABORATORY DATA SHEETS

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(704)875-9092

September 22, 2009

Mr. Trever Slack
Bunnell-Lammons Engineering
6004 Ponders Ct
Greenville, SC 29615

RE: Project: KMO #119 3661-03
Pace Project No.: 9252986

Dear Mr. Slack:
Enclosed are the analytical results for sample(s) received by the laboratory on September 12, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Charlotte Certification IDs

West Virginia Certification #: 357
Virginia Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana/LELAP Certification #: 04034
New Jersey Certification #: NC012
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
Pennsylvania Certification #: 68-00784
South Carolina Certification #: 990060001
South Carolina Drinking Water Cert. #: 990060003
Tennessee Certification #: 04010

Asheville Certification IDs

West Virginia Certification #: 356
Florida/NELAP Certification #: E87648
Louisiana/LELAP Certification #: 03095
Massachusetts Certification #: M-NC030
New Jersey Certification #: NC011
North Carolina Bioassay Certification #: 9
Connecticut Certification #: PH-0106
North Carolina Wastewater Certification #: 40
Pennsylvania Certification #: 68-03578
South Carolina Bioassay Certification #: 99030002
South Carolina Certification #: 99030001
Tennessee Certification #: 2980
Virginia Certification #: 00072
North Carolina Drinking Water Certification #: 37712

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SAMPLE SUMMARY

Project: KMO #119 3661-03
Pace Project No.: 9252986

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9252986001	**MW-1R**	Water	09/10/09 15:50	09/12/09 09:00
9252986002	**MW-1DDD**	Water	09/10/09 16:10	09/12/09 09:00
9252986003	**MW-1DD**	Water	09/10/09 17:00	09/12/09 09:00
9252986004	**MW-1D**	Water	09/10/09 17:35	09/12/09 09:00
9252986005	**MW-5R**	Water	09/10/09 15:56	09/12/09 09:00
9252986006	**MW-6D**	Water	09/10/09 16:30	09/12/09 09:00
9252986007	**MW-7D**	Water	09/10/09 16:15	09/12/09 09:00
9252986008	**MW-10D**	Water	09/10/09 13:00	09/12/09 09:00
9252986009	**MW-11DDD**	Water	09/10/09 12:40	09/12/09 09:00
9252986010	**MW-11DD**	Water	09/10/09 14:00	09/12/09 09:00
9252986011	**MW-11D**	Water	09/10/09 14:58	09/12/09 09:00
9252986012	**MW-14D**	Water	09/10/09 12:05	09/12/09 09:00
9252986013	**MW-37**	Water	09/10/09 10:55	09/12/09 09:00
9252986014	**MW-37D**	Water	09/10/09 10:16	09/12/09 09:00
9252986015	**MW-45**	Water	09/10/09 13:50	09/12/09 09:00
9252986016	**MW-8**	Water	09/09/09 16:45	09/12/09 09:00

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SAMPLE ANALYTE COUNT

Project: KMO #119 3661-03
Pace Project No.: 9252986

Lab ID	Sample ID	Method	Analysts	Analytes Reported
9252986001	**MW-1R**	EPA 6010	JMW	1
		EPA 8011	RES	2
		EPA 8260	AW	12
9252986002	**MW-1DDD**	EPA 6010	JMW	1
		EPA 8011	CAH	2
		EPA 8260	AW, KJM	12
9252986003	**MW-1DD**	EPA 6010	JMW	1
		EPA 8011	CAH	2
		EPA 8260	AW, KJM	12
9252986004	**MW-1D**	EPA 6010	JMW	1
		EPA 8011	CAH	2
		EPA 8260	AW, KJM	12
9252986005	**MW-5R**	EPA 6010	JMW	1
		EPA 8011	CAH	2
		EPA 8260	AW	12
9252986006	**MW-6D**	EPA 6010	JMW	1
		EPA 8011	CAH	2
		EPA 8260	AW	12
9252986007	**MW-7D**	EPA 6010	JMW	1
		EPA 8011	CAH	2
		EPA 8260	AW	12
9252986008	**MW-10D**	EPA 6010	JMW	1
		EPA 8011	CAH	2
		EPA 8260	AW, KJM	12
9252986009	**MW-11DDD**	EPA 6010	JMW	1
		EPA 8011	CAH	2
		EPA 8260	AW, KJM	12
9252986010	**MW-11DD**	EPA 6010	JMW	1
		EPA 8011	CAH	2
		EPA 8260	AW, KJM	12
9252986011	**MW-11D**	EPA 6010	JMW	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252986012	**MW-14D**	EPA 6010	JMW	1
		EPA 8011	CAH	2
		EPA 8260	AW, KJM	12
9252986013	**MW-37**	EPA 6010	SHB	1

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SAMPLE ANALYTE COUNT

Project: KMO #119 3661-03
Pace Project No.: 9252986

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 8011	CAH	2
		EPA 8260	AW	12
9252986014	**MW-37D**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	AW	12
9252986015	**MW-45**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	AW	12
9252986016	**MW-8**	EPA 8011	CAH	2
		EPA 8260	KJM	12

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-1R **Lab ID: 9252986001** Collected: 09/10/09 15:50 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**429**	ug/L	19.5	19.5	1000	09/18/09 15:06	09/21/09 16:29	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140		1000	09/18/09 15:06	09/21/09 16:29	301-79-56	S4
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**46.3**	ug/L	5.0	4.0	1	09/16/09 14:25	09/17/09 14:57	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**25100**	ug/L	1250	300	250		09/20/09 05:10	71-43-2	
1,2-Dichloroethane	**813J**	ug/L	1250	325	250		09/20/09 05:10	107-06-2	
Ethylbenzene	**3320**	ug/L	1250	275	250		09/20/09 05:10	100-41-4	
Methyl-tert-butyl ether	**4340**	ug/L	1250	500	250		09/20/09 05:10	1634-04-4	
Naphthalene	**1550**	ug/L	1250	725	250		09/20/09 05:10	91-20-3	
Toluene	**37500**	ug/L	1250	450	250		09/20/09 05:10	108-88-3	
m&p-Xylene	**12500**	ug/L	2500	675	250		09/20/09 05:10	1330-20-7	
o-Xylene	**6280**	ug/L	1250	425	250		09/20/09 05:10	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109		250		09/20/09 05:10	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		250		09/20/09 05:10	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120		250		09/20/09 05:10	17060-07-0	
Toluene-d8 (S)	103	%	70-120		250		09/20/09 05:10	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-1DDD **Lab ID: 9252986002** Collected: 09/10/09 16:10 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.19**	ug/L	0.020	0.020	1	09/18/09 15:06	09/19/09 07:22	106-93-4	
1-Chloro-2-bromopropane (S)	100	%	60-140		1	09/18/09 15:06	09/19/09 07:22	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/16/09 14:25	09/17/09 15:00	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1580**	ug/L	100	24.0	20		09/20/09 17:23	71-43-2	
1,2-Dichloroethane	**57.7**	ug/L	5.0	1.3	1		09/19/09 22:50	107-06-2	
Ethylbenzene	**132**	ug/L	5.0	1.1	1		09/19/09 22:50	100-41-4	
Methyl-tert-butyl ether	**970**	ug/L	100	40.0	20		09/20/09 17:23	1634-04-4	
Naphthalene	**42.8**	ug/L	5.0	2.9	1		09/19/09 22:50	91-20-3	
Toluene	**1110**	ug/L	100	36.0	20		09/20/09 17:23	108-88-3	
m&p-Xylene	**369**	ug/L	10.0	2.7	1		09/19/09 22:50	1330-20-7	
o-Xylene	**244**	ug/L	100	34.0	20		09/20/09 17:23	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		1		09/19/09 22:50	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		1		09/19/09 22:50	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120		1		09/19/09 22:50	17060-07-0	
Toluene-d8 (S)	103	%	70-120		1		09/19/09 22:50	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-1DD **Lab ID: 9252986003** Collected: 09/10/09 17:00 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.41**	ug/L	0.019	0.019	1	09/18/09 15:07	09/19/09 08:01	106-93-4	
1-Chloro-2-bromopropane (S)	105	%	60-140		1	09/18/09 15:07	09/19/09 08:01	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/16/09 14:25	09/17/09 15:04	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**182**	ug/L	5.0	1.2	1		09/19/09 23:08	71-43-2	
1,2-Dichloroethane	**7.3**	ug/L	5.0	1.3	1		09/19/09 23:08	107-06-2	
Ethylbenzene	**36.0**	ug/L	5.0	1.1	1		09/19/09 23:08	100-41-4	
Methyl-tert-butyl ether	**72.6**	ug/L	5.0	2.0	1		09/19/09 23:08	1634-04-4	
Naphthalene	**15.4**	ug/L	5.0	2.9	1		09/19/09 23:08	91-20-3	
Toluene	**339**	ug/L	10.0	3.6	2		09/20/09 15:59	108-88-3	
m&p-Xylene	**101**	ug/L	10.0	2.7	1		09/19/09 23:08	1330-20-7	
o-Xylene	**50.0**	ug/L	5.0	1.7	1		09/19/09 23:08	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109		1		09/19/09 23:08	460-00-4	
Dibromofluoromethane (S)	98	%	85-115		1		09/19/09 23:08	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/19/09 23:08	17060-07-0	
Toluene-d8 (S)	103	%	70-120		1		09/19/09 23:08	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-1D **Lab ID: 9252986004** Collected: 09/10/09 17:35 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 15:07	09/19/09 08:21	106-93-4	
1-Chloro-2-bromopropane (S)	99	%	60-140		1	09/18/09 15:07	09/19/09 08:21	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/16/09 14:25	09/17/09 15:07	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**11300**	ug/L	500	120	100		09/21/09 16:22	71-43-2	
1,2-Dichloroethane	**221**	ug/L	25.0	6.5	5		09/20/09 05:52	107-06-2	
Ethylbenzene	**587**	ug/L	25.0	5.5	5		09/20/09 05:52	100-41-4	
Methyl-tert-butyl ether	**4950**	ug/L	500	200	100		09/21/09 16:22	1634-04-4	
Naphthalene	**136**	ug/L	25.0	14.5	5		09/20/09 05:52	91-20-3	
Toluene	**4950**	ug/L	500	180	100		09/21/09 16:22	108-88-3	
m&p-Xylene	**1200**	ug/L	50.0	13.5	5		09/20/09 05:52	1330-20-7	
o-Xylene	**923**	ug/L	25.0	8.5	5		09/20/09 05:52	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109		5		09/20/09 05:52	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		5		09/20/09 05:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	105	%	79-120		5		09/20/09 05:52	17060-07-0	
Toluene-d8 (S)	103	%	70-120		5		09/20/09 05:52	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-5R **Lab ID: 9252986005** Collected: 09/10/09 15:56 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 15:07	09/19/09 08:40	106-93-4	
1-Chloro-2-bromopropane (S)	100	%	60-140		1	09/18/09 15:07	09/19/09 08:40	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**75.9**	ug/L	5.0	4.0	1	09/16/09 14:25	09/17/09 15:11	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/19/09 23:26	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/19/09 23:26	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/19/09 23:26	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/19/09 23:26	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/19/09 23:26	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/19/09 23:26	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/19/09 23:26	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/19/09 23:26	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/19/09 23:26	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		1		09/19/09 23:26	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/19/09 23:26	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		09/19/09 23:26	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-6D **Lab ID: 9252986006** Collected: 09/10/09 16:30 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 15:07	09/19/09 09:00	106-93-4	
1-Chloro-2-bromopropane (S)	100	%	60-140		1	09/18/09 15:07	09/19/09 09:00	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/16/09 14:25	09/17/09 15:15	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/19/09 23:44	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/19/09 23:44	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/19/09 23:44	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/19/09 23:44	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/19/09 23:44	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/19/09 23:44	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/19/09 23:44	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/19/09 23:44	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		1		09/19/09 23:44	460-00-4	
Dibromofluoromethane (S)	102	%	85-115		1		09/19/09 23:44	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/19/09 23:44	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		09/19/09 23:44	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-7D **Lab ID: 9252986007** Collected: 09/10/09 16:15 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 15:07	09/19/09 09:20	106-93-4	
1-Chloro-2-bromopropane (S)	103	%	60-140		1	09/18/09 15:07	09/19/09 09:20	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/16/09 14:25	09/17/09 15:18	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/20/09 00:02	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/20/09 00:02	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/20/09 00:02	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/20/09 00:02	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/20/09 00:02	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/20/09 00:02	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/20/09 00:02	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/20/09 00:02	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/20/09 00:02	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		1		09/20/09 00:02	1868-53-7	
1,2-Dichloroethane-d4 (S)	106	%	79-120		1		09/20/09 00:02	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/20/09 00:02	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-10D **Lab ID: 9252986008** Collected: 09/10/09 13:00 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 15:07	09/19/09 09:39	106-93-4	
1-Chloro-2-bromopropane (S)	98	%	60-140		1	09/18/09 15:07	09/19/09 09:39	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/16/09 14:25	09/17/09 15:22	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**107**	ug/L	5.0	1.2	1		09/20/09 00:20	71-43-2	
1,2-Dichloroethane	**30.9**	ug/L	5.0	1.3	1		09/20/09 00:20	107-06-2	
Ethylbenzene	**8.4**	ug/L	5.0	1.1	1		09/20/09 00:20	100-41-4	
Methyl-tert-butyl ether	**987**	ug/L	50.0	20.0	10		09/20/09 16:20	1634-04-4	
Naphthalene	**4.1J**	ug/L	5.0	2.9	1		09/20/09 00:20	91-20-3	
Toluene	**12.0**	ug/L	5.0	1.8	1		09/20/09 00:20	108-88-3	
m&p-Xylene	**6.0J**	ug/L	10.0	2.7	1		09/20/09 00:20	1330-20-7	
o-Xylene	**6.2**	ug/L	5.0	1.7	1		09/20/09 00:20	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109		1		09/20/09 00:20	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		1		09/20/09 00:20	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	79-120		1		09/20/09 00:20	17060-07-0	
Toluene-d8 (S)	104	%	70-120		1		09/20/09 00:20	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-11DDD **Lab ID: 9252986009** Collected: 09/10/09 12:40 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 15:07	09/19/09 09:59	106-93-4	
1-Chloro-2-bromopropane (S)	100	%	60-140		1	09/18/09 15:07	09/19/09 09:59	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**18.6**	ug/L	5.0	4.0	1	09/16/09 14:25	09/17/09 15:35	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**987**	ug/L	50.0	12.0	10		09/20/09 16:41	71-43-2	
1,2-Dichloroethane	**56.9**	ug/L	5.0	1.3	1		09/20/09 00:39	107-06-2	
Ethylbenzene	**61.4**	ug/L	5.0	1.1	1		09/20/09 00:39	100-41-4	
Methyl-tert-butyl ether	**615**	ug/L	50.0	20.0	10		09/20/09 16:41	1634-04-4	
Naphthalene	**16.2**	ug/L	5.0	2.9	1		09/20/09 00:39	91-20-3	
Toluene	**381**	ug/L	50.0	18.0	10		09/20/09 16:41	108-88-3	
m&p-Xylene	**169**	ug/L	10.0	2.7	1		09/20/09 00:39	1330-20-7	
o-Xylene	**92.1**	ug/L	5.0	1.7	1		09/20/09 00:39	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		1		09/20/09 00:39	460-00-4	
Dibromofluoromethane (S)	96	%	85-115		1		09/20/09 00:39	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	79-120		1		09/20/09 00:39	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/20/09 00:39	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-11DD **Lab ID: 9252986010** Collected: 09/10/09 14:00 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 15:07	09/19/09 10:18	106-93-4	
1-Chloro-2-bromopropane (S)	98	%	60-140		1	09/18/09 15:07	09/19/09 10:18	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**6.2**	ug/L	5.0	4.0	1	09/16/09 14:25	09/17/09 15:40	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**11000**	ug/L	500	120	100		09/20/09 18:45	71-43-2	
1,2-Dichloroethane	**486**	ug/L	100	26.0	20		09/20/09 06:34	107-06-2	
Ethylbenzene	**748**	ug/L	100	22.0	20		09/20/09 06:34	100-41-4	
Methyl-tert-butyl ether	**5310**	ug/L	500	200	100		09/20/09 18:45	1634-04-4	
Naphthalene	**266**	ug/L	100	58.0	20		09/20/09 06:34	91-20-3	
Toluene	**6470**	ug/L	500	180	100		09/20/09 18:45	108-88-3	
m&p-Xylene	**2260**	ug/L	200	54.0	20		09/20/09 06:34	1330-20-7	
o-Xylene	**1340**	ug/L	100	34.0	20		09/20/09 06:34	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109		20		09/20/09 06:34	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		20		09/20/09 06:34	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	79-120		20		09/20/09 06:34	17060-07-0	
Toluene-d8 (S)	101	%	70-120		20		09/20/09 06:34	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-11D **Lab ID: 9252986011** Collected: 09/10/09 14:58 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 15:07	09/19/09 10:38	106-93-4	
1-Chloro-2-bromopropane (S)	98	%	60-140		1	09/18/09 15:07	09/19/09 10:38	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/16/09 14:25	09/17/09 15:44	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**749**	ug/L	25.0	6.0	5		09/20/09 14:14	71-43-2	
1,2-Dichloroethane	**37.1**	ug/L	25.0	6.5	5		09/20/09 14:14	107-06-2	
Ethylbenzene	**116**	ug/L	25.0	5.5	5		09/20/09 14:14	100-41-4	
Methyl-tert-butyl ether	**493**	ug/L	25.0	10.0	5		09/20/09 14:14	1634-04-4	
Naphthalene	**58.2**	ug/L	25.0	14.5	5		09/20/09 14:14	91-20-3	
Toluene	**385**	ug/L	25.0	9.0	5		09/20/09 14:14	108-88-3	
m&p-Xylene	**305**	ug/L	50.0	13.5	5		09/20/09 14:14	1330-20-7	
o-Xylene	**161**	ug/L	25.0	8.5	5		09/20/09 14:14	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		5		09/20/09 14:14	460-00-4	
Dibromofluoromethane (S)	98	%	85-115		5		09/20/09 14:14	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120		5		09/20/09 14:14	17060-07-0	
Toluene-d8 (S)	101	%	70-120		5		09/20/09 14:14	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-14D **Lab ID: 9252986012** Collected: 09/10/09 12:05 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 15:07	09/19/09 10:57	106-93-4	
1-Chloro-2-bromopropane (S)	95	%	60-140		1	09/18/09 15:07	09/19/09 10:57	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/16/09 14:25	09/17/09 15:47	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**484**	ug/L	25.0	6.0	5		09/20/09 14:56	71-43-2	
1,2-Dichloroethane	**25.3**	ug/L	5.0	1.3	1		09/20/09 00:57	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/20/09 00:57	100-41-4	
Methyl-tert-butyl ether	**186**	ug/L	5.0	2.0	1		09/20/09 00:57	1634-04-4	
Naphthalene	**108**	ug/L	5.0	2.9	1		09/20/09 00:57	91-20-3	
Toluene	**8.4**	ug/L	5.0	1.8	1		09/20/09 00:57	108-88-3	
m&p-Xylene	**11.6**	ug/L	10.0	2.7	1		09/20/09 00:57	1330-20-7	
o-Xylene	**28.8**	ug/L	5.0	1.7	1		09/20/09 00:57	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		1		09/20/09 00:57	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		1		09/20/09 00:57	1868-53-7	
1,2-Dichloroethane-d4 (S)	102	%	79-120		1		09/20/09 00:57	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		09/20/09 00:57	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-37 **Lab ID: 9252986013** Collected: 09/10/09 10:55 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 15:08	09/19/09 11:18	106-93-4	
1-Chloro-2-bromopropane (S)	95	%	60-140		1	09/18/09 15:08	09/19/09 11:18	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/17/09 15:15	09/18/09 23:56	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**25.1**	ug/L	5.0	1.2	1		09/20/09 01:15	71-43-2	
1,2-Dichloroethane	**2.3J**	ug/L	5.0	1.3	1		09/20/09 01:15	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/20/09 01:15	100-41-4	
Methyl-tert-butyl ether	**60.8**	ug/L	5.0	2.0	1		09/20/09 01:15	1634-04-4	
Naphthalene	**9.8**	ug/L	5.0	2.9	1		09/20/09 01:15	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/20/09 01:15	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/20/09 01:15	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/20/09 01:15	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/20/09 01:15	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		1		09/20/09 01:15	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/20/09 01:15	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		09/20/09 01:15	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-37D **Lab ID: 9252986014** Collected: 09/10/09 10:16 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/18/09 15:08	09/19/09 11:38	106-93-4	
1-Chloro-2-bromopropane (S)	94	%	60-140		1	09/18/09 15:08	09/19/09 11:38	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**11.5**	ug/L	5.0	4.0	1	09/17/09 15:15	09/19/09 00:00	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**21.3**	ug/L	5.0	1.2	1		09/20/09 01:33	71-43-2	
1,2-Dichloroethane	**2.8J**	ug/L	5.0	1.3	1		09/20/09 01:33	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/20/09 01:33	100-41-4	
Methyl-tert-butyl ether	**51.6**	ug/L	5.0	2.0	1		09/20/09 01:33	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/20/09 01:33	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/20/09 01:33	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/20/09 01:33	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/20/09 01:33	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		1		09/20/09 01:33	460-00-4	
Dibromofluoromethane (S)	98	%	85-115		1		09/20/09 01:33	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120		1		09/20/09 01:33	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/20/09 01:33	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-45 **Lab ID: 9252986015** Collected: 09/10/09 13:50 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 15:08	09/19/09 11:58	106-93-4	
1-Chloro-2-bromopropane (S)	107	%	60-140		1	09/18/09 15:08	09/19/09 11:58	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**55.7**	ug/L	5.0	4.0	1	09/17/09 15:15	09/19/09 00:14	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/20/09 01:51	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/20/09 01:51	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/20/09 01:51	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/20/09 01:51	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/20/09 01:51	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/20/09 01:51	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/20/09 01:51	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/20/09 01:51	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109		1		09/20/09 01:51	460-00-4	
Dibromofluoromethane (S)	102	%	85-115		1		09/20/09 01:51	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120		1		09/20/09 01:51	17060-07-0	
Toluene-d8 (S)	103	%	70-120		1		09/20/09 01:51	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252986

Sample: MW-8 **Lab ID: 9252986016** Collected: 09/09/09 16:45 Received: 09/12/09 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 15:08	09/19/09 12:17	106-93-4	
1-Chloro-2-bromopropane (S)	111	%	60-140		1	09/18/09 15:08	09/19/09 12:17	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/19/09 04:03	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/19/09 04:03	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/19/09 04:03	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/19/09 04:03	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/19/09 04:03	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/19/09 04:03	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/19/09 04:03	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/19/09 04:03	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/19/09 04:03	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		1		09/19/09 04:03	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/19/09 04:03	17060-07-0	
Toluene-d8 (S)	98	%	70-120		1		09/19/09 04:03	2037-26-5	

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252986

QC Batch: MPRP/5079 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 9252986001, 9252986002, 9252986003, 9252986004, 9252986005, 9252986006, 9252986007, 9252986008, 9252986009, 9252986010, 9252986011, 9252986012

METHOD BLANK: 336854 Matrix: Water
Associated Lab Samples: 9252986001, 9252986002, 9252986003, 9252986004, 9252986005, 9252986006, 9252986007, 9252986008, 9252986009, 9252986010, 9252986011, 9252986012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	5.0	09/17/09 13:48	

LABORATORY CONTROL SAMPLE: 336855

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	498	100	80-120	

MATRIX SPIKE SAMPLE: 336856

Parameter	Units	9253052006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	68.5	500	410	68	75-125	M0

SAMPLE DUPLICATE: 336857

Parameter	Units	9253029001 Result	Dup Result	RPD	Max RPD	Qualifiers
Lead	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252986

QC Batch: OEXT/8046 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9252986001, 9252986002, 9252986003, 9252986004, 9252986005, 9252986006, 9252986007, 9252986008, 9252986009, 9252986010, 9252986011, 9252986012, 9252986013, 9252986014, 9252986015, 9252986016

METHOD BLANK: 338382 Matrix: Water
Associated Lab Samples: 9252986001, 9252986002, 9252986003, 9252986004, 9252986005, 9252986006, 9252986007, 9252986008, 9252986009, 9252986010, 9252986011, 9252986012, 9252986013, 9252986014, 9252986015, 9252986016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.019	09/19/09 04:25	
1-Chloro-2-bromopropane (S)	%	97	60-140	09/19/09 04:25	

LABORATORY CONTROL SAMPLE & LCSD: 338383 338384

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.26	0.31	94	110	60-140	17	20	
1-Chloro-2-bromopropane (S)	%				102	108	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 338385 338386

Parameter	Units	9252986001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	429	.28	.28	26.5	24.5	-146104	-146816	60-140	8	20	P6
1-Chloro-2-bromopropane (S)	%						82	83	60-140			

SAMPLE DUPLICATE: 338387

Parameter	Units	9252986002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.19	0.22	16	20	
1-Chloro-2-bromopropane (S)	%		123	21		

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252986

QC Batch: MSV/8325
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Associated Lab Samples: 9252986016

METHOD BLANK: 338516
Matrix: Water
Associated Lab Samples: 9252986016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	09/19/09 00:49	
Benzene	ug/L	ND	5.0	09/19/09 00:49	
Ethylbenzene	ug/L	ND	5.0	09/19/09 00:49	
m&p-Xylene	ug/L	ND	10.0	09/19/09 00:49	
Methyl-tert-butyl ether	ug/L	ND	5.0	09/19/09 00:49	
Naphthalene	ug/L	ND	5.0	09/19/09 00:49	
o-Xylene	ug/L	ND	5.0	09/19/09 00:49	
Toluene	ug/L	ND	5.0	09/19/09 00:49	
1,2-Dichloroethane-d4 (S)	%	101	79-120	09/19/09 00:49	
4-Bromofluorobenzene (S)	%	102	87-109	09/19/09 00:49	
Dibromofluoromethane (S)	%	100	85-115	09/19/09 00:49	
Toluene-d8 (S)	%	100	70-120	09/19/09 00:49	

LABORATORY CONTROL SAMPLE: 338517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	49.0	98	72-126	
Benzene	ug/L	50	46.4	93	78-128	
Ethylbenzene	ug/L	50	48.0	96	80-127	
m&p-Xylene	ug/L	100	102	102	82-127	
Methyl-tert-butyl ether	ug/L	50	46.9	94	71-130	
Naphthalene	ug/L	50	49.2	98	52-136	
o-Xylene	ug/L	50	49.7	99	83-124	
Toluene	ug/L	50	47.1	94	76-126	
1,2-Dichloroethane-d4 (S)	%			101	79-120	
4-Bromofluorobenzene (S)	%			103	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 338518 338519

Parameter	Units	9252986016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	50	50	53.4	51.7	107	103	74-136	3	30	
Toluene	ug/L	ND	50	50	54.0	52.5	108	105	73-131	3	30	
1,2-Dichloroethane-d4 (S)	%						97	95	79-120			
4-Bromofluorobenzene (S)	%						104	104	87-109			
Dibromofluoromethane (S)	%						96	96	85-115			
Toluene-d8 (S)	%						100	99	70-120			

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252986

QC Batch: MSV/8339 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9252986001, 9252986002, 9252986003, 9252986004, 9252986005, 9252986006, 9252986007, 9252986008, 9252986009, 9252986010, 9252986011, 9252986012, 9252986013, 9252986014, 9252986015

METHOD BLANK: 338986 Matrix: Water
Associated Lab Samples: 9252986001, 9252986002, 9252986003, 9252986004, 9252986005, 9252986006, 9252986007, 9252986008, 9252986009, 9252986010, 9252986011, 9252986012, 9252986013, 9252986014, 9252986015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	09/19/09 22:13	
Benzene	ug/L	ND	5.0	09/19/09 22:13	
Ethylbenzene	ug/L	ND	5.0	09/19/09 22:13	
m&p-Xylene	ug/L	ND	10.0	09/19/09 22:13	
Methyl-tert-butyl ether	ug/L	ND	5.0	09/19/09 22:13	
Naphthalene	ug/L	ND	5.0	09/19/09 22:13	
o-Xylene	ug/L	ND	5.0	09/19/09 22:13	
Toluene	ug/L	ND	5.0	09/19/09 22:13	
1,2-Dichloroethane-d4 (S)	%	103	79-120	09/19/09 22:13	
4-Bromofluorobenzene (S)	%	100	87-109	09/19/09 22:13	
Dibromofluoromethane (S)	%	102	85-115	09/19/09 22:13	
Toluene-d8 (S)	%	102	70-120	09/19/09 22:13	

LABORATORY CONTROL SAMPLE: 338987

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	50.8	102	72-126	
Benzene	ug/L	50	45.2	90	78-128	
Ethylbenzene	ug/L	50	44.7	89	80-127	
m&p-Xylene	ug/L	100	90.2	90	82-127	
Methyl-tert-butyl ether	ug/L	50	50.2	100	71-130	
Naphthalene	ug/L	50	52.1	104	52-136	
o-Xylene	ug/L	50	46.2	92	83-124	
Toluene	ug/L	50	45.2	90	76-126	
1,2-Dichloroethane-d4 (S)	%			99	79-120	
4-Bromofluorobenzene (S)	%			102	87-109	
Dibromofluoromethane (S)	%			100	85-115	
Toluene-d8 (S)	%			103	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 339000 339001

Parameter	Units	9252986005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	50	50	46.6	49.7	92	99	74-136	6	30	
Toluene	ug/L	ND	50	50	47.0	50.3	93	99	73-131	7	30	
1,2-Dichloroethane-d4 (S)	%						105	107	79-120			
4-Bromofluorobenzene (S)	%						104	101	87-109			
Dibromofluoromethane (S)	%						102	105	85-115			

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(704)875-9092

QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252986

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 339000 339001

Parameter	Units	9252986005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Toluene-d8 (S)	%						101	102	70-120			

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252986

QC Batch: MPRP/5091 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 9252986013, 9252986014, 9252986015

METHOD BLANK: 337739 Matrix: Water
Associated Lab Samples: 9252986013, 9252986014, 9252986015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	5.0	09/18/09 23:15	

LABORATORY CONTROL SAMPLE: 337740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	477	95	80-120	

MATRIX SPIKE SAMPLE: 337741

Parameter	Units	9253290016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	4.1J	500	470	93	75-125	

SAMPLE DUPLICATE: 337742

Parameter	Units	9253301001 Result	Dup Result	RPD	Max RPD	Qualifiers
Lead	ug/L	ND	ND		20	

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QUALIFIERS

Project: KMO #119 3661-03
Pace Project No.: 9252986

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

ANALYTE QUALIFIERS

M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

1322537

Section A — **Required** Client Information:

Company: BLE
Address: 6004 Powders ct
Greenville, SC 29615
Email To: Trevor@BLEcorp.com
Phone: (864) 288-1265 Fax:
Requested Due Date/TAT:

Section B — **Required** Project Information:

Report To: Trevor
Copy To:
Purchase Order No.:
Project Name: KMO #119
Project Number: 3001-03

Section C — Invoice Information:

Attention: SAME
Company Name: SAME
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 3072-2

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC

Section D — **Required** Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE)

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): BTEX MN 8260B	EDB 8011	LEAD 6010	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1R					9-10-09	1550					1	C											001
2	MW-1DDD						1610																	002
3	MW-1DD						1700																	003
4	MW-1D						1735																	004
5	MW-5R						1556																	005
6	MW-6D						1630																	006
7	MW-7D						1615																	007
8	MW-10D						1308																	008
9	MW-11DDD						1240																	009
10	MW-11DD						1400																	010
11	MW-11D						1458																	011
12	MW-14D						1205																	012

9252986

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Ivan A. Ivanov / BLE	9-11-09	840		9/12/09	8:50				
				Erin Waters	9/12/09	9:00	6.0	yes	no	yes

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Ivan A. Ivanov
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 9-11-09

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1301324

Section A Required Client Information:

Company: BLE
Address: Cock Robbers Ct
Greenville, SC 29615
Email To: Trevor@BLEcorp.com
Phone: (864) 288-1205 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Trevor
Copy To:
Purchase Order No.:
Project Name: KMO # 119
Project Number: 3661-03

Section C Invoice Information:

Attention: SAME
Company Name: SAME
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX MN 8260	CDB 8011	Lead 6010	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-37					9-10-09	1055					1	6										013
2	MW-37D					↓	1016					↓	↓										014
3	MW-45					↓	1350					↓	↓										015
4	MW-8					9-9-09	1645						4										016
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

9252984

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	IVAN A. IVIZURY/DIE	9-11-09	840		9/11/09	8:50				
				Ruth Waters	9/12/09	9:00	6.0	yes	no	yes

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: IVAN A. IVIZURY
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 9-11-09

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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September 22, 2009

Mr. Trever Slack
Bunnell-Lammons Engineering
6004 Ponders Ct
Greenville, SC 29615

RE: Project: KMO #119 3661-03
Pace Project No.: 9252970

Dear Mr. Slack:
Enclosed are the analytical results for sample(s) received by the laboratory on September 11, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Charlotte Certification IDs

West Virginia Certification #: 357
Virginia Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana/LELAP Certification #: 04034
New Jersey Certification #: NC012
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
Pennsylvania Certification #: 68-00784
South Carolina Certification #: 990060001
South Carolina Drinking Water Cert. #: 990060003
Tennessee Certification #: 04010

Asheville Certification IDs

West Virginia Certification #: 356
Florida/NELAP Certification #: E87648
Louisiana/LELAP Certification #: 03095
Massachusetts Certification #: M-NC030
New Jersey Certification #: NC011
North Carolina Bioassay Certification #: 9
Connecticut Certification #: PH-0106
North Carolina Wastewater Certification #: 40
Pennsylvania Certification #: 68-03578
South Carolina Bioassay Certification #: 99030002
South Carolina Certification #: 99030001
Tennessee Certification #: 2980
Virginia Certification #: 00072
North Carolina Drinking Water Certification #: 37712

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SAMPLE SUMMARY

Project: KMO #119 3661-03
Pace Project No.: 9252970

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9252970001	MW-2	Water	09/09/09 15:50	09/11/09 16:05
9252970002	MW-3	Water	09/09/09 16:20	09/11/09 16:05
9252970003	MW-4	Water	09/09/09 16:51	09/11/09 16:05
9252970004	MW-6	Water	09/09/09 16:55	09/11/09 16:05
9252970005	MW-7	Water	09/09/09 17:02	09/11/09 16:05
9252970006	MW-9	Water	09/09/09 13:13	09/11/09 16:05
9252970007	MW-10	Water	09/09/09 13:38	09/11/09 16:05
9252970008	MW-11	Water	09/09/09 14:48	09/11/09 16:05
9252970009	MW-12	Water	09/09/09 13:49	09/11/09 16:05
9252970010	MW-13R	Water	09/09/09 14:50	09/11/09 16:05
9252970011	MW-14	Water	09/09/09 13:35	09/11/09 16:05
9252970012	MW-15	Water	09/09/09 13:55	09/11/09 16:05
9252970013	MW-16	Water	09/09/09 15:30	09/11/09 16:05
9252970014	MW-17	Water	09/09/09 15:10	09/11/09 16:05
9252970015	MW-18	Water	09/09/09 12:20	09/11/09 16:05
9252970016	MW-19	Water	09/09/09 12:30	09/11/09 16:05
9252970017	MW-20	Water	09/09/09 11:55	09/11/09 16:05
9252970018	MW-21	Water	09/09/09 11:53	09/11/09 16:05
9252970019	MW-22	Water	09/09/09 09:27	09/11/09 16:05
9252970020	MW-23	Water	09/09/09 09:20	09/11/09 16:05
9252970021	MW-24	Water	09/09/09 10:40	09/11/09 16:05
9252970022	MW-25	Water	09/09/09 09:10	09/11/09 16:05
9252970023	MW-26	Water	09/09/09 10:47	09/11/09 16:05
9252970024	MW-27R	Water	09/08/09 11:41	09/11/09 16:05
9252970025	MW-27D	Water	09/08/09 11:50	09/11/09 16:05
9252970026	MW-27DD	Water	09/08/09 13:15	09/11/09 16:05
9252970027	MW-28	Water	09/09/09 10:56	09/11/09 16:05
9252970028	MW-29	Water	09/09/09 13:15	09/11/09 16:05
9252970029	MW-30R	Water	09/08/09 10:00	09/11/09 16:05
9252970030	MW-31R	Water	09/08/09 10:50	09/11/09 16:05
9252970031	MW-32R	Water	09/08/09 10:30	09/11/09 16:05
9252970032	MW-33	Water	09/08/09 13:26	09/11/09 16:05
9252970033	MW-33D	Water	09/08/09 14:10	09/11/09 16:05
9252970034	MW-33DD	Water	09/08/09 15:05	09/11/09 16:05
9252970035	MW-34	Water	09/08/09 14:30	09/11/09 16:05
9252970036	MW-35	Water	09/08/09 15:30	09/11/09 16:05
9252970037	MW-36	Water	09/08/09 16:20	09/11/09 16:05

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SAMPLE SUMMARY

Project: KMO #119 3661-03
Pace Project No.: 9252970

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9252970038	**MW-38**	Water	09/09/09 12:15	09/11/09 16:05
9252970039	**MW-39**	Water	09/09/09 14:25	09/11/09 16:05
9252970040	**MW-40**	Water	09/09/09 15:24	09/11/09 16:05
9252970041	**MW-41**	Water	09/09/09 14:23	09/11/09 16:05
9252970042	**MW-42**	Water	09/08/09 16:05	09/11/09 16:05
9252970043	**MW-43**	Water	09/08/09 14:02	09/11/09 16:05
9252970044	**MW-44**	Water	09/08/09 14:50	09/11/09 16:05
9252970045	**DW-1**	Water	09/09/09 15:23	09/11/09 16:05

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SAMPLE ANALYTE COUNT

Project: KMO #119 3661-03
Pace Project No.: 9252970

Lab ID	Sample ID	Method	Analysts	Analytes Reported
9252970001	MW-2	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970002	MW-3	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970003	MW-4	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970004	MW-6	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970005	MW-7	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970006	MW-9	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970007	MW-10	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970008	MW-11	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970009	MW-12	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970010	MW-13R	EPA 6010	SHB	1
		EPA 8011	RES	2
		EPA 8260	KJM	12
9252970011	MW-14	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970012	MW-15	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970013	MW-16	EPA 6010	SHB	1

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(704)875-9092

SAMPLE ANALYTE COUNT

Project: KMO #119 3661-03
Pace Project No.: 9252970

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 8011	RES	2
		EPA 8260	KJM	12
9252970014	**MW-17**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970015	**MW-18**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970016	**MW-19**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970017	**MW-20**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970018	**MW-21**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970019	**MW-22**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970020	**MW-23**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970021	**MW-24**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970022	**MW-25**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970023	**MW-26**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970024	**MW-27R**	EPA 6010	SHB	1
		EPA 8011	RES	2
		EPA 8260	KJM	12
9252970025	**MW-27D**	EPA 6010	SHB	1
		EPA 8011	RES	2

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SAMPLE ANALYTE COUNT

Project: KMO #119 3661-03
Pace Project No.: 9252970

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 8260	KJM	12
9252970026	MW-27DD	EPA 6010	SHB	1
		EPA 8011	RES	2
		EPA 8260	KJM	12
9252970027	MW-28	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970028	MW-29	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970029	MW-30R	EPA 6010	SHB	1
		EPA 8011	RES	2
		EPA 8260	KJM	12
9252970030	MW-31R	EPA 6010	SHB	1
		EPA 8011	RES	2
		EPA 8260	KJM	12
9252970031	MW-32R	EPA 6010	SHB	1
		EPA 8011	RES	2
		EPA 8260	KJM	12
9252970032	MW-33	EPA 6010	SHB	1
		EPA 8011	RES	2
		EPA 8260	KJM	12
9252970033	MW-33D	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970034	MW-33DD	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970035	MW-34	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970036	MW-35	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970037	MW-36	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12

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SAMPLE ANALYTE COUNT

Project: KMO #119 3661-03
Pace Project No.: 9252970

Lab ID	Sample ID	Method	Analysts	Analytes Reported
9252970038	**MW-38**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970039	**MW-39**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970040	**MW-40**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970041	**MW-41**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970042	**MW-42**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970043	**MW-43**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970044	**MW-44**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12
9252970045	**DW-1**	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	KJM	12

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-2 **Lab ID: 9252970001** Collected: 09/09/09 15:50 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**82.9**	ug/L	1.9	1.9	100	09/16/09 15:52	09/18/09 10:16	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140		100	09/16/09 15:52	09/18/09 10:16	301-79-56	S4
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 10:30	09/15/09 16:22	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**9460**	ug/L	1000	240	200		09/16/09 14:59	71-43-2	
1,2-Dichloroethane	**48.7J**	ug/L	100	26.0	20		09/15/09 16:57	107-06-2	
Ethylbenzene	**3390**	ug/L	100	22.0	20		09/15/09 16:57	100-41-4	
Methyl-tert-butyl ether	**167**	ug/L	100	40.0	20		09/15/09 16:57	1634-04-4	
Naphthalene	**1030**	ug/L	100	58.0	20		09/15/09 16:57	91-20-3	
Toluene	**26000**	ug/L	1000	360	200		09/16/09 14:59	108-88-3	
m&p-Xylene	**9700**	ug/L	2000	540	200		09/16/09 14:59	1330-20-7	
o-Xylene	**4530**	ug/L	1000	340	200		09/16/09 14:59	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109		20		09/15/09 16:57	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		20		09/15/09 16:57	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		20		09/15/09 16:57	17060-07-0	
Toluene-d8 (S)	101	%	70-120		20		09/15/09 16:57	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-3 **Lab ID: 9252970002** Collected: 09/09/09 16:20 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/16/09 15:52	09/17/09 17:32	106-93-4	
1-Chloro-2-bromopropane (S)	92	%	60-140		1	09/16/09 15:52	09/17/09 17:32	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 10:30	09/15/09 16:26	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.9J**	ug/L	5.0	1.2	1		09/19/09 01:09	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/19/09 01:09	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/19/09 01:09	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/19/09 01:09	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/19/09 01:09	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/19/09 01:09	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/19/09 01:09	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/19/09 01:09	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109		1		09/19/09 01:09	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		1		09/19/09 01:09	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	79-120		1		09/19/09 01:09	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		09/19/09 01:09	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-4 **Lab ID: 9252970003** Collected: 09/09/09 16:51 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/16/09 15:52	09/17/09 17:52	106-93-4	
1-Chloro-2-bromopropane (S)	105	%	60-140		1	09/16/09 15:52	09/17/09 17:52	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 10:30	09/15/09 23:42	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/19/09 01:28	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/19/09 01:28	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/19/09 01:28	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/19/09 01:28	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/19/09 01:28	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/19/09 01:28	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/19/09 01:28	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/19/09 01:28	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109		1		09/19/09 01:28	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		1		09/19/09 01:28	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/19/09 01:28	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		09/19/09 01:28	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-6 **Lab ID: 9252970004** Collected: 09/09/09 16:55 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/16/09 15:52	09/17/09 18:11	106-93-4	
1-Chloro-2-bromopropane (S)	96	%	60-140		1	09/16/09 15:52	09/17/09 18:11	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**466**	ug/L	100	80.0	20	09/14/09 10:30	09/16/09 11:39	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/19/09 01:47	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/19/09 01:47	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/19/09 01:47	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/19/09 01:47	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/19/09 01:47	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/19/09 01:47	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/19/09 01:47	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/19/09 01:47	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		1		09/19/09 01:47	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		1		09/19/09 01:47	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/19/09 01:47	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		09/19/09 01:47	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-7 **Lab ID: 9252970005** Collected: 09/09/09 17:02 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/16/09 15:52	09/17/09 18:31	106-93-4	
1-Chloro-2-bromopropane (S)	95	%	60-140		1	09/16/09 15:52	09/17/09 18:31	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**136**	ug/L	25.0	20.0	5	09/14/09 10:30	09/16/09 11:43	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/19/09 02:07	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/19/09 02:07	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/19/09 02:07	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/19/09 02:07	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/19/09 02:07	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/19/09 02:07	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/19/09 02:07	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/19/09 02:07	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		1		09/19/09 02:07	460-00-4	
Dibromofluoromethane (S)	99	%	85-115		1		09/19/09 02:07	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120		1		09/19/09 02:07	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		09/19/09 02:07	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-9 **Lab ID: 9252970006** Collected: 09/09/09 13:13 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/16/09 15:52	09/17/09 18:51	106-93-4	
1-Chloro-2-bromopropane (S)	108	%	60-140		1	09/16/09 15:52	09/17/09 18:51	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**8.5**	ug/L	5.0	4.0	1	09/14/09 10:30	09/15/09 23:56	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1240**	ug/L	100	24.0	20		09/19/09 02:26	71-43-2	
1,2-Dichloroethane	**168**	ug/L	100	26.0	20		09/19/09 02:26	107-06-2	
Ethylbenzene	ND	ug/L	100	22.0	20		09/19/09 02:26	100-41-4	
Methyl-tert-butyl ether	**404**	ug/L	100	40.0	20		09/19/09 02:26	1634-04-4	
Naphthalene	ND	ug/L	100	58.0	20		09/19/09 02:26	91-20-3	
Toluene	ND	ug/L	100	36.0	20		09/19/09 02:26	108-88-3	
m&p-Xylene	ND	ug/L	200	54.0	20		09/19/09 02:26	1330-20-7	
o-Xylene	ND	ug/L	100	34.0	20		09/19/09 02:26	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		20		09/19/09 02:26	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		20		09/19/09 02:26	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120		20		09/19/09 02:26	17060-07-0	
Toluene-d8 (S)	98	%	70-120		20		09/19/09 02:26	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-10 **Lab ID: 9252970007** Collected: 09/09/09 13:38 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**9.3**	ug/L	0.19	0.19	10	09/16/09 15:52	09/18/09 10:36	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140		10	09/16/09 15:52	09/18/09 10:36	301-79-56	S4
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**16.8**	ug/L	5.0	4.0	1	09/14/09 10:30	09/16/09 00:00	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**7080**	ug/L	1000	240	200		09/16/09 15:17	71-43-2	
1,2-Dichloroethane	**37.9J**	ug/L	100	26.0	20		09/15/09 17:18	107-06-2	
Ethylbenzene	**4400**	ug/L	1000	220	200		09/16/09 15:17	100-41-4	
Methyl-tert-butyl ether	**252**	ug/L	100	40.0	20		09/15/09 17:18	1634-04-4	
Naphthalene	**1450**	ug/L	100	58.0	20		09/15/09 17:18	91-20-3	
Toluene	**30500**	ug/L	1000	360	200		09/16/09 15:17	108-88-3	
m&p-Xylene	**16300**	ug/L	2000	540	200		09/16/09 15:17	1330-20-7	
o-Xylene	**7690**	ug/L	1000	340	200		09/16/09 15:17	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109		20		09/15/09 17:18	460-00-4	
Dibromofluoromethane (S)	96	%	85-115		20		09/15/09 17:18	1868-53-7	
1,2-Dichloroethane-d4 (S)	96	%	79-120		20		09/15/09 17:18	17060-07-0	
Toluene-d8 (S)	100	%	70-120		20		09/15/09 17:18	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-11 **Lab ID: 9252970008** Collected: 09/09/09 14:48 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**1.7**	ug/L	0.039	0.039	2	09/16/09 15:52	09/18/09 10:56	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140		2	09/16/09 15:52	09/18/09 10:56	301-79-56	S4
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**32.8**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 04:45	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**817**	ug/L	50.0	12.0	10		09/19/09 10:10	71-43-2	
1,2-Dichloroethane	ND	ug/L	50.0	13.0	10		09/19/09 10:10	107-06-2	
Ethylbenzene	**2540**	ug/L	250	55.0	50		09/20/09 18:05	100-41-4	
Methyl-tert-butyl ether	**43.5J**	ug/L	50.0	20.0	10		09/19/09 10:10	1634-04-4	
Naphthalene	**1690**	ug/L	50.0	29.0	10		09/19/09 10:10	91-20-3	
Toluene	**4500**	ug/L	250	90.0	50		09/20/09 18:05	108-88-3	
m&p-Xylene	**9720**	ug/L	500	135	50		09/20/09 18:05	1330-20-7	
o-Xylene	**5060**	ug/L	250	85.0	50		09/20/09 18:05	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109		10		09/19/09 10:10	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		10		09/19/09 10:10	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120		10		09/19/09 10:10	17060-07-0	
Toluene-d8 (S)	98	%	70-120		10		09/19/09 10:10	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-12 **Lab ID: 9252970009** Collected: 09/09/09 13:49 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/16/09 15:52	09/17/09 19:49	106-93-4	
1-Chloro-2-bromopropane (S)	105	%	60-140		1	09/16/09 15:52	09/17/09 19:49	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 04:53	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/19/09 02:45	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/19/09 02:45	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/19/09 02:45	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/19/09 02:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/19/09 02:45	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/19/09 02:45	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/19/09 02:45	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/19/09 02:45	95-47-6	
4-Bromofluorobenzene (S)	104	%	87-109		1		09/19/09 02:45	460-00-4	
Dibromofluoromethane (S)	99	%	85-115		1		09/19/09 02:45	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/19/09 02:45	17060-07-0	
Toluene-d8 (S)	99	%	70-120		1		09/19/09 02:45	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-13R **Lab ID: 9252970010** Collected: 09/09/09 14:50 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**1.2**	ug/L	0.039	0.039	2	09/18/09 11:10	09/21/09 14:14	106-93-4	
1-Chloro-2-bromopropane (S)	93	%	60-140		2	09/18/09 11:10	09/21/09 14:14	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**45.8**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 05:10	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1280**	ug/L	50.0	12.0	10		09/19/09 03:05	71-43-2	
1,2-Dichloroethane	**51.9**	ug/L	50.0	13.0	10		09/19/09 03:05	107-06-2	
Ethylbenzene	**489**	ug/L	50.0	11.0	10		09/19/09 03:05	100-41-4	
Methyl-tert-butyl ether	**241**	ug/L	50.0	20.0	10		09/19/09 03:05	1634-04-4	
Naphthalene	ND	ug/L	50.0	29.0	10		09/19/09 03:05	91-20-3	
Toluene	**612**	ug/L	50.0	18.0	10		09/19/09 03:05	108-88-3	
m&p-Xylene	**1590**	ug/L	100	27.0	10		09/19/09 03:05	1330-20-7	
o-Xylene	**560**	ug/L	50.0	17.0	10		09/19/09 03:05	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109		10		09/19/09 03:05	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		10		09/19/09 03:05	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120		10		09/19/09 03:05	17060-07-0	
Toluene-d8 (S)	99	%	70-120		10		09/19/09 03:05	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-14 **Lab ID: 9252970011** Collected: 09/09/09 13:35 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 14:24	09/19/09 16:25	106-93-4	
1-Chloro-2-bromopropane (S)	103	%	60-140		1	09/18/09 14:24	09/19/09 16:25	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**6.5**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 05:14	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**50.1J**	ug/L	100	24.0	20		09/15/09 17:39	71-43-2	
1,2-Dichloroethane	ND	ug/L	100	26.0	20		09/15/09 17:39	107-06-2	
Ethylbenzene	**1760**	ug/L	100	22.0	20		09/15/09 17:39	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	100	40.0	20		09/15/09 17:39	1634-04-4	
Naphthalene	**1300**	ug/L	100	58.0	20		09/15/09 17:39	91-20-3	
Toluene	**475**	ug/L	100	36.0	20		09/15/09 17:39	108-88-3	
m&p-Xylene	**6070**	ug/L	200	54.0	20		09/15/09 17:39	1330-20-7	
o-Xylene	**2790**	ug/L	100	34.0	20		09/15/09 17:39	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		20		09/15/09 17:39	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		20		09/15/09 17:39	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120		20		09/15/09 17:39	17060-07-0	
Toluene-d8 (S)	101	%	70-120		20		09/15/09 17:39	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-15 **Lab ID: 9252970012** Collected: 09/09/09 13:55 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/18/09 14:24	09/19/09 17:25	106-93-4	
1-Chloro-2-bromopropane (S)	109	%	60-140		1	09/18/09 14:24	09/19/09 17:25	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 05:17	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**224**	ug/L	25.0	6.0	5		09/19/09 10:29	71-43-2	
1,2-Dichloroethane	**9.4J**	ug/L	25.0	6.5	5		09/19/09 10:29	107-06-2	
Ethylbenzene	**171**	ug/L	25.0	5.5	5		09/19/09 10:29	100-41-4	
Methyl-tert-butyl ether	**49.5**	ug/L	25.0	10.0	5		09/19/09 10:29	1634-04-4	
Naphthalene	**346**	ug/L	25.0	14.5	5		09/19/09 10:29	91-20-3	
Toluene	**89.5**	ug/L	25.0	9.0	5		09/19/09 10:29	108-88-3	
m&p-Xylene	**309**	ug/L	50.0	13.5	5		09/19/09 10:29	1330-20-7	
o-Xylene	**49.0**	ug/L	25.0	8.5	5		09/19/09 10:29	95-47-6	
4-Bromofluorobenzene (S)	104	%	87-109		5		09/19/09 10:29	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		5		09/19/09 10:29	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120		5		09/19/09 10:29	17060-07-0	
Toluene-d8 (S)	100	%	70-120		5		09/19/09 10:29	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-16 **Lab ID: 9252970013** Collected: 09/09/09 15:30 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**4.1**	ug/L	0.097	0.097	5	09/18/09 14:24	09/21/09 15:14	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140		5	09/18/09 14:24	09/21/09 15:14	301-79-56	S4
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 05:21	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**6630**	ug/L	250	60.0	50		09/15/09 18:42	71-43-2	
1,2-Dichloroethane	**117J**	ug/L	250	65.0	50		09/15/09 18:42	107-06-2	
Ethylbenzene	**1890**	ug/L	250	55.0	50		09/15/09 18:42	100-41-4	
Methyl-tert-butyl ether	**1250**	ug/L	250	100	50		09/15/09 18:42	1634-04-4	
Naphthalene	**2480**	ug/L	250	145	50		09/15/09 18:42	91-20-3	
Toluene	**3950**	ug/L	250	90.0	50		09/15/09 18:42	108-88-3	
m&p-Xylene	**9650**	ug/L	500	135	50		09/15/09 18:42	1330-20-7	
o-Xylene	**4600**	ug/L	250	85.0	50		09/15/09 18:42	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		50		09/15/09 18:42	460-00-4	
Dibromofluoromethane (S)	95	%	85-115		50		09/15/09 18:42	1868-53-7	
1,2-Dichloroethane-d4 (S)	96	%	79-120		50		09/15/09 18:42	17060-07-0	
Toluene-d8 (S)	99	%	70-120		50		09/15/09 18:42	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-17 **Lab ID: 9252970014** Collected: 09/09/09 15:10 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/18/09 14:24	09/19/09 18:25	106-93-4	
1-Chloro-2-bromopropane (S)	104	%	60-140		1	09/18/09 14:24	09/19/09 18:25	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 05:25	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/19/09 03:24	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/19/09 03:24	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/19/09 03:24	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/19/09 03:24	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/19/09 03:24	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/19/09 03:24	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/19/09 03:24	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/19/09 03:24	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109		1		09/19/09 03:24	460-00-4	
Dibromofluoromethane (S)	102	%	85-115		1		09/19/09 03:24	1868-53-7	
1,2-Dichloroethane-d4 (S)	102	%	79-120		1		09/19/09 03:24	17060-07-0	
Toluene-d8 (S)	99	%	70-120		1		09/19/09 03:24	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-18 **Lab ID: 9252970015** Collected: 09/09/09 12:20 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 14:24	09/19/09 18:45	106-93-4	
1-Chloro-2-bromopropane (S)	108	%	60-140		1	09/18/09 14:24	09/19/09 18:45	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 05:29	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/19/09 05:39	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/19/09 05:39	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/19/09 05:39	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/19/09 05:39	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/19/09 05:39	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/19/09 05:39	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/19/09 05:39	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/19/09 05:39	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109		1		09/19/09 05:39	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		1		09/19/09 05:39	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/19/09 05:39	17060-07-0	
Toluene-d8 (S)	99	%	70-120		1		09/19/09 05:39	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-19 **Lab ID: 9252970016** Collected: 09/09/09 12:30 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 14:24	09/19/09 19:05	106-93-4	
1-Chloro-2-bromopropane (S)	103	%	60-140		1	09/18/09 14:24	09/19/09 19:05	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**169**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 05:32	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**167**	ug/L	5.0	1.2	1		09/18/09 06:27	71-43-2	
1,2-Dichloroethane	**61.2**	ug/L	5.0	1.3	1		09/18/09 06:27	107-06-2	
Ethylbenzene	**6.9**	ug/L	5.0	1.1	1		09/18/09 06:27	100-41-4	
Methyl-tert-butyl ether	**74.3**	ug/L	5.0	2.0	1		09/18/09 06:27	1634-04-4	
Naphthalene	**80.0**	ug/L	5.0	2.9	1		09/18/09 06:27	91-20-3	
Toluene	**8.6**	ug/L	5.0	1.8	1		09/18/09 06:27	108-88-3	
m&p-Xylene	**5.1J**	ug/L	10.0	2.7	1		09/18/09 06:27	1330-20-7	
o-Xylene	**2.7J**	ug/L	5.0	1.7	1		09/18/09 06:27	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109		1		09/18/09 06:27	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		1		09/18/09 06:27	1868-53-7	
1,2-Dichloroethane-d4 (S)	95	%	79-120		1		09/18/09 06:27	17060-07-0	
Toluene-d8 (S)	99	%	70-120		1		09/18/09 06:27	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-20 **Lab ID: 9252970017** Collected: 09/09/09 11:55 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/18/09 14:24	09/19/09 19:25	106-93-4	
1-Chloro-2-bromopropane (S)	110	%	60-140		1	09/18/09 14:24	09/19/09 19:25	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**19.0**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 05:37	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/19/09 05:59	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/19/09 05:59	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/19/09 05:59	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/19/09 05:59	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/19/09 05:59	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/19/09 05:59	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/19/09 05:59	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/19/09 05:59	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/19/09 05:59	460-00-4	
Dibromofluoromethane (S)	99	%	85-115		1		09/19/09 05:59	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120		1		09/19/09 05:59	17060-07-0	
Toluene-d8 (S)	99	%	70-120		1		09/19/09 05:59	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-21 **Lab ID: 9252970018** Collected: 09/09/09 11:53 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 14:24	09/19/09 19:45	106-93-4	
1-Chloro-2-bromopropane (S)	111	%	60-140		1	09/18/09 14:24	09/19/09 19:45	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 05:40	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**392**	ug/L	50.0	12.0	10		09/19/09 09:31	71-43-2	
1,2-Dichloroethane	**11.1**	ug/L	5.0	1.3	1		09/16/09 22:26	107-06-2	
Ethylbenzene	**699**	ug/L	50.0	11.0	10		09/19/09 09:31	100-41-4	
Methyl-tert-butyl ether	**64.5**	ug/L	5.0	2.0	1		09/16/09 22:26	1634-04-4	
Naphthalene	**458**	ug/L	50.0	29.0	10		09/19/09 09:31	91-20-3	
Toluene	**695**	ug/L	50.0	18.0	10		09/19/09 09:31	108-88-3	
m&p-Xylene	**2110**	ug/L	100	27.0	10		09/19/09 09:31	1330-20-7	
o-Xylene	**989**	ug/L	50.0	17.0	10		09/19/09 09:31	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/16/09 22:26	460-00-4	
Dibromofluoromethane (S)	96	%	85-115		1		09/16/09 22:26	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	79-120		1		09/16/09 22:26	17060-07-0	
Toluene-d8 (S)	99	%	70-120		1		09/16/09 22:26	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-22 **Lab ID: 9252970019** Collected: 09/09/09 09:27 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 14:24	09/19/09 20:05	106-93-4	
1-Chloro-2-bromopropane (S)	107	%	60-140		1	09/18/09 14:24	09/19/09 20:05	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 05:44	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**222**	ug/L	25.0	6.0	5		09/18/09 08:43	71-43-2	
1,2-Dichloroethane	**5.7**	ug/L	5.0	1.3	1		09/16/09 22:44	107-06-2	
Ethylbenzene	**373**	ug/L	25.0	5.5	5		09/18/09 08:43	100-41-4	
Methyl-tert-butyl ether	**32.7**	ug/L	5.0	2.0	1		09/16/09 22:44	1634-04-4	
Naphthalene	**277**	ug/L	25.0	14.5	5		09/18/09 08:43	91-20-3	
Toluene	**68.0**	ug/L	5.0	1.8	1		09/16/09 22:44	108-88-3	
m&p-Xylene	**436**	ug/L	50.0	13.5	5		09/18/09 08:43	1330-20-7	
o-Xylene	**336**	ug/L	25.0	8.5	5		09/18/09 08:43	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		1		09/16/09 22:44	460-00-4	
Dibromofluoromethane (S)	95	%	85-115		1		09/16/09 22:44	1868-53-7	
1,2-Dichloroethane-d4 (S)	95	%	79-120		1		09/16/09 22:44	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		09/16/09 22:44	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-23 **Lab ID: 9252970020** Collected: 09/09/09 09:20 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 14:25	09/19/09 20:25	106-93-4	
1-Chloro-2-bromopropane (S)	111	%	60-140		1	09/18/09 14:25	09/19/09 20:25	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 05:58	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**434**	ug/L	25.0	6.0	5		09/18/09 09:02	71-43-2	
1,2-Dichloroethane	**13.2**	ug/L	5.0	1.3	1		09/16/09 23:02	107-06-2	
Ethylbenzene	**442**	ug/L	25.0	5.5	5		09/18/09 09:02	100-41-4	
Methyl-tert-butyl ether	**95.4**	ug/L	5.0	2.0	1		09/16/09 23:02	1634-04-4	
Naphthalene	**281**	ug/L	25.0	14.5	5		09/18/09 09:02	91-20-3	
Toluene	**81.4**	ug/L	5.0	1.8	1		09/16/09 23:02	108-88-3	
m&p-Xylene	**292**	ug/L	10.0	2.7	1		09/16/09 23:02	1330-20-7	
o-Xylene	**170**	ug/L	5.0	1.7	1		09/16/09 23:02	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/16/09 23:02	460-00-4	
Dibromofluoromethane (S)	95	%	85-115		1		09/16/09 23:02	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	79-120		1		09/16/09 23:02	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/16/09 23:02	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-24 **Lab ID: 9252970021** Collected: 09/09/09 10:40 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 14:25	09/19/09 20:45	106-93-4	
1-Chloro-2-bromopropane (S)	102	%	60-140		1	09/18/09 14:25	09/19/09 20:45	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**6.2**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 06:02	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/18/09 05:49	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/18/09 05:49	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/18/09 05:49	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/18/09 05:49	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/18/09 05:49	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/18/09 05:49	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/18/09 05:49	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/18/09 05:49	95-47-6	
4-Bromofluorobenzene (S)	104	%	87-109		1		09/18/09 05:49	460-00-4	
Dibromofluoromethane (S)	99	%	85-115		1		09/18/09 05:49	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120		1		09/18/09 05:49	17060-07-0	
Toluene-d8 (S)	99	%	70-120		1		09/18/09 05:49	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-25 **Lab ID: 9252970022** Collected: 09/09/09 09:10 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 14:25	09/19/09 21:05	106-93-4	
1-Chloro-2-bromopropane (S)	101	%	60-140		1	09/18/09 14:25	09/19/09 21:05	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 06:06	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/16/09 23:38	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/16/09 23:38	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/16/09 23:38	100-41-4	
Methyl-tert-butyl ether	**5.0**	ug/L	5.0	2.0	1		09/16/09 23:38	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/16/09 23:38	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/16/09 23:38	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/16/09 23:38	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/16/09 23:38	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109		1		09/16/09 23:38	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		1		09/16/09 23:38	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	79-120		1		09/16/09 23:38	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/16/09 23:38	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-26 **Lab ID: 9252970023** Collected: 09/09/09 10:47 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 14:25	09/19/09 21:25	106-93-4	
1-Chloro-2-bromopropane (S)	107	%	60-140		1	09/18/09 14:25	09/19/09 21:25	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**15.2**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 06:09	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**2.7J**	ug/L	5.0	1.2	1		09/16/09 23:56	71-43-2	
1,2-Dichloroethane	**3.6J**	ug/L	5.0	1.3	1		09/16/09 23:56	107-06-2	
Ethylbenzene	**1.4J**	ug/L	5.0	1.1	1		09/16/09 23:56	100-41-4	
Methyl-tert-butyl ether	**35.1**	ug/L	5.0	2.0	1		09/16/09 23:56	1634-04-4	
Naphthalene	**3.3J**	ug/L	5.0	2.9	1		09/16/09 23:56	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/16/09 23:56	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/16/09 23:56	1330-20-7	
o-Xylene	**2.2J**	ug/L	5.0	1.7	1		09/16/09 23:56	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		1		09/16/09 23:56	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		1		09/16/09 23:56	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	79-120		1		09/16/09 23:56	17060-07-0	
Toluene-d8 (S)	103	%	70-120		1		09/16/09 23:56	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-27R **Lab ID: 9252970024** Collected: 09/08/09 11:41 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/15/09 17:41	09/16/09 00:40	106-93-4	
1-Chloro-2-bromopropane (S)	102	%	60-140		1	09/15/09 17:41	09/16/09 00:40	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**75.5**	ug/L	25.0	20.0	5	09/14/09 14:25	09/16/09 12:11	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 00:14	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/17/09 00:14	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 00:14	100-41-4	
Methyl-tert-butyl ether	**5.7**	ug/L	5.0	2.0	1		09/17/09 00:14	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 00:14	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 00:14	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 00:14	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 00:14	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/17/09 00:14	460-00-4	
Dibromofluoromethane (S)	96	%	85-115		1		09/17/09 00:14	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120		1		09/17/09 00:14	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		09/17/09 00:14	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-27D **Lab ID: 9252970025** Collected: 09/08/09 11:50 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/15/09 17:42	09/16/09 01:01	106-93-4	
1-Chloro-2-bromopropane (S)	101	%	60-140		1	09/15/09 17:42	09/16/09 01:01	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**22.9**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 06:18	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.2J**	ug/L	5.0	1.2	1		09/17/09 00:32	71-43-2	
1,2-Dichloroethane	**6.6**	ug/L	5.0	1.3	1		09/17/09 00:32	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 00:32	100-41-4	
Methyl-tert-butyl ether	**62.6**	ug/L	5.0	2.0	1		09/17/09 00:32	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 00:32	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 00:32	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 00:32	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 00:32	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/17/09 00:32	460-00-4	
Dibromofluoromethane (S)	98	%	85-115		1		09/17/09 00:32	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/17/09 00:32	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/17/09 00:32	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-27DD **Lab ID: 9252970026** Collected: 09/08/09 13:15 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/15/09 17:42	09/16/09 01:21	106-93-4	
1-Chloro-2-bromopropane (S)	105	%	60-140		1	09/15/09 17:42	09/16/09 01:21	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**5.2**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 06:22	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 00:50	71-43-2	
1,2-Dichloroethane	**2.7J**	ug/L	5.0	1.3	1		09/17/09 00:50	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 00:50	100-41-4	
Methyl-tert-butyl ether	**18.7**	ug/L	5.0	2.0	1		09/17/09 00:50	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 00:50	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 00:50	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 00:50	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 00:50	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		1		09/17/09 00:50	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		1		09/17/09 00:50	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120		1		09/17/09 00:50	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/17/09 00:50	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-28 **Lab ID: 9252970027** Collected: 09/09/09 10:56 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/18/09 14:25	09/19/09 21:45	106-93-4	
1-Chloro-2-bromopropane (S)	109	%	60-140		1	09/18/09 14:25	09/19/09 21:45	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 06:26	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**429**	ug/L	25.0	6.0	5		09/18/09 08:24	71-43-2	
1,2-Dichloroethane	**39.9**	ug/L	5.0	1.3	1		09/17/09 01:09	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 01:09	100-41-4	
Methyl-tert-butyl ether	**207**	ug/L	25.0	10.0	5		09/18/09 08:24	1634-04-4	
Naphthalene	**83.8**	ug/L	5.0	2.9	1		09/17/09 01:09	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 01:09	108-88-3	
m&p-Xylene	**5.8J**	ug/L	10.0	2.7	1		09/17/09 01:09	1330-20-7	
o-Xylene	**5.3**	ug/L	5.0	1.7	1		09/17/09 01:09	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109		1		09/17/09 01:09	460-00-4	
Dibromofluoromethane (S)	98	%	85-115		1		09/17/09 01:09	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120		1		09/17/09 01:09	17060-07-0	
Toluene-d8 (S)	103	%	70-120		1		09/17/09 01:09	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-29 **Lab ID: 9252970028** Collected: 09/09/09 13:15 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/18/09 14:25	09/19/09 22:05	106-93-4	
1-Chloro-2-bromopropane (S)	94	%	60-140		1	09/18/09 14:25	09/19/09 22:05	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 02:48	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/18/09 06:08	71-43-2	
1,2-Dichloroethane	**4.6J**	ug/L	5.0	1.3	1		09/18/09 06:08	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/18/09 06:08	100-41-4	
Methyl-tert-butyl ether	**9.3**	ug/L	5.0	2.0	1		09/18/09 06:08	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/18/09 06:08	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/18/09 06:08	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/18/09 06:08	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/18/09 06:08	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/18/09 06:08	460-00-4	
Dibromofluoromethane (S)	99	%	85-115		1		09/18/09 06:08	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120		1		09/18/09 06:08	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		09/18/09 06:08	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-30R **Lab ID: 9252970029** Collected: 09/08/09 10:00 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/15/09 17:42	09/16/09 01:41	106-93-4	
1-Chloro-2-bromopropane (S)	104	%	60-140		1	09/15/09 17:42	09/16/09 01:41	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**180**	ug/L	25.0	20.0	5	09/14/09 14:25	09/16/09 11:46	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 01:45	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/17/09 01:45	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 01:45	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/17/09 01:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 01:45	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 01:45	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 01:45	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 01:45	95-47-6	
4-Bromofluorobenzene (S)	105	%	87-109		1		09/17/09 01:45	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		1		09/17/09 01:45	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120		1		09/17/09 01:45	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/17/09 01:45	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-31R **Lab ID: 9252970030** Collected: 09/08/09 10:50 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/15/09 17:42	09/16/09 02:01	106-93-4	
1-Chloro-2-bromopropane (S)	102	%	60-140		1	09/15/09 17:42	09/16/09 02:01	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**218**	ug/L	25.0	20.0	5	09/14/09 14:25	09/16/09 12:04	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 02:03	71-43-2	
1,2-Dichloroethane	**2.0J**	ug/L	5.0	1.3	1		09/17/09 02:03	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 02:03	100-41-4	
Methyl-tert-butyl ether	**9.1**	ug/L	5.0	2.0	1		09/17/09 02:03	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 02:03	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 02:03	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 02:03	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 02:03	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/17/09 02:03	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		1		09/17/09 02:03	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120		1		09/17/09 02:03	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/17/09 02:03	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-32R **Lab ID: 9252970031** Collected: 09/08/09 10:30 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/15/09 17:42	09/16/09 02:21	106-93-4	
1-Chloro-2-bromopropane (S)	101	%	60-140		1	09/15/09 17:42	09/16/09 02:21	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**38.2**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 03:13	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 02:21	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/17/09 02:21	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 02:21	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/17/09 02:21	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 02:21	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 02:21	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 02:21	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 02:21	95-47-6	
4-Bromofluorobenzene (S)	107	%	87-109		1		09/17/09 02:21	460-00-4	
Dibromofluoromethane (S)	98	%	85-115		1		09/17/09 02:21	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	79-120		1		09/17/09 02:21	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/17/09 02:21	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-33 **Lab ID: 9252970032** Collected: 09/08/09 13:26 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/15/09 17:42	09/16/09 02:42	106-93-4	
1-Chloro-2-bromopropane (S)	104	%	60-140		1	09/15/09 17:42	09/16/09 02:42	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 03:17	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 02:39	71-43-2	
1,2-Dichloroethane	**8.8**	ug/L	5.0	1.3	1		09/17/09 02:39	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 02:39	100-41-4	
Methyl-tert-butyl ether	**99.9**	ug/L	5.0	2.0	1		09/17/09 02:39	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 02:39	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 02:39	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 02:39	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 02:39	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109		1		09/17/09 02:39	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		1		09/17/09 02:39	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120		1		09/17/09 02:39	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		09/17/09 02:39	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-33D **Lab ID: 9252970033** Collected: 09/08/09 14:10 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/16/09 15:33	09/17/09 18:54	106-93-4	
1-Chloro-2-bromopropane (S)	108	%	60-140		1	09/16/09 15:33	09/17/09 18:54	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**10.1**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 03:20	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**173**	ug/L	5.0	1.2	1		09/17/09 02:57	71-43-2	
1,2-Dichloroethane	**28.8**	ug/L	5.0	1.3	1		09/17/09 02:57	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 02:57	100-41-4	
Methyl-tert-butyl ether	**232**	ug/L	10.0	4.0	2		09/18/09 08:04	1634-04-4	
Naphthalene	**13.1**	ug/L	5.0	2.9	1		09/17/09 02:57	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 02:57	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 02:57	1330-20-7	
o-Xylene	**38.8**	ug/L	5.0	1.7	1		09/17/09 02:57	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109		1		09/17/09 02:57	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		1		09/17/09 02:57	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120		1		09/17/09 02:57	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/17/09 02:57	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-33DD **Lab ID: 9252970034** Collected: 09/08/09 15:05 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/16/09 15:34	09/17/09 19:54	106-93-4	
1-Chloro-2-bromopropane (S)	106	%	60-140		1	09/16/09 15:34	09/17/09 19:54	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 03:34	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**7.6**	ug/L	5.0	1.2	1		09/17/09 03:15	71-43-2	
1,2-Dichloroethane	**4.6J**	ug/L	5.0	1.3	1		09/17/09 03:15	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 03:15	100-41-4	
Methyl-tert-butyl ether	**38.9**	ug/L	5.0	2.0	1		09/17/09 03:15	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 03:15	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 03:15	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 03:15	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 03:15	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109		1		09/17/09 03:15	460-00-4	
Dibromofluoromethane (S)	99	%	85-115		1		09/17/09 03:15	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120		1		09/17/09 03:15	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		09/17/09 03:15	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-34 **Lab ID: 9252970035** Collected: 09/08/09 14:30 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/16/09 15:34	09/17/09 20:14	106-93-4	
1-Chloro-2-bromopropane (S)	106	%	60-140		1	09/16/09 15:34	09/17/09 20:14	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 03:38	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 03:33	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/17/09 03:33	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 03:33	100-41-4	
Methyl-tert-butyl ether	**3.4J**	ug/L	5.0	2.0	1		09/17/09 03:33	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 03:33	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 03:33	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 03:33	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 03:33	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109		1		09/17/09 03:33	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		1		09/17/09 03:33	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	79-120		1		09/17/09 03:33	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		09/17/09 03:33	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-35 **Lab ID: 9252970036** Collected: 09/08/09 15:30 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/16/09 15:34	09/17/09 20:54	106-93-4	
1-Chloro-2-bromopropane (S)	99	%	60-140		1	09/16/09 15:34	09/17/09 20:54	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**38.4**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 03:41	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 03:51	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/17/09 03:51	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 03:51	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/17/09 03:51	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 03:51	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 03:51	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 03:51	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 03:51	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109		1		09/17/09 03:51	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		1		09/17/09 03:51	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/17/09 03:51	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		09/17/09 03:51	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-36 **Lab ID: 9252970037** Collected: 09/08/09 16:20 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/16/09 15:34	09/17/09 21:14	106-93-4	
1-Chloro-2-bromopropane (S)	95	%	60-140		1	09/16/09 15:34	09/17/09 21:14	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**29.8**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 03:45	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 04:09	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/17/09 04:09	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 04:09	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/17/09 04:09	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 04:09	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 04:09	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 04:09	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 04:09	95-47-6	
4-Bromofluorobenzene (S)	104	%	87-109		1		09/17/09 04:09	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		1		09/17/09 04:09	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	79-120		1		09/17/09 04:09	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		09/17/09 04:09	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-38 **Lab ID: 9252970038** Collected: 09/09/09 12:15 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/18/09 14:25	09/19/09 22:25	106-93-4	
1-Chloro-2-bromopropane (S)	104	%	60-140		1	09/18/09 14:25	09/19/09 22:25	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 03:49	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 04:27	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/17/09 04:27	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 04:27	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/17/09 04:27	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 04:27	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 04:27	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 04:27	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 04:27	95-47-6	
4-Bromofluorobenzene (S)	104	%	87-109		1		09/17/09 04:27	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		1		09/17/09 04:27	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120		1		09/17/09 04:27	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/17/09 04:27	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-39 **Lab ID: 9252970039** Collected: 09/09/09 14:25 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/18/09 14:25	09/19/09 22:45	106-93-4	
1-Chloro-2-bromopropane (S)	106	%	60-140		1	09/18/09 14:25	09/19/09 22:45	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**112**	ug/L	25.0	20.0	5	09/14/09 14:25	09/16/09 12:08	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 04:45	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/17/09 04:45	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 04:45	100-41-4	
Methyl-tert-butyl ether	**17.7**	ug/L	5.0	2.0	1		09/17/09 04:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 04:45	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 04:45	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 04:45	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 04:45	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		1		09/17/09 04:45	460-00-4	
Dibromofluoromethane (S)	96	%	85-115		1		09/17/09 04:45	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120		1		09/17/09 04:45	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/17/09 04:45	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-40 **Lab ID: 9252970040** Collected: 09/09/09 15:24 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/18/09 14:25	09/19/09 23:05	106-93-4	
1-Chloro-2-bromopropane (S)	98	%	60-140		1	09/18/09 14:25	09/19/09 23:05	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**57.2**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 03:58	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**4.3J**	ug/L	5.0	1.2	1		09/17/09 05:04	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/17/09 05:04	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 05:04	100-41-4	
Methyl-tert-butyl ether	**4.2J**	ug/L	5.0	2.0	1		09/17/09 05:04	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 05:04	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 05:04	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 05:04	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 05:04	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		1		09/17/09 05:04	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		1		09/17/09 05:04	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/17/09 05:04	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/17/09 05:04	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-41 **Lab ID: 9252970041** Collected: 09/09/09 14:23 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 14:25	09/19/09 23:25	106-93-4	
1-Chloro-2-bromopropane (S)	102	%	60-140		1	09/18/09 14:25	09/19/09 23:25	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 04:03	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**7.7**	ug/L	5.0	1.2	1		09/17/09 05:22	71-43-2	
1,2-Dichloroethane	**9.7**	ug/L	5.0	1.3	1		09/17/09 05:22	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 05:22	100-41-4	
Methyl-tert-butyl ether	**126**	ug/L	5.0	2.0	1		09/17/09 05:22	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 05:22	91-20-3	
Toluene	**7.3**	ug/L	5.0	1.8	1		09/17/09 05:22	108-88-3	
m&p-Xylene	**17.8**	ug/L	10.0	2.7	1		09/17/09 05:22	1330-20-7	
o-Xylene	**13.8**	ug/L	5.0	1.7	1		09/17/09 05:22	95-47-6	
4-Bromofluorobenzene (S)	106	%	87-109		1		09/17/09 05:22	460-00-4	
Dibromofluoromethane (S)	99	%	85-115		1		09/17/09 05:22	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	79-120		1		09/17/09 05:22	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/17/09 05:22	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-42 **Lab ID: 9252970042** Collected: 09/08/09 16:05 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/16/09 15:34	09/17/09 21:34	106-93-4	
1-Chloro-2-bromopropane (S)	107	%	60-140		1	09/16/09 15:34	09/17/09 21:34	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**23.4**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 04:06	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 05:40	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/17/09 05:40	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 05:40	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/17/09 05:40	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 05:40	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 05:40	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 05:40	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 05:40	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109		1		09/17/09 05:40	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		1		09/17/09 05:40	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/17/09 05:40	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		09/17/09 05:40	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-43 **Lab ID: 9252970043** Collected: 09/08/09 14:02 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/16/09 15:34	09/17/09 21:54	106-93-4	
1-Chloro-2-bromopropane (S)	106	%	60-140		1	09/16/09 15:34	09/17/09 21:54	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 04:11	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 05:58	71-43-2	
1,2-Dichloroethane	**1.6J**	ug/L	5.0	1.3	1		09/17/09 05:58	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 05:58	100-41-4	
Methyl-tert-butyl ether	**9.1**	ug/L	5.0	2.0	1		09/17/09 05:58	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 05:58	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 05:58	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 05:58	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 05:58	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/17/09 05:58	460-00-4	
Dibromofluoromethane (S)	99	%	85-115		1		09/17/09 05:58	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	79-120		1		09/17/09 05:58	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		09/17/09 05:58	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: MW-44 **Lab ID: 9252970044** Collected: 09/08/09 14:50 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/16/09 15:34	09/17/09 22:14	106-93-4	
1-Chloro-2-bromopropane (S)	103	%	60-140		1	09/16/09 15:34	09/17/09 22:14	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 04:24	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/17/09 06:16	71-43-2	
1,2-Dichloroethane	**2.7J**	ug/L	5.0	1.3	1		09/17/09 06:16	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/17/09 06:16	100-41-4	
Methyl-tert-butyl ether	**29.5**	ug/L	5.0	2.0	1		09/17/09 06:16	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/17/09 06:16	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/17/09 06:16	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/17/09 06:16	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/17/09 06:16	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		1		09/17/09 06:16	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		1		09/17/09 06:16	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		09/17/09 06:16	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		09/17/09 06:16	2037-26-5	

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ANALYTICAL RESULTS

Project: KMO #119 3661-03
Pace Project No.: 9252970

Sample: DW-1 **Lab ID: 9252970045** Collected: 09/09/09 15:23 Received: 09/11/09 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/18/09 14:25	09/19/09 23:45	106-93-4	
1-Chloro-2-bromopropane (S)	99	%	60-140		1	09/18/09 14:25	09/19/09 23:45	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**81.5**	ug/L	5.0	4.0	1	09/14/09 14:25	09/16/09 04:27	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		09/19/09 03:43	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		09/19/09 03:43	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		09/19/09 03:43	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		09/19/09 03:43	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		09/19/09 03:43	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		09/19/09 03:43	108-88-3	
m&p-Xylene	ND	ug/L	10.0	2.7	1		09/19/09 03:43	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		09/19/09 03:43	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		09/19/09 03:43	460-00-4	
Dibromofluoromethane (S)	100	%	85-115		1		09/19/09 03:43	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120		1		09/19/09 03:43	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		09/19/09 03:43	2037-26-5	

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: OEXT/8038
QC Batch Method: EPA 8011
Analysis Method: EPA 8011
Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9252970010

METHOD BLANK: 338214 Matrix: Water
Associated Lab Samples: 9252970010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.019	09/18/09 11:36	
1-Chloro-2-bromopropane (S)	%	104	60-140	09/18/09 11:36	

LABORATORY CONTROL SAMPLE & LCSD: 338215 338216

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.27	0.29	0.31	106	114	60-140	8	20	
1-Chloro-2-bromopropane (S)	%				105	107	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 338217 338218

Parameter	Units	9253290002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.36	0.36	128	128	60-140	0	20	
1-Chloro-2-bromopropane (S)	%						108	109	60-140			

SAMPLE DUPLICATE: 338219

Parameter	Units	9253290004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%		105	1		

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: MPRP/5063 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 9252970001, 9252970002

METHOD BLANK: 335730 Matrix: Water
Associated Lab Samples: 9252970001, 9252970002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	5.0	09/15/09 14:42	

LABORATORY CONTROL SAMPLE: 335731

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	522	104	80-120	

MATRIX SPIKE SAMPLE: 335732

Parameter	Units	9252827021 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	ND	500	485	97	75-125	

SAMPLE DUPLICATE: 335733

Parameter	Units	9252827022 Result	Dup Result	RPD	Max RPD	Qualifiers
Lead	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: MSV/8295 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9252970018, 9252970019, 9252970020, 9252970021, 9252970022, 9252970023, 9252970024, 9252970025, 9252970026, 9252970027, 9252970028, 9252970029, 9252970030, 9252970031, 9252970032, 9252970033, 9252970034, 9252970035, 9252970036, 9252970037

METHOD BLANK: 336247 Matrix: Water
Associated Lab Samples: 9252970018, 9252970019, 9252970020, 9252970021, 9252970022, 9252970023, 9252970024, 9252970025, 9252970026, 9252970027, 9252970028, 9252970029, 9252970030, 9252970031, 9252970032, 9252970033, 9252970034, 9252970035, 9252970036, 9252970037

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	09/16/09 21:31	
Benzene	ug/L	ND	5.0	09/16/09 21:31	
Ethylbenzene	ug/L	ND	5.0	09/16/09 21:31	
m&p-Xylene	ug/L	ND	10.0	09/16/09 21:31	
Methyl-tert-butyl ether	ug/L	ND	5.0	09/16/09 21:31	
Naphthalene	ug/L	ND	5.0	09/16/09 21:31	
o-Xylene	ug/L	ND	5.0	09/16/09 21:31	
Toluene	ug/L	ND	5.0	09/16/09 21:31	
1,2-Dichloroethane-d4 (S)	%	98	79-120	09/16/09 21:31	
4-Bromofluorobenzene (S)	%	101	87-109	09/16/09 21:31	
Dibromofluoromethane (S)	%	94	85-115	09/16/09 21:31	
Toluene-d8 (S)	%	102	70-120	09/16/09 21:31	

LABORATORY CONTROL SAMPLE: 336248

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	42.2	84	72-126	
Benzene	ug/L	50	40.4	81	78-128	
Ethylbenzene	ug/L	50	42.5	85	80-127	
m&p-Xylene	ug/L	100	86.8	87	82-127	
Methyl-tert-butyl ether	ug/L	50	41.7	83	71-130	
Naphthalene	ug/L	50	42.6	85	52-136	
o-Xylene	ug/L	50	41.5	83	83-124	
Toluene	ug/L	50	41.4	83	76-126	
1,2-Dichloroethane-d4 (S)	%			98	79-120	
4-Bromofluorobenzene (S)	%			108	87-109	
Dibromofluoromethane (S)	%			97	85-115	
Toluene-d8 (S)	%			102	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 336249 336250

Parameter	Units	9252970021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	50	50	50.9	50.7	102	101	74-136	0	30	
Toluene	ug/L	ND	50	50	51.7	51.8	103	103	73-131	0	30	
1,2-Dichloroethane-d4 (S)	%						94	95	79-120			

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 336249 336250

Parameter	Units	9252970021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4-Bromofluorobenzene (S)	%						104	105	87-109			
Dibromofluoromethane (S)	%						96	96	85-115			
Toluene-d8 (S)	%						99	100	70-120			

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: OEXT/7995 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9252970024, 9252970025, 9252970026, 9252970029, 9252970030, 9252970031, 9252970032

METHOD BLANK: 336301 Matrix: Water
Associated Lab Samples: 9252970024, 9252970025, 9252970026, 9252970029, 9252970030, 9252970031, 9252970032

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	09/15/09 18:16	
1-Chloro-2-bromopropane (S)	%	107	60-140	09/15/09 18:16	

LABORATORY CONTROL SAMPLE & LCSD: 336302 336303

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.30	0.30	106	108	60-140	0	20	
1-Chloro-2-bromopropane (S)	%				105	103	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 336304 336305

Parameter	Units	9252991011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.30	0.29	106	104	60-140	2	20	
1-Chloro-2-bromopropane (S)	%						105	103	60-140			

SAMPLE DUPLICATE: 336306

Parameter	Units	9252991012 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%		102	7		

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: MPRP/5069 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 9252970028, 9252970029, 9252970030, 9252970031, 9252970032, 9252970033, 9252970034, 9252970035, 9252970036, 9252970037, 9252970038, 9252970039, 9252970040, 9252970041, 9252970042, 9252970043, 9252970044, 9252970045

METHOD BLANK: 335874 Matrix: Water
Associated Lab Samples: 9252970028, 9252970029, 9252970030, 9252970031, 9252970032, 9252970033, 9252970034, 9252970035, 9252970036, 9252970037, 9252970038, 9252970039, 9252970040, 9252970041, 9252970042, 9252970043, 9252970044, 9252970045

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	5.0	09/16/09 02:42	

LABORATORY CONTROL SAMPLE: 335875

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	512	102	80-120	

MATRIX SPIKE SAMPLE: 335876

Parameter	Units	9252970028 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	ND	500	498	99	75-125	

SAMPLE DUPLICATE: 335877

Parameter	Units	9252970029 Result	Dup Result	RPD	Max RPD	Qualifiers
Lead	ug/L	180	174	3	20	

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: OEXT/8039 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9252970011, 9252970012, 9252970013, 9252970014, 9252970015, 9252970016, 9252970017, 9252970018, 9252970019, 9252970020, 9252970021, 9252970022, 9252970023, 9252970027, 9252970028, 9252970038, 9252970039, 9252970040, 9252970041, 9252970045

METHOD BLANK: 338220 Matrix: Water
Associated Lab Samples: 9252970011, 9252970012, 9252970013, 9252970014, 9252970015, 9252970016, 9252970017, 9252970018, 9252970019, 9252970020, 9252970021, 9252970022, 9252970023, 9252970027, 9252970028, 9252970038, 9252970039, 9252970040, 9252970041, 9252970045

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.019	09/19/09 15:25	
1-Chloro-2-bromopropane (S)	%	116	60-140	09/19/09 15:25	

LABORATORY CONTROL SAMPLE & LCSD: 338221 338222

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.32	0.31	114	112	60-140	3	20	
1-Chloro-2-bromopropane (S)	%				99	107	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 338223 338224

Parameter	Units	9252970011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.32	0.37	116	134	60-140	14	20	
1-Chloro-2-bromopropane (S)	%						101	98	60-140			

SAMPLE DUPLICATE: 338225

Parameter	Units	9252970013 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	4.1	4.7	15	20	
1-Chloro-2-bromopropane (S)	%		0	0		S4

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: OEXT/8014 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9252970033, 9252970034, 9252970035, 9252970036, 9252970037, 9252970042, 9252970043, 9252970044

METHOD BLANK: 336879 Matrix: Water
Associated Lab Samples: 9252970033, 9252970034, 9252970035, 9252970036, 9252970037, 9252970042, 9252970043, 9252970044

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	09/17/09 14:14	
1-Chloro-2-bromopropane (S)	%	111	60-140	09/17/09 14:14	

LABORATORY CONTROL SAMPLE & LCSD: 336880 336881

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.29	0.32	0.31	112	110	60-140	3	20	
1-Chloro-2-bromopropane (S)	%				106	107	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 336882 336883

Parameter	Units	9252970033 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.37	0.32	132	116	60-140	13	20	
1-Chloro-2-bromopropane (S)	%						104	106	60-140			

SAMPLE DUPLICATE: 336884

Parameter	Units	9252970035 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%		101	7		

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: MSV/8296 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9252970038, 9252970039, 9252970040, 9252970041, 9252970042, 9252970043, 9252970044

METHOD BLANK: 336266 Matrix: Water
Associated Lab Samples: 9252970038, 9252970039, 9252970040, 9252970041, 9252970042, 9252970043, 9252970044

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	09/16/09 21:49	
Benzene	ug/L	ND	5.0	09/16/09 21:49	
Ethylbenzene	ug/L	ND	5.0	09/16/09 21:49	
m&p-Xylene	ug/L	ND	10.0	09/16/09 21:49	
Methyl-tert-butyl ether	ug/L	ND	5.0	09/16/09 21:49	
Naphthalene	ug/L	ND	5.0	09/16/09 21:49	
o-Xylene	ug/L	ND	5.0	09/16/09 21:49	
Toluene	ug/L	ND	5.0	09/16/09 21:49	
1,2-Dichloroethane-d4 (S)	%	97	79-120	09/16/09 21:49	
4-Bromofluorobenzene (S)	%	106	87-109	09/16/09 21:49	
Dibromofluoromethane (S)	%	96	85-115	09/16/09 21:49	
Toluene-d8 (S)	%	102	70-120	09/16/09 21:49	

LABORATORY CONTROL SAMPLE: 336267

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	42.2	84	72-126	
Benzene	ug/L	50	40.4	81	78-128	
Ethylbenzene	ug/L	50	42.5	85	80-127	
m&p-Xylene	ug/L	100	86.8	87	82-127	
Methyl-tert-butyl ether	ug/L	50	41.7	83	71-130	
Naphthalene	ug/L	50	42.6	85	52-136	
o-Xylene	ug/L	50	41.5	83	83-124	
Toluene	ug/L	50	41.4	83	76-126	
1,2-Dichloroethane-d4 (S)	%			98	79-120	
4-Bromofluorobenzene (S)	%			108	87-109	
Dibromofluoromethane (S)	%			97	85-115	
Toluene-d8 (S)	%			102	70-120	

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: MSV/8325 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9252970002, 9252970003, 9252970004, 9252970005, 9252970006, 9252970008, 9252970009, 9252970010, 9252970012, 9252970014, 9252970045

METHOD BLANK: 338516 Matrix: Water
Associated Lab Samples: 9252970002, 9252970003, 9252970004, 9252970005, 9252970006, 9252970008, 9252970009, 9252970010, 9252970012, 9252970014, 9252970045

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	09/19/09 00:49	
Benzene	ug/L	ND	5.0	09/19/09 00:49	
Ethylbenzene	ug/L	ND	5.0	09/19/09 00:49	
m&p-Xylene	ug/L	ND	10.0	09/19/09 00:49	
Methyl-tert-butyl ether	ug/L	ND	5.0	09/19/09 00:49	
Naphthalene	ug/L	ND	5.0	09/19/09 00:49	
o-Xylene	ug/L	ND	5.0	09/19/09 00:49	
Toluene	ug/L	ND	5.0	09/19/09 00:49	
1,2-Dichloroethane-d4 (S)	%	101	79-120	09/19/09 00:49	
4-Bromofluorobenzene (S)	%	102	87-109	09/19/09 00:49	
Dibromofluoromethane (S)	%	100	85-115	09/19/09 00:49	
Toluene-d8 (S)	%	100	70-120	09/19/09 00:49	

LABORATORY CONTROL SAMPLE: 338517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	49.0	98	72-126	
Benzene	ug/L	50	46.4	93	78-128	
Ethylbenzene	ug/L	50	48.0	96	80-127	
m&p-Xylene	ug/L	100	102	102	82-127	
Methyl-tert-butyl ether	ug/L	50	46.9	94	71-130	
Naphthalene	ug/L	50	49.2	98	52-136	
o-Xylene	ug/L	50	49.7	99	83-124	
Toluene	ug/L	50	47.1	94	76-126	
1,2-Dichloroethane-d4 (S)	%			101	79-120	
4-Bromofluorobenzene (S)	%			103	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 338518 338519

Parameter	Units	9252986016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	50	50	53.4	51.7	107	103	74-136	3	30	
Toluene	ug/L	ND	50	50	54.0	52.5	108	105	73-131	3	30	
1,2-Dichloroethane-d4 (S)	%						97	95	79-120			
4-Bromofluorobenzene (S)	%						104	104	87-109			
Dibromofluoromethane (S)	%						96	96	85-115			

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 338518 338519

Parameter	Units	9252986016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Toluene-d8 (S)	%						100	99	70-120			

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: MSV/8292 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9252970015, 9252970016, 9252970017

METHOD BLANK: 336151 Matrix: Water
Associated Lab Samples: 9252970015, 9252970016, 9252970017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	09/16/09 10:08	
Benzene	ug/L	ND	5.0	09/16/09 10:08	
Ethylbenzene	ug/L	ND	5.0	09/16/09 10:08	
m&p-Xylene	ug/L	ND	10.0	09/16/09 10:08	
Methyl-tert-butyl ether	ug/L	ND	5.0	09/16/09 10:08	
Naphthalene	ug/L	ND	5.0	09/16/09 10:08	
o-Xylene	ug/L	ND	5.0	09/16/09 10:08	
Toluene	ug/L	ND	5.0	09/16/09 10:08	
1,2-Dichloroethane-d4 (S)	%	97	79-120	09/16/09 10:08	
4-Bromofluorobenzene (S)	%	100	87-109	09/16/09 10:08	
Dibromofluoromethane (S)	%	96	85-115	09/16/09 10:08	
Toluene-d8 (S)	%	102	70-120	09/16/09 10:08	

LABORATORY CONTROL SAMPLE: 336152

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	49.5	99	72-126	
Benzene	ug/L	50	48.2	96	78-128	
Ethylbenzene	ug/L	50	48.8	98	80-127	
m&p-Xylene	ug/L	100	97.5	98	82-127	
Methyl-tert-butyl ether	ug/L	50	48.7	97	71-130	
Naphthalene	ug/L	50	50.8	102	52-136	
o-Xylene	ug/L	50	48.8	98	83-124	
Toluene	ug/L	50	48.9	98	76-126	
1,2-Dichloroethane-d4 (S)	%			98	79-120	
4-Bromofluorobenzene (S)	%			101	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			102	70-120	

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: OEXT/8016 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9252970001, 9252970002, 9252970003, 9252970004, 9252970005, 9252970006, 9252970007, 9252970008, 9252970009

METHOD BLANK: 336891 Matrix: Water
Associated Lab Samples: 9252970001, 9252970002, 9252970003, 9252970004, 9252970005, 9252970006, 9252970007, 9252970008, 9252970009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	09/17/09 09:33	
1-Chloro-2-bromopropane (S)	%	98	60-140	09/17/09 09:33	

LABORATORY CONTROL SAMPLE & LCSD: 336892 336893

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.29	0.28	0.26	98	92	60-140	8	20	
1-Chloro-2-bromopropane (S)	%				98	92	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 336894 336895

Parameter	Units	9252966002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.27	.27	0.29	0.29	106	106	60-140	0	20	
1-Chloro-2-bromopropane (S)	%						104	105	60-140			

SAMPLE DUPLICATE: 336896

Parameter	Units	9252966003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%		101	0		

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: MSV/8288 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9252970001, 9252970007, 9252970011, 9252970013

METHOD BLANK: 336135 Matrix: Water
Associated Lab Samples: 9252970001, 9252970007, 9252970011, 9252970013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	09/15/09 12:53	
Benzene	ug/L	ND	5.0	09/15/09 12:53	
Ethylbenzene	ug/L	ND	5.0	09/15/09 12:53	
m&p-Xylene	ug/L	ND	10.0	09/15/09 12:53	
Methyl-tert-butyl ether	ug/L	ND	5.0	09/15/09 12:53	
Naphthalene	ug/L	ND	5.0	09/15/09 12:53	
o-Xylene	ug/L	ND	5.0	09/15/09 12:53	
Toluene	ug/L	ND	5.0	09/15/09 12:53	
1,2-Dichloroethane-d4 (S)	%	98	79-120	09/15/09 12:53	
4-Bromofluorobenzene (S)	%	98	87-109	09/15/09 12:53	
Dibromofluoromethane (S)	%	96	85-115	09/15/09 12:53	
Toluene-d8 (S)	%	100	70-120	09/15/09 12:53	

LABORATORY CONTROL SAMPLE: 336136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	61.1	122	72-126	
Benzene	ug/L	50	60.4	121	78-128	
Ethylbenzene	ug/L	50	61.1	122	80-127	
m&p-Xylene	ug/L	100	125	125	82-127	
Methyl-tert-butyl ether	ug/L	50	59.5	119	71-130	
Naphthalene	ug/L	50	65.4	131	52-136	
o-Xylene	ug/L	50	61.7	123	83-124	
Toluene	ug/L	50	60.1	120	76-126	
1,2-Dichloroethane-d4 (S)	%			94	79-120	
4-Bromofluorobenzene (S)	%			104	87-109	
Dibromofluoromethane (S)	%			100	85-115	
Toluene-d8 (S)	%			101	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 336137 336138

Parameter	Units	9252899006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	138	50	50	159	160	42	43	74-136	0	30	M3
1,2-Dichloroethane-d4 (S)	%						102	98	79-120			
4-Bromofluorobenzene (S)	%						100	103	87-109			
Dibromofluoromethane (S)	%						98	94	85-115			
Toluene-d8 (S)	%						101	101	70-120			

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QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: MPRP/5068 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 9252970008, 9252970009, 9252970010, 9252970011, 9252970012, 9252970013, 9252970014, 9252970015, 9252970016, 9252970017, 9252970018, 9252970019, 9252970020, 9252970021, 9252970022, 9252970023, 9252970024, 9252970025, 9252970026, 9252970027

METHOD BLANK: 335870 Matrix: Water
Associated Lab Samples: 9252970008, 9252970009, 9252970010, 9252970011, 9252970012, 9252970013, 9252970014, 9252970015, 9252970016, 9252970017, 9252970018, 9252970019, 9252970020, 9252970021, 9252970022, 9252970023, 9252970024, 9252970025, 9252970026, 9252970027

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	5.0	09/16/09 04:38	

LABORATORY CONTROL SAMPLE: 335871

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	506	101	80-120	

MATRIX SPIKE SAMPLE: 335872

Parameter	Units	9252970008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	32.8	500	527	99	75-125	

SAMPLE DUPLICATE: 335873

Parameter	Units	9252970009 Result	Dup Result	RPD	Max RPD	Qualifiers
Lead	ug/L	ND	ND		20	

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ACCREDITED IN ACCORDANCE WITH nelac

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KMO #119 3661-03
Pace Project No.: 9252970

QC Batch: MPRP/5064 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 9252970003, 9252970004, 9252970005, 9252970006, 9252970007

METHOD BLANK: 335734 Matrix: Water
Associated Lab Samples: 9252970003, 9252970004, 9252970005, 9252970006, 9252970007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	5.0	09/15/09 22:13	

LABORATORY CONTROL SAMPLE: 335735

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	515	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 335763 335764

Parameter	Units	9252966002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	500	500	483	487	97	97	75-125	1	20	

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(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: KMO #119 3661-03
Pace Project No.: 9252970

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

ANALYTE QUALIFIERS

M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 4

1322540

Section A Required Client Information:

Company: BLE
Address: 6004 Ponders Court
Greenville SC 29615
Email To: Ivevor@BLECorp.com
Phone: (864) 288-1265 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Trevor
Copy To:
Purchase Order No.:
Project Name: KMO # 119
Project Number: 3661-03

Section C Invoice Information:

Attention: SAME
Company Name: SAME
Address: SAME
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 3072-2

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ↓ (Y/N) BTEX N MTBE 8260	Lead 6010	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-2	WT	G			9-9-09	1550					1	6					✓	✓	✓		9252970 001
2	MW-3						1620											✓				002
3	MW-4						1651											✓				003
4	MW-6						1655											✓				004
5	MW-7						1702											✓				005
6	~~MW-8~~						1645					2						✓				
7	MW-9						1313					1	6									006
8	MW-10						1338															007
9	MW-11						1449															008
10	MW-12						1349															009
11	MW-13R						1450															010
12	MW-14						1335															011

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	Ivan A. Ivizarry, BLE	9-10-09	800		9-10-09	850
	Beaver			B Moody - Pace	9-11-09	14:55
	B Moody	9-11-09	16:05	PACE	9/11/09	1605

SAMPLE CONDITIONS			
Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
3.9	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: I Ivan A. Ivizarry
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 9-9-09

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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1322539

Section A Required Client Information:

Company: BLE
Address: 6004 Powders Court
Greenville, SC 29615
Email To: Trevor@BLEcorp.com
Phone: (864)288-1265 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Trevor
Copy To:
Purchase Order No.:
Project Name: KMO # 114
Project Number: 3661-03

Section C Invoice Information:

Attention: SAME
Company Name: SAME
Address: SAME
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: SC

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX MTBE 8260B	LEAD 6010	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-15	WT	G			9-9-09	1355					✓	✓						✓	✓	✓		9252970 012
2	MW-16						1530																013
3	MW-17						1510																014
4	MW-18						1220																015
5	MW-19						1230																016
6	MW-20						1155																017
7	MW-21						1153																018
8	MW-22						0927																019
9	MW-23						920																020
10	MW-24						1040																021
11	MW-25						910																022
12	MW-26						1047																023

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Ivan A. Irizarry, BLE	9-9-09	800		9-9-09	85				
	Beamer			K Moody - Pace	9-11-09	14:53				
	K Moody	9-11-09	16:05		9/11/09	1605	3.9	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Ivan A. Irizarry

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 9-9-09

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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1322538

Section A Required Client Information:

Company: BLE
Address: 6004 Ponders Court
Greenville SC, 29615
Email To: Trevor@BLEcorp.com
Phone: (864) 288-1265 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Trevor
Copy To:
Purchase Order No.:
Project Name: KMO # 114
Project Number: 3661-03

Section C Invoice Information:

Attention: SAME
Company Name: SAME
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	BTEX MTBE 8260B	Lead 6010	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-27R	WT	G			9-8-09	1141					✓	✓						↓	↓	↓		024
2	MW-27D						1150																025
3	MW-27DD						1315																026
4	MW-28					9-9-09	1056																027
5	MW-29						1315																028
6	MW-30R					9-8-09	1000																029
7	MW-31R						1050																030
8	MW-32R						1030																031
9	MW-33						1326																032
10	MW-33D						1410																033
11	MW-33DD						1505																034
12	MW-34	↓	↓			↓	1430					✓	✓						↓	↓	↓		035

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
33 = MW-33	Ivan A. Ivizarry	9-10-09	800		9/10/09	800				
32 = MW-32 etc.	Beamer			Brandy Pace	9-11-09	14:55				
	Brandy	9-11-09	16:05	PACE	9/11/09	1605	3.9	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Ivan A. Ivizarry

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 9-9-09

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 4 of 4

1322535

Section A Required Client Information:

Company: BLE
Address: 6004 Ponders ct
Greenville SC 29615
Email To: Trevor@BLEcorp.com
Phone: (864) 288-1265 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Trevor
Copy To:
Purchase Order No.:
Project Name: KMO # 119
Project Number: 3661-03

Section C Invoice Information:

Attention: SAME
Company Name: SAME
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX/NITRATE 6200B	Lead 6010	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-36	WT	G			9-8-09	1620					✓	✓									037
2	MW-35						1530															036
3	MW-38					9-9-09	1215															038
4	MW-39						1425															039
5	MW-40						1524															040
6	MW-41						1423															041
7	MW-42					9-8-09	1605															042
8	MW-43						1402															043
9	MW-44						1450					↓	↓									044
10																						045
11																						
12		↓	↓																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Ivan A. Ivinson/BLE	9-10-09	8 00		9/10/09	850				
	Brandon			D Moody - Pace	9-11-09	14:55				
	D Moody	9-11-09	16:05		9/11/09	1605	3.9	4	N	4

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Ivan A. Ivinson

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 9-9-09

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

FEB 0 3 2010

12tech
UST
DOCKET

EUNICE FULLER
KEN MOOREHEAD OIL INC
PO BOX 2587
ANDERSON SC 29622-2587

Re: **AFVR Directive**
MD Food Mart (Former KMO #119), 1312 Williamston Rd., Anderson, SC
UST Permit # 00505; CA #38178
Release reported December 20, 1989
Assessment Report received January 6, 2010
Anderson County

Dear Ms. Fuller:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (SCDHEC) recognizes your commitment to continue work at this site utilizing Bunnell-Lammons Engineering, Inc (BLE). The next work scope includes three 8-hour AFVR events to remove free product from monitoring well MW-1R. Each of the events should be spaced approximately 30 days apart. **During each event, the stinger should be set no deeper than 12 inches beneath the free product.**

The AFVR Report should be submitted within 120 days from the date of this correspondence and should include the following:

- A narrative portion documenting the AFVR events noting site conditions, the name of the AFVR contractor, field personnel, date, time the AFVR events started and ended, ambient air temperature, and general weather conditions during the AFVR events.
- A brief description of the completed work scope and any relevant descriptions pertaining to the data tables.
- A table summarizing the airflow (in CFM) and volatile air emissions concentrations collected from the stack of the truck every thirty minutes through the duration of the events. The table shall also document which well(s) were being recovered from during that time interval.
- A table summarizing the magnehelic gauge measurements from all applicable wells on a thirty-minute time interval.
- The total volume of water recovered (gallons).
- The total volume of free phase product recovered (typically measured with a product/water interface device inserted into the top of the tanker at the completion of the event and then converted to an approximate volume).
- The total weight of petroleum removed as vapor. This is calculated based on the airflow rate and the concentration of vapor.
- A table documenting the free product thickness in each well before and after the recovery event.
- Manifests for any contaminated soil and/or groundwater removed from the site for treatment and/or disposal.

BLE can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Please note that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Cost Agreement #38178 has been approved in the amount shown on the enclosed cost agreement. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the UST Management Division. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Division for the cost to be paid. The Division reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Division reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The UST Management Division grants preapproval for transportation of virgin petroleum-contaminated soil and groundwater from the referenced site to a permitted treatment facility. The contaminated soil or groundwater must be properly stored in labeled containers or covered with plastic as appropriate. The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report. If the levels of petroleum contamination based on laboratory analysis are below risk-based screening levels, please contact the project manager for approval to dispose of soil and/or groundwater on-site. The SUPERB Account will not compensate for transportation or treatment of clean soil and/or groundwater.

On all correspondence concerning this site, please reference UST Permit #00505 and CA #38178. If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Technical File (with enclosure)
Bunnell Lammons Engineering, Inc., Thomas L. Lammons, 6004 Ponders Ct., Greenville, SC 29607 (with enclosure)
Dev Enterprises LLC, 1312 Williamston Rd., Anderson, SC29624 (without enclosure)

Approved Cost Agreement 38178

Facility: 00505 M D FOOD MART
MINERRS
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		A EQUIPMENT	3.0000	575.00	1,725.00
		B PERSONNEL	3.0000	290.00	870.00
17 DISPOSAL					
		A2 WASTEWATER - PUMPING TEST	3,000.0000	0.60	1,800.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	14,235.00	2,135.25
23 EFR					
		A 8 HOUR EVENT	3.0000	3,000.00	9,000.00
		C OFF GAS TREATMENT	24.0000	35.00	840.00
			Total Amount		16,370.25

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF MULTIPLE AGGRESSIVE FLUID VAPOR RECOVERY EVENTS

Former KMO #119
1312 Williamston Road
Anderson, South Carolina
UST Permit # 00505; Cost Agreement # 38178

Prepared For

Moorhead Oil Company
P.O. Box 2587
Anderson, South Carolina 29662

Prepared By

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, South Carolina 29615
SCDHEC UCC #010

June 22, 2010

BLE Project Number J10-3661-05

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

June 22, 2010

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
Underground Storage Tank Program
2600 Bull Street
Columbia, S.C. 29201-1708

Attention: Mr. Read Miner, P.G., Hydrogeologist

Subject: **Report of Multiple Aggressive Fluid Vapor Recovery Events**
Former KMO #119
1312 Williamston Road
Anderson, South Carolina
UST Permit #00505; Cost Agreement #38178
BLE Project No. J10-3661-05

Dear Mr. Miner:

On behalf of Moorhead Oil Company, Bunnell-Lammons Engineering, Inc. (BLE) has completed three Aggressive Fluid Vapor Recovery (AFVR) events at the above referenced site. This scope of work was performed in response to South Carolina Department of Health and Environmental Control's (SCDHEC) directive, dated February 3, 2010. This report describes the work performed and presents the results obtained, along with our comments and recommendations. Please do not hesitate to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina No. 2395

Thomas L. Lammons, P.G.
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Kris Moorhead, P.O. Box 2587, Anderson, South Carolina 29662

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

BACKGROUND INFORMATION

The subject property is located at 1312 Williamston Road in Anderson, South Carolina (Figure 1). Prior to 2004, the site was owned by the Ken Moorhead Oil Company and operated as a Citgo fueling station. Currently, the site is owned and operated by DEV Enterprises, LLC and is utilized as a convenience store where gasoline and kerosene fuels are sold (Citgo).

Four gasoline underground storage tanks (USTs) were located on the northeastern portion of the site. A soil assessment performed in December 1989 discovered minor petroleum contamination in the area around the USTs. The South Carolina Department of Health and Environmental Control (SCDHEC) issued a No Further Action status to the site in June 1990. In December 1991, the USTs and associated equipment were removed. Please note, the current UST system has been relocated and updated with required leak detection devices.

In June 2004 a Phase II property transaction was conducted on the site. Results from the Phase II report indicated concentrations of petroleum hydrocarbons in groundwater. Pursuant to these results, the SCDHEC required a Tier I Assessment be performed with regard to the former UST system. The Tier I Assessment was completed by BLE in August 2004. Results from the Tier I Assessment indicated significant petroleum hydrocarbon impact to the groundwater along the eastern and northeastern portion of the site. Based on the Tier I results, a Tier II Assessment was required and completed by BLE in 2007. To further define the horizontal and vertical extent of groundwater contamination and to address monitoring wells MW-1R, MW-2, MW-10, MW-11, MW-14, and MW-16, which have historically contained measurable free-product, addendums to the Tier II Assessment were performed by BLE in 2008 and 2009. Due to the continued presence of petroleum free-product in the source area, SCDHEC has required three eight-hour aggressive fluid vapor recovery (AFVR) events be performed in monitoring well MW-1R. The results of the AFVR events are presented in this report.

AGGRESSIVE FLUID VAPOR RECOVERY EVENTS

On April 9, May 10, and June 9, 2010, BLE personnel mobilized to the site to perform AFVR events on existing monitoring well MW-1R. A hydrogeologist from BLE was on site for observation and monitoring. The AFVR events were performed by Caro Vac AFVR Services, LLC (Caro Vac) of Simpsonville, South Carolina. A site and well location plan is shown as Figure 2. The results of each AFVR event are provided below.

APRIL 9, 2010 AFVR EVENT – EVENT #1

On April 9, 2010, the first of three 8-hour AFVR events was conducted in monitoring well MW-1R. Prior to initiating the event, BLE personnel gauged 0.96 feet of free-phase petroleum product in the well (Figure 2). The initial depth to groundwater readings in the source area wells (feet below top of PVC casing (btoc)) were 42.58 (MW-1D), 33.43 (MW-2), and 38.93 (MW-16).

The AFVR event initiated at 10:00 and concluded at 18:00. The general weather conditions observed during this period of time were sunny skies; winds varied between 5 to 10 miles per hour (mph) with an ambient temperature between 55º and 70º Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 24 inches of mercury was applied to MW-1R. The depth to water was measured every 30 minutes in wells MW-1D, MW-2, and MW-16 to evaluate drawdown in the affected area of the AFVR event. Gauging data observed during the event is shown in Table 1.

Due to the close proximity of the site to a populated area, volatile air emissions were treated on-site by Caro Vac personnel utilizing a vapor exhaust chiller and a granulated activated carbon (GAC) unit. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable Photo-Ionization Detector (PID) (Model PGM 7600). Gauging data observed during the event is shown in Table 2.

At the completion of the AFVR event, a total volume of 15 gallons of petroleum impacted groundwater was determined to have been recovered from MW-1R. Approximately 0.25 gallons of

free-phase product was observed in the liquid collection containers following the completion of the AFVR event. Please note, petroleum product losses occur from volatilization during an AFVR event. Additionally, the measurement of free-product in the recovery tank is affected by product emulsification with groundwater which occurs as a result of the AFVR process. Therefore, the liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness measurement. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix A.

A total of approximately 1.09 pounds of gasoline vapor which is equivalent to approximately 0.17 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 2.

Monitoring well MW-1R was gauged immediately following the conclusion of the event and 0.03 feet of free-phase product was observed in the well. Total water level/free-product changes for this event are shown in Table 1.

MAY 10, 2010 AFVR EVENT – EVENT #2

On May 10, 2010, the second of three 8-hour AFVR events was conducted in monitoring well MW-1R. Prior to initiating the event, BLE personnel gauged 0.49 feet of free-phase petroleum product in the well (Figure 2). The initial depth to groundwater/free-product readings in the source area wells (feet btoc) were 42.53 (MW-1D), 33.57 (MW-2), and 38.83 (free-product) / 38.85 (groundwater - MW-16).

The AFVR event initiated at 10:00 and concluded at 18:00. The general weather conditions observed during this period of time were partly cloudy to mostly cloudy skies; winds varied between 3 to 10 miles per hour (mph) with an ambient temperature between 55º and 70º Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 24 inches of mercury was applied to MW-1R. The depth to water/free-product was measured every 30 minutes in wells MW-1D, MW-2, and MW-16 to evaluate drawdown in the affected area of the AFVR event. Gauging data observed during the event is shown in Table 3.

Due to the close proximity of the site to a populated area, volatile air emissions were treated on-site by Caro Vac personnel utilizing a vapor exhaust chiller and a GAC unit. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable PID (Model PGM 7600). Gauging data observed during the event is shown in Table 3.

At the completion of the AFVR event, a total volume of 15 gallons of petroleum impacted groundwater was determined to have been recovered from MW-1R. Approximately 0.25 gallons of free-phase product was observed in the liquid collection containers following the completion of the AFVR event. Please note, petroleum product losses occur from volatilization during an AFVR event. Additionally, the measurement of free-product in the recovery tank is affected by product emulsification with groundwater which occurs as a result of the AFVR process. Therefore, the liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness measurement. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix A.

A total of approximately 1.26 pounds of gasoline vapor which is equivalent to approximately 0.20 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 4.

Monitoring well MW-1R was gauged immediately following the conclusion of the event and no free-phase product was observed in the well. Total water level/free-product changes for this event are shown in Table 3.

JUNE 9, 2010 AFVR EVENT – EVENT #3

On June 9, 2010, the third of three 8-hour AFVR events was conducted in monitoring well MW-1R. Prior to initiating the event, BLE personnel gauged 0.01 feet of free-phase petroleum product in the well (Figure 2). The initial depth to groundwater/free-product readings in the source area wells (feet btoc) were 42.48 (MW-1D), 33.60 (MW-2), and 38.92 (free-product) / 38.98 (groundwater - MW-16).

The AFVR event initiated at 10:30 and concluded at 18:30. The general weather conditions observed during this period of time were sunny skies; winds varied between 5 to 15 miles per hour (mph) with an ambient temperature between 75º and 90º Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 24 inches of mercury was applied to MW-1R. The depth to water /free-product was measured every 30 minutes in wells MW-1D, MW-2, and MW-16 to evaluate drawdown in the affected area of the AFVR event. Gauging data observed during the event is shown in Table 5.

Due to the close proximity of the site to a populated area, volatile air emissions were treated on-site by Caro Vac personnel utilizing a vapor exhaust chiller and a GAC unit. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable PID (Model PGM 7600). Gauging data observed during the event is shown in Table 5.

At the completion of the AFVR event, a total volume of 15 gallons of petroleum impacted groundwater was determined to have been recovered from MW-1R. Approximately 0.25 gallons of free-phase product was observed in the liquid collection containers following the completion of the AFVR event. Please note, petroleum product losses occur from volatilization during an AFVR event. Additionally, the measurement of free-product in the recovery tank is affected by product emulsification with groundwater which occurs as a result of the AFVR process. Therefore, the liquids may not have had sufficient time to separate in order to obtain an accurate free-product thickness measurement. Waste transportation and disposal records for the petroleum impacted groundwater recovered during the AFVR event are provided in Appendix A.

A total of approximately 0.66 pounds of gasoline vapor which is equivalent to approximately 0.11 gallons of gasoline, were calculated to have been recovered during the AFVR event. The AFVR emissions calculations for this event are provided as Table 6.

Monitoring well MW-1R was gauged immediately following the conclusion of the event and 0.01 feet of free-phase product was observed in the well. Total water level/free-product changes for this event are shown in Table 5.

CONCLUSIONS AND RECOMMENDATIONS

On June 14, 2010, after the series of AFVR events documented above, BLE personnel mobilized to the site to measure free-product levels in MW-1R and monitoring wells MW-2, MW-10, MW-11, MW-14, and MW-16, which have historically contained measurable thicknesses of free-product. Free-product was not detected in monitoring wells MW-1R or MW-2; however, 0.46 feet, 0.15 feet, 0.01 feet, and 0.06 feet of free-phase product was measured in MW-10, MW-11, MW-14, and MW-16, respectively.

In an effort to reduce COC concentrations that are migrating into the deeper bedrock aquifer, we recommend a series of additional 8-hour AFVR events be performed in monitoring wells MW-10 and MW-11. Additionally, we recommend the installation of passive free-product skimmers in monitoring wells MW-1R (when free-product returns), MW-14, and MW-16. Passive free-product skimmers can also be utilized in conjunction with the AFVR events to remove free-product from the AFVR monitoring wells (MW-10 and MW-11) as it accumulates between events. Pricing for the passive free-product skimmers can be obtained upon request from SCDHEC.

We believe that an aggressive attempt at removing the source (free-product) of the contaminants will positively impact the COC concentrations in the deep, vertical extent monitoring wells. The AFVR events will remove free-phase petroleum product, high levels of dissolved petroleum contaminants, and vapor phase petroleum hydrocarbons. Additionally, the AFVR events can help stimulate aerobic activity by improving oxygen flow through the subsurface.

After completion of the final AFVR event we recommend a comprehensive groundwater sampling event of all wells be performed at the site.

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been

based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Moorhead Oil Company. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

ASSESSMENT COMPONENT INVOICE

The Assessment Component Invoice will be sent under separate cover to Mrs. Robertha Dorsey of the SCDHEC UST finance department for payment.

TABLES

TABLE 1

AFVR Gauging Data - April 9, 2010
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #38178
BLE Project Number J10-3661-05

	Monitoring Well Gauging Data					Air Emmissions	
	Vacuum (in.of Hg)	Depth to Free-Product/Groundwater (feet BTOC)				Influent (ppm)	Effluent (ppm)
Time	MW-1R	MW-1R	MW-1D	MW-2	MW-16		
10:00	24.0	38.53/39.49	42.58	33.43	38.93	871	24.0
10:30	24.0	AFVR EVENT	42.58	33.43	38.94	663	22.0
11:00	24.0		42.59	33.43	38.95	443	18.0
11:30	24.0		42.59	33.43	38.96	372	17.0
12:00	24.0		42.59	33.43	38.97	261	16.0
12:30	24.0		42.59	33.42	38.96	242	15.0
13:00	24.0		42.59	33.42	38.95	226	15.0
13:30	24.0		42.59	33.42	38.95	208	15.0
14:00	24.0		42.58	33.41	38.95	185	15.0
14:30	24.0		42.58	33.40	38.96	181	14.0
15:00	24.0		42.58	33.40	38.95	178	14.0
15:30	24.0		42.58	33.40	38.95	175	14.0
16:00	24.0		42.57	33.39	38.94	173	14.0
16:30	24.0		42.57	33.39	38.95	169	13.0
17:00	24.0		42.57	33.39	38.94	165	13.0
17:30	24.0		42.57	33.39	38.95	161	13.0
18:00	24.0	43.70/43.73	42.57	33.39	38.94	156	13.0

NOTES:

AFVR event performed on April 9, 2010

Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).

0.96 feet of free-product was detected in MW-1R prior to AFVR event

inches of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

TABLE 2

AFVR Emissions Field Data - April 9, 2010
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #38178
BLE Project Number J10-3661-05

WELL ID #: MW-1R

AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS								
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
4/9/2010	1000	23	1,328	3	132	91.5	871	00:00	40.50	1,250.31	5,001.24	4	2,495.43	1.56E-04	0.38	0.44	0.07
4/9/2010	1030	23	1,325	3	136	90.6	663	00:30	40.14	951.73	3,806.92	4	1,899.50	1.19E-04	0.29	0.33	0.05
4/9/2010	1100	23	1,328	3	150	89.3	443	01:00	39.31	635.92	2,543.69	4	1,269.20	7.92E-05	0.19	0.22	0.03
4/9/2010	1130	23	1,324	3	150	88.2	372	01:30	39.19	534.00	2,136.01	4	1,065.79	6.65E-05	0.16	0.18	0.03
4/9/2010	1200	23	1,326	3	156	86.1	261	02:00	38.87	374.66	1,498.65	4	747.77	4.67E-05	0.11	0.13	0.02
4/9/2010	1230	23	1,324	3	156	84.3	242	02:30	38.81	347.39	1,389.55	4	693.33	4.33E-05	0.10	0.12	0.02
4/9/2010	1300	23	1,322	3	158	83.4	226	03:00	38.62	324.42	1,297.68	4	647.49	4.04E-05	0.09	0.11	0.02
4/9/2010	1330	23	1,318	3	158	81.1	208	03:30	38.51	298.58	1,194.33	4	595.92	3.72E-05	0.09	0.10	0.02
4/9/2010	1400	23	1,314	3	158	79.2	185	04:00	38.39	265.57	1,062.26	4	530.03	3.31E-05	0.08	0.09	0.01
4/9/2010	1430	23	1,312	3	158	76.5	181	04:30	38.33	259.82	1,039.29	4	518.57	3.24E-05	0.07	0.09	0.01
4/9/2010	1500	23	1,310	3	158	74.2	178	05:00	38.27	255.52	1,022.07	4	509.97	3.18E-05	0.07	0.08	0.01
4/9/2010	1530	23	1,306	3	160	71.3	175	05:30	38.03	251.21	1,004.84	4	501.38	3.13E-05	0.07	0.08	0.01
4/9/2010	1600	23	1,300	3	160	68.3	173	06:00	37.86	248.34	993.36	4	495.65	3.09E-05	0.07	0.08	0.01
4/9/2010	1630	23	1,296	3	160	64.5	169	06:30	37.74	242.60	970.39	4	484.19	3.02E-05	0.07	0.08	0.01
4/9/2010	1700	23	1,292	3	160	61.3	165	07:00	37.62	236.86	947.42	4	472.73	2.95E-05	0.07	0.08	0.01
4/9/2010	1730	23	1,287	3	160	58.4	161	07:30	37.48	231.11	924.45	4	461.27	2.88E-05	0.06	0.07	0.01
4/9/2010	1800	23	1,285	3	160	55.2	156	08:00	37.42	223.94	895.75	4	446.94	2.79E-05	0.06	0.07	0.01
Average Values		23	1,312	3	155	76.7	284		38.53	407.76	1,631.05	4	813.83	5.08E-05	0.12	0.14	0.02
B_{ws}	0.303	B_{wsw}	0.183														

Total Pounds of Carbon Recovered as Emissions: 0.94

Total Pounds of Gasoline Recovered as Emissions: 1.09

Total Gallons of Gasoline Recovered as Emissions: 0.17

NOTES:

AFVR Event performed on April 9, 2010
Vacuum applied to monitoring well MW-1R
0.96 feet of free-product was detected in MW-1R prior to AFVR event
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wsw} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By: IAI
Checked By: TZS

TABLE 3

AFVR Gauging Data (MW-2) - May 10, 2010
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #38178
BLE Project Number J10-3661-05

	Monitoring Well Gauging Data					Air Emmissions	
	Vacuum (in.of Hg)	Depth to Free-Product/Groundwater (feet BTOC)				Influent (ppm)	Effluent (ppm)
Time	MW-1R	MW-1R	MW-1D	MW-2	MW-16		
10:00	24	38.39/38.88	42.53	33.57	38.83/38.85	877	22
10:30	24	AFVR EVENT	42.53	33.57	38.84/38.86	735	21
11:00	24		42.53	33.57	38.86/38.88	587	20
11:30	24		42.53	33.57	38.86/38.88	443	18
12:00	24		42.53	33.57	38.86/38.88	307	17
12:30	24		42.53	33.56	38.86/36.88	296	16
13:00	24		42.53	33.56	38.86/38.88	286	15
13:30	24		42.53	33.56	38.87/38.89	267	15
14:00	24		42.53	33.56	38.88/38.90	243	15
14:30	24		42.53	33.56	38.88/38.90	229	15
15:00	24		42.53	33.56	38.88/38.90	216	15
15:30	24		42.53	33.56	38.88/38.90	205	13
16:00	24		42.53	33.55	38.88/38.90	195	13
16:30	24		42.53	33.56	38.88/38.90	188	13
17:00	24		42.53	33.55	38.88/38.90	180	13
17:30	24		42.53	33.55	38.88/38.90	176	12
18:00	24	43.87	42.53	33.55	38.88/38.90	172	12

NOTES:

AFVR event performed on May 10, 2010
Vapor concentrations measured using a portable MiniRAE® 2000
Photo-Ionization Detector (PID).
0.49 feet of free-product was detected in MW-1R prior to AFVR event
in. of Hg - inches of mercury
BTOC - below top of casing
ppm - parts per million

TABLE 4

AFVR Emissions Field Data - May 10, 2010
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #38178
BLE Project Number J10-3661-05

WELL ID #: MW-1R

AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS								
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
5/10/2010	1000	24	1,354	3	132	92.3	877	00:00	41.69	1,247.05	4,988.21	4	2,488.93	1.55E-04	0.39	0.45	0.07
5/10/2010	1030	24	1,347	3	140	91.2	735	00:30	40.92	1,045.14	4,180.54	4	2,085.93	1.30E-04	0.32	0.37	0.06
5/10/2010	1100	24	1,342	3	150	88.6	587	01:00	40.10	834.69	3,338.75	4	1,665.91	1.04E-04	0.25	0.29	0.05
5/10/2010	1130	24	1,364	3	158	84.1	443	01:30	40.23	629.93	2,519.70	4	1,257.23	7.85E-05	0.19	0.22	0.04
5/10/2010	1200	24	1,336	3	160	82.5	307	02:00	39.28	436.54	1,746.16	4	871.27	5.44E-05	0.13	0.15	0.02
5/10/2010	1230	24	1,332	3	160	80.6	296	02:30	39.16	420.90	1,683.59	4	840.05	5.24E-05	0.12	0.14	0.02
5/10/2010	1300	24	1,325	3	160	79.4	286	03:00	38.95	406.68	1,626.72	4	811.67	5.07E-05	0.12	0.14	0.02
5/10/2010	1330	24	1,321	3	160	76.3	267	03:30	38.84	379.66	1,518.65	4	757.75	4.73E-05	0.11	0.13	0.02
5/10/2010	1400	24	1,318	3	160	73.1	243	04:00	38.75	345.53	1,382.14	4	689.63	4.31E-05	0.10	0.12	0.02
5/10/2010	1430	24	1,310	3	160	70.7	229	04:30	38.51	325.63	1,302.51	4	649.90	4.06E-05	0.09	0.11	0.02
5/10/2010	1500	24	1,306	3	160	68.2	216	05:00	38.39	307.14	1,228.57	4	613.01	3.83E-05	0.09	0.10	0.02
5/10/2010	1530	24	1,302	3	160	66.5	205	05:30	38.28	291.50	1,166.00	4	581.79	3.63E-05	0.08	0.10	0.02
5/10/2010	1600	24	1,297	3	160	63.3	195	06:00	38.13	277.28	1,109.12	4	553.41	3.45E-05	0.08	0.09	0.01
5/10/2010	1630	24	1,288	3	160	61.6	188	06:30	37.87	267.33	1,069.31	4	533.54	3.33E-05	0.08	0.09	0.01
5/10/2010	1700	24	1,284	3	160	60.6	180	07:00	37.75	255.95	1,023.81	4	510.84	3.19E-05	0.07	0.08	0.01
5/10/2010	1730	24	1,279	3	160	57.4	176	07:30	37.60	250.26	1,001.06	4	499.49	3.12E-05	0.07	0.08	0.01
5/10/2010	1800	24	1,275	3	160	54.3	172	08:00	37.48	244.58	978.30	4	488.14	3.05E-05	0.07	0.08	0.01
Average Values		24	1,271	3	156	73.6	330		38.94	468.58	1,874.30	4	935.20	5.84E-05	0.14	0.16	0.03
B_{ws}	0.297	B_{wsw}	0.179														

Total Pounds of Carbon Recovered as Emissions: 1.09

Total Pounds of Gasoline Recovered as Emissions: 1.26

Total Gallons of Gasoline Recovered as Emissions: 0.20

NOTES:

AFVR event performed on May 10, 2010
Vacuum applied to monitoring well MW-1R.
0.49 feet of free-product was detected in MW-1R prior to AFVR event
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wsw} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By: IAI
Checked By: TZS

TABLE 5

AFVR Gauging Data (MW-11) - June 9, 2010
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #38178
BLE Project Number J10-3661-05

	Monitoring Well Gauging Data					Air Emmissions	
	Vacuum (in.of Hg)	Depth to Groundwater (feet BTOC)				Influent (ppm)	Effluent (ppm)
Time	MW-1R	MW-1R	MW-1D	MW-2	MW-16		
10:30	24	38.25/38.26	42.48	33.60	38.92/38.98	337	16
11:00	24	AFVR EVENT	42.48	33.60	38.93/38.99	257	15
11:30	24		42.48	33.60	38.92/38.98	194	14
12:00	24		42.48	33.60	38.92/38.98	137	13
12:30	24		42.48	33.59	38.92/38.98	92	12
13:00	24		42.48	33.59	38.92/38.98	93	12
13:30	24		42.48	33.59	38.92/38.98	90	12
14:00	24		42.48	33.58	38.92/38.98	95	12
14:30	24		42.48	33.58	38.92/38.98	96	12
15:00	24		42.48	33.58	38.92/38.98	101	12
15:30	24		42.48	33.58	38.92/38.98	104	13
16:00	24		42.48	33.57	38.92/38.98	107	13
16:30	24		42.48	33.56	38.92/38.98	112	14
17:00	24		42.48	33.56	38.92/38.98	113	14
17:30	24		42.48	33.56	38.92/38.98	110	14
18:00	24		42.48	33.56	38.92/38.98	108	14
18:30	24	43.72/43.73	42.48	33.55	38.92/38.98	106	14

NOTES:

AFVR event performed on June 9, 2010

Vapor concentrations measured using a portable MiniRAE® 2000
Photo-Ionization Detector (PID).

0.01 feet of free-product was detected in MW-1R prior to AFVR event

in. of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

TABLE 6

AFVR Emissions Field Data - June 9, 2010
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #38178
BLE Project Number J10-3661-05

WELL ID #: MW-1R

AFVR FIELD MEASUREMENTS									EMISSION CALCULATIONS								
Date	Time	Vacuum (in. Hg)	Velocity (ft/min)	Pipe D (in)	Temp (F)	Rel. Humidity (%)	$PPM_{measured}$ (ppm)	Elapsed Time (hr:min)	Q_{std} (DSCFM)	PPM_d	PPM_c	K	C_{cm} (mg/dsm3)	C_c (lb/dscf)	PMR_c (lb/hr)	PMR_g (lb/hr)	PMR_g (gal/hr)
7/30/2009	0945	25	1,806	3	136	90.1	337	00:00	52.37	505.41	2,021.64	4	1,008.72	6.30E-05	0.20	0.23	0.04
7/30/2009	1015	25	1,795	3	154	86.6	257	00:30	50.52	385.43	1,541.72	4	769.26	4.80E-05	0.15	0.17	0.03
7/30/2009	1045	25	1,790	3	164	84.3	194	01:00	49.57	290.95	1,163.79	4	580.69	3.63E-05	0.11	0.12	0.02
7/30/2009	1115	25	1,784	3	166	83.1	137	01:30	49.25	205.46	821.85	4	410.07	2.56E-05	0.08	0.09	0.01
7/30/2009	1145	25	1,779	3	166	79.5	92	02:00	49.11	137.98	551.90	4	275.38	1.72E-05	0.05	0.06	0.01
7/30/2009	1215	25	1,772	3	166	76.7	93	02:30	48.92	139.47	557.90	4	278.37	1.74E-05	0.05	0.06	0.01
7/30/2009	1245	25	1,760	3	166	74.4	90	03:00	48.59	134.98	539.90	4	269.39	1.68E-05	0.05	0.06	0.01
7/30/2009	1315	25	1,744	3	166	72.1	95	03:30	48.15	142.47	569.90	4	284.36	1.78E-05	0.05	0.06	0.01
7/30/2009	1345	25	1,727	3	160	70.5	96	04:00	48.14	143.97	575.90	4	287.35	1.79E-05	0.05	0.06	0.01
7/30/2009	1415	25	1,716	3	160	68.2	101	04:30	47.83	151.47	605.89	4	302.32	1.89E-05	0.05	0.06	0.01
7/30/2009	1445	25	1,708	3	160	67.0	104	05:00	47.61	155.97	623.89	4	311.30	1.94E-05	0.06	0.06	0.01
7/30/2009	1515	25	1,697	3	160	65.5	107	05:30	47.30	160.47	641.88	4	320.28	2.00E-05	0.06	0.07	0.01
7/30/2009	1545	25	1,684	3	160	63.6	112	06:00	46.94	167.97	671.88	4	335.24	2.09E-05	0.06	0.07	0.01
7/30/2009	1615	25	1,678	3	160	60.7	113	06:30	46.77	169.47	677.88	4	338.23	2.11E-05	0.06	0.07	0.01
7/30/2009	1645	25	1,663	3	164	59.2	110	07:00	46.06	164.97	659.88	4	329.26	2.06E-05	0.06	0.07	0.01
7/30/2009	1715	25	1,651	3	164	57.1	108	07:30	45.72	161.97	647.88	4	323.27	2.02E-05	0.06	0.06	0.01
7/30/2009	1745	25	1,638	3	164	55.3	106	08:00	45.36	158.97	635.89	4	317.28	1.98E-05	0.05	0.06	0.01
Average Values		25	1,729	3	161	71.4	132		48.13	198.67	794.68	4	396.51	2.48E-05	0.07	0.08	0.01
B_{ws}	0.333	B_{wsw}	0.201														

Total Pounds of Carbon Recovered as Emissions: 0.57

Total Pounds of Gasoline Recovered as Emissions: 0.66

Total Gallons of Gasoline Recovered as Emissions: 0.11

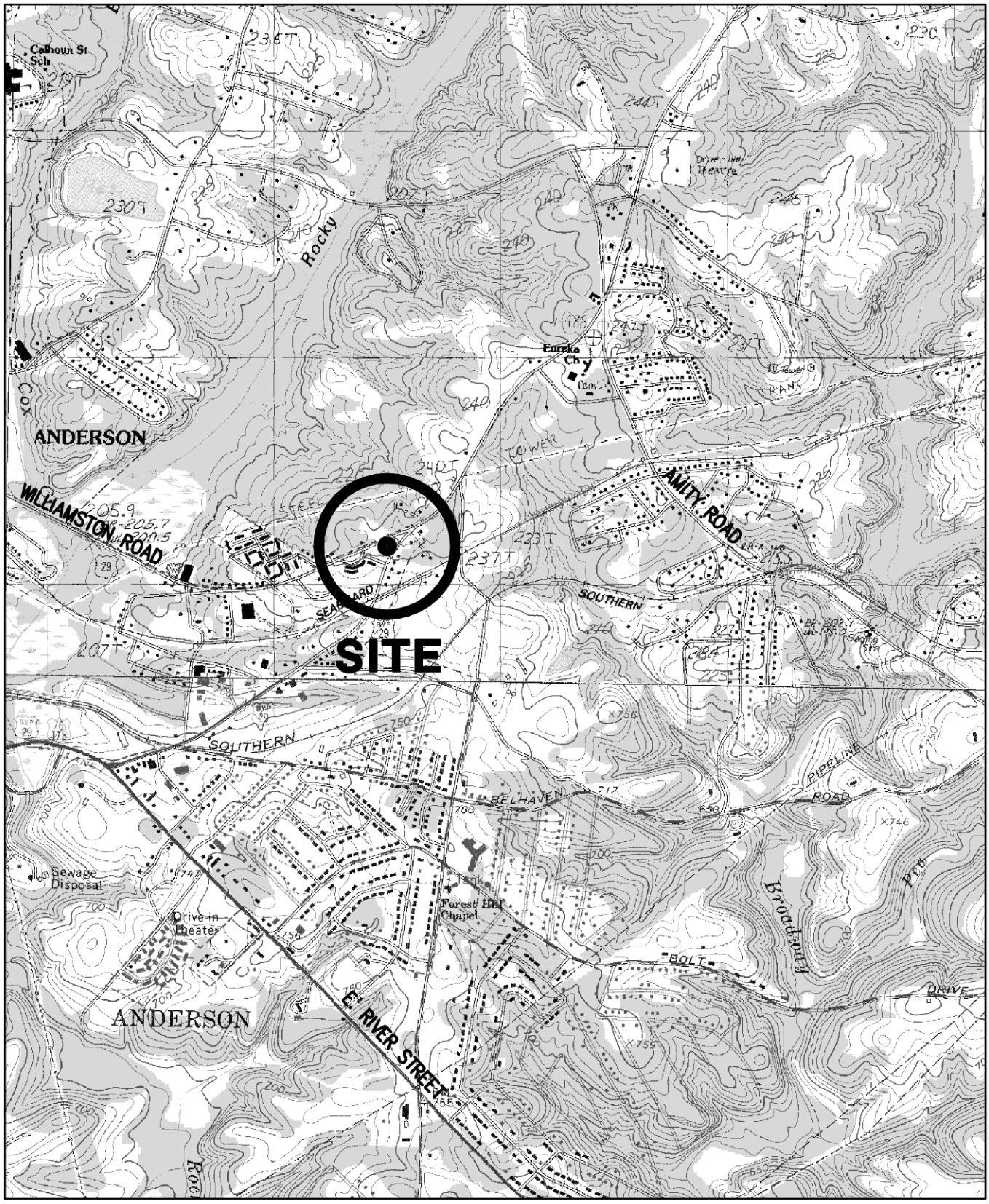
NOTES:

AFVR event performed on June 9, 2010
Vacuum applied to monitoring well MW-1R.
0.01 feet of free-product was detected in MW-1R prior to AFVR event
Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).
inches of Hg - inches of mercury
ppm - parts per million
Q_{std} - flow at DSCFM
DSCFM - Dry Standard Cubic Feet per Minute
PPM_d - "dry" concentration

PPM_c - volumetric concentration of VOC emissions as carbon, dry basis, at STP
K - number of carbons in calibration gas
C_{cm} - mass concentration of VOC emissions as carbon
PMR_c - pollutant mass removal of VOCs as carbon
PMR_g - pollutant mass removal of VOCs as gasoline
B_{wsw} - lb of water per lb of dry air
B_{ws} - water vapor % by volume
Calculations have been derived from published guidance

Prepared By: IAI
Checked By: TZS

FIGURES

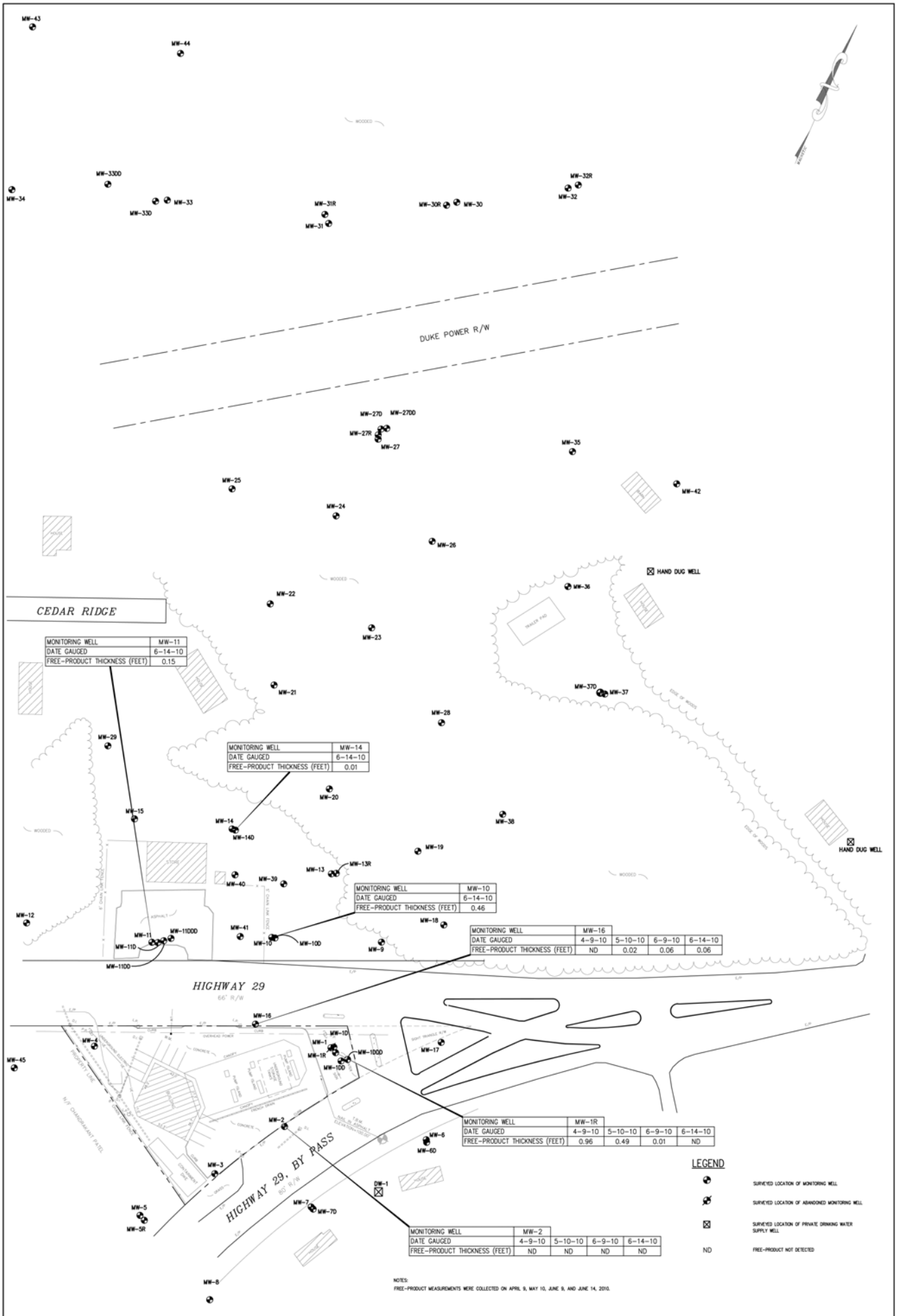


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, BELTON WEST AND SAYLORS CROSSROADS, S.C. QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: ACE	DATE: 06-17-10	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP MOORHEAD OIL COMPANY – KMO 119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
CHECKED: TJB	CAD: MOOREHEAD-05SLM		FIGURE 1
APPROVED:	JOB NO: J10-3661-05		



MONITORING WELL	MW-11
DATE GAUGED	6-14-10
FREE-PRODUCT THICKNESS (FEET)	0.15

MONITORING WELL	MW-14
DATE GAUGED	6-14-10
FREE-PRODUCT THICKNESS (FEET)	0.01

MONITORING WELL	MW-10
DATE GAUGED	6-14-10
FREE-PRODUCT THICKNESS (FEET)	0.46

MONITORING WELL	MW-16			
DATE GAUGED	4-9-10	5-10-10	6-9-10	6-14-10
FREE-PRODUCT THICKNESS (FEET)	ND	0.02	0.06	0.06

MONITORING WELL	MW-1R			
DATE GAUGED	4-9-10	5-10-10	6-9-10	6-14-10
FREE-PRODUCT THICKNESS (FEET)	0.96	0.49	0.01	ND

MONITORING WELL	MW-2			
DATE GAUGED	4-9-10	5-10-10	6-9-10	6-14-10
FREE-PRODUCT THICKNESS (FEET)	ND	ND	ND	ND

LEGEND

- SURVEYED LOCATION OF MONITORING WELL
- SURVEYED LOCATION OF ABANDONED MONITORING WELL
- SURVEYED LOCATION OF PRIVATE DRINKING WATER SUPPLY WELL
- ND — FREE-PRODUCT NOT DETECTED

NOTES:
FREE-PRODUCT MEASUREMENTS WERE COLLECTED ON APRIL 9, MAY 10, JUNE 9, AND JUNE 14, 2010.

40 20 0 40 80
APPROXIMATE SCALE IN FEET

REFERENCE:
DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY EAS PROFESSIONALS, INC. DATED 9-14-09.

REVISIONS		
No.	DESCRIPTION	BY
1		
2		

DRAWN	ACE
CHECKED	TJB
APPROVED	
DATE	06-17-10
FILE	KM0119-05AFVR
JOB NO.	J10-3661-05

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

SITE PLAN AND FREE-PRODUCT MEASUREMENTS
FORMER KMO #119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE NO. 2

APPENDICES

APPENDIX A

WASTE TRANSPORTATION AND DISPOSAL RECORDS

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 380

2. Page 1 of 1

3. Generator's Name and Mailing Address
KMO #119
1312 WILLIAMSTON RD
ANDERSON, SC
c/o Caro-Vac AFVR Services, LLC
P. O. Box 996
Mauldin, SC 29662

4. Generator's Phone ( )

5. Transporter 1 Company Name
Caro-Vac AFVR Services, LLC

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone 864-967-9744

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 South Main Street
Mauldin, SC 29662

10. US EPA ID Number
SCR000762468

E. State Facility's ID

F. Facility's Phone 864-962-9953

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Impacted Water, Profile # 6229			15	G
b.				
c.				
d.				

GENERATOR

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

SCDHEC Site ID # 00505

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Bradley A. Morris (Agent for Gen.)
Signature: Bradley A Morris
Date: Month 4 Day 12 Year 10

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Bradley A. Morris
Signature: Bradley A. Morris
Date: Month 4 Day 12 Year 10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name: VLS
Signature:
Date: Month Day Year

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 382 | 2. Page 1 of 1

3. Generator's Name and Mailing Address
KMO #119
1312 WILLIAMSTON RD
ANDERSON, SC
c/o Caro-Vac AFVR Services, LLC
P. O. Box 996
Mauldin, SC 29662

4. Generator's Phone

5. Transporter 1 Company Name: Caro-Vac AFVR Services, LLC
6. US EPA ID Number:
A. State Transporter's ID:
B. Transporter 1 Phone: 864-967-9744

7. Transporter 2 Company Name:
8. US EPA ID Number:
C. State Transporter's ID:
D. Transporter 2 Phone:

9. Designated Facility Name and Site Address: VLS Recovery Services, LLC
305 South Main Street
Mauldin, SC 29662
10. US EPA ID Number: SCR000762468
E. State Facility's ID:
F. Facility's Phone: 864-962-9953

GENERATOR

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Impacted Water, Profile # 6229			15	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

SCDHEC Site ID # 00505

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Bradley A. Morris (Agent for Gen.)
Signature: Bradley A. Morris
Date: Month 5 Day 12 Year 10

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Bradley A. Morris
Signature: Bradley A. Morris
Date: Month 5 Day 12 Year 10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name: Cari Ramsey
Signature: Cari Ramsey
Date: Month 5 Day 12 Year 10

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 396

2. Page 1 of 1

3. Generator's Name and Mailing Address
KMO #119
1312 WILLIAMSTON RD
ANDERSON, SC

c/o Caro-Vac AFVR Services, LLC
P. O. Box 996
Mauldin, SC 29662

4. Generator's Phone

5. Transporter 1 Company Name
Caro-Vac AFVR Services, LLC

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone 864-967-9744

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 South Main Street
Mauldin, SC 29662

10. US EPA ID Number
SCR000762468

E. State Facility's ID

F. Facility's Phone 864-962-9953

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Impacted Water, Profile # 6229			15	G
b.				
c.				
d.				

GENERATOR

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

SCDHEC Site ID # 00505

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Bradley A. Morris (Agent for Gen.)
Signature: Bradley A. Morris
Date: Month 6 Day 14 Year 10

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Bradley A. Morris
Signature: Bradley A. Morris
Date: Month 6 Day 14 Year 10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

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

VLS

Printed/Typed Name: Con Ramsey
Signature: Con Ramsey
Date: Month 6 Day 14 Year 10

UST
Read
AUG 12 2011
PROGRAM

UNDERGROUND STORAGE TANK (UST)
OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

As the UST Owner/Operator of UST Permit # 00505 I would like to use the contractor or person(s)* listed below and request that they represent me for:

☐ Current Work Scope Only
☑ All future assessment scopes **

Name of Contractor/Person(s) PPM Consultants, Inc.

Address P.O. Box 1648
Fort Mill, SC

Telephone Number 803-396-0801

Note: After September 20, 1997, rehabilitation activities must be performed by a SC Certified Site Rehabilitation Contractor.

*Indicate if the person listed is your own employee

**** If you would like the contractor to perform all future assessment activities at this and/or other UST sites that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.**

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above?
____ Yes __✓__ No (please initial)

Financial Relationship: A connection or association through a material interest of sources of income, which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancé.

3. PAYMENT

You can pay the contractor and, upon the submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment, be compensated from the SUPERB Account, or have payment issued directly from the SUPERB Account to the contractor. (Check one)

____ I request that payment be made to me after I have paid the contractor.

__✓__ I request that payment be made directly to the contractor.

(Note: all costs must receive prior financial approval from the Department regardless of payment option.)

Underground Storage Tank Owner/Operator Signature Marian M. Moorhead

Date 8-10-11

UST
DOCKET
14 fee

UNDERGROUND STORAGE TANK (UST)
OWNER/OPERATOR LEAD INFORMATION SHEET

UST Lead SEP 2 0 2011 PROGRAM

1. CONTRACTOR OF CHOICE

As the UST Owner/Operator of UST Permit # 00505 I would like to use the contractor or person(s) listed below and request that they represent me for:

☐ Current Work Scope Only
☑ All future assessment scopes **

Name of Contractor/Person(s) PPM Consultants, Inc.

Address P.O. Box 1648
Fort Mill, SC

Telephone Number 803-396-0801

Note: After September 20, 1997, rehabilitation activities must be performed by a SC Certified Site Rehabilitation Contractor.

*Indicate if the person listed is your own employee

**** If you would like the contractor to perform all future assessment activities at this and/or other UST sites that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.**

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above?
____ Yes ✓ No (please initial)

Financial Relationship: A connection or association through a material interest of sources of income, which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancé.

3. PAYMENT

You can pay the contractor and, upon the submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment, be compensated from the SUPERB Account, or have payment issued directly from the SUPERB Account to the contractor. (Check one)

____ I request that payment be made to me after I have paid the contractor.

✓ I request that payment be made directly to the contractor.

(Note: all costs must receive prior financial approval from the Department regardless of payment option.)

Underground Storage Tank Owner/Operator Signature Marian M. Moorhead

Date 8-10-11

UST DOCKETING 15-tech

UST
MAY 2 3 2013
PROGRAM

Return to Mr. Read Miner, P.G.

UNDERGROUND STORAGE TANK (UST) OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

00505

As the UST Owner/Operator of the **UST Permit #00550 – MD Food Mart (Former KMO #119)**, I would like to use the contractor or person(s)* listed below and request that they represent me for:

☐ IGWA Tier I
☑ All future assessment scopes. **

SCANNED
UST
2nd Tech
16 Weeks
DOCKETING

Name of Contractor/Person(s): Bunnell-Lammons Engineering, Inc.

Address: 6004 Ponders Court, Greenville, SC 29615

Telephone Number: 864-288-1265 Certification: #0010

Note: After September 20, 1997, rehabilitation activities must be performed by a SC Certified Site Rehabilitation Contractor.

*indicate if the person listed is your own employee

** if you would like the contractor to perform all future assessment activities at this and/or other UST sites that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above? _____ Yes __✘__ No (please initial)

Financial Relationship: A connection or association through a material interest of sources of income which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancée.

3. PAYMENT

The first $25,000.00 in eligible site rehabilitation costs will be applied against the applicable SUPERB deductible, upon submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment.

For eligible costs exceeding the $25,000.00 deductible, you can pay the contractor and, upon the submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment, be compensated from the SUPERB Account, or have payment issued directly from the SUPERB Account to the contractor. (check one)

_____ For eligible costs exceeding the deductible, I request that payment be made to me after I have paid the contractor.

__✘__ For eligible costs exceeding the deductible, I request that payment be made directly to the contractor.

(Note: all costs must receive prior financial approval from the Department regardless of payment option.)

Underground Storage Tank Owner/Operator Signature Kris Mahmud

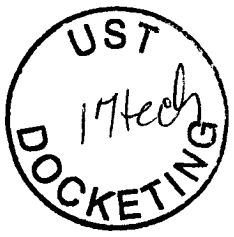
Printed Signature _____

Date Signed 16 May 2013

D H E C
PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

OCT 1 6 2013



KEN MOORHEAD
MOORHEAD OIL CO
PO BOX 2587
ANDERSON SC 29622-2587

Re: **QAPP Contractor Addendum Directive**
M D Food Mart, 1312 Williamston Rd., Anderson, SC
UST Permit # 00505
Release reported December 20, 1989
Aggressive Fluid Vapor Recovery Report received June 23, 2010
Contractor Selection Form received May 23, 2013
Anderson County

Dear Mr. Moorhead:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced report.

To evaluate the current site conditions, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of a groundwater sampling event is necessary. Sampling should include all of the monitoring wells, trip blanks, field blanks, and field duplicates for BTEX, naphthalene, 1,2-DCA, MTBE, oxygenates, and EDB. The groundwater sampling event should be conducted in accordance with the UST Quality Assurance Program Plan Revision 2.0 and must be conducted in compliance with all applicable regulations. A copy of QAPP Revision 2.0 for the Underground Storage Tank Division is available at http://www.dhec.sc.gov/environment/lwm/usthome/Qapp.htm.

Please have your contractor complete and submit the QAPP Contractor Addendum and Cost Agreement within thirty days of the date of this letter. The State Underground Petroleum Environmental Response Bank (SUPERB) Account allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that technical and financial pre-approval from the Agency must be issued before work begins**.

On all correspondence concerning this site, please reference UST Permit #00505. If you have any questions, please contact me at (803) 898-0608 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Technical File
Bunnell-Lammons Engineering, 6004 Ponders Ct., Greenville, SC 29615

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

November 15, 2013

South Carolina Department of Health and Environmental Control
Underground Storage Tank Division
2600 Bull Street
Columbia, South Carolina 29201-1708

Attention: Mr. Read S. Miner, P.G., Hydrogeologist

Subject: **QAPP Addendum – Comprehensive Groundwater Sampling Event**
M D Food Mart - Former KMO #119
1312 Williamston Road
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505
BLE Project No. J13-3661-06

Dear Mr. Miner:

On behalf of Moorhead Oil Company, Bunnell-Lammons Engineering, Inc. (BLE) submits herein the completed Quality Assurance Program Plan (QAPP) addendum for the subject site. This submittal is in response to the South Carolina Department of Health and Environmental Control's (SCDHEC) QAPP addendum request dated October 16, 2013 for the implementation of a comprehensive groundwater sampling event at the subject site. Upon approval from the SCDHEC, additional copies of the QAPP addendum will be distributed to the parties listed in section A3.

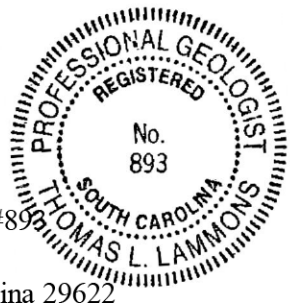
Please do not hesitate to contact us if you have any questions concerning this submittal.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Daniel R. Matz, E.I.T.
Hydrogeologist

Thomas L. Lammons, P.G.
Principal Hydrogeologist
Registered, South Carolina #893



cc: Kris Moorhead, Moorhead Oil Company, PO Box 2587, Anderson, South Carolina 29622

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE (864) 288-1265
FAX (864) 288-4430

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SCDHEC UST Programmatic QAPP
For
M D Food Mart (Former KMO #119) – UST Permit #00505

1312 Williamston Road, Anderson, Anderson County, South Carolina 29621

Prepared by: Daniel R. Matz, E.I.T. – Bunnell-Lammons Engineering, Inc.

Date: November 15, 2013

Bunnell-Lammons Engineering, Inc. – SCDHEC Certified Contractor No. UCC-0010

Approvals

Mr. Read S. Miner, P.G. SCDHEC Project Manager	_____ Signature	Date	_____
Mr. Trevor J. Benton, P.G. Contractor QA Manager	 Signature	Date	11/15/2013
Thomas L. Lammons, P.G. Site Rehabilitation Contractor	 Signature	Date	11/15/2013
Dan Wright Laboratory Director	 Signature	Date	11/15/2013

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STANDARD OPERATING PROCEDURES AND FORMS

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Attachment B – Oakton pH/Conductivity Series 10 Multi-Parameter Tester Calibration and Operation Procedures
Attachment C – YSI 550A Dissolved Oxygen Instrument Calibration, Maintenance, and Operation Procedures
Attachment D – LaMotte Model 2020 Turbidimeter Calibration and Operation Procedures

A3 Distribution and Project Organization List

Name	Title/Role from UST Master QAPP	License/ Number/ Exp. date	Organization / Address	Telephone Number	Fax Number	Email Address
Read S. Miner, P.G.	SCDHEC Technical Project Manager	NA	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-898-0608	803-898-0673	minerrs@ dhec.sc.gov
Thomas L. Lammons, P.G.	Contractor Project Manager	SC Professional Geologist #893 6/30/2015	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	tom@ blecorp.com
Daniel R. Matz	Contractor Field Manager	NA	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court, Greenville, SC 29615	864-288-1265	864-288-4430	dan.matz@ blecorp.com
Trevor J. Benton, P.G.	Contractor Project Verifier	SC Professional Geologist #2395 6/30/2015	Bunnell-Lammons Engineering, Inc. 6004 Ponders Court Greenville, SC 29615	864-288-1265	864-288-4430	trevor@ blecorp.com
Dan Wright	Laboratory Director	NA	Shealy Environmental Services, Inc. 106 Vantage Point Dr. West Columbia, SC 29172	803-791-9700	803-791-9111	dwright@ shealylab.com

Table 1A Addendum Distribution and Project Organization List

It is understood that certification records must be produced if requested by SCDHEC.

A4 Problem Definition/Background

Discuss the background (as much as is known) of the site and appropriate historical information, and why this site is being assessed.

The subject property is located at 1312 Williamston Road in Anderson, South Carolina (Figure 1). Prior to 2004, the site was owned by Ken Moorhead Oil Company and operated as a Citgo fueling station. Currently, the site is owned and operated by DEV Enterprises, LLC and is utilized as a convenience store where gasoline and kerosene fuels are sold (Citgo).

Four gasoline underground storage tanks (USTs) were located on the northeastern portion of the site. A soil assessment performed in December 1989 discovered minor petroleum contamination in the area around the USTs. The South Carolina Department of Health and Environmental Control (SCDHEC) issued a No Further Action status to the site in June 1990. In December 1991, the USTs and associated equipment were removed. Please note, the current UST system has been relocated and updated with required leak detection devices.

In June 2004, a Phase II environmental assessment was conducted on the site. Results from the Phase II report indicated concentrations of petroleum hydrocarbons in groundwater above regulatory limits. Pursuant to these results, the SCDHEC required a Tier I Assessment be performed with regard to the former UST system. The Tier I Assessment was completed by BLE in August 2004. Results from the Tier I Assessment indicated significant petroleum hydrocarbon impact to the groundwater along the eastern and northeastern portion of the site. Based on the Tier I results, a Tier II Assessment was required and completed by BLE in 2007. To date, 66 groundwater monitoring wells have been installed on the subject site and surrounding properties in an effort to define the horizontal and vertical extent of the petroleum contaminant plume. The most recent environmental work conducted at the site was a series of Aggressive Fluid Vapor Recovery (AFVR) events performed in April, May and June of 2010.

As the next appropriate scope of work, the SCDHEC has issued a directive to complete a comprehensive groundwater sampling event at the subject site in an effort to determine the current risk the petroleum release poses to human health and the environment.

Please answer the following: Does this project fall under UST or Brownfields area?

UST Division (UST Permit #00505)

A5 Project/Task Description

1. ***Summarize what is known about the work to be done. This can be a short sentence indicating what the Scope of this project is (see Master QAPP Section A6).***

   Conduct a groundwater sampling event at the subject site pursuant to the SCDHEC's Master QAPP – Revision 2.0. Sixty-six (66) groundwater wells and one water supply well are associated with the site and will be sampled for laboratory analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX), naphthalene, methyl-tert-butyl-ether (MTBE), 1,2-dichloroethane (1,2-DCA) and 8-oxygenates by Environmental Protection Agency (EPA) Method 8260B and 1,2-dibromoethane (EDB) by EPA Method 8011. The monitoring wells will be purged prior to groundwater sampling since it has been greater than 12 months since the last sampling event. Monitoring well purging will be in accordance with Attachment A.

2. ***The work will begin within <u>two weeks</u> after cost approval and sampling should be complete <u>within 60 days</u>.***

3. ***Are there are time or resource constraints? Include those factors that may interfere with the tentative schedule.***

   Weather is a possible time and resource constraint.

A6 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs)

Detail the geographical area that is to be part of the project. Maps should be included to show not only the topography and the geographical area of the State, but also to show more detail of the site itself including property lines.

See attached Figures 1 and 2.

A7 Certification

The Following Laboratory(ies) will be used for this Project:

Commercial Lab(s)

Full Name of the Laboratory: Shealy Environmental Services, Inc.
Name of Lab Director: Dan Wright
SC DHEC Certification Number: 32010

Parameters this Lab will analyze for this project:

Groundwater

- BTEX, Naphthalene, MTBE, 1,2-DCA, and 8-Oxygenates by EPA Method 8260B
- EDB by EPA Method 8011

Please note: SCDHEC may require that the contractor submit some or all of the Laboratory's SOPs as part of this QAPP.

A8 Documents and Records

Personnel will receive the most current version of the QAPP Addendum via: (Check all that apply)

XXX US Mail ____ Courier **XXX** Hand delivered

Other (please specify): _____

Record	Produced By	Hardcopy/ Electronic	Storage Location For How Long?	Archival
Project Field Notes	BLE personnel	Hardcopy	BLE file library. Hard copy storage for a minimum of 5 years.	After 5 years, the project data may be scanned and transferred to CD. CDs and/or reports will be archived in BLEs file library for a minimum of 5 years.

Record	Produced By	Hardcopy/ Electronic	Storage Location For How Long?	Archival
Instrument Raw Data	Shealy Environmental Services, Inc.	Hardcopy and Electronic	Hardcopy: Offsite 7 years Electronic: External hard drive 10 years	Yes
Laboratory Analytical Data	Shealy Environmental Services, Inc.	Hardcopy & Electronic	Shealy will retain data on an external hard drive for 10 years. Data stored in BLE file library and electronic data storage backup. BLE hard copy storage for a minimum of 5 years.	After 5 years, the project data may be scanned and transferred to CD. CDs and/or reports will be archived in BLEs file library for a minimum of 5 years.
Final Report	BLE personnel	Hardcopy & Electronic	BLE file library and electronic data storage backup. Hard copy storage for a minimum of 5 years.	After 5 years, the project data may be scanned and transferred to CD. CDs and/or reports will be archived in BLEs file library for a minimum of 5 years.

Table 2A Record Identification, Storage, and Disposal

Section B Measurement/Data Acquisition

B1 Sampling Process/Experimental Design

Item	Start Date	End Date	Comments
QAPP Addendum Preparation/Approval	November 15, 2013	November 29, 2013	Date assumes two weeks for SCDHEC QAPP review.
Monitoring Well Purging and Sampling	December 16, 2013	December 19, 2013	Purge and sample groundwater monitoring wells as directed. See SOP Attachment A for groundwater sampling procedures.
Investigation Derived Waste Disposal	December 23, 2013	December 23, 2013	Investigation derived water will be properly contained, transported off-site, and disposed of by permitted disposal contractors.
Report Preparation, Review, and Submittal	January 6, 2014	January 29, 2014	Report preparation, review, and submittal dates are contingent on completion of all required project activities. Date may be subject to change.

Table 3A Sampling Activities

B2 Sampling Methods

Please note: The contractor must follow sampling protocols as given in the UST QAPP.

***Estimate* the number of samples of each matrix that are expected to be collected:**

Soil	0
Groundwater from Monitoring Wells	66
From Drinking/Irrigation Water Wells	1
From Surface Water Features	0
Duplicate Samples	4 (one duplicate sample per 20 monitoring wells)
Field Blanks	4 (one per day)
Trip Blanks	2 (one trip blank per sample cooler)
Total Number of Water Samples	77

The samples will be (check as many as apply): __XX__ Grab ____Homogenized ____Split

If homogenized or split are checked please indicate how will it be done and the equipment needed.

Not applicable.

If decontamination procedures differ from Appendix H, please provide details.

Decontamination will be in accordance with Appendix H.

Identify any equipment and support facilities needed. This may include such things as Fed-ex® to ship the samples, a Geoprobe®, field analysis done by another contractor (who must be certified), or electricity to run sampling equipment.

Equipment: Chevrolet 1500 support truck with power inverter capabilities

Water Disposal Contractor: VLS Recovery Services, LLC – 305 S. Main Street, Mauldin, SC 29662

Laboratory Courier: Shealy Environmental – 106 Vantage Point Drive, West Columbia, SC 29172

Address the actions to be taken when problems occur in the field, and the person responsible for taking corrective action and how the corrective action will be documented.

Failure	Response	Documentation	Individual Responsible
Property Access	Notify SCDHEC project manager of failure to receive property access.	Telephone record/ email correspondence to the SCDHEC placed in project file.	Field Manager: Dan Matz
Monitoring Well Not Located or Well is Dry	Field personnel notify field manager of issue(s). Field manager will notify SCDHEC project manager of issue(s).	Field notes placed in project file. Telephone record/email (if applicable) to SCDHEC placed in project file.	Field Manager: Dan Matz
Heron Little Dipper Water Level Indicator Failure	Notify field manager of equipment failure. Clean indicator probe and replace batteries in the field. If problem persists, use backup water level indicator and send failed equipment to Field Environmental Instruments, Inc. in Pittsburgh, Pennsylvania for repair.	Telephone record/email correspondence to field manager.	Field Staff: *Ivan A. Irizarry, Reid A. Doherty* Field Manager: Dan Matz

Failure	Response	Documentation	Individual Responsible
Solinst Interface Meter – Model 122 Failure	Notify field manager of equipment failure. Clean indicator probe and replace batteries in the field. If problem persists, use backup interface meter and send failed equipment to Field Environmental Instruments, Inc. in Pittsburgh, Pennsylvania for repair.	Telephone record/email correspondence to field manager.	*Field Staff:* *Ivan A. Irizarry,* *Reid A. Doherty* *Field Manager:* Dan Matz
Oakton Model 35630-62 Multi-Parameter Meter Failure	Notify field manager of equipment failure. Clean probe and replace batteries in the field, then recalibrate according to manufacturer's standards. If problem persists, use backup meter and send failed equipment to Field Environmental Instruments, Inc. in Pittsburgh, Pennsylvania for repair.	Telephone record/email correspondence to field manager.	Field Staff: *Ivan A. Irizarry,* *Reid A. Doherty* Field Manager: Dan Matz.
YSI 550A Dissolved Oxygen Meter	Notify field manager of equipment failure. Replace membrane with spare, clean probe, and replace batteries in the field, then recalibrate according to manufacturer's standards. If problem persists, use backup meter and send failed equipment to Pine Environmental Services in Lilburn, Georgia for repair.	Telephone record/email correspondence to field manager.	Field Staff: *Ivan A. Irizarry,* *Reid A. Doherty* Field Manager: Dan Matz
LaMotte Model 2020 Turbidimeter Failure	Notify field manager of equipment failure. Replace batteries in the field, then recalibrate according to manufacturer's standards. If problem persists, use backup turbidimeter and send failed equipment to Pine Environmental Services in Lilburn, Georgia for repair.	Telephone record/email correspondence to field manager.	Field Staff: *Ivan A. Irizarry,* *Reid A. Doherty* Field Manager: Dan Matz

Table 4A Field Corrective Action

B3 Sample Handling and Custody

1. ***How will the samples get from the Site to the Lab to ensure holding requirements are met?***

   By vehicle to BLE office; then vehicle pick-up by laboratory courier who delivers to lab location.

2. ***If sample preservation procedures differ from the UST Programmatic QAPP, please provide details.***

   Sample preservation procedures will be in accordance with the UST Programmatic QAPP.

3. ***If chain of custody procedures differ from the UST Programmatic QAPP, please provide details.***

   Chain of Custody procedures will be in accordance with the UST Programmatic QAPP.

B4 Analytical Methods

1. ***Identify the SOPs which will be used to analyze the samples, the method which the SOP references and the equipment or instrumentation that is needed:***

Parameter	SOP ID*	Method Referenced	Equipment	Comments
Specific Conductivity	See Standard Operating Procedures Attachment B for Oakton pH/Conductivity Series 10 Multi-Parameter Tester Calibration and Operation Procedures	Manufacturer Product Manual/Specifications	Oakton Model 35630-62 Multi-Parameter Meter	None
pH	See Standard Operating Procedures Attachment B for Oakton pH/Conductivity Series 10 Multi-Parameter Tester Calibration and Operation Procedures	Manufacturer Product Manual/Specifications	Oakton Model 35630-62 Multi-Parameter Meter	None
Temperature	See Standard Operating Procedures Attachment B for Oakton pH/Conductivity Series 10 Multi-Parameter Tester Calibration and Operation Procedures	Manufacturer Product Manual/Specifications	Oakton Model 35630-62 Multi-Parameter Meter	None
Dissolved Oxygen	See Standard Operating Procedures Attachment C for YSI 550A Dissolved Oxygen Instrument Calibration, Maintenance, and Operation Procedures	Manufacturer Product Manual/Specifications	YSI 550A Dissolved Oxygen Meter	None
Turbidity	See Attachment D Standard Operating Procedures for LaMotte Model 2020 Turbidimeter Instrument Analysis	Manufacturer Product Manual/Specifications	LaMotte Model 2020 Turbidimeter	None
BTEX+Naphthalene +MTBE+1,2-DCA + 8 Oxygenates	S-VO-002	8260B	GC/MS	None
EDB	S-SV-012	8011	GC	None

Table 5A Analytical SOPs and Referenced Methods

- **This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 6A SOP Abbreviation Key.**

B5 Quality Control Requirements

All QC will follow the requirements laid out in Section B5 of the UST Programmatic QAPP – Revision 2.0.

B6 Field Instrument and Equipment Testing, Inspection, and Maintenance

1. ***Identify all field equipment needing periodic maintenance, the schedule for this, and the person responsible. Not the availability and location of spare parts.***

Instrument	Serial Number	Type of Maintenance	Frequency	Person Responsible
Heron Little Dipper Water Level Indicator	18816	Indicator probe cleaning (in accordance with Section B2) and battery monitoring	Daily	Ivan Irizarry
Solinst Interface Meter – Model 122	122 007909-1	Indicator probe cleaning (in accordance with Section B2) and battery monitoring	Daily	Ivan Irizarry
Oakton 35630-62 Multi-Parameter Meter (pH, specific conductivity, and temperature)	324976	Probe cleaning and calibration in accordance with SOP Attachment B	Weekly	Ivan Irizarry
YSI 550A Dissolved Oxygen Meter	06A1121AC	Probe cleaning and membrane replacement in accordance with SOP Attachment C	Cleaning – daily Membrane replacement - monthly	Ivan Irizarry
LaMotte Model 2020 Turbidimeter	3164-1602	Cleaning and calibration in accordance with SOP Attachment D	Daily	Ivan Irizarry

Table 6A Instrument and Equipment Maintenance

B7 Instrument Calibration and Frequency

1. ***Identify equipment, tools, and instruments for field or lab work that should be calibrated and the frequency.***
2. ***Describe how the calibrations should be performed and documented, indicating test criteria and standards or certified equipment.***
3. ***Identify how deficiencies should be resolved and documented. Identify the person responsible for corrective action.***

Instrument	Serial Number	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA
Oakton 35630-62 Multi-Parameter Meter	324976	Four point conductivity calibration; three point pH calibration; temperature verification	Daily	pH: Output value within ±1.00 pH unit of buffer Conductivity: Output value with 20% of calibration range at standard temperature.	Recalibrate equipment. If calibrations will not hold then replace unit.	Ivan Irizarry
YSI 55 Dissolved Oxygen Meter	06A1121AC	% Saturation	Daily	Output value within 1 mg/L of calibration solution.	Recalibrate equipment or replace membrane.	Ivan Irizarry
LaMotte Model 2020 Turbidimeter	3164-1602	AMCO Turbidity Standard (1.0 NTU, 10 NTU, 100 NTU, or 250 NTU) in the expected turbidity range of the samples to be tested	Daily	Output value within 0.1 NTU for measured turbidity values less than 10 NTU, and 1 NTU for measured turbidity values greater than 10 NTU.	Recalibrate equipment. If calibration will not hold then replace unit.	Ivan Irizarry
Heron little dipper water level indicator	18816	Calibrate against an invar steel surveyor's chain or steel tape	Monthly	Within 0.01 foot per 10 feet length	Replace water level meter tape	Ivan Irizarry
Solinst Interface Meter - Model 122	122 007909-1	Calibrate against an invar steel surveyor's chain or steel tape	Monthly	Within 0.01 foot per 10 feet length	Replace water level meter tape	Ivan Irizarry
Volatiles Mass Spec	ALL	Minimum of 5 calibration standards for all compounds	When indicated by continuous calibration verification standard	Method Criteria	Detailed in Laboratory SOP	MSV Analyst

Instrument	Serial Number	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA
GC ECD	ALL	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in Laboratory SOP	GC Analyst

Table 7A Instrument Calibration Criteria and Corrective Action

* This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 6A SOP Abbreviation Key

B8 Inspection/Acceptance Requirements for Supplies and Consumables

1. ***If procedures for storage, handling or transport of supplies/consumables differ from the UST Programmatic QAPP, please provide details.***

   The procedures for storage, handling or transport of supplies/consumables will be in accordance with the UST Programmatic QAPP– Revision 2.0.

B9 Data Acquisition Requirements (Non-Direct Measurements)

1. ***Identify data sources, for example, computer databases or literature files, or models that should be accessed or used.***
2. ***Describe the intended use of this information and the rationale for their selection, i.e.,***
3. ***Provide its relevance to project.***
4. ***Indicate the acceptance criteria for these data sources and/or models.***

Data Source	Used for	Justification for use in this project	Comments
Additional Groundwater Assessment, prepared by BLE, dated January 5, 2010	Identifying locations of the existing groundwater monitoring wells at the site and obtaining historical analytical results.	Site plan and data tables utilized for determining location of wells, well depths, and historical analytical results.	None

Table 8A Non-Direct Measurements

Identify key resources/support facilities needed.

Not applicable to this scope of work.

B10 Data Management

1. Describe the data management scheme from field to final use and storage.

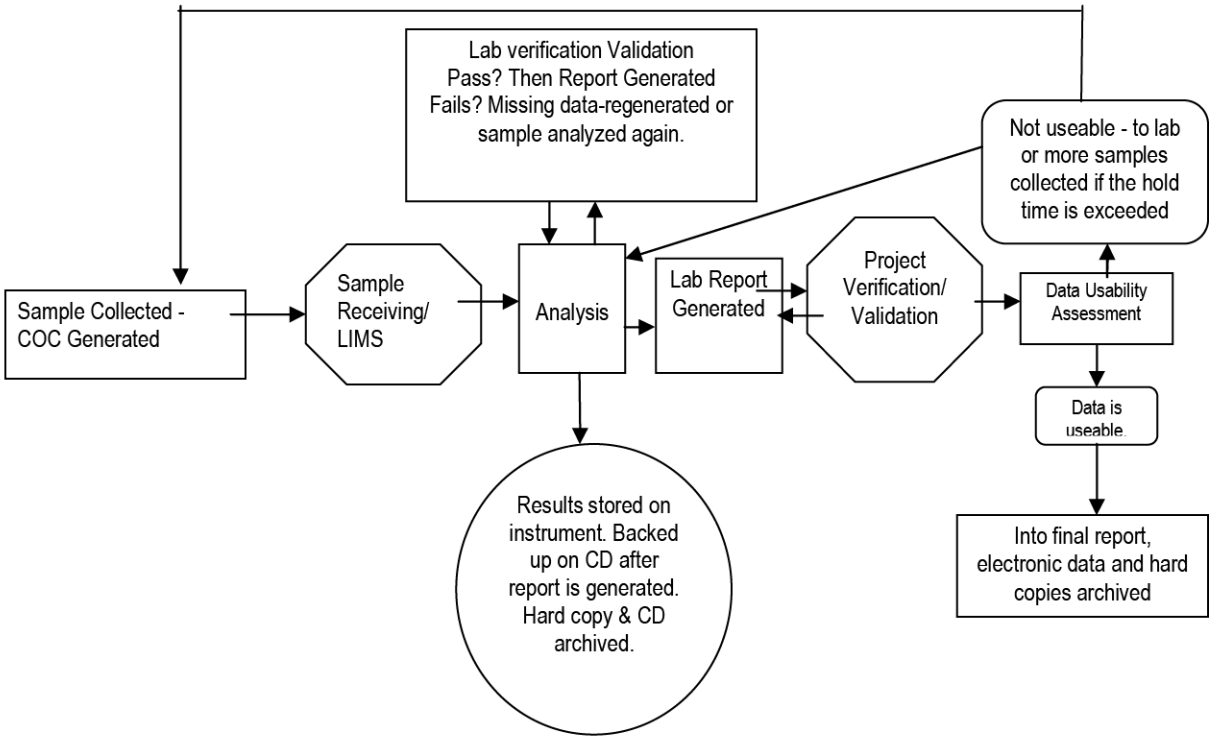


Figure 1 Example of a Data Management Scheme

2. How does the lab and field staff ensure that no unauthorized changes are made to the chain of custody, sampling notebooks, laboratory notebooks and computer records?

The chain of custody has an attached carbon copy, in which the field staff keeps one copy after the laboratory picks up samples. This original is used to determine if any changes are made to the COC after laboratory receipt. All COCs are reviewed by the laboratory during receipt of samples and submittal of final report. Looking for inappropriate changes to the COC is in the scope of both laboratory reviews. The Quality Assurance/Quality Control Department oversees adherence to and review of these programs.

Field notes and logs will be stored in hardback bound field books and/or on standard 8 ½" x 11" field data sheets. Field data sheets are signed by field staff upon completion of daily work.

Copies of field notes and sampling logs are reviewed by the Field Manager and placed in the project file. Additionally, field notes/logs are scanned, password secured, and placed into the digital project file. Original data sheets will also be kept by the field staff in field notebooks/folders for a minimum of three years.

3. How does the lab ensure that there are no errors in samples records including times when sample information is compiled, data calculated and/or transmitted?

The use of a Laboratory Information Management System (LIMS) is employed. The LIMS database is reviewed daily by laboratory management. Furthermore, the database is backed up daily to prevent the loss of data in the event of a system malfunction. Documentation of these procedures is provided in laboratory SOP S-AD-003, LIMS.

4. How will the data be archived once the report is produced? How can it be retrieved? (This applies to both electronic and hard copies).

The laboratory QA/QC department maintains and archives hardcopy data offsite. Electronic data is maintained and archived by the laboratory IT systems manager.

The final analytical data from Shealy Environmental Services, Inc. will be kept by the laboratory for a minimum of seven years. A hard copy of the data will be stored at an off-site facility and a digital copy will be saved on a backed-up computer server.

Hard copies of BLE's final reports are contained in the specific project folder in BLE's file library. Additionally, each report is converted to digital format and stored in its applicable digital file folder. Hard copy storage will be for a minimum of three years. Digital storage will be for a minimum of five years. Digital data is backed-up on a weekly basis on a four month rolling schedule. For security purposes, current week's data is stored at an off-site location. Additionally, data is backed-up and stored for a minimum of five years at an off-site location on a biannual basis.

Section C Assessment and Oversight

C1 Assessment and Response Actions

1. ***The Contractor is supposed to observe field personnel daily during sampling activities to ensure samples are collected and handled properly and report problems to DHEC within 24 hours. Please state who is responsible for doing this, what observations will be made, and how those observations will be made. Will this person have the authority to stop work if severe problems are seen?***

   Internal field audits will be performed on a daily basis by the Contractor Project Verifier. The Project Verifier will review field forms and daily field notes prepared by the field staff for completion and accuracy. In addition, daily verbal conversations will be held between the Project Verifier and the field staff to ensure equipment and instruments are function properly and there have been no problems encountered in the field. If any significant problems or deviations from the SCDHEC QAPP, Revision 2.0 are noted, work may be stopped to resolve the issues. The SCDHEC project manager will be notified of the issues within 24 hours of the occurrence.

2. ***The SCDHEC UST QAPP states that the Laboratory will receive an Offsite Technical System Audit. For this project, what assessments will be done by the Contractor on the Commercial Lab(s) that are being used—other than their certification audit? When or how often are these done? Who will the results be given to and who has the ability to stop work if problems are severe?***

   In addition to the South Carolina Laboratory Certification, the Laboratory is certified by the National Environmental Laboratory Accreditation Program (NELCA), the Department of Defense (DOD), and Department of Energy (DOE). The NELCA, DOD and DOE perform yearly audits of the Laboratory, and the Contractor Field Manager will review these audits to ensure appropriate QA/QC standards are met. Furthermore, the Laboratory performs routine scheduled and un-scheduled audits. These audits will also be provided to the Contractor Field Manager to ensure appropriate QA/QC. If any significant problems or deviation from the Laboratory are noted, work may be stopped by the Contractor and/or the Laboratory Director.

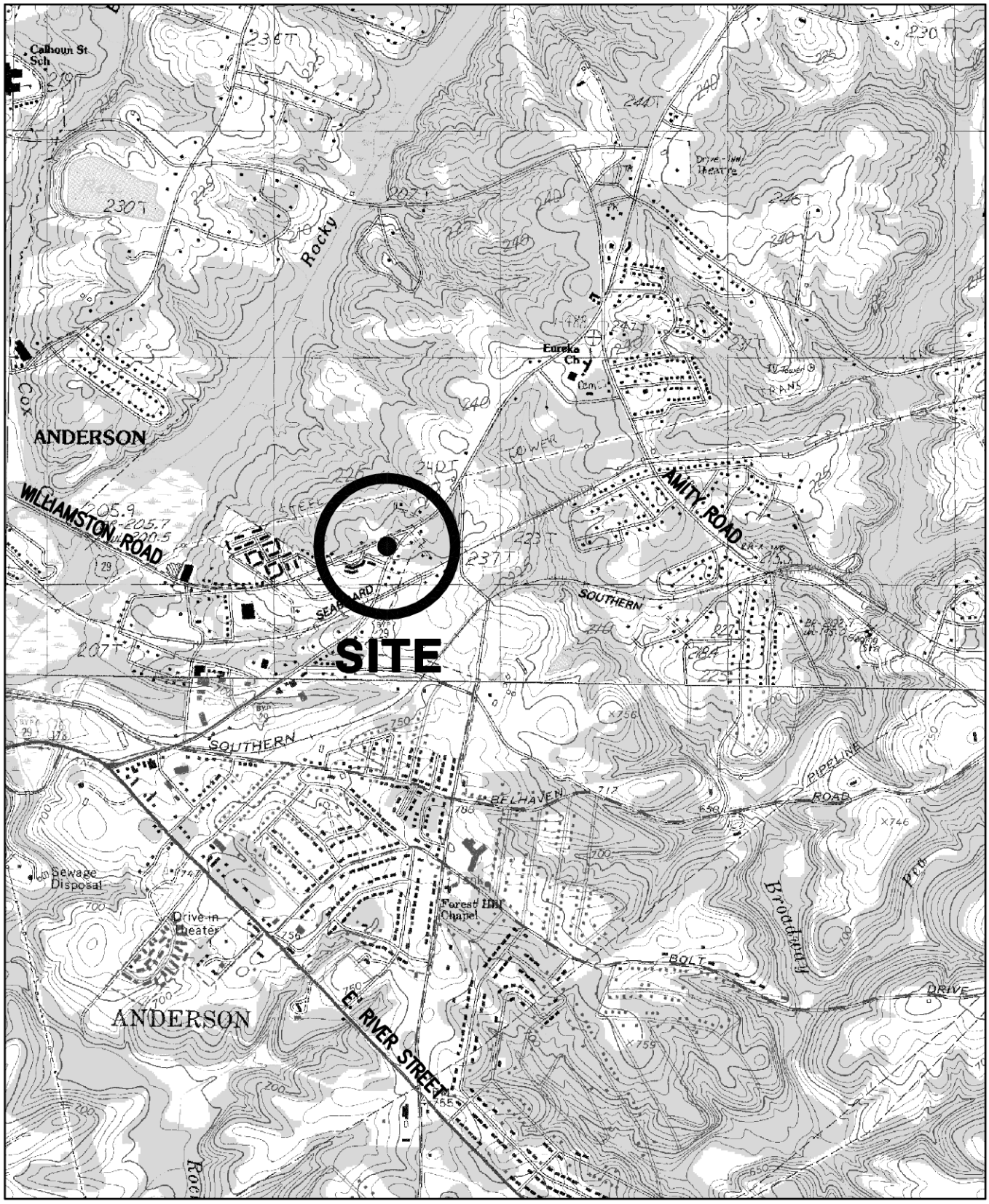
C2 Reports to Management

See the SCDHEC UST Programmatic QAPP (UST Master QAPP) Revision Number 2.0.

Section D Data Validation and Usability

See the SCDHEC UST Programmatic QAPP (UST Master QAPP) Revision Number 2.0.

FIGURES

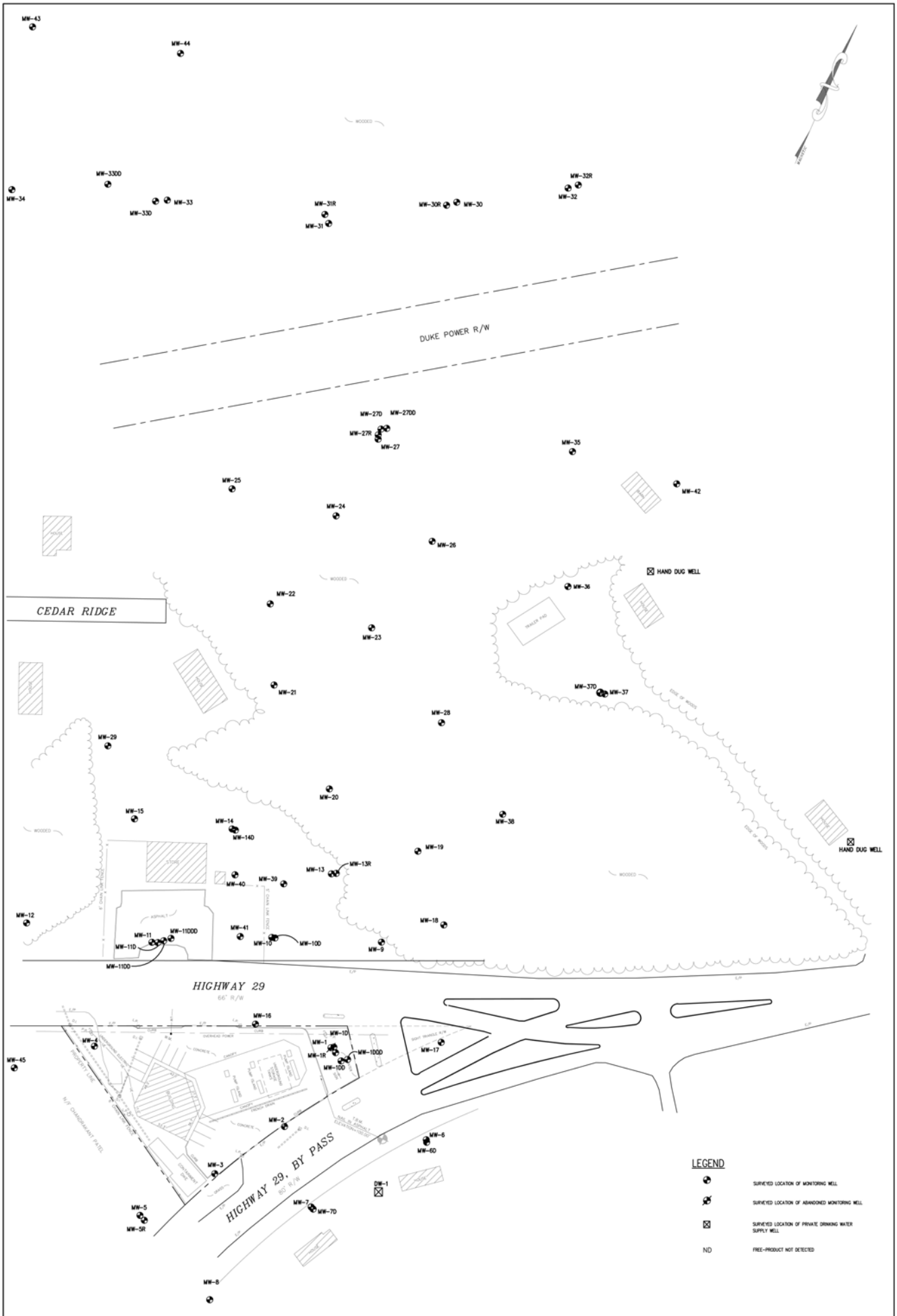


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, BELTON WEST AND SAYLORS CROSSROADS, S.C. QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: ACE	DATE: 11-14-13	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP MD FOOD MART (FORMER KMO #119) UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
CHECKED: TJB	CAD: MOOREHEAD-06SLM		FIGURE 1
APPROVED:	JOB NO: J13-3661-06		



REFERENCE:
DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY EAS PROFESSIONALS, INC. DATED 9-14-09.

REVISIONS		
No.	DESCRIPTION	BY
1		
2		

DRAWN	ACE
CHECKED	TJB
APPROVED	
DATE	11-14-13
FILE	KM0119-06SP
JOB NO.	J13-3661-06

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

SITE PLAN
MD FOOD MART (FORMER KMO #119)
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE NO. 2

STANDARD OPERATING PROCEDURES AND FORMS

ATTACHMENT A

MONITORING WELL PURGING AND SAMPLING PROCEDURES

The monitoring wells are purged prior to sample collection to remove any stagnant water from the well so that the samples collected are representative of the groundwater quality in the vicinity of each well. For wells that recovered quickly, a minimum of three volumes of water were evacuated. Specific conductance, pH, and water temperature are measured periodically during well evacuation using instruments which were calibrated accordingly. Wells that are evacuated to dryness with less than three well volumes being removed are sampled as soon as the well has recovered enough to yield sufficient volume for a sample.

The monitoring wells are purged using a 3-foot long by 1.6-inch diameter disposable polyethylene bailer attached to an unused nylon cord. The wells are also sampled using a bailer as described above. To minimize the potential for cross-contamination between wells, a new clean bailer is used at each well.

Samples are placed in the appropriate laboratory supplied containers and marked with identifying numbers. Samples are maintained at 4°Celsius in a refrigerated sample cooler and shipped to Shealy Environmental Services, Inc. in West Columbia, South Carolina via courier service for analysis.

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 02112

Client	Report to Contact	Sampler (Printed Name)	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page ___ of ___
City / State / Zip Code	Preservative: 1. Unpres. 4. HNO3 7. NaOH; 2. NaOH/ZnA 5. HCL; 3. H2SO4 6. Na Thio.		
Project Name			
Project Number	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis	Number of Containers	Bottle (See Instructions on back)	Preservative	Lot No.	Remarks / Cooler ID

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

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

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

1. Relinquished by / Sampler	Date	Time	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by	Date	Time

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

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. _____ °C
Temp. Blank ☐ Y / ☐ N

BLE

ATTACHMENT B

OAKTON PH/CONDUCTIVITY SERIES 10 MULTI-PARAMETER TESTER CALIBRATION AND OPERATION PROCEDURES

The Oakton pH/conductivity multi-parameter series 10 tester requires a set of three calibrations for each of its output components. The three calibrations required for the meter are temperature, pH, and specific conductivity. The temperature calibration is based on comparing the meter based temperature reading to an appropriately calibrated thermometer. The pH calibration is based on a multi-point calibration utilizing three different buffers (pH 4, pH 7, and pH 10). The conductivity calibration is based on a four point calibration setup utilizing a set of predefined conductivity range solutions. The procedures to perform the three different calibrations are as follow.

Temperature Calibration

The built-in temperature sensor included in the probe is factory calibrated. The temperature sensor is calibrated only if temperature errors are suspected or if the probe is replaced. Temperature calibration procedures are as follows:

1. Power on the meter and select the pH mode.

2. Pres the Cal/measure key to enter calibration monde, the CAL indicator will appear above the primary display.

3. While in pH calibration mode, press the MODE key to enter temperature calibration mode. The primary display shows the temperature reading with zero offset and the secondary display shows you what the temperature value was initially.

4. The probe is dipped into a temperature bath and its allowed sufficient time for the meter's temperature reading to stabilize.

5. Once stabilized the temperature is set in to the meter using the up and down keys to match the temperature bath. The word Con appears on the screen indicating that calibration is complete.

Note:
Since temperature readings affect the accuracy of the pH and conductivity measurements, pH and conductivity calibration are performed following the completion of the temperature calibration is.

pH Calibration

The instrument is capable of performing three point calibrations for pH. Though the three points are not essential for calibration, for our purposes we shall perform a three point pH calibration. The calibrations are performed by using standard pH buffers of 4.00, 7.00 and 10.00.

1. Select pH mode

2. Rinse the probe with DI water or rinse solution.

OAKTON PH/CONDUCTIVITY SERIES 10 MULTI-PARAMETER TESTER CALIBRATION AND OPERATION PROCEDURES - CONTINUED

3. Dip the probe into the calibration buffer and stir the buffer. Press CAL/MEAS to enter the pH calibration mode. The primary display will show the measured reading while the smaller secondary display will indicate the pH standard buffer solution.

4. Wait for the measured pH value to stabilize. The READY indicator will display when the reading stabilizes.

5. After the reading has stabilized and the READY indicator is displayed, press ENTER to confirm the calibration. A confirming indicator (CON) flashes and disappears. The meter is now calibrated to the buffer indicated in the secondary display.

The secondary display automatically scrolls to the next buffer calibration option if you are performing multi-point calibration, go to

6. Press the up or down keys to select the next buffer value you want to calibrate (pH 4.00, 7.00 or 10.00).

7. Repeat steps 1 through 6.

8. When calibration is complete, press CAL/MEAS to return to pH measurement mode.

NOTE:
If the selected buffer value is not within ±1.00 pH from the measured pH value: The electrode and buffer icon blink and the ERR enunciator appears in the lower left corner of the display. These indicators also flash if the buffer used is not the same as the buffer value on the secondary display.

Conductivity Calibration

The series 10 pH/conductivity meter has four different conductivity measuring ranges. You can calibrate one point in each of the measuring ranges (up to four points). If you are measuring values in more than one range, each of the ranges must be calibrated. The following table lists the corresponding conductivity range. You should calibrate each range using a solution that falls between the values in the "recommended calibration solution range" column.

Conductivity Range Calibration Solution Range:

0.00 µS	19.99 µS	6.00 µS	17.0 µS
0.00 µS	199.9 µS	60.0 µS	170 µS
0.00 µS	1999 µS	600 µS	1700 µS
0.00 mS	19.99 mS	6.00 mS	17.00 mS

Note: Minimum calibration value should be 20% of full scale for the specific range (e.g.: the **LOWEST** calibration value for the range of 0.00 to 19.99 µS is 4.00 µS). When the meter is recalibrated, old calibrations are replaced on a range basis.

OAKTON PH/CONDUCTIVITY SERIES 10 MULTI-PARAMETER TESTER CALIBRATION AND OPERATION PROCEDURES - CONTINUED

Conductivity calibration procedures are as follows:

1. Pour out two separate portions of the selected calibration standard and one of DI water into separate clean containers.

2. Select the conductivity mode on the meter.

3. Rinse the probe with DI water, and then rinse the probe in one portion of the calibration standard. Submerge the probe into the second portion of the calibration standard. The meter auto ranging function selects the appropriate conductivity range (four ranges are possible). Be sure the probe is free from air bubbles and sufficient calibration standard is used to cover the conductivity sensor. Wait for the reading to stabilize. Once the readings have stabilized, the READY indicator should appear in the upper left hand corner.

4. Press the CAL/MEAS key. The CAL indicator appears above the primary display. The primary display shows the measured reading and the secondary display shows the temperature.

5. Use the up and down keys to match the reading to the solution standard.

6. Press the ENTER key to confirm calibration. Upon confirmation, the CON indicator appears briefly. The meter automatically switches back into Measurement mode. The display now shows the calibrated, temperature compensated conductivity value.

7. For calibration in other ranges (maximum: four ranges) repeat steps 1 through 6 with the appropriate calibration standards.

Meter Operation

The READY indicator appears on the display when the meter has stabilized. It will turn off if the readings start to fluctuate.

To take measurements:

1. Rinse the probe with DI water before use to remove any impurities adhering to the probebody. If the pH electrode has dehydrated, soak it for 30 minutes in tap water.

2. Switch on the meter. The MEAS annunciator appears on the top center of the LCD. The ATC indicator appears in the lower right hand corner to indicate Automatic Temperature Compensation.

3. Dip the probe into the sample. Allow time for the readings to stabilize. Note the readings on the display. When the readings are stable, the READY annunciator appears.

   NOTE: Conductivity readings are auto-ranging and will automatically move to the correct range (four ranges possible).

OAKTON PH/CONDUCTIVITY SERIES 10 MULTI-PARAMETER TESTER CALIBRATION AND OPERATION PROCEDURES - CONTINUED

4. To toggle between pH and conductivity readings, press the MODE key.

   NOTE: When measuring a sample, make sure that the probe is immersed beyond the electrode band. Stir the sample using the probe gently to create a homogenous sample.

BLE

ATTACHMENT C

YSI 550A DISSOLVED OXYGEN INSTRUMENT CALIBRATION, MAINTENANCE, AND OPERATION PROCEDURES

INSTRUMENT CALIBRATION

Dissolved oxygen calibration must be done in an environment with known oxygen content. The YSI 550A DO Instrument can be calibrated in either mg/L or % saturation. BLE's preference is utilizing the % saturation method. Calibration instructions are described below:

1. Ensure that the sponge inside the instrument's calibration chamber is moist. Insert the probe into the calibration chamber.

2. Power the instrument on and allow readings to stabilize. This may take 5 to 15 minutes, depending on the age of the instrument and condition of the probe.

3. Press and release both the **UP ARROW** and **DOWN ARROW** keys at the same time to enter the calibration menu.

4. Press the **Mode** key until "%" is displayed on the right side of the screen for oxygen units. Press **ENTER**.

5. The LCD will prompt you to enter the local altitude in hundreds of feet. Use the arrow keys to increase or decrease the altitude. When the proper altitude appears on the LCD, press the **ENTER** key.

6. **CAL** will now display in the lower left corner of the screen, the calibration value in the lower right corner and the current DO reading (before calibration) will be the main display. Once the current DO reading is stable, press the **ENTER** button.

7. The LCD will prompt you to enter the approximate salinity of the water you are about to analyze. You can enter any number from 0 to 70 parts per thousand (PPT) of salinity. Use the arrow keys to increase or decrease the salinity setting. When the correct salinity appears on the LCD, press the **ENTER** key. The instrument will return to normal operation.

Upon completion of % saturation calibration, dissolved oxygen values can be compared to a known oxygen content for verification. Typically a 0.0 mg/L dissolved oxygen solution is utilized for this verification step.

MEMBRANE MAINTENANCE

A thin semi-permeable membrane, stretched over the sensor, isolates the electrodes from the environment, while allowing gases to enter. When a polarizing voltage is applied to the sensor electrodes oxygen that has passed through the membrane reacts at the cathode causing a current to flow. The membrane passes oxygen at a rate proportional to the pressure difference across it. Since oxygen is rapidly consumed at the cathode, it can be assumed that the oxygen pressure inside the membrane is zero. Hence, the force causing the oxygen to diffuse through the membrane is proportional to the partial pressure of oxygen outside the membrane. As the oxygen partial pressure varies, so does the oxygen diffusion through the membrane. This causes the probe current to change proportionally. Additional membrane changes will be required

YSI 550A DISSOLVED OXYGEN INSTRUMENT CALIBRATION, MAINTENANCE, AND OPERATION PROCEDURES - CONTINUED

over time. The average replacement interval is 4 to 8 weeks, although they may last longer if kept clean. To clean the membrane, a Kimwipe, and rubbing alcohol will be used to gently remove the contamination. Membranes will be replaced as necessary. Membrane replacement procedures are described below:

1. Remove the probe sensor guard to access the probe tip.

2. Unscrew and remove the old membrane cap and discard.

3. Thoroughly rinse the sensor tip with distilled or DI water.

4. Fill a new membrane cap with O2 probe solution that has been prepared according to the directions on the bottle. Be very careful not to touch the membrane surface. Lightly tap the side of the membrane cap to release bubbles that may be trapped.

5. Thread the membrane cap onto the probe. It is normal for a small amount of electrolyte to overflow.

6. Replace the probe sensor guard.

METER OPERATION

It is important to recognize that a very small amount of oxygen dissolved in the sample is consumed during probe operation. It is therefore essential that the sample be continuously stirred at the sensor tip. If stagnation occurs, measurements will appear artificially low. Stirring may be accomplished by mechanically moving the sample around the probe tip, or by moving the probe through the sample. The YSI Model 550A has a flow dependence of <25%. The rate of stirring required is 1/2 foot per second (16cm per second). Measurement procedures are as follows:

1. Insert the probe into the sample to be measured.

2. Continuously stir or move the probe through the sample.

3. Allow temperature and dissolved oxygen readings to stabilize.

4. Observe/Record readings.

5. Rinse the probe with clean water after each use and return probe to the calibration/storage chamber.

6. If unstable readings or membrane damage occurs, replace both the membrane cap and electrolyte solution.

BLE

ATTACHMENT D

LAMOTTE MODEL 2020 TURBIDIMETER CALIBRATION AND OPERATION PROCEDURES

The LaMotte Model 2020 Turbidimeter is a portable, microprocessor controlled nephelometer (suspended colloid meter). The LaMotte Model 2020 measures the scattering of a beam of light as it passes through a water sample in order to produce an average reading of nephelometric turbidity units (NTU). All readings are determined by the process of signal averaging over a 5 second period, minimizing fluctuations in readings attributed to large particles and enabling rapid, repeatable measurements. The microprocessor enables auto-ranging over the full range of 0 to 1,100 NTU and provides direct digital readout with a resolution of 0.01 NTU for the lowest range.

INSTRUMENT CALIBRATION

- Select a LaMotte AMCO 2020 Turbidity Standard (1.0 NTU, 10 NTU, 100 NTU, or 250 NTU) in the expected turbidity range of the samples to be tested. Wipe the outside of the standard tube with a clean, lint-free cloth.

- Open the lid of the meter. Align the indexing arrow mark on the tube with the indexing arrow mark on the meter, and insert the tube into the analysis chamber. Close the lid.

- Push the CAL button. While the display is flashing, adjust the display up or down using the arrow buttons until the value of the standard is displayed.

- Push the CAL button again to memorize the calibration. The display will stop flashing when the calibration is complete.

INSTRUMENT OPERATION

- Fill a clean sample tube with 50 ml of sample water and replace cap. Set sample aside to equilibrate with the air temperature and allow gases to escape.

- Rinse and empty a sample tube with a portion of the water sample and shake out excess water.

- Fill the sample tube to the neck by carefully pouring the temperature equilibrated sample down the side of the tube to avoid creating bubbles.

- Cap the tube and wipe dry with a clean, lint-free cloth.

- Open the meter lid, align the indexing arrow on the tube with the indexing arrow on the meter. Insert the tube into the meter chamber.

- Close the lid to the meter. Push READ button. The turbidity in NTU units will be displayed within 5 seconds.

- The meter will automatically turn off after 2 minutes after the last button is pressed. To turn off the meter manually, hold the READ button down for more than 1 second. Release the button when OFF is displayed.

ASSESSMENT COMPONENT COST AGREEMENT

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account

Facility Name: MD Food Mart (Former KMO #1119)

UST Permit #: 00505 **Cost Agreement #**

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
1. **Plan***					
B. Tax Map		x	$50.00		$0.00
C. Tier II or Comp. Plan /QAPP Appendix B	1	x	$525.00		$525.00
2. **Receptor Survey ***		x	$500.00		$0.00
3. **Survey (500 x 500 feet)**					
A. Comprehensive Survey		x	$1,000.00		$0.00
B. Subsurface Geophysical Survey					
1. < 10 meters below grade		x	$2,750.00		$0.00
2. > 10 meters below grade		x	$3,250.00		$0.00
C. Geophysical UST or Drum Survey		x	$1,125.00		$0.00
4. **Mob/Demob (Each)**					
A. Equipment		x	$575.00		$0.00
B. Personnel (3 mob for 67 wells, 1 mob for disposal)	4	x	$290.00		$1,160.00
C. Adverse Terrain Vehicle to install wells		x	$575.00		$0.00
5. **Soil Borings (hand auger)* (Feet)**		feet x	$14.00		$0.00
6. **Soil Borings (drilled) & Field Screening ***					
Rate includes collection of water sample or soil sample, and lab or other analyses					
A. Standard		feet x	$17.00		$0.00
C. Fractured Rock		feet x	$27.50		$0.00
7. **Soil Leachability Model (Each)**		each x	$200.00		$0.00
8. **Abandonment* (per foot)**					
A. 2" diameter or less		feet x	$5.00		$0.00
B. Greater than 2" to 6" diameter		feet x	$5.50		$0.00
C. Dug/Bored well (up to 6 foot diameter)		feet x	$18.00		$0.00
9. **Well Installation* (per foot)**					
A. Water Table (hand augered)		feet x	$20.00		$0.00
B. Water Table (drill rig)		feet x	$38.00		$0.00
C. Telescoping/ Pit Cased		feet x	$58.00		$0.00
D. Rock Drilling		feet x	$58.00		$0.00
E. 2" Rock Coring		feet x	$45.00		$0.00
G. Rock Multi-sampling ports/screens		feet x	$47.20		$0.00
H. Recovery Well (4 inch diameter)		each x	$45.00		$0.00
I. Pushed Pre-packed screen (1.25 diameter)		each x	$18.50		$0.00
J. Rotosonic (2 inch diameter)		each x	$45.00		$0.00

ITEM		QUANTITY	UNIT	UNIT PRICE		TOTAL
10. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**						
A. Groundwater Purge	66 MWs	66	wells x	$55.00		$3,630.00
B. Air or Vapors			samples x	$90.00		$0.00
C. Water Supply		1	samples x	$30.00		$30.00
D. Groundwater No Purge or Duplicate	4 dup	4	samples x	$35.00		$140.00
E. Gauge Well only			per well x	$20.00		$0.00
F. Sample Below Product			wells x	$50.00		$0.00
G. Pasive Diffusion Bag			each x	$40.00		$0.00
H. Field Blank	4 field dup	4	each x	$5.00		$20.00
11. Laboratory Analyses-Groundwater (Each Sample)						
A1. BTEX+Naphth.+ Oxyg's+ 1,2 DCA + Ethanol		77	samples x	$100.00		$7,700.00
AA. Lead, Filtered			samples x	$46.00		$0.00
B1. Rush EPA Method 8260B (All of item A.)			samples x	$143.00		$0.00
C1. Trimethal, Butyl, and Isopropyl Benzenes			samples x	$40.00		$0.00
D. PAH's			samples x	$120.00		$0.00
E. Lead, Unfiltered			samples x	$20.00		$0.00
F. EDB by EPA 8011		77	samples x	$55.00		$4,235.00
FF. EDB by EPA Method 8011 Rush			samples x	$75.00		$0.00
G. 8 RCRA Metals			samples x	$140.00		$0.00
H. TPH (9070)			samples x	$55.00		$0.00
I. pH			samples x	$10.00		$0.00
J. BOD			samples x	$40.00		$0.00
P1. Ethanol			samples x	$21.50		$0.00
11. **Analyses-Soil (Each Sample)**						
Q. BTEX + Naphth.			samples x	$100.00		$0.00
R. PAH's			samples x	$120.00		$0.00
S. 8 RCRA Metals			samples x	$150.00		$0.00
T. Oil & Grease (9071)			samples x	$60.00		$0.00
U. TPH-DRO (3550B/8015B)			samples x	$65.00		$0.00
V. TPH- GRO (5030B/8015B)			samples x	$65.00		$0.00
W. Grain size/hydrometer			samples x	$99.00		$0.00
X. Total Organic Carbon			samples x	$35.00		$0.00
11. **Analyses-Air (Each Sample)**						
Y. BTEX + Naphthalene			samples x	$247.50		$0.00
11. **Analyses-Free Phase Product (Each Sample)**						
Z. Hydrocarbon Fuel Identification			samples x	$620.00		$0.00
12. **Aquifer Characterization***						
A. Pumping Test			hours x	$120.00		$0.00
B. Slug Test*			tests x	$150.00		$0.00
C. Fractured Rock			tests x	$500.00		$0.00
13. **Free Product Recovery Rate Test* (Each)**			tests x	$120.00		$0.00
14. **Fate/Transport Modeling**						
A. Mathematical Model			each x	$300.00		$0.00
B. Computer Model			each x	$500.00		$0.00
15. **Risk Evaluation**						
A. Tier I Risk Evaluation			x	$300.00		$0.00
B. Tier II Risk Evaluation			x	$500.00		$0.00
16. **Subsequent Survey***			x	$300.00		$0.00
17. **Disposal* (gallons or tons)**						
A. Wastewater		500	gallons x	$0.80		$400.00
B1. Free Product			gallons x	$0.85		$0.00
C. Soil Treatment/Disposal			tons x	$72.50		$0.00
D. Drilling fluids			gallons x	$0.80		$0.00

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
18. **Miscellaneous (attach receipts)**					
		x			$0.00
		x			$0.00
		x			$0.00
20. **Tier I Assessment (Use DHEC 3665 form)**		x			$0.00
21. **IGWA (Use DHEC 3666 form)**		x			$0.00
22. **Corrective Action (Use DHEC 3667 form)**		x			$0.00
23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A. 8-hour Event*		each x	$3,000.00		$0.00
B. AFVR per-hour Continuance		per hour x	$204.00		$0.00
C. Off-gas treatment per-hour Continuance		per hour x	$35.00		$0.00
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A. New GAC System Installation*		each x	$2,500.00		$0.00
B1. Refurbished GAC Sys. Install*		each x	$1,180.00		$0.00
C. Filter replacement/removal*		each x	$450.00		$0.00
D1. GAC System removal, cleaning, & refurbishment*		each x	$720.00		$0.00
E. GAC System housing		each x	$450.00		$0.00
F. In-line particulate filter		each x	$150.00		$0.00
G. Additional piping & fittings		feet x	$4.00		$0.00
25. **Well Repair**					
A. Additional Copies of the Report Delivered		each x	$32.50		$0.00
B. Repair 2x2 MW pad		each x	$100.00		$0.00
C. Repair 4x4 MW pad		each x	$150.00		$0.00
D. Repair well vault		each x	$225.00		$0.00
F. Replace well cover bolts		each x	$10.00		$0.00
G. Replace locking well cap & lock		each x	$15.00		$0.00
H. Replace/Repair stick-up		each x	$137.50		$0.00
I. Convert Flush-mount to Stick-up		each x	$175.00		$0.00
J. Convert Stick-up to Flush-mount		each x	$125.00		$0.00
K. Replace missing/illegible well ID plate		each x	$22.50		$0.00
Report Prep & Project Management	15%	x	$17,840.00		$2,676.00
TOTAL					$20,516.00

*The appropriate mobilization cost can be added to complete these tasks, as necessary

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

CHRIS MOORHEAD
MOORHEAD OIL CO
PO BOX 2587
ANDERSON SC 29622-2587

DEC 0 3 2013

US Mail DOCKETING

Re: **Sample Directive**
M D Food Mart, 1312 Williamston Rd., Anderson, SC
UST Permit #00505; CA #46946
Release reported December 20, 1989
QAPP Contractor Addendum received November 19, 2013
Anderson County

Dear Mr. Moorhead:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced addendum submitted on your behalf by Bunnell-Lammons Engineering, Inc. A comprehensive sampling of the monitoring wells is necessary. All work should be conducted in accordance with the UST Quality Assurance Program Plan (QAPP) and must be conducted in compliance with all applicable regulations. A copy of Agency QAPP Revision 2.0 for the UST Management Division is available at http://www.scdhec.gov/environment/lwm/usthome/Qapp.htm.

Activities at the site should begin immediately upon receipt of this letter. Cost agreement # 46946 has been approved for the amount shown on the enclosed cost agreement form for the sampling of all of the monitoring wells and analysis for BTEX, naphthalene, MTBE, 1,2-DCA, oxygenates, and EDB. Analyses should be in accordance with Appendix E of the QAPP to include duplicate samples, field and trip blanks.

The Monitoring Report and invoice are due within 60 days from the date of this letter. The report submitted at the completion of these activities should include the required information outlined in the QAPP. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Bunnell-Lammons Engineering can submit an invoice for direct payment from the State Underground Petroleum Environmental Response Bank (SUPERB) Account for pre-approved costs. By law, the SUPERB Account cannot compensate any costs that are not pre-approved. Please note that applicable South Carolina certification requirements regarding the services and report preparation must be satisfied. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the Agency. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

Please note, if unnecessary dilutions are completed resulting in reporting limits of individual CoC in excess of Risk-Based Screening Levels (RBSLs), the data cannot be used. In those cases, the Agency may deny payment for any non-detect analysis where the reporting limit exceeds the RBSL. The UST Management Division encourages the use of 'J' values as necessary so the appropriate action can be determined for a release.

The Agency grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. The transport and disposal must be conducted in accordance with the QAPP. If the CoC concentrations based on laboratory analysis are below RBSLs, please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence regarding this site, please reference UST Permit #00505. If you have any questions regarding this correspondence, please contact me by telephone at (803) 898-0608 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement
Signed Site Specific QAPP Contractor Addendum

cc: Bunnell-Lammons Engineering, Inc., 6004 Ponders Ct., Greenville, SC 29615 (with enc.)
Technical File (with enclosures)

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SCDHEC UST Programmatic QAPP
For
M D Food Mart (Former KMO #119) – UST Permit #00505

1312 Williamston Road, Anderson, Anderson County, South Carolina 29621

Prepared by: Daniel R. Matz, E.I.T. – Bunnell-Lammons Engineering, Inc.

Date: November 15, 2013

Bunnell-Lammons Engineering, Inc. – SCDHEC Certified Contractor No. UCC-0010

Approvals

Mr. Read S. Miner, P.G. SCDHEC Project Manager	Signature	Date	11-25-13
Mr. Trevor J. Benton, P.G. Contractor QA Manager	Signature	Date	11/15/2013
Thomas L. Lammons, P.G. Site Rehabilitation Contractor	Signature	Date	11/15/2013
Dan Wright Laboratory Director	Signature	Date	11/15/2013

Approved Cost Agreement 46946

Facility: 00505 M D FOOD MART

MINERRS

PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
01 PLAN					
		C TIER II/COMP. PLAN/QAPP APP B	1.0000	525.00	525.00
04 MOB/DEMOB					
		B PERSONNEL	4.0000	290.00	1,160.00
10 SAMPLE COLLECTION					
		A GROUND WATER	66.0000	55.00	3,630.00
		C WATER SUPPLY	1.0000	30.00	30.00
		D GROUNDWATER NO-PURGE	4.0000	35.00	140.00
		H FIELD BLANK	4.0000	5.00	20.00
11 ANALYSES					
	GW GROUNDWATER	A1 BTEXNM+OXYGS+1,2-DCA+ETH-8260B	77.0000	100.00	7,700.00
		F EDB	77.0000	55.00	4,235.00
17 DISPOSAL					
		A WASTEWATER	500.0000	0.80	400.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	17,840.00	2,676.00
			Total Amount		20,516.00

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

MS EUNICE FULLER
KEN MOOREHEAD OIL INCORPORATED
PO BOX 2587
ANDERSON SC 29622-2587

NOV 30 2007

Re: Assessment Plan Directive
KMO #119, 1312 Williamston Road, Anderson, SC
UST Permit #00505
Release Reported December 20, 1989
Tier II Assessment Report received November 19, 2007
Anderson County

Dear Ms. Fuller:

The Underground Storage Tank (UST) Program has reviewed the referenced report submitted by Bunnell Lammons Engineering, Incorporated on your behalf. The report indicates that free phase product is present in MW-10, MW-11, and MW-12 and the and horizontal extent of petroleum Chemicals of Concern (CoC) are above risk-based screening levels (RBSLs).

To determine what risk the referenced release may pose to the environment and public health, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of the scope of work as outlined in the Tier II Assessment Guidance Document is necessary. The Tier II Assessment Guidance Document and Tier II Assessment forms are available online at http://www.scdhec.gov/eqc/admin/html/..%5C..%5Cust%5Cpubs%5Ctier2.pdf and http://webserver03 dhec.sc. gov/iieforms/d3527.pdf respectively.

Please have your contractor complete and submit the Assessment Component Cost Agreement and Assessment Plan Forms within thirty days of the date of this letter. The plan should include the recommendations of your contractor plus two wells installed to the top of bedrock southeast of the site and three additional product recover wells in the vicinity of GWP-20. Please see the enclosed map for approximate locations. Every component may not be necessary to complete the above scope of work. The State Underground Petroleum Environmental Response Bank (SUPERB) Account allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that approval from the Department must be issued before work begins.**

On all correspondence regarding this site, please reference UST permit 00505. Should you have any questions regarding this correspondence, please feel free to contact me at (803) 896-6669 or (800) 826-5435 (within South Carolina only). I can also be reached by email at shradeaa@dhec.sc.gov. or by fax at (803) 896-6245.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

UST PROGRAM
DOCKETING # 2

enc: Map of Proposed Additional Wells

cc: Bunnell Lammons Engineering, 6004 Ponders Court, Greenville, SC 29615 (with enc.)
Technical file (without enc.)

Document Receipt Information

☐ Hard Copy ☒ CD ☐ Email

Date Received 4-11-14

Permit Number 10505

Project Manager Reed Miner

Name of Contractor BLE

UST Certification Number

Docket Number 20tech

Scanned

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF COMPREHENSIVE GROUNDWATER SAMPLING EVENT - JANUARY 2014

M D FOOD MART (FORMER KMO #119)
1312 WILLIAMSTON ROAD
ANDERSON, ANDERSON COUNTY, SOUTH CAROLINA
UST PERMIT #00505; COST AGREEMENT #46946

Prepared For

Mr. Kris Moorhead
Moorhead Oil Co.
P.O. Box 2587
Anderson, South Carolina 29622

Prepared By

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, South Carolina 29615
SCDHEC Certified Contractor No. UCC-0010

April 8, 2014

BLE Project Number J13-3661-06

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

April 8, 2014

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
Underground Storage Tank Division
2600 Bull Street
Columbia, South Carolina 29201-1708

Attention: Mr. Read S. Miner, P.G., Hydrogeologist

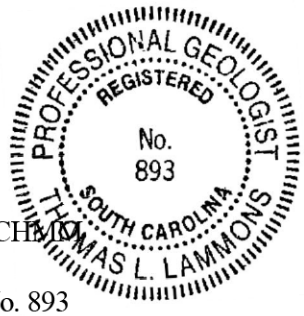
Subject: **Report of Comprehensive Groundwater Sampling Event – January 2014**
M D Food Mart (Former KMO #119)
1312 Williamston Rd.
Anderson, Anderson County, South Carolina
UST Permit #00505; CA #46946
BLE Project No. J13-3661-06

Dear Mr. Miner:

On behalf of Moorhead Oil Co. (Moorhead), Bunnell-Lammons Engineering, Inc. (BLE) has completed a comprehensive groundwater sampling event at the subject site. This scope of work was performed in response to a South Carolina Department of Health and Environmental Control (SCDHEC) directive dated December 3, 2013 and in accordance with BLE's Quality Assurance Program Plan (QAPP) Addendum dated November 15, 2013. This report describes the work performed and presents the results obtained, along with our comments and recommendations. Please do not hesitate to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.



Trevor J. Benton, P.G.
Senior Hydrogeologist
Registered, South Carolina No. 2395

Thomas L. Lammons, P.G., CHMM
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Kris Moorhead, Moorhead Oil Co., P.O. Box 2587, Anderson, SC 29622-2587.

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

BACKGROUND INFORMATION

The subject property is located at 1312 Williamston Road in Anderson, South Carolina (Figure 1). Prior to 2004, the site was owned by Ken Moorhead Oil Company and operated as a Citgo fueling station. Currently, the site is owned and operated by DEV Enterprises, LLC and is utilized as a convenience store where gasoline and kerosene fuels are sold (MD Food Mart).

In response to a release reported at the facility on December 20, 1989, various environmental assessments have been conducted at the site, including the installation of 66 groundwater monitoring wells (MW-01R, MW-01D, MW-01DD, MW-01DDD, MW-02 through MW-05, MW-05R, MW-06, MW-06D, MW-07, MW-07D, MW-08, MW-09, MW-10, MW-10D, MW-11, MW-11D, MW-11DD, MW-11DDD, MW-12, MW-13, MW-13R, MW-14, MW-14D, MW-15 through MW-27, MW-27R, MW-27D, MW-27DD, MW-28, MW-29, MW-30, MW-30R, MW-31, MW-31R, MW-32, MW-32R, MW-33, MW-33D, MW-33DD, MW-34 through MW-37, MW-37D, and MW-38 through MW-45) to assess the horizontal and vertical extent of the release. Additionally, multiple Aggressive Fluid Vapor Recovery (AFVR) events have been performed to remove free-phase and dissolved-phase petroleum contaminants from the subsurface at the site.

In an effort to determine what risk the petroleum release may pose to human health and the environment, the SCDHEC directed an updated comprehensive groundwater sampling event be conducted at the subject site. Details of the groundwater sampling event and our findings are provided herein.

GROUNDWATER SAMPLING

Date Sampled:	January 20-23, 2014	
Total Number of Wells Associated with Site:	66	MW-01R, MW-01D, MW-01DD, MW-01DDD, MW-02 through MW-05, MW-05R, MW-06, MW-06D, MW-07, MW-07D, MW-08, MW-09, MW-10, MW-10D,

		MW-11, MW-11D, MW-11DD, MW-11DDD, MW-12, MW-13, MW-13R, MW-14, MW-14D, MW-15 through MW-27, MW-27R, MW-27D, MW-27DD, MW-28, MW-29, MW-30, MW-30R, MW-31, MW-31R, MW-32, MW-32R, MW-33, MW-33D, MW-33DD, MW-34 through MW-37, MW-37D, and MW-38 through MW-45
Total Number of Wells Sampled:	58	MW-01D, MW-01DD, MW-01DDD, MW-03, MW-04, MW-05R, MW-06, MW-06D, MW-07, MW-07D, MW-08, MW-09, MW-10D, MW-11, MW-11D, MW-11DD, MW-11DDD, MW-13R, MW-14, MW-14D, MW-15, MW-17 through MW-27, MW-27R, MW-27D, MW-27DD, MW-28, MW-30, MW-30R, MW-31, MW-31R, MW-32, MW-32R, MW-33, MW-33D, MW-33DD, MW-34 through MW-37, MW-37D, and MW-38 through MW-45
Total Number of Wells NOT Sampled:	8	MW-01R (0.04-Feet FP), MW-02 (0.09-Feet FP), MW-05 (Dry), MW-10 (0.45-Feet FP), MW-12 (Not Located), MW-13 (Dry), MW-16 (0.02-Feet FP), MW-29 (Not Located)
Water Supply Wells or Other Receptors Sampled	1	DW-01 (see Figure 2). Note: Two hand dug wells are located on the property to the north. These wells were dry during this scope of work.
QA / QC Samples	10	4 Duplicate Samples (MW-01D DUP, MW-14DUP, MW-40 DUP, MW-41 DUP), 4 Field Blanks, and 2 Trip Blanks

Groundwater Level Measurements	See Table 1	
Groundwater Sampling Logs and Procedures	See Appendix A	
Total Purge Volume (Gallons)	558	Disposal Manifest Included in Appendix B
Free-Phase Petroleum Product	MW-01R (0.04-Feet FP), MW-02 (0.09-Feet FP), MW-10 (0.45-Feet FP), MW-16 (0.02-Feet FP)	
Analytical Laboratory	Shealy Environmental Services, Inc. – SCDHEC No. 32010	
Analytical Methods	EPA Method 8260B and EPA Method 8011	
Contaminants Exceeding Risk Based Screening Levels	Benzene, Toluene, Ethylbenzene, Xylenes, Methyl-Tert-Butyl-Ether (MTBE), Naphthalene, 1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Tert-Amyl Alcohol (TAA), Tert-Butyl Alcohol (TBA), and Di-isopropyl Ether (IPE)	
Monitoring Well Repairs	None	
Historical Laboratory Analytical Summary	See Table 2A and Table 2B	
Current Laboratory Analytical Results	See Appendix C	
Potentiometric Map	See Figure 2	
Chemical of Concern (COC) Map	See Figure 3	

CONCLUSIONS AND RECOMMENDATIONS

- Groundwater flow and contaminant transport is to the north from the UST system release. The depth to groundwater in the unconfined aquifer ranges from 25.52 (MW-8) feet bgs to 83.50 (MW-11DDD) feet bgs across the study area;

- With the exception of MTBE (60 µg/L) in MW-44, the horizontal extent of groundwater contamination has been substantially defined by "non detect" monitoring wells located at the

plume perimeter. Petroleum contaminants are present in groundwater off-site beneath adjacent properties to the north;

- Free-phase petroleum product was present in monitoring wells MW-1R (0.04 feet), MW-2 (0.09 feet), MW-10 (0.45 feet), and MW-16 (0.02 feet) at the time of sampling;

- COCs were not detected in water supply well DW-01;

- Two hand dug wells are present on the northeast adjoining property, and were dry during the current sampling event;

- Vertical pathways of COC migration have been identified at well clusters: **1)** MW-01R/MW-1D/MW-1DD/MW-1DDD, **2)** MW-10/MW-10D, **3)** MW-11/MW-11D/MW-11DD/MW-1DDD, and **4)** MW-33/MW-33D/MW-33DD. Based on the hydrogeologic data obtained during the current scope of work, a downward vertical gradient ranging from 0.024 ft/ft to 0.202 ft/ft exists in these well clusters. Additionally, COC contaminant concentrations are increasing with depth in the well clusters cited above.

Since free-product conditions exist in monitoring wells MW-01R, MW-02, MW-10, and MW-16, BLE recommends a series of 96-hour Aggressive Fluid Vapor Recovery (AFVR) events be conducted on these wells to: 1) remove residual free-phase petroleum product from the area around the extraction point, 2) remove petroleum hydrocarbon vapors from the unsaturated zone, and 3) remove petroleum impacted groundwater from the subsurface. Removal of the residual free-product and high dissolved-phase contaminants should have a direct correlation with reduction in COCs in the deeper monitoring wells.

The first event should be conducted on monitoring wells MW-01R and MW-02, the second event should be conducted on MW-1R and MW-16, the third event should be conducted on monitoring well MW-10 and possibly downgradient monitoring well MW-13R, and the fourth event should be conducted on MW-11. Extended duration AFVR events would greatly benefit site remediation efforts, shorten eventual restoration timelines, and augment the natural attenuation processes.

Approximately thirty days after completion of the final AFVR event, BLE recommends a comprehensive groundwater sampling event be performed to evaluate the effectiveness of the AFVR events, obtain current COC concentration data, and to establish COC concentration trends.

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Moorhead Oil Co. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

TABLES

TABLE 1

Monitoring Well and Groundwater Surface Elevation Data
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #46946
BLE Project Number J13-3661-06

Monitoring Well	Date	TOC Elev.	Ground Elev.	Free-Product Thickness	GW Depth BTOC	GW Elevation	Bedrock Depth BGS	Well Depth BGS	Screened Interval Depth BGS	Screened Interval Elevation BGS
00505-MW01	7/27/2004	101.31	101.50	None	39.96	61.35	NA	45.53	35.53 - 45.53	65.78 - 55.78
	1/20/2014	Abandoned								
00505-MW01R**	4/18/2007	100.89	101.32	None	39.22	61.67	NA	44.0	33.80 - 43.80	67.09 - 57.09
	9/9/2008			**0.84**	42.88	58.01				
	9/9/2009			**1.92**	42.08	58.81				
	1/20/2014			**0.04**	39.64	61.25				
00505-MW01D	4/18/2007	101.50	101.63	None	54.20	47.30	51.0	106.6	101.40 - 106.40	0.10 - -4.90
	9/9/2008			None	47.41	54.09				
	9/9/2009			None	45.70	55.80				
	1/20/2014			None	43.59	57.91				
MW-1DD	9/9/2008	101.13	101.13	None	49.53	51.60	56.0	142.0	136.80 - 141.80	-35.67 - -40.67
	9/9/2009			None	48.33	52.80				
	1/20/2014			None	46.61	54.52				
MW-1DDD	9/9/2009	101.56	101.56	None	84.54	17.02	56.0	241.8	236.60 - 241.60	-135.04 - -140.04
	1/20/2014			None	44.75	56.81				
MW-2**	7/27/2004	97.00	97.16	None	35.99	61.01	NA	42.5	32.52 - 42.52	64.48 - 54.48
	4/18/2007			None	34.61	62.39				
	9/9/2008			**1.84**	40.32	56.68				
	9/9/2009			**0.02**	37.63	59.37				
	1/20/2014			**0.09**	34.95	62.05				
MW-3	7/27/2004	94.72	94.80	None	34.16	60.56	NA	40.4	30.40 - 40.40	64.32 - 54.32
	4/18/2007			None	32.39	62.33				
	9/9/2008			None	38.38	56.34				
	9/9/2009			None	35.66	59.06				
	1/20/2014			None	32.52	62.20				
MW-4	4/18/2007	97.61	97.80	None	39.86	57.75	NA	47.1	36.90 - 46.90	60.71 - 50.71
	9/9/2008			None	44.08	53.53				
	9/9/2009			None	41.83	55.78				
	1/20/2014			None	40.15	57.46				
MW-5	4/18/2007	89.23	89.48	None	27.15	62.08	NA	32.3	22.10 - 32.10	67.13 - 57.13
	9/9/2008			None	DRY					
	9/9/2009			None	30.75	58.48				
	1/20/2014			None	DRY					
MW-5R	9/9/2009	89.38	89.57	None	30.90	58.48	NA	36.4	26.20 - 36.20	63.18 - 53.18
	1/20/2014			None	27.38	62.00				
MW-6	4/18/2007	101.74	101.99	None	39.52	62.22	NA	43.3	33.10 - 43.10	68.64 - 58.64
	9/9/2008			None	DRY					
	9/9/2009			None	41.60	60.14				
	1/20/2014			None	40.45	61.29				
MW-6D	9/9/2008	101.43	101.84	None	44.32	57.11	54.6	54.6	49.40 - 54.40	52.03 - 47.03
	9/9/2009			None	42.24	59.19				
	1/20/2014			None	40.10	61.33				
MW-7	4/18/2007	96.50	96.88	None	34.09	62.41	NA	39.5	29.30 - 39.30	67.20 - 57.20
	9/9/2008			None	DRY					
	9/9/2009			None	37.25	59.25				
	1/20/2014			None	34.38	62.12				
MW-7D	9/9/2008	96.56	96.88	None	39.84	56.72	59.1	59.1	53.90 - 58.90	42.66 - 37.66
	9/9/2009			None	37.48	59.08				
	1/20/2014			None	34.61	61.95				
MW-8	4/18/2007	87.94	88.16	None	25.41	62.53	NA	30.6	20.40 - 30.40	67.54 - 57.54
	9/9/2008			None	DRY					
	9/9/2009			None	29.20	58.74				
	1/20/2014			None	25.52	62.42				
MW-9	4/18/2007	102.33	102.54	None	45.13	57.20	44.0	52.7	42.50 - 52.50	59.83 - 49.83
	9/9/2008			None	47.09	55.24				
	9/9/2009			None	46.50	55.83				
	1/20/2014			None	45.65	56.68				
MW-10**	4/18/2007	99.78	100.02	**0.24**	44.73	55.05	42.0	50.9	40.70 - 50.70	59.08 - 49.08
	9/9/2008			**0.38**	43.69	56.09				
	9/9/2009			**0.06**	43.05	56.73				
	1/20/2014			**0.45**	43.65	56.13				
MW-10D	9/9/2008	100.03	100.07	None	50.10	49.93	42.0	94.8	89.60 - 94.60	10.43 - 5.43
	9/9/2009			None	48.69	51.34				
	1/20/2014			None	48.20	51.83				
MW-11	4/18/2007	98.46	98.74	**0.33**	45.10	53.36	47.0	51.5	41.30 - 51.30	57.16 - 47.16
	9/9/2008			**0.75**	46.70	51.76				
	9/9/2009			**0.21**	45.67	52.79				
	1/20/2014			None	46.61	51.85				
MW-11D	4/18/2007	98.49	98.67	None	46.27	52.22	44.5	90.4	85.20 - 90.20	13.29 - 8.29
	9/9/2008			None	48.28	50.21				
	9/9/2009			None	47.02	51.47				
	1/20/2014			None	45.05	53.44				
MW-11DD	9/9/2008	98.48	98.63	None	57.49	40.99	47.0	161.5	156.30 - 161.30	-57.82 - -62.82
	9/9/2009			None	57.58	40.90				
	1/20/2014			None	55.91	42.57				
MW-11DDD	9/9/2009	98.38	98.38	None	84.54	13.84	47.0	230.4	225.20 - 230.20	-126.82 - -131.82
	1/20/2014			None	83.50	14.88				

Prepared By: DRM/RAD
Checked By: RAD

TABLE 1

Monitoring Well and Groundwater Surface Elevation Data
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #46946
BLE Project Number J13-3661-06

Monitoring Well	Date	TOC Elev.	Ground Elev.	Free-Product Thickness	GW Depth BTOC	GW Elevation	Bedrock Depth BGS	Well Depth BGS	Screened Interval Depth BGS	Screened Interval Elevation BGS
MW-12	4/18/2007	97.25	97.53	None	44.33	52.92	NA	53.0	42.80 - 52.80	54.45 - 44.45
	9/9/2008			None	46.80	50.45				
	9/9/2009			None	45.27	51.98				
	1/20/2014			None	Not Located					
MW-13	4/18/2007	99.08	99.25	None	45.06	54.02	47.0	48.3	38.10 - 48.10	60.98 - 50.98
	9/9/2008			None	47.62	51.46				
	9/9/2009			None	DRY					
	1/20/2014			None	DRY					
MW-13R	9/9/2009	99.10	99.47	None	46.64	52.46	47.0	56.4	46.20 - 56.20	52.90 - 42.90
	1/20/2014			None	47.10	52.00				
MW-14	4/18/2007	94.99	95.22	0.38	42.92	52.07	46.0	50.6	40.40 - 50.40	54.59 - 44.59
	9/9/2008			0.28	44.44	50.55				
	9/9/2009			0.09	43.18	51.81				
	1/20/2014			None	43.00	51.99				
MW-14D	9/9/2008	95.17	95.20	None	45.19	49.98	46.0	81.7	76.50 - 81.50	18.67 - 13.67
	9/9/2009			None	43.78	51.39				
	1/20/2014			None	43.25	51.92				
MW-15	4/18/2007	96.64	96.88	None	44.74	51.90	47.0	51.3	41.10 - 51.10	55.54 - 45.54
	9/9/2008			None	46.26	50.38				
	9/9/2009			None	45.09	51.55				
	1/20/2014			None	44.91	51.73				
MW-16**	4/18/2007	99.91	100.08	None	39.83	56.81	38.0	49.0	38.80 - 48.80	61.11 - 51.11
	9/9/2008			**0.12**	42.79	53.85				
	9/9/2009			**0.02**	41.32	55.32				
	1/20/2014			**0.02**	39.96	59.95				
MW-17	4/18/2007	103.40	103.90	None	42.08	61.32	NA	48.7	38.50 - 48.50	64.90 - 54.90
	9/9/2008			None	46.25	57.15				
	9/9/2009			None	44.58	58.82				
	1/20/2014			None	42.71	60.69				
MW-18	4/18/2007	108.17	105.09	None	50.73	57.44	53.0	55.9	45.70 - 55.70	62.47 - 52.47
	9/9/2008			None	53.47	54.70				
	9/9/2009			None	53.04	55.13				
	1/20/2014			None	51.82	56.35				
MW-19	4/18/2007	104.15	101.06	None	50.26	53.89	NA	55.1	44.90 - 54.90	59.25 - 49.25
	9/9/2008			None	52.92	51.23				
	9/9/2009			None	53.13	51.02				
	1/20/2014			None	52.23	51.92				
MW-20	4/18/2007	97.96	94.73	None	45.92	52.04	40.0	82.0	61.80 - 81.80	36.16 - 16.16
	9/9/2008			None	47.93	50.03				
	9/9/2009			None	46.96	51.00				
	1/20/2014			None	46.49	51.47				
MW-21	4/18/2007	87.23	83.56	None	36.76	50.47	37.0	43.9	33.70 - 43.70	53.53 - 43.53
	9/9/2008			None	38.12	49.11				
	9/9/2009			None	40.36	46.87				
	1/20/2014			None	36.83	50.40				
MW-22	4/18/2007	84.09	80.46	None	39.89	44.20	37.0	45.2	35.00 - 45.00	49.09 - 39.09
	9/9/2008			None	41.00	43.09				
	9/9/2009			None	40.36	43.73				
	1/20/2014			None	40.00	44.09				
MW-23	4/18/2007	88.00	84.72	None	38.43	49.57	38.0	45.5	35.30 - 45.30	52.70 - 42.70
	9/9/2008			None	41.23	46.77				
	9/9/2009			None	39.85	48.15				
	1/20/2014			None	39.49	48.51				
MW-24	4/18/2007	81.89	78.51	None	49.81	32.08	42.0	77.1	56.90 - 76.90	24.99 - 4.99
	9/9/2008			None	54.40	27.49				
	9/9/2009			None	52.97	28.92				
	1/20/2014			None	51.17	30.72				
MW-25	4/18/2007	87.36	83.86	None	52.17	35.19	NA	57.8	47.60 - 57.60	39.76 - 29.76
	9/9/2008			None	57.87	29.49				
	9/9/2009			None	55.56	31.80				
	1/20/2014			None	54.24	33.12				
MW-26	4/18/2007	85.06	81.65	None	48.2	36.86	43.0	77.3	57.10 - 77.10	27.96 - 7.96
	9/9/2008			None	52.66	32.40				
	9/9/2009			None	48.33	36.73				
	1/20/2014			None	48.24	36.82				
MW-27	4/18/2007	76.31	72.91	None	41.25	35.06	NA	44.7	34.50 - 44.50	41.81 - 31.81
	9/9/2008			None	DRY					
	9/9/2009			None	DRY					
	1/20/2014			None	44.73	31.58				
MW-27R	9/9/2009	74.93	72.09	None	46.89	28.04	52.0	53.1	42.90 - 52.90	32.03 - 22.03
	1/20/2014			None	43.84	31.09				
MW-27D	9/9/2009	74.79	72.32	None	47.87	26.92	52.0	69.6	64.40 - 69.40	10.39 - 5.39
	1/20/2014			None	43.28	31.51				
MW-27DD	9/9/2009	75.51	72.84	None	64.84	10.67	52.0	134.9	129.70 - 134.70	-54.19 - -59.19
	1/20/2014			None	63.20	12.31				
MW-28	4/18/2007	98.33	95.07	None	46.76	51.57	NA	51.7	41.50 - 51.50	56.83 - 46.83
	9/9/2008			None	49.33	49.00				
	9/9/2009			None	49.08	49.25				
	1/20/2014			None	48.50	49.83				

Prepared By: DRM/RAD
Checked By: RAD

TABLE 1

Monitoring Well and Groundwater Surface Elevation Data
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #46946
BLE Project Number J13-3661-06

Monitoring Well	Date	TOC Elev.	Ground Elev.	Free-Product Thickness	GW Depth BTOC	GW Elevation	Bedrock Depth BGS	Well Depth BGS	Screened Interval Depth BGS	Screened Interval Elevation BGS
MW-29	4/18/2007	95.60	95.77	None	45.52	52.81	46.0	55.1	44.90 - 54.90	50.70 - 40.70
	9/9/2008			None	46.77	51.56				
	9/9/2009			None	45.97	52.36				
	1/20/2014			None	Not Located					
MW-30	4/18/2007	61.37	58.42	None	27.57	33.80	NA	33.2	23.00 - 33.00	38.37 - 28.37
	9/9/2008			None	DRY					
	9/9/2009			None	DRY					
	1/20/2014			None	30.74	30.63				
MW-30R	9/9/2009	60.80	58.23	None	33.87	26.93	NA	40.0	29.80 - 39.80	31.00 - 21.00
	1/20/2014			None	30.19	30.61				
MW-31	4/18/2007	67.41	64.10	None	34.09	33.32	NA	40.0	29.80 - 39.80	37.61 - 27.61
	9/9/2008			None	DRY					
	9/9/2009			None	DRY					
	1/20/2014			None	37.37	30.04				
MW-31R	9/9/2009	66.29	63.36	None	39.69	26.60	NA	46.3	36.10 - 46.10	30.19 - 20.19
	1/20/2014			None	36.27	30.02				
MW-32	4/18/2007	61.57	58.61	None	27.86	33.71	NA	32.4	22.20 - 32.20	39.37 - 29.37
	9/9/2008			None	DRY					
	9/9/2009			None	DRY					
	1/20/2014			None	30.98	30.59				
MW-32R	9/9/2009	61.23	58.22	None	34.25	26.98	NA	40.1	29.90 - 39.90	31.33 - 21.33
	1/20/2014			None	30.37	30.86				
MW-33	9/9/2008	71.29	68.17	None	48.13	23.16	NA	48.8	38.60 - 48.60	32.69 - 22.69
	9/9/2009			None	47.20	24.09				
	1/20/2014			None	44.45	26.84				
MW-33D	9/9/2009	72.27	68.85	None	48.24	24.03	NA	65.6	60.40 - 65.40	11.87 - 6.87
	1/20/2014			None	45.38	26.89				
MW-33DD	9/9/2009	71.65	68.84	None	50.35	21.30	92.0	131.1	125.90 - 130.90	-54.25 - -59.25
	1/20/2014			None	53.30	18.35				
MW-34	9/9/2008	71.40	68.02	None	49.13	22.27	43.8	50.6	40.40 - 50.40	31.00 - 21.00
	9/9/2009			None	48.17	23.23				
	1/20/2014			None	45.39	26.01				
MW-35	9/9/2008	81.22	78.11	None	53.07	28.15	48.5	56.4	46.20 - 56.20	35.02 - 25.02
	9/9/2009			None	51.56	29.66				
	1/20/2014			None	48.70	32.52				
MW-36	9/9/2008	89.46	89.77	None	47.79	41.67	40.0	61.0	50.80 - 60.80	38.66 - 28.66
	9/9/2009			None	47.18	42.28				
	1/20/2014			None	45.75	43.71				
MW-37	9/9/2008	94.07	94.10	None	45.50	48.57	42.0	101.8	91.60 - 101.60	2.47 - -7.53
	9/9/2009			None	45.38	48.69				
	1/20/2014			None	45.24	48.83				
MW-37D	9/9/2009	94.25	94.49	None	46.83	47.42	42.0	134.6	129.40 - 134.40	-35.15 - -40.15
	1/20/2014			None	46.10	48.15				
MW-38	9/9/2008	104.98	101.99	None	54.97	50.01	43.5	57.4	47.20 - 57.20	57.78 - 47.78
	9/9/2009			None	54.85	50.13				
	1/20/2014			None	54.00	50.98				
MW-39	9/9/2008	98.77	98.91	None	46.96	51.81	42.0	56.2	36.00 - 56.00	62.77 - 42.77
	9/9/2009			None	45.92	52.85				
	1/20/2014			None	45.26	53.51				
MW-40	9/9/2008	97.75	97.95	None	46.35	51.40	41.0	55.9	35.70 - 55.70	62.05 - 42.05
	9/9/2009			None	45.55	52.20				
	1/20/2014			None	45.25	52.50				
MW-41	9/9/2008	98.97	99.03	None	41.36	57.61	44.0	55.5	35.30 - 55.30	63.67 - 43.67
	9/9/2009			None	43.13	55.84				
	1/20/2014			None	41.25	57.72				
MW-42	9/9/2008	83.75	80.58	None	45.22	38.53	42.0	55.8	45.60 - 55.60	38.15 - 28.15
	9/9/2009			None	44.44	39.31				
	1/20/2014			None	42.81	40.94				
MW-43	9/9/2008	52.51	49.56	None	35.99	16.52	NA	39.6	29.40 - 39.40	23.11 - 13.11
	9/9/2009			None	35.19	17.32				
	1/20/2014			None	31.30	21.21				
MW-44	9/9/2008	56.80	53.77	None	36.08	20.72	NA	39.5	29.30 - 39.30	27.50 - 17.50
	9/9/2009			None	35.28	21.52				
	1/20/2014			None	31.30	25.50				
MW-45	9/9/2009	92.03	92.62	None	35.51	56.52	NA	41.5	31.30 - 41.30	60.73 - 50.73
	1/20/2014			None	32.70	59.33				

NOTES:
Measurements are in feet; elevations are relative to an arbitrary site datum
BTOC - below top of casing
BGS - below ground surface
NA - Not Applicable
**Groundwater elevation data for monitoring well has been corrected for free-product thickness using a density of 0.70 g/cc.

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2A

Historical Groundwater Analytical Data
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #46946
BLE Project Number J13-3661-06

Well ID	Date Sampled	FP Thickness (Feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
SC DHEC RBSL		NE	5	1,000	700	10,000	40	25	0.05	5
00505-DW01	4/5/2005	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	NA	Well dry at time of sampling event							
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	1/23/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.020	<0.30
00505-MW01R	4/18/2007	---	15,000	22,000	2,400	14,000	3,600	1,200	360	520
	9/9/2008	0.84	NT	NT	NT	NT	NT	NT	NT	NT
	9/10/2009	1.92	25,100	37,500	3,320	18,780	4,340	1,550	429	813 J
	1/23/2014	0.04	Well not sampled due to 0.04' of free-product							
00505-MW01D	4/18/2007	---	11,000	2,500	740	2,300	4,300	210	0.012	300
	9/10/2008	---	8,310	2,770	677	1,310	4,540	307	ND	345
	9/10/2009	---	11,300	4,950	587	2,123	4,950	136	<0.019	221
	1/23/2014	---	1,400	29 J	<17	33 J	3,800	<17	<0.019	170
00505-MW01D DUP	1/23/2014	---	1,400	30 J	<17	34 J	3,900	<17	<0.019	170
00505-MW01DD	9/10/2008	---	149	26.8	14.1	21.6	115	5.22	ND	8.69
	9/10/2009	---	182	339	36.0	151	72.6	15.4	0.41	7.3
	1/23/2014	---	47	38	9.4	41	51	3.8 J	<0.019	2.6 J
00505-MW01DDD	9/10/2009	---	1,580	1,110	132	613	970	42.8	0.19	57.7
	1/23/2014	---	3,900	670	160 J	640	2,000	<85	<0.020	220 J
00505-MW02	7/27/2004	---	13,100	23,600	3,580	16,300	1,510	2,800	NT	NT
	4/18/2007	---	2,400	580	220	1,800	440	ND	1.6	44.0
	9/9/2008	1.84	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2009	0.02	9,460	26,000	3,390	14,230	167	1,030	82.9	48.7J
	1/23/2014	0.09	Well not sampled due to 0.09' of free-product							
00505-MW03	7/27/2004	---	4.7	ND	ND	2.1	3.5	ND	ND	ND
	4/18/2007	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2008	---	9.30	ND	ND	2.70	ND	ND	ND	ND
	9/9/2009	---	1.9 J	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	1/21/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.020	<0.30
00505-MW04	4/18/2007	---	4.2	ND	ND	ND	4.9	ND	ND	ND
	9/10/2008	---	42.3	ND	ND	ND	37.6	ND	ND	10.4
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	1/21/2014	---	<0.20	<1.7	<1.7	<1.7	2.9 J	<1.7	<0.019	<0.30
00505-MW05	4/18/2007	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	NA	Well dry at time of sampling event							
	9/8/2009	NA	Well dry at time of sampling event							
	1/21/2014	NA	Well dry at time of sampling event							
00505-MW05R	9/10/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	1/21/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
00505-MW06	4/18/2007	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	NA	Well dry at time of sampling event							
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	1/21/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.020	<0.30
00505-MW06D	9/10/2008	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	1/23/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
00505-MW07	4/18/2007	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	NA	Well dry at time of sampling event							
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	1/21/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.020	<0.30
00505-MW07D	9/10/2008	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	1/23/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
00505-MW08	4/18/2007	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	NA	Well dry at time of sampling event							
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	1/21/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
00505-MW09	4/20/2007	---	4,900	38.0	17.0	37.0	98.0	110	0.045	210
	9/10/2008	---	1,850	14.1	ND	ND	405	21.3	0.028	167
	9/9/2009	---	1,240	<100	<100	<200	404	<100	<0.019	168
	1/21/2014	---	710	<85	<85	<85	2,500	<85	<0.020	430
00505-MW10	4/20/2007	0.24	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2008	0.38	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2009	0.06	7,080	30,500	4,400	23,990	252	1,450	9.30	37.9 J
	1/21/2014	0.45	Well not sampled due to 0.45' of free-product							
00505-MW10D	9/11/2008	---	68.4	7.54	5.09	17.30	818	3.16	ND	29.0
	9/10/2009	---	107	12.0	8.4	12.2 J	987	4.1 J	<0.019	30.9
	1/23/2014	---	2,220	200 J	270	440	1,700	<85	<0.019	120 J
00505-MW11	4/20/2007	0.33	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2008	0.75	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2009	0.21	817	4,500	2,540	14,780	43.5 J	1,690	1.7	<50.0
	1/21/2014	---	950 J	3,700	3,000	17,000	<200	1,800 J	0.10	<150
00505-MW11D	4/20/2007	---	350	20.0	17.0	44.0	260	13.0	ND	22.0
	9/11/2008	---	415	72.5	35.5	94.3	282	22.0	ND	17.7
	9/10/2009	---	749	385	116	466	493	58.2	<0.019	37.1
	1/23/2014	---	340	320	76	290	260	23 J	<0.019	19 J
00505-MW11DD	9/11/2008	---	8,430	4,990	712	3,030	4,050	182	ND	186
	9/10/2009	---	11,000	6,470	748	3,600	5,310	266	<0.019	486
	1/23/2014	---	11,000	8,600	960	4,100	3,700	180 J	<0.019	580
00505-MW11DDD	9/10/2009	---	987	381	61.4	261.1	615	16.2	<0.019	56.9
	1/23/2014	---	1,800	720	100	420	1,600	<34	<0.019	85 J
00505-MW12	4/20/2007	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2008	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	1/21/2014	NA	Well Not Located							

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2A

Historical Groundwater Analytical Data
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #46946
BLE Project Number J13-3661-06

Well ID	Date Sampled	FP Thickness (Feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
SC DHEC RBSL		NE	5	1,000	700	10,000	40	25	0.05	5
00505-MW13	4/20/2007	---	8,600	8,400	2,800	13,000	2,200	1,800	7.9	290
	9/10/2008	---	Dry	Dry	Dry	Dry	Dry	Dry	1.32	Dry
	9/9/2009	NA	Well dry at time of sampling event							
	1/21/2014	NA	Well dry at time of sampling event							
00505-MW13R	9/9/2009	---	1,280	612	489	2,150	241	<50.0	1.2	51.9
	1/21/2014	---	4,100	1,200	2,100	12,000	150 J	1,800	0.61	<30
00505-MW14	4/20/2007	0.38	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2008	0.28	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2009	0.09	50.1J	475	1,760	8,860	<100	1,300	<0.019	<100
	1/21/2014	---	<4.0	85 J	3,300	5,700	<8.0	3,600	<0.019	<6.0
00505-MW14 DUP	1/21/2014	---	<4.0	54 J	1,300	4,600	<8.0	1,100	<0.019	<6.0
00505-MW14D	9/11/2008	---	511	24.9	7.82	88.7	241	115	ND	21.7
	9/10/2009	---	484	8.4	<5.0	40.4	186	108	<0.019	25.3
	1/23/2014	---	56	<8.5	<8.5	11 J	180	25	<0.019	17 J
00505-MW15	4/20/2007	---	730	5.2	5.1	7.9	170	210	0.02	32.0
	9/10/2008	---	436	15.9	52.6	51.2	165	324	0.014	ND
	9/9/2009	---	224	89.5	171	358	49.5	346	<0.020	9.4J
	1/21/2014	---	3.7 J	<1.7	<1.7	<1.7	6.2	4.9 J	<0.019	1.2 J
00505-MW16	4/18/2007	---	5,700	4,300	2,200	9,900	3,900	3,200	1.4	290
	9/9/2008	0.12	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2009	0.02	6,630	3,950	1,890	14,250	1,250	2,480	4.1	117J
	1/21/2014	0.02	Well not sampled due to 0.02' of free-product							
00505-MW17	4/18/2007	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2008	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	1/21/2014	---	16	<1.7	<1.7	19	0.77 J	<1.7	<0.020	4.5 J
00505-MW18	4/20/2007	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2008	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	1/21/2014	---	84	<8.5	<8.5	<8.5	150	<8.5	<0.019	34
00505-MW19	4/20/2007	---	12.0	ND	ND	ND	ND	ND	ND	34.0
	9/11/2008	---	149	12.0	3.58	ND	84.6	104	ND	57.4
	9/9/2009	---	167	8.6	6.9	7.8 J	74.3	80.0	<0.019	61.2
	1/21/2014	---	1,200	<170	<170	<170	820	390 J	<0.019	140 J
00505-MW20	4/20/2007	---	ND	ND	ND	ND	2.1	ND	ND	ND
	9/12/2008	---	ND	ND	ND	ND	1.85	ND	ND	ND
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	1/22/2014	---	<0.20	<1.7	<1.7	<1.7	1.7 J	<1.7	<0.019	<0.30
00505-MW21	4/20/2007	---	1,100	690	470	1,700	220	260	0.078	33.0
	9/11/2008	---	741	928	1,080	3,960	109	773	0.030	ND
	9/9/2009	---	392	695	699	3,099	64.5	458	<0.019	11.1
	1/21/2014	---	120	130	340	1,100	16 J	260	<0.019	<3.0
00505-MW22	4/20/2007	---	880	170	630	1,900	200	430	0.034	29.0
	9/11/2008	---	589	88.5	730	1,680	79.7	582	ND	ND
	9/9/2009	---	222	68.0	373	772	32.7	277	<0.019	5.7
	1/21/2014	---	49	32	100	240	9.3 J	140	<0.019	<1.5
00505-MW23	4/20/2007	---	1,300	890	960	3,400	220	610	0.280	33.0
	9/11/2008	---	1,220	65.1	845	655	264	513	ND	27.6
	9/9/2009	---	434	81.4	442	462	95.4	281	<0.019	13.2
	1/21/2014	---	350	69	230	420	110	220	<0.019	19 J
00505-MW24	4/20/2007	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/12/2008	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	1/22/2014	---	0.36 J	<1.7	<1.7	<1.7	<0.40	1.7 J	<0.020	<0.30
00505-MW25	4/20/2007	---	6.0	ND	ND	4.1	56.0	ND	ND	6.8
	9/11/2008	---	ND	ND	ND	1.39	2.82	1.33	ND	1.15
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	5.0	<5.0	<0.019	<5.0
	1/21/2014	---	<0.20	<1.7	<1.7	<1.7	2.3 J	<1.7	<0.019	<0.30
00505-MW26	4/20/2007	---	130	50.0	42.0	150	150	28.0	ND	17.0
	9/12/2008	---	68.4	ND	ND	ND	139	11.6	ND	15.8
	9/9/2009	---	2.7 J	<5.0	1.4 J	2.2 J	35.1	3.3 J	<0.019	3.6 J
	1/22/2014	---	6.4	<1.7	5.3	6.2	28	5.7	<0.019	3.8 J
00505-MW27	4/20/2007	---	9.70	ND	1.0	ND	88.0	57.0	ND	12.0
	9/9/2008	NA	Well dry at time of sampling event							
	9/9/2009	NA	Well dry at time of sampling event							
	1/21/2014	---	<0.20	<1.7	<1.7	<1.7	0.97 J	<1.7	<0.019	<0.30
00505-MW27R	9/8/2009	---	<5.0	<5.0	<5.0	<10.0	5.7	<5.0	<0.020	<5.0
	1/21/2014	---	0.34 J	<1.7	<1.7	<1.7	1.5 J	<1.7	<0.019	<0.30
00505-MW27D	9/8/2009	---	1.2 J	<5.0	<5.0	<10.0	62.6	<5.0	<0.019	6.6
	1/21/2014	---	<0.20	<1.7	<1.7	<1.7	14	<1.7	<0.020	<0.30
00505-MW27DD	9/8/2009	---	<5.0	<5.0	<5.0	<10.0	18.7	<5.0	<0.020	2.7J
	1/22/2014	---	<10	<85	<85	<85	<20	<85	<0.034	<15
00505-MW28	4/20/2007	---	77.0	ND	ND	4.0	36.0	12.0	ND	6.0
	9/11/2008	---	274	ND	ND	11.7	110	86.6	ND	16.0
	9/9/2009	---	429	<5.0	<5.0	11.1 J	207	83.8	<0.020	39.9
	1/21/2014	---	420	<34	<34	<34	340	81 J	<0.020	86 J
00505-MW29	4/20/2007	---	1.8	ND	ND	ND	12.0	N/D	ND	1.9
	9/11/2008	---	6.09	2.69	ND	5.23	85.0	25.4	ND	8.94
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	9.3	<5.0	<0.020	4.6 J
	1/21/2014	NA	Well Not Located							
00505-MW30	4/20/2007	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	NA	Well dry at time of sampling event							
	9/8/2009	NA	Well dry at time of sampling event							
	1/20/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2A

Historical Groundwater Analytical Data
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #46946
BLE Project Number J13-3661-06

Well ID	Date Sampled	FP Thickness (Feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
SC DHEC RBSL		NE	5	1,000	700	10,000	40	25	0.05	5
00505-MW30R	9/8/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	1/20/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
00505-MW31	4/20/2007	---	ND	ND	ND	ND	**12.0**	ND	ND	**1.6**
	9/9/2008	NA	Well dry at time of sampling event							
	9/8/2009	NA	Well dry at time of sampling event							
	1/20/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
00505-MW31R	9/8/2009	---	<5.0	<5.0	<5.0	<10.0	**9.1**	<5.0	<0.020	**2.0 J**
	1/20/2014	---	<0.20	<1.7	<1.7	<1.7	**2.6 J**	<1.7	<0.020	<0.30
00505-MW32	4/20/2007	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	NA	Well dry at time of sampling event							
	9/8/2009	NA	Well dry at time of sampling event							
	1/20/2014	---	<0.20	<1.7	<1.7	<1.7	**0.50 J**	<1.7	<0.019	<0.30
00505-MW32R	9/8/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	1/20/2014	---	<0.20	<1.7	<1.7	<1.7	**1.5 J**	<1.7	<0.020	<0.30
00505-MW33	9/11/2008	---	ND	ND	ND	**1.39**	**92.9**	**2.36**	ND	**6.64**
	9/8/2009	---	<5.0	<5.0	<5.0	<10.0	**99.9**	<5.0	<0.020	**8.8**
	1/20/2014	---	<0.20	<1.7	<1.7	<1.7	**55**	<1.7	<0.019	**5.3**
00505-MW33D	9/8/2009	---	**173**	<5.0	<5.0	**38.8**	**232**	**13.1**	<0.019	**28.8**
	1/20/2014	---	**31**	<8.5	<8.5	**8.7 J**	**170**	<8.5	<0.019	**19 J**
00505-MW33DD	9/8/2009	---	**7.6**	<5.0	<5.0	<10.0	**38.9**	<5.0	<0.019	**4.6 J**
	1/22/2014	---	**67**	<1.7	<1.7	**3.7 J**	**63**	**11**	<0.019	**8.6**
00505-MW34	9/11/2008	---	ND	ND	ND	ND	**2.76**	ND	ND	ND
	9/8/2009	---	<5.0	<5.0	<5.0	<10.0	**3.4J**	<5.0	<0.020	<5.0
	1/20/2014	---	<0.20	<1.7	<1.7	<1.7	**3.4 J**	<1.7	<0.020	<0.30
00505-MW35	9/12/2008	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/8/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	1/20/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
00505-MW36	9/12/2008	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/8/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	1/20/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
00505-MW37	9/12/2008	---	**50.6**	ND	ND	ND	**53.2**	**2.83**	ND	**1.10**
	9/10/2009	---	**25.1**	<5.0	<5.0	<10.0	**60.8**	**9.8**	<0.019	**2.3 J**
	1/23/2014	---	**5.7**	<1.7	<1.7	<1.7	**110**	<1.7	<0.019	**7.3**
00505-MW37D	9/10/2009	---	**21.3**	<5.0	<5.0	<10.0	**51.6**	<5.0	<0.020	**2.8 J**
	1/22/2014	---	**11**	<1.7	<1.7	**5.1**	**13**	<1.7	<0.019	<0.30
00505-MW38	9/12/2008	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	1/21/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
00505-MW39	9/11/2008	---	**10.1**	**1.31**	ND	**7.21**	**15.3**	**1.36**	ND	ND
	9/9/2009	---	<5.0	<5.0	<5.0	<10.0	**17.7**	<5.0	<0.020	<5.0
	1/21/2014	---	**0.32 J**	<1.7	<1.7	<1.7	**8.4**	<1.7	<0.019	<0.30
00505-MW40	9/11/2008	---	**45.1**	ND	**4.63**	**6.69**	**5.41**	**5.04**	ND	ND
	9/9/2009	---	**4.3 J**	<5.0	<5.0	<10.0	**4.2 J**	<5.0	<0.020	<5.0
	1/21/2014	---	**0.80 J**	<1.7	<1.7	<1.7	**1.9 J**	<1.7	<0.019	**0.41 J**
00505-MW40 DUP	1/21/2014	---	**0.81 J**	<1.7	<1.7	<1.7	**1.9 J**	<1.7	<0.020	**0.42 J**
00505-MW41	9/11/2008	---	**106**	**7.28**	**8.07**	**87.5**	**132**	**11.9**	**0.160**	**8.45**
	9/9/2009	---	**7.7**	**7.3**	<5.0	**31.6**	**126**	<5.0	<0.019	**9.7**
	1/21/2014	---	**11**	<1.7	<1.7	**3.2 J**	**110**	<1.7	<0.019	**6.6**
00505-MW41 DUP	1/21/2014	---	**11**	<1.7	<1.7	**3.3 J**	**110**	<1.7	<0.019	**6.3**
00505-MW42	9/12/2008	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/8/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	1/20/2014	---	**0.49 J**	<1.7	<1.7	<1.7	**8.6**	<1.7	<0.019	**0.53 J**
00505-MW43	9/11/2008	---	ND	ND	ND	ND	**14.5**	ND	ND	**1.59**
	9/8/2009	---	<5.0	<5.0	<5.0	<10.0	**9.1**	<5.0	<0.019	**1.6 J**
	1/20/2014	---	<0.20	<1.7	<1.7	<1.7	**6.5**	<1.7	<0.019	**0.79 J**
00505-MW44	9/12/2008	---	ND	ND	ND	ND	**34.6**	ND	ND	**3.00**
	9/8/2009	---	<5.0	<5.0	<5.0	<10.0	**29.5**	<5.0	<0.019	**2.7 J**
	1/20/2014	---	<0.20	<1.7	<1.7	<1.7	**60**	<1.7	<0.019	**5.4**
00505-MW45	9/10/2009	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	1/21/2014	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
Field Blank 1	1/20/2014	NA	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
Field Blank 2	1/21/2014	NA	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
Field Blank 3	1/22/2014	NA	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
Field Blank 4	1/23/2014	NA	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
Trip Blank 1	1/24/2014	NA	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	NT	<0.30
Trip Blank 2	1/24/2014	NA	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	NT	<0.30

Notes:
RBSL = Risk-Based Screening Level
Bold cells indicate detections above the laboratory method detection limits
Shaded cells indicate COC concentrations that exceed RBSLs
µg/L - micrograms per liter - parts per billion
NA = Not Applicable
ND = Not Detected (at the laboratory detection limit)
NT = Not Tested
MTBE = Methyl tertiary butyl ether
EDB = 1,2-Dibromoethane
1,2-DCA = 1,2-Dichlorethane

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2B

Historical Groundwater Analytical Data - 8-Oxygenates
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #46946
BLE Project Number J13-3661-06

Well ID	Date Sampled	Tert-amyl Methyl Ether (TAME) (µg/L)	Tert-amyl Alcohol (TAA) (µg/L)	Tert-butyl Alcohol (TBA) (µg/L)	Tert-butyl Formate (TBF) (µg/L)	Di-isopropyl Ether (DIPE) (µg/L)	Ethanol (µg/L)	Ethyl Tert-butyl Ether (ETBE) (µg/L)	Ethyl Tert-butyl Alcohol (ETBA) (µg/L)
SC DHEC RBSL		128	240	1,400	N/E	150	10,000	47	1,400
00505-DW01	4/5/2005	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2008	Well Well dry at time of sampling event at time of sampling event							
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW01R	4/18/2007	ND	**1,000**	ND	ND	**1,300**	ND	**7,300**	ND
	9/9/2008	NT	NT	NT	NT	NT	NT	NT	NT
	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	**Well not sampled due to 0.04' of free-product**							
00505-MW01D	4/18/2007	ND	ND	ND	ND	**1,600**	ND	**7,600**	ND
	9/10/2008	**110**	**9,400**	**2,200**	ND	**1,300**	ND	ND	ND
	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	**72 J**	**5,700**	**1,200**	<10	**900**	<330	<2.0	<10
00505-MW01D DUP	1/23/2014	**74 J**	**5,800**	**1,200**	<10	**910**	<330	<2.0	<10
00505-MW01DD	9/10/2008	**2.4**	**69.0**	ND	ND	**30.0**	ND	ND	ND
	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	**1.2 J**	**68**	**24**	<1.0	**24**	<33	<0.20	<1.0
00505-MW01DDD	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	**35 J**	**2,800**	**690 J**	<50	**620**	<1,700	<10	<50
00505-MW02	7/27/2004	NT	NT	NT	NT	NT	NT	NT	NT
	4/18/2007	ND	ND	ND	ND	**210**	ND	**880**	ND
	9/9/2008	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	**Well not sampled due to 0.09' of free-product**							
00505-MW03	7/27/2004	NT	NT	NT	NT	NT	NT	NT	NT
	4/18/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2008	ND	ND	ND	ND	**1.60**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW04	4/18/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2008	**2.0**	**120**	**29.0**	ND	**51.0**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	<6.7	<6.7	<1.0	**2.5 J**	<33	<0.20	<1.0
00505-MW05	4/18/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	Well dry at time of sampling event							
	9/8/2009	Well dry at time of sampling event							
	1/21/2014	Well dry at time of sampling event							
00505-MW05R	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW06	4/18/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	Well dry at time of sampling event							
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW06D	9/10/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW07	4/18/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	Well dry at time of sampling event							
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW07D	9/10/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW08	4/18/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	Well dry at time of sampling event							
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW09	4/20/2007	ND	ND	ND	ND	**660**	ND	**5,200**	ND
	9/10/2008	**30**	**6,700**	**990**	ND	**620**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	**73 J**	**12,000**	**2,100**	<50	**1,600**	<1,700	<10	<50
00505-MW10	4/20/2007	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2008	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	**Well not sampled due to 0.45' of free-product**							
00505-MW10D	9/11/2008	**15**	**990**	**240**	ND	**240**	ND	ND	ND
	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	**29 J**	**2,400**	**570 J**	<50	**620**	<1,700	<10	<50
00505-MW11	4/20/2007	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2008	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<100	<3,400	<3,400	<500	<200	<17,000	<100	<500
00505-MW11D	4/20/2007	ND	ND	ND	ND	**90.0**	ND	**500**	ND
	9/11/2008	**5.50**	**270**	**64**	ND	**100**	ND	ND	ND
	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	**4.0 J**	**260**	**60 J**	<5.0	**88**	<170	<1.0	<5.0
00505-MW11DD	9/11/2008	**92**	**7,600**	**1,700**	ND	**1,300**	ND	ND	ND
	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	**67 J**	**4,800**	**1,200 J**	<100	**1,200**	<3,300	<20	<100
00505-MW11DDD	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	**27 J**	**2,800**	**680**	<20	**490**	<660	<4.0	<20

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2B

Historical Groundwater Analytical Data - 8-Oxygenates
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #46946
BLE Project Number J13-3661-06

Well ID	Date Sampled	Tert-amyl Methyl Ether (TAME) (µg/L)	Tert-amyl Alcohol (TAA) (µg/L)	Tert-butyl Alcohol (TBA) (µg/L)	Tert-butyl Formate (TBF) (µg/L)	Di-isopropyl Ether (DIPE) (µg/L)	Ethanol (µg/L)	Ethyl Tert-butyl Ether (ETBE) (µg/L)	Ethyl Tert-butyl Alcohol (ETBA) (µg/L)
SC DHEC RBSL		128	240	1,400	N/E	150	10,000	47	1,400
00505-MW12	4/20/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2009	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
	1/21/2014	Well Not Located							
00505-MW13	4/20/2007	**77.0**	ND	ND	ND	**1,100**	ND	**5,600**	ND
	9/10/2008	Well dry at time of sampling event							
	9/9/2009	Well dry at time of sampling event							
	1/21/2014	Well dry at time of sampling event							
00505-MW13R	9/9/2009	Well dry at time of sampling event							
	1/21/2014	<20	**1,400 J**	**1,000 J**	<100	**230 J**	<3,300	<20	<100
00505-MW14	4/20/2007	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2008	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<4.0	<130	<130	<20	<8.0	<660	<4.0	<20
00505-MW14D DUP	1/21/2014	<4.0	<130	<130	<20	<8.0	<660	<4.0	<20
00505-MW14D	9/11/2008	**5.4**	**490**	**120**	ND	**110**	ND	ND	ND
	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	**4.2 J**	**420**	**150**	<5.0	**91**	<170	<1.0	<5.0
00505-MW15	4/20/2007	ND	ND	ND	ND	**120**	ND	**660**	ND
	9/10/2008	**5.8**	**420**	**130**	ND	**110**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	**24**	**20**	<1.0	**5.4**	<33	<0.20	<1.0
00505-MW16	4/18/2007	ND	ND	ND	ND	**670**	ND	**3,700**	ND
	9/9/2008	NT	NT	NT	NT	NT	NT	NT	NT
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	**Well not sampled due to 0.02' of free-product**							
00505-MW17	4/18/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	**170**	**72**	<1.0	**33**	<33	<0.20	<1.0
00505-MW18	4/20/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	**4.8 J**	**1,600**	**280**	<5.0	**150**	<170	<1.0	<5.0
00505-MW19	4/20/2007	ND	ND	ND	ND	**110**	ND	**750**	ND
	9/11/2008	**11**	**1,700**	**310**	ND	**290**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<20	**5,400**	**940 J**	<100	**580**	<3300	<20	<100
00505-MW20	4/20/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/12/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/22/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW21	4/20/2007	ND	ND	ND	ND	**130**	ND	**660**	ND
	9/11/2008	**4**	**320**	**110**	ND	**71**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<2.0	<67	<67	<10	**12 J**	<330	<2.0	<10
00505-MW22	4/20/2007	ND	ND	ND	ND	**96.0**	ND	**660**	ND
	9/11/2008	**2.6**	**120**	**46**	ND	**45**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<1.0	<34	**36 J**	<5.0	**7.3 J**	<170	<1.0	<5.0
00505-MW23	4/20/2007	ND	ND	ND	ND	**140**	ND	**930**	ND
	9/11/2008	**5.5**	**440**	**110**	ND	**86**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	**3.4 J**	**400**	**130**	<5.0	**68**	<170	<1.0	<5.0
00505-MW24	4/20/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/12/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/22/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW25	4/20/2007	ND	ND	ND	ND	**16.0**	ND	ND	ND
	9/11/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	<6.7	<6.7	<1.0	**0.95 J**	<33	<0.20	<1.0
00505-MW26	4/20/2007	ND	ND	ND	ND	**63.0**	ND	**480**	ND
	9/12/2008	**6.30**	**380**	**100**	ND	**79.0**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/22/2014	**0.89 J**	**63**	**49**	<1.0	**20**	<33	<0.20	<1.0
00505-MW27	4/20/2007	ND	ND	ND	ND	**48.0**	ND	**230**	ND
	9/9/2008	Well dry at time of sampling event							
	9/9/2009	Well dry at time of sampling event							
	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW27R	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW27D	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW27DD	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/22/2014	<10	<340	<340	<50	<20	<1,700	<10	<50
00505-MW28	4/20/2007	ND	ND	ND	ND	**28.0**	ND	**180**	ND
	9/11/2008	**4.00**	**380**	**98.0**	ND	**93.0**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	**12 J**	**1,500**	**270 J**	<20	**320**	<660	<4.0	<20

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2B

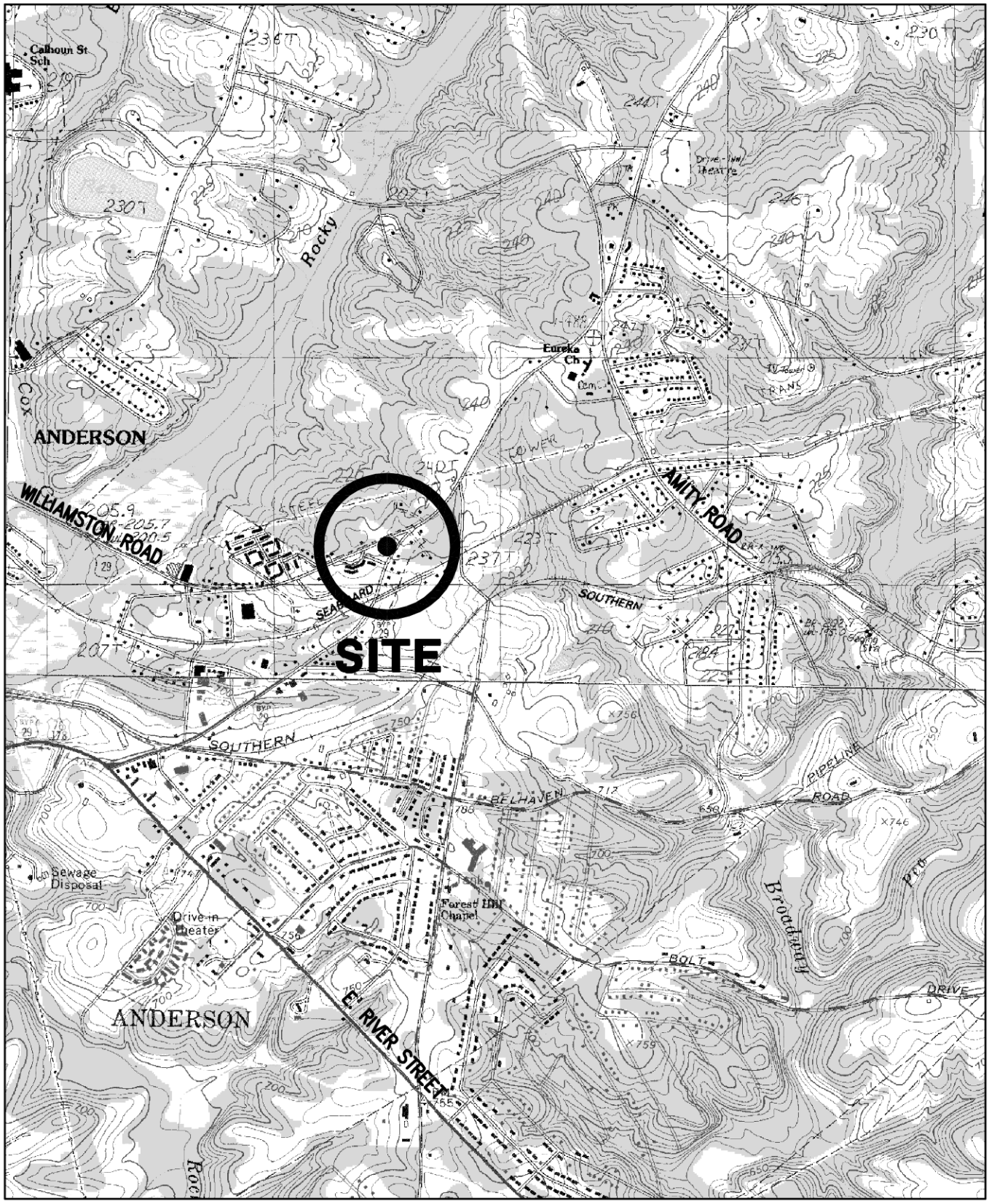
Historical Groundwater Analytical Data - 8-Oxygenates
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #46946
BLE Project Number J13-3661-06

Well ID	Date Sampled	Tert-amyl Methyl Ether (TAME) (µg/L)	Tert-amyl Alcohol (TAA) (µg/L)	Tert-butyl Alcohol (TBA) (µg/L)	Tert-butyl Formate (TBF) (µg/L)	Di-isopropyl Ether (DIPE) (µg/L)	Ethanol (µg/L)	Ethyl Tert-butyl Ether (ETBE) (µg/L)	Ethyl Tert-butyl Alcohol (ETBA) (µg/L)
SC DHEC RBSL		128	240	1,400	N/E	150	10,000	47	1,400
00505-MW29	4/20/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/11/2008	**170**	ND	ND	**48.0**	ND	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	Well Not Located							
00505-MW30	4/20/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	Well dry at time of sampling event							
	9/8/2009	Well dry at time of sampling event							
	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW30R	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW31	4/20/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	Well dry at time of sampling event							
	9/8/2009	Well dry at time of sampling event							
	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW31R	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW32	4/20/2007	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2008	Well dry at time of sampling event							
	9/8/2009	Well dry at time of sampling event							
	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW32R	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW33	9/11/2008	ND	ND	ND	ND	**7.8**	ND	ND	ND
	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/20/2014	<0.20	<6.7	<6.7	<1.0	**5.7**	<33	<0.20	<1.0
00505-MW33D	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/20/2014	<1.0	**46 J**	<34	<5.0	**59**	<170	<1.0	<5.0
00505-MW33DD	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/22/2014	**1.2 J**	**120**	**27**	<1.0	**27**	<33	<0.20	<1.0
00505-MW34	9/11/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW35	9/12/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW36	9/12/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW37	9/12/2008	**1.50**	**110**	**30**	ND	**22**	ND	ND	ND
	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/23/2014	**2.7 J**	**290**	**57**	<1.0	**60**	<33	<0.20	<1.0
00505-MW37D	9/12/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/22/2014	<0.20	**25**	<6.7	<1.0	**5.5**	<33	<0.20	<1.0
00505-MW38	9/12/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW39	9/11/2008	ND	**35.0**	**130**	ND	**8.60**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	**8.4 J**	**13 J**	<1.0	**4.4 J**	<33	<0.20	<1.0
00505-MW40	9/11/2008	ND	**61.0**	**200**	ND	**10**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	**31**	**310**	<1.0	**4.6 J**	<33	<0.20	<1.0
00505-MW40 DUP	1/21/2014	<0.20	**28**	**310**	<1.0	**4.3 J**	<33	<0.20	<1.0
00505-MW41	9/11/2008	**4.30**	**250**	**73.0**	ND	**95**	ND	ND	ND
	9/9/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	**3.1 J**	**810**	**280**	<1.0	**72**	<33	<0.20	<1.0
00505-MW41 DUP	1/21/2014	**3.0 J**	**770**	**270**	<1.0	**71**	<33	<0.20	<1.0
00505-MW42	9/12/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/20/2014	<0.20	**14 J**	<6.7	<1.0	**4.0 J**	<33	<0.20	<1.0
00505-MW43	9/11/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW44	9/12/2008	ND	ND	ND	ND	ND	ND	ND	ND
	9/8/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/20/2014	<0.20	<6.7	<6.7	<1.0	**4.0 J**	<33	<0.20	<1.0
00505-MW45	9/10/2009	NT	NT	NT	NT	NT	NT	NT	NT
	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
Field Blank 1	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
Field Blank 2	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
Field Blank 3	1/22/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
Field Blank 4	1/23/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
Trip Blank 1	1/24/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
Trip Blank 2	1/24/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0

Notes:
RBSL = Risk-Based Screening Level
Bold cells indicate detections above the laboratory method detection limits
Shaded cells indicate COC concentrations that exceed RBSLs
µg/L - micrograms per liter - parts per billion
ND = Not Detected (at the laboratory detection limit)
NT = Not Tested
NE = A RBSL has not been established for this constituent

Prepared By: DRM/RAD
Checked By: RAD

FIGURES

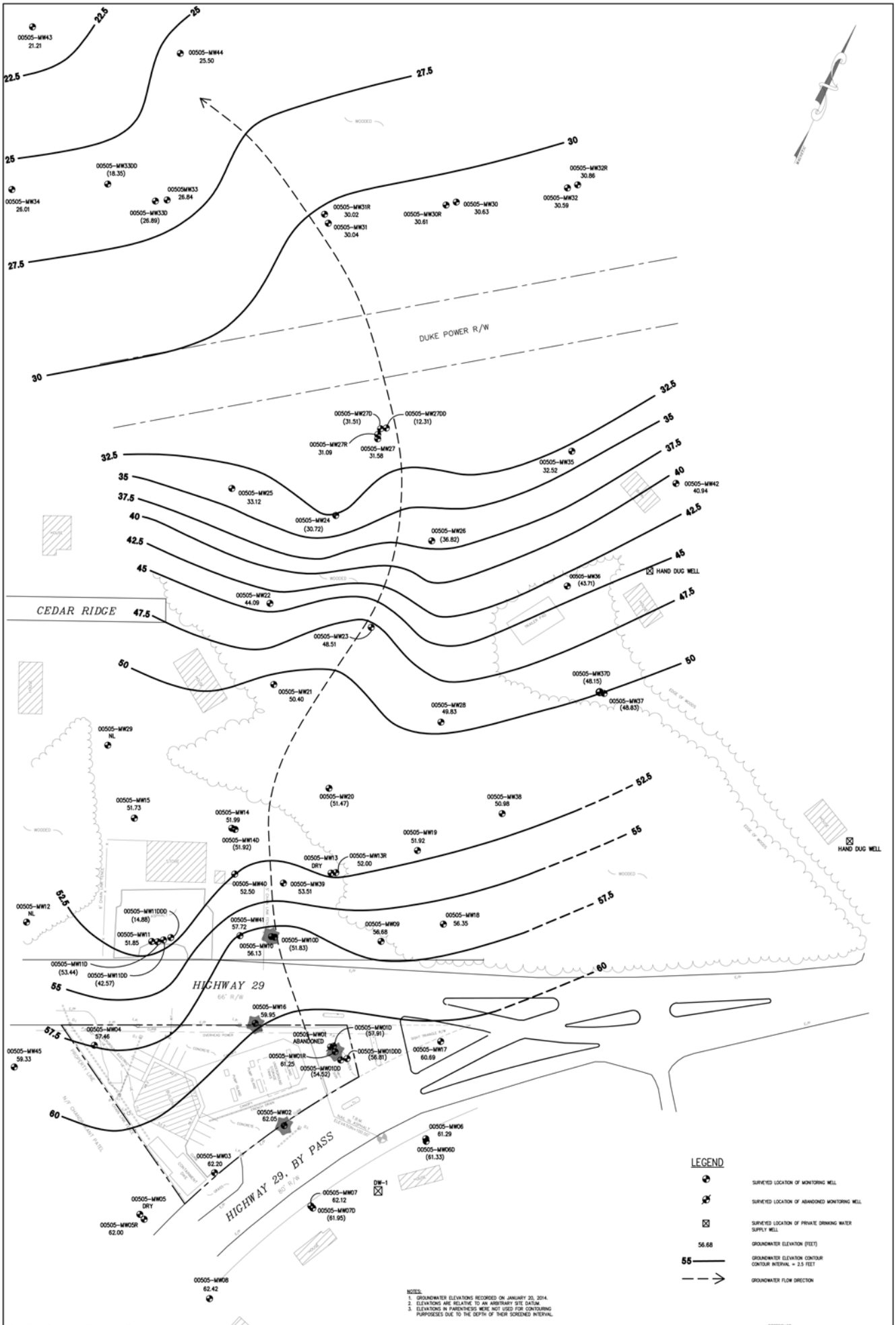


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, BELTON WEST AND SAYLORS CROSSROADS, S.C. QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: ACE	DATE: 11-14-13	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP MD FOOD MART (FORMER KMO #119) UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
CHECKED: TJB	CAD: MOOREHEAD-06SLM		FIGURE 1
APPROVED:	JOB NO: J13-3661-06		



REFERENCE:
DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY EAS PROFESSIONALS, INC. DATED 9-14-09.

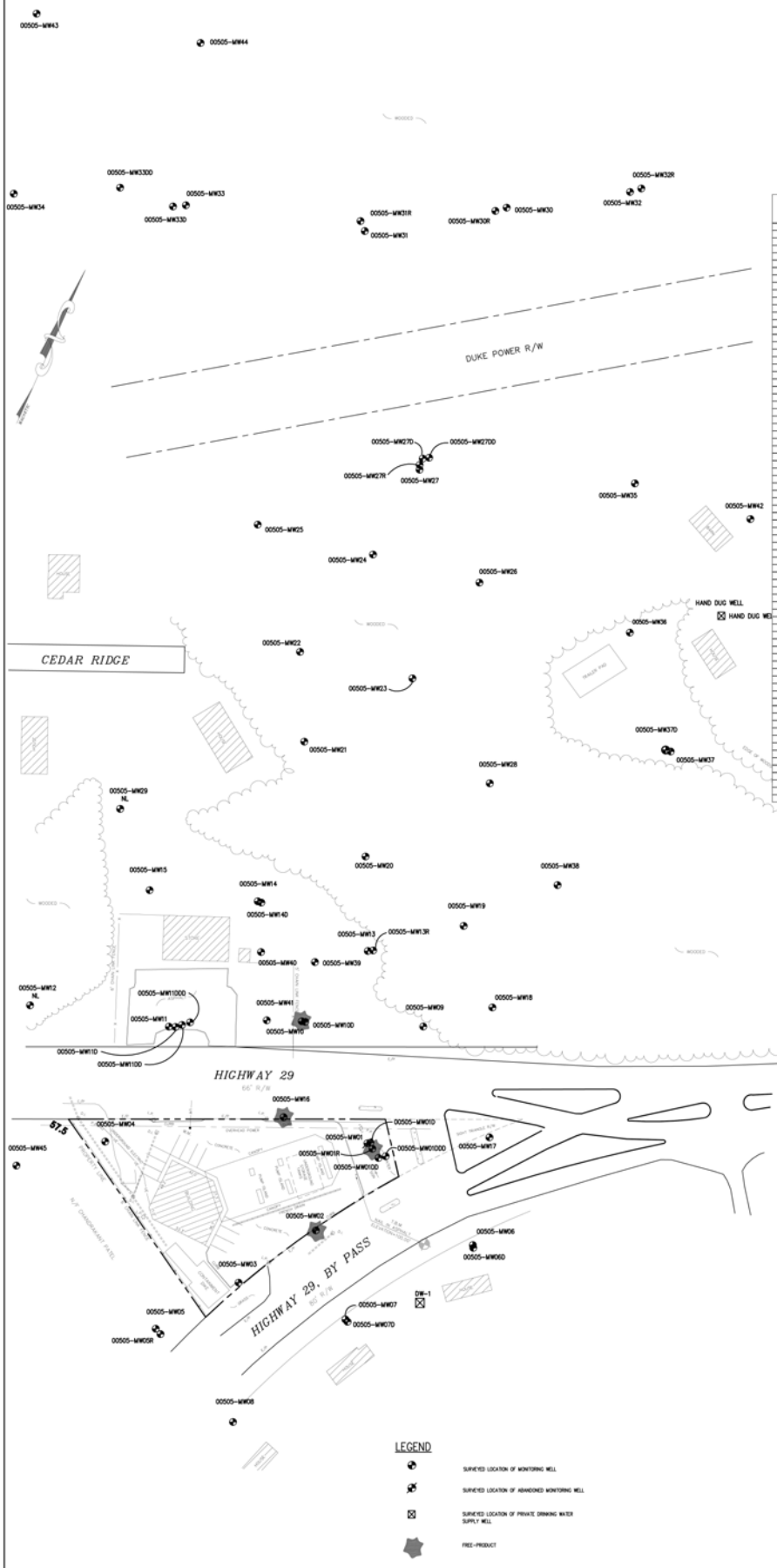
REVISIONS		
No.	DESCRIPTION	BY
1		
2		

DRAWN	ACE
CHECKED	RAD
APPROVED	
DATE	02-28-14
FILE	KMO119-06WTM
JOB NO.	J13-3661-06

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

GROUNDWATER ELEVATION CONTOUR MAP – JANUARY 2014
MD FOOD MART (FORMER KMO #119)
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE NO. 2



Well ID	Date Sampled	FP Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
NC DHHC RBSL		NE	5	1,000	700	10,000	40	25	0.05	5
00505-DW01	1/23/2014	---	<0.20	<0.7	<1.7	<1.7	<0.40	<1.7	<0.020	<0.50
00505-MW01R	1/23/2014	0.04	Well not sampled-d ue to 0.04' of free-product							
00505-MW01D	1/23/2014	---	1,400	29 J	<17	33 J	3,800	<17	<0.019	170
00505-MW01D DUP	1/23/2014	---	1,400	30 J	<17	34 J	3,900	<17	<0.019	170
00505-MW01DD	1/23/2014	---	47	38	9.4	41	51	3.8 J	<0.019	2.4 J
00505-MW01DDD	1/23/2014	---	1,900	670	160 J	640	2,000	<85	<0.020	220 J
00505-MW02	1/21/2014	0.09	Well not sampled-d ue to 0.09' of free-product							
00505-MW03	1/21/2014	---	<0.20	<0.7	<1.7	<1.7	<0.40	<1.7	<0.020	<0.50
00505-MW04	1/21/2014	---	<0.20	<0.7	<1.7	<1.7	2.9 J	<1.7	<0.019	<0.50
00505-MW05	1/21/2014	NA	Well dry at time of sampling event							
00505-MW05R	1/21/2014	---	<0.20	<0.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.50
00505-MW06	1/21/2014	---	<0.20	<0.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.50
00505-MW06D	1/23/2014	---	<0.20	<0.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.50
00505-MW07	1/21/2014	---	<0.20	<0.7	<1.7	<1.7	<0.40	<1.7	<0.020	<0.50
00505-MW07D	1/23/2014	---	<0.20	<0.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.50
00505-MW08	1/21/2014	---	<0.20	<0.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.50
00505-MW09	1/21/2014	---	750	<85	<85	<85	2,500	<85	<0.020	430
00505-MW10	1/21/2014	0.45	Well not sampled-d ue to 0.45' of free-product							
00505-MW10D	1/23/2014	---	2,220	200 J	276	640	3,700	<85	<0.019	320 J
00505-MW11	1/21/2014	---	970 J	2,700	1,000	17,000	<290	1,800 J	0.10	<170
00505-MW11D	1/23/2014	---	340	320	76	290	260	22 J	<0.019	19 J
00505-MW11DD	1/23/2014	---	11,000	8,600	960	4,190	3,700	180 J	<0.019	580
00505-MW11DDD	1/23/2014	---	1,800	720	100	420	1,600	<34	<0.019	85 J
00505-MW12	1/21/2014	NA	Well Not Located							
00505-MW13	1/21/2014	NA	Well dry at time of sampling event							
00505-MW13R	1/21/2014	---	4,100	1,200	2,100	12,000	150 J	1,800	0.62	<50
00505-MW14	1/21/2014	---	<4.0	87 J	1,200	5,700	<8.0	3,600	<0.019	<4.0
00505-MW14 DUP	1/21/2014	---	<4.0	84 J	1,200	4,600	<8.0	1,100	<0.019	<4.0
00505-MW14D	1/23/2014	---	56	<8.5	<8.5	11 J	100	19	<0.019	17 J
00505-MW15	1/21/2014	---	3.7 J	<3.7	<3.7	<3.7	6.2	4.9 J	<0.019	3.2 J
00505-MW16	1/21/2014	0.02	Well not sampled-d ue to 0.02' of free-product							
00505-MW17	1/21/2014	---	16	<3.7	<3.7	19	0.77 J	<3.7	<0.020	4.5 J
00505-MW18	1/21/2014	---	84	<8.5	<8.5	<8.5	150	<8.5	<0.019	34
00505-MW19	1/21/2014	---	1,200	<170	<170	<170	820	200 J	<0.019	140 J
00505-MW20	1/22/2014	---	<0.20	<3.7	<3.7	<3.7	2.7 J	<3.7	<0.019	<0.50
00505-MW21	1/21/2014	---	120	130	340	1,100	16 J	360	<0.019	<3.0
00505-MW22	1/21/2014	---	49	32	100	340	9.3 J	140	<0.019	<2.5
00505-MW23	1/21/2014	---	250	69	230	620	110	220	<0.019	19 J
00505-MW24	1/21/2014	---	0.36 J	<3.7	<3.7	<3.7	<0.40	3.7 J	<0.020	<0.50
00505-MW25	1/21/2014	---	<0.20	<3.7	<3.7	<3.7	2.3 J	<3.7	<0.019	<0.50
00505-MW26	1/22/2014	---	0.41	<3.7	5.3	0.2	28	9.7	<0.019	2.8 J
00505-MW27	1/21/2014	---	<0.20	<3.7	<3.7	<3.7	0.97 J	<3.7	<0.019	<0.50
00505-MW27R	1/21/2014	---	0.34 J	<3.7	<3.7	<3.7	1.5 J	<3.7	<0.019	<0.50
00505-MW27D	1/21/2014	---	<0.20	<3.7	<3.7	<3.7	14	<3.7	<0.020	<0.50
00505-MW27DD	1/22/2014	---	<10	<85	<85	<85	<29	<85	<0.019	<13
00505-MW28	1/21/2014	---	420	<34	<34	<34	240	81 J	<0.020	86 J
00505-MW29	1/21/2014	NA	Well Not Located							
00505-MW30	1/20/2014	---	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	<0.019	<0.50
00505-MW30R	1/20/2014	---	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	<0.019	<0.50
00505-MW31	1/20/2014	---	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	<0.019	<0.50
00505-MW31R	1/20/2014	---	<0.20	<3.7	<3.7	<3.7	2.6 J	<3.7	<0.020	<0.50
00505-MW32	1/20/2014	---	<0.20	<3.7	<3.7	<3.7	0.56 J	<3.7	<0.019	<0.50
00505-MW32R	1/20/2014	---	<0.20	<3.7	<3.7	<3.7	1.5 J	<3.7	<0.020	<0.50
00505-MW33	1/20/2014	---	<0.20	<3.7	<3.7	<3.7	55	<3.7	<0.019	5.2
00505-MW33D	1/20/2014	---	21	<8.5	<8.5	8.7 J	170	<8.5	<0.019	19 J
00505-MW33DD	1/22/2014	---	67	<3.7	<3.7	3.7 J	63	11	<0.019	8.6
00505-MW34	1/20/2014	---	<0.20	<3.7	<3.7	<3.7	3.4 J	<3.7	<0.020	<0.50
00505-MW35	1/20/2014	---	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	<0.019	<0.50
00505-MW36	1/20/2014	---	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	<0.019	<0.50
00505-MW37	1/22/2014	---	8.7	<3.7	<3.7	<3.7	110	<3.7	<0.019	7.2
00505-MW37D	1/22/2014	---	11	<3.7	<3.7	5.1	13	<3.7	<0.019	<0.50
00505-MW38	1/21/2014	---	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	<0.019	<0.50
00505-MW39	1/21/2014	---	0.32 J	<3.7	<3.7	<3.7	0.4	<3.7	<0.019	<0.50
00505-MW40	1/21/2014	---	0.88 J	<3.7	<3.7	<3.7	1.9 J	<3.7	<0.019	0.41 J
00505-MW40 DUP	1/21/2014	---	0.81 J	<3.7	<3.7	<3.7	1.9 J	<3.7	<0.020	0.42 J
00505-MW41	1/21/2014	---	11	<3.7	<3.7	3.3 J	110	<3.7	<0.019	6.2
00505-MW41 DUP	1/21/2014	---	13	<3.7	<3.7	3.3 J	110	<3.7	<0.019	6.3
00505-MW42	1/20/2014	---	0.49 J	<3.7	<3.7	<3.7	0.6	<3.7	<0.019	0.51 J
00505-MW43	1/20/2014	---	<0.20	<3.7	<3.7	<3.7	6.5	<3.7	<0.019	0.79 J
00505-MW44	1/20/2014	---	<0.20	<3.7	<3.7	<3.7	60	<3.7	<0.019	5.4
00505-MW45	1/21/2014	---	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	<0.019	<0.50
Field Blank 1	1/20/2014	NA	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	<0.019	<0.50
Field Blank 2	1/21/2014	NA	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	<0.019	<0.50
Field Blank 3	1/22/2014	NA	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	<0.019	<0.50
Field Blank 4	1/23/2014	NA	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	<0.019	<0.50
Trip Blank 1	1/24/2014	NA	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	NT	<0.50
Trip Blank 2	1/24/2014	NA	<0.20	<3.7	<3.7	<3.7	<0.40	<3.7	NT	<0.50

HAND DUG WELL

Well ID	Date Sampled	Tert-amyl Methyl Ether (TAME) (µg/L)	Tert-amyl Alcohol (TAA) (µg/L)	Tert-butyl Alcohol (TBA) (µg/L)	Tert-butyl Formate (TBF) (µg/L)	Di-isopropyl Ether (DIPE) (µg/L)	Ethanol (µg/L)	Ethyl Tert-butyl Ether (ETBE) (µg/L)	Ethyl Tert-butyl Alcohol (ETBA) (µg/L)
NC DHHC RBSL		128	240	1,400	NE	170	10,000	47	1,400
00505-DW01	1/23/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW01R	1/23/2014	Well not sampled-d ue to 0.04' of free-product							
00505-MW01D	1/23/2014	72 J	5,700	1,200	<10	900	<330	<2.0	<10
00505-MW01D DUP	1/23/2014	74 J	5,800	1,200	<10	910	<330	<2.0	<10
00505-MW01DD	1/23/2014	1.2 J	68	24	<1.0	24	<33	<0.20	<1.0
00505-MW01DDD	1/23/2014	35 J	2,800	690 J	<50	620	<1,700	<10	<50
00505-MW02	1/23/2014	Well not sampled-d ue to 0.09' of free-product							
00505-MW03	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW04	1/21/2014	<0.20	<6.7	<6.7	<1.0	2.5 J	<33	<0.20	<1.0
00505-MW05	1/21/2014	Well dry at time of sampling event							
00505-MW05R	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW06	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW06D	1/23/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW07	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW07D	1/23/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW08	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW09	1/21/2014	7.3 J	12,000	2,100	<50	1,600	<1,700	<10	<50
00505-MW10	1/21/2014	Well not sampled-d ue to 0.45' of free-product							
00505-MW10D	1/23/2014	29 J	2,400	370 J	<50	620	<1,700	<10	<50
00505-MW11	1/21/2014	<100	<3,400	<3,400	<500	<200	<17,000	<100	<500
00505-MW11D	1/23/2014	4.0 J	260	60 J	<5.0	88	<170	<1.0	<5.0
00505-MW11DD	1/23/2014	67 J	4,800	1,200 J	<100	1,200	<3,300	<20	<100
00505-MW11DDD	1/23/2014	27 J	2,800	680	<20	490	<660	<4.0	<20
00505-MW12	1/21/2014	Well Not Located							
00505-MW13	1/21/2014	Well dry at time of sampling event							
00505-MW13R	1/21/2014	<20	1,400 J	1,000 J	<100	220 J	<3,300	<20	<100
00505-MW14	1/21/2014	<4.0	<130	<130	<20	<8.0	<660	<4.0	<20
00505-MW14D DUP	1/21/2014	<4.0	<130	<130	<20	<8.0	<660	<4.0	<20
00505-MW14D	1/23/2014	4.2 J	420	150	<5.0	91	<170	<1.0	<5.0
00505-MW15	1/21/2014	<0.20	24	20	<1.0	5.4	<33	<0.20	<1.0
00505-MW16	1/21/2014	Well not sampled-d ue to 0.02' of free-product							
00505-MW17	1/21/2014	<0.20	170	72	<1.0	33	<33	<0.20	<1.0
00505-MW18	1/21/2014	4.8 J	1,600	280	<5.0	150	<170	<1.0	<5.0
00505-MW19	1/21/2014	<20	5,400	940 J	<100	580	<3300	<20	<100
00505-MW20	1/22/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW21	1/21/2014	<2.0	<67	<67	<10	12 J	<330	<2.0	<10
00505-MW22	1/21/2014	<1.0	<34	36 J	<5.0	7.3 J	<170	<1.0	<5.0
00505-MW23	1/21/2014	3.4 J	400	130	<5.0	68	<170	<1.0	<5.0
00505-MW24	1/22/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW25	1/21/2014	<0.20	<6.7	<6.7	<1.0	0.95 J	<33	<0.20	<1.0
00505-MW26	1/22/2014	0.89 J	63	49	<1.0	20	<33	<0.20	<1.0
00505-MW27	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW27R	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW27D	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW27DD	1/22/2014	<10	<340	<340	<50	<20	<1,700	<10	<50
00505-MW28	1/21/2014	12 J	1,500	270 J	<20	320	<660	<4.0	<20
00505-MW29	1/21/2014	Well Not Located							
00505-MW30	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW30R	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW31	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW31R	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW32	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW32R	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW33	1/20/2014	<0.20	<6.7	<6.7	<1.0	5.7	<33	<0.20	<1.0
00505-MW33D	1/20/2014	<1.0	46 J	<34	<5.0	59	<170	<1.0	<5.0
00505-MW33DD	1/22/2014	1.2 J	320	27	<1.0	27	<33	<0.20	<1.0
00505-MW34	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW35	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW36	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW37	1/23/2014	2.7 J	250	57	<1.0	60	<33	<0.20	<1.0
00505-MW37D	1/22/2014	<0.20	25	<6.7	<1.0	5.5	<33	<0.20	<1.0
00505-MW38	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW39	1/21/2014	0.44 J	53 J	<34	<5.0	4.4 J	<33	<0.20	<1.0
00505-MW40	1/21/2014	<0.20	31	310	<1.0	4.4 J	<33	<0.20	<1.0
00505-MW40 DUP	1/21/2014	<0.20	28	310	<1.0	4.3 J	<33	<0.20	<1.0
00505-MW41	1/21/2014	3.1 J	810	280	<1.0	72	<33	<0.20	<1.0
00505-MW41 DUP	1/21/2014	3.0 J	770	270	<1.0	71	<33	<0.20	<1.0
00505-MW42	1/20/2014	<0.20	14 J	<6.7	<1.0	4.0 J	<33	<0.20	<1.0
00505-MW43	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
00505-MW44	1/20/2014	<0.20	<6.7	<6.7	<1.0	4.0 J	<33	<0.20	<1.0
00505-MW45	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
Field Blank 1	1/20/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
Field Blank 2	1/21/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
Field Blank 3	1/22/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
Field Blank 4	1/23/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
Trip Blank 1	1/24/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
Trip Blank 2	1/24/2014	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0

Notes:
RBSL = Risk-Based Screening Level
Bold cells indicate detections above the laboratory method detection limits
Shaded cells indicate COC concentrations that exceed RBSLs
µg/L - micrograms per liter - parts per billion
ND = Not Detected (at the laboratory detection limit)
NT = Not Tested
NE = A RBSL has not been established for this constituent

REFERENCE:
DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY EAS PROFESSIONALS, INC. DATED 9-14-06

REVISIONS			
No.	DESCRIPTION		BY
1			
2			

DRAWN: ACE
CHECKED: RAD
APPROVED:
DATE: 03-03-14
FILE: KMO119-06GWCOC
JOB NO: JI3-3661-06

IBLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
600A PONDEROSA COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

GROUNDWATER COC MAP – JANUARY 2014
MO FOOD MART (FORMER KMO #119)
UST PERMIT #02505
ANDERSON, SOUTH CAROLINA

FIGURE NO. 3

APPENDICES

APPENDIX A

MONITORING WELL PURGING AND SAMPLING FIELD PROCEDURES AND MONITORING WELL PURGING AND SAMPLING LOGS

APPENDIX A

MONITORING WELL PURGING AND SAMPLING PROCEDURES

The monitoring wells were purged prior to sample collection to remove any stagnant water from the well so that the samples collected were representative of the groundwater quality in the vicinity of each well. For wells that recovered quickly, a minimum of three volumes of water were evacuated. Specific conductance, pH, water temperature, and turbidity were measured periodically during well evacuation using instruments which were calibrated daily. Wells that were evacuated to dryness with less than three well volumes being removed were sampled as soon as the well had recovered enough to yield sufficient volume for a sample.

The monitoring wells were purged using a 3-foot long by 1.6-inch diameter disposable polyethylene bailer attached to an unused polypropylene cord. The wells were also sampled using a bailer as described above. To minimize the potential for cross-contamination between wells, a new clean bailer was used at each well.

Samples were placed in the appropriate laboratory supplied containers and marked with identifying numbers. Samples were maintained at 4°Celsius in a refrigerated sample cooler and shipped to Shealy Environmental Services, Inc. in Columbia, South Carolina via courier service for analysis.

INSTRUMENT CALIBRATION AND FREQUENCY QUALITY ASSURANCE / QUALITY CONTROL (QA/QC)

All Instrument Calibration and frequency methods are consistent with the procedures as outlined in the QAPP Addendum dated November 15, 2013. The following calibration standards were used for calibration purposes on January 20-23, 2014.

Quality Assurance			
pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU
Chain of Custody			
Reid A. Doherty	1/24/14 : 1135	Shealy Env. Services	1/24/14 : 1135

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-1R

Well Diameter (D) 2 inch of 44.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	0.04	ft
Total Well Depth (TWD)	43.57	ft btoc
Depth to Groundwater (DGW)	39.67	ft btoc
Length of Water Colum (LWC = TWD-DGW)		3.9 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	0.70 gals
3 Casing Volumes = 3 X	0.00 =	2.1 gals
	(Standard Purge Volume)	

Total Volume of Water Purged Before Sampling _____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.0	2.0	2.5				
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Not sampled due to 0.04' of free-product.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/23/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 30

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-1D

Well Diameter (D) 2 inch of 106.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	---	ft
Total Well Depth (TWD)	106.47	ft btoc
Depth to Groundwater (DGW)	43.59	ft btoc
Length of Water Colum (LWC = TWD-DGW)	62.88	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	10.70	gals
3 Casing Volumes = 3 X 0.00 =	32.1	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 20.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol. 20.5	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	11.0	22.0	32.5				
Time (military)	1553	1607	1615					
pH (s.u)	8.82	7.96	7.79					
Specific Conductivity (µS)	530	541	535					
Water Temperature (°C)	18.4	18.4	18.4					
Turbidity (subjective: clear, slightly cloudy, cloudy)	10.24	9.23	8.77					
Dissolved Oxygen (mg/l)	0.83							

Remarks:
Well sampled @ 1615 on 1/23/14.
Duplicate sampled @ 1616 on 1/23/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/23/14
Field Personnel Reid A. Doherty
General weather Conditions Overcast / 30
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-1DD

Well Diameter (D) 2 inch of 142.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				142.00	ft btoc
Depth to Groundwater (DGW)				46.61	ft btoc
Length of Water Colum (LWC = TWD-DGW)				95.39	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 16.22	gals
3 Casing Volumes = 3 X	0.00		=	48.66	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 22.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol. 22.0	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	16.5	33.0	49.5				
Time (military)	1424	1435	1450					
pH (s.u)	11.37	10.65	11.33					
Specific Conductivity (µS)	799	437	686					
Water Temperature (°C)	16.8	18.1	17.8					
Turbidity (subjective: clear, slightly cloudy, cloudy)	6.96	8.29	7.43					
Dissolved Oxygen (mg/l)	3.80							

Remarks: strong petroleum odor.
Well purged dry after 22.0 gallons removed.
Sampled @ 1450 on 1/23/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/23/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 30

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-1DDD

Well Diameter (D) 2 inch of 241.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	241.80	ft btoc
Depth to Groundwater (DGW)	47.75	ft btoc
Length of Water Colum (LWC = TWD-DGW)	194.05	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	33.0	gals
3 Casing Volumes = 3 X 0.00 = (Standard Purge Volume)	99.0	gals

Total Volume of Water Purged Before Sampling 40.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol. 40.0	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	33.0	well purged dry	99.0				
Time (military)	1323	1353	1409					
pH (s.u)	9.86	10.45	10.49					
Specific Conductivity (µS)	1665	727	740					
Water Temperature (°C)	13.7	18.2	17.7					
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.43	9.74	8.21					
Dissolved Oxygen (mg/l)	2.48							

Remarks: slight petroleum odor. well purged dry after 40.0 gallons removed.
Sampled @ 1409 on 1/23/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/29/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-2

Well Diameter (D) 2 inch of 42.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	0.09	ft
Total Well Depth (TWD)	42.36	ft btoc
Depth to Groundwater (DGW)	35.01	ft btoc
Length of Water Colum (LWC = TWD-DGW)	7.35	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.25	gals
3 Casing Volumes = 3 X 0.00 =	3.75	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling _____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.0				
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Not sampled due to 0.09 feet of free-product.

BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel RSD
General weather Conditions Partly Cloudy
Ambient Air Temperature (°F) 11a°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-3

Well Diameter (D) 2 inch of 40.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness — ft
Total Well Depth (TWD) 40.32 ft btoc
Depth to Groundwater (DGW) 32.52 ft btoc
Length of Water Colum (LWC = TWD-DGW) 7.8 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 1.33 gals
3 Casing Volumes = 3 X 0.00 = 3.99 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 4.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.0				
Time (military)	1459	1503	1507	1510				
pH (s.u)	5.43	5.48	5.49	5.49				
Specific Conductivity (µS)	54.0	58.1	57.1	56.5				
Water Temperature (°C)	19.4	19.2	19.5	19.5				
Turbidity (subjective: clear, slightly cloudy, cloudy)	27.6	>1,100	324	8.28				
Dissolved Oxygen (mg/l)	3.53							

Remarks: Sampled @ 1510 on 1/21/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel RAD, DRM, PTVN
General weather Conditions Clear
Ambient Air Temperature (°F) 18°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-4

Well Diameter (D) 2 inch of 47.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	46.91	ft btoc
Depth to Groundwater (DGW)	40.15	ft btoc
Length of Water Colum (LWC = TWD-DGW)	6.76	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.15	gals
3 Casing Volumes = 3 X 0.00 = (Standard Purge Volume)	3.45	gals

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	~~2.0~~ 2.5	~~3.0~~ 3.5*				
Time (military)	1430	1435	1443					
pH (s.u)	6.73	5.74	5.71					
Specific Conductivity (µS)	29.3	58.9	84.6					
Water Temperature (°C)	18.5	18.9	18.5					
Turbidity (subjective: clear, slightly cloudy, cloudy)	24.2	>1,100	>1,100					
Dissolved Oxygen (mg/l)	7.34							

* Dry after 2.5 gallons removed.
Sampled @ 1443 on 1/21/14.

Remarks:

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-5

Well Diameter (D) 2 inch of 32.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ____ ft
Total Well Depth (TWD) 32.05 ft btoc
Depth to Groundwater (DGW) Dry ft btoc
Length of Water Colum (LWC = TWD-DGW) ____ ft
1 Casing Volume (LWC*C) = 0.00 X .17 = ____ gals
3 Casing Volumes = 3 X 0.00 = ____ gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling ____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---							
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Wd Dry

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel PSH RAD DRM
General weather Conditions Sunny
Ambient Air Temperature (°F) 40

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-5R

Well Diameter (D) 2 inch of 36.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				36.21	ft btoc
Depth to Groundwater (DGW)				27.38	ft btoc
Length of Water Colum (LWC = TWD-DGW)				8.83	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 1.50	gals
3 Casing Volumes = 3 X	0.00		=	4.50	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.5				
Time (military)	1503	1508	1513	1518				
pH (s.u)	5.34	5.36	5.41	5.52				
Specific Conductivity (µS)	34.4	36.1	37.2	37.6				
Water Temperature (°C)	19.6	18.4	19.0	19.1				
Turbidity (subjective: clear, slightly cloudy, cloudy)	19	29	47	8.97				
Dissolved Oxygen (mg/l)	5.18							

Sampled at 1518 1/21/14

Remarks:

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel RAD, DRM, PJVH
General weather Conditions Partly Cloudy
Ambient Air Temperature (°F) 16°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-6

Well Diameter (D) 2 inch of 43.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 43.05 ft btoc
Depth to Groundwater (DGW) 40.45 ft btoc
Length of Water Colum (LWC = TWD-DGW) 2.60 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 0.44 gals
3 Casing Volumes = 3 X 0.00 = 1.32 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 1.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	0.5	1.0	1.5				
Time (military)	1545	1549	1553	1557				
pH (s.u)	5.36	5.46	5.48					
Specific Conductivity (µS)	26.7	26.5	26.6					
Water Temperature (°C)	17.5	17.8	17.8					
Turbidity (subjective: clear, slightly cloudy, cloudy)	79.9	>1,100	>1,100					
Dissolved Oxygen (mg/l)	7.11							

sampled @ 1555 on 1/21/14. * Dry after 1.0 gallons removed.

Remarks:

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/23/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 40

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-6D

Well Diameter (D) 2 inch of 54.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	54.19	ft btoc
Depth to Groundwater (DGW)	40.10	ft btoc
Length of Water Colum (LWC = TWD-DGW)		14.09 ft
1 Casing Volume (LWC*C) =	0.00 X .17	= 2.40 gals
3 Casing Volumes = 3 X	0.00	= 7.2 gals
	(Standard Purge Volume)	

Total Volume of Water Purged Before Sampling 7.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5	5.0	7.5				
Time (military)	1645	1650	1655	1700				
pH (s.u)	6.49	6.25	6.19	6.18				
Specific Conductivity (µS)	27.4	28.2	34.2	32.5				
Water Temperature (°C)	17.2	17.3	17.4	17.3				
Turbidity (subjective: clear, slightly cloudy, cloudy)	9.28	7.46	8.97	7.88				
Dissolved Oxygen (mg/l)	6.00							

Remarks: Sampled @ 1700 on 1/23/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel PJVH RAD DRM
General weather Conditions sunny
Ambient Air Temperature (°F) 40

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-7

Well Diameter (D) 2 inch of 39.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	39.12	ft btoc
Depth to Groundwater (DGW)	34.38	ft btoc
Length of Water Colum (LWC = TWD-DGW)		4.74 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	0.81 gals
3 Casing Volumes = 3 X	0.00 =	2.43 gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.0	2.0	2.5				
Time (military)	1522	1527	1532	1537				
pH (s.u)	5.18	5.13	5.07	5.09				
Specific Conductivity (µS)	~~519~~ 519	50.0	49.7	50.4				
Water Temperature (°C)	17.5	18.2	16.4	16.1				
Turbidity (subjective: clear, slightly cloudy, cloudy)	4.97	10.31	56.7	4.63				
Dissolved Oxygen (mg/l)	6.75							

Remarks: Sampled at 1537 1/21/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/23/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 40

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-7D

Well Diameter (D) 2 inch of 59.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	58.78	ft btoc
Depth to Groundwater (DGW)	34.61	ft btoc
Length of Water Colum (LWC = TWD-DGW)		24.17 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	4.11 gals
3 Casing Volumes = 3 X	0.00 =	12.33 gals
	(Standard Purge Volume)	

Total Volume of Water Purged Before Sampling 12.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	4.5	9.0	12.5				
Time (military)	1622	1626	1633	1637				
pH (s.u)	8.14	7.56	7.24	6.92				
Specific Conductivity (µS)	70.5	64.6	63.8	68.0				
Water Temperature (°C)	16.8	18.1	18.2	18.2				
Turbidity (subjective: clear, slightly cloudy, cloudy)	8.28	9.43	7.29	4.34				
Dissolved Oxygen (mg/l)	4.74							

Remarks: sampled @ 1637 on 1/23/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1-21-14
Field Personnel DRM
General weather Conditions P. Cloudy
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-8

Well Diameter (D) 2 inch of 30.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	30.38	ft btoc
Depth to Groundwater (DGW)	25.52	ft btoc
Length of Water Colum (LWC = TWD-DGW)		4.86 ft
1 Casing Volume (LWC*C) =	0.00 X .17	= 0.83 gals
3 Casing Volumes = 3 X	0.00	= 2.49 gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.0	2.0	2.5				
Time (military)	1514	1516	1518	1522				
pH (s.u)	5.57	5.42	5.22	5.23				
Specific Conductivity (µS)	19.2	23.6	21.2	22.2				
Water Temperature (°C)	17.8	18.2	16.8	17.6				
Turbidity (subjective: clear, slightly cloudy, cloudy)	114	21.7	8.14	7.9				
Dissolved Oxygen (mg/l)	4.2							

Remarks: well sampled @ 1522 on 1-21-14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1-21-14
Field Personnel DRM
General weather Conditions Sunny
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-9

Well Diameter (D) 2 inch of 52.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	52.49	ft btoc
Depth to Groundwater (DGW)	45.65	ft btoc
Length of Water Colum (LWC = TWD-DGW)		6.84 ft
1 Casing Volume (LWC*C) =	0.00 X .17	= 1.16 gals
3 Casing Volumes = 3 X	0.00	= 3.48 gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 1.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	2.9	3.5				
Time (military)	1302							
pH (s.u)	6.20							
Specific Conductivity (µS)	348							
Water Temperature (°C)	14.1							
Turbidity (subjective: clear, slightly cloudy, cloudy)	218							
Dissolved Oxygen (mg/l)	2.1							

Remarks: well purged dry after 1.0 gal removed. well sampled @ 1307 on 1-21-14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 17

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-10

Well Diameter (D) 2 inch of 50.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	0.45	ft
Total Well Depth (TWD)	50.66	ft btoc
Depth to Groundwater (DGW)	42.20	ft btoc
Length of Water Colum (LWC = TWD-DGW)	8.46	ft
1 Casing Volume (LWC*C) = 0.00 X .17	= 1.44	gals
3 Casing Volumes = 3 X 0.00	= 4.35	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling ____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.5				
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Not sampled due to 0.45 - feet of free product.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/27/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) -1°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-10D

Well Diameter (D) 2 inch of 94.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	—	ft
Total Well Depth (TWD)	94.76	ft btoc
Depth to Groundwater (DGW)	48.26	ft btoc
Length of Water Colum (LWC = TWD-DGW)	46.56	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	7.92	gals
3 Casing Volumes = 3 X 0.00 =	23.76	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 24.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	8.0	16.0	24.0				
Time (military)	1006	1011	1017	1025				
pH (s.u)	7.94	7.64	7.69	7.71				
Specific Conductivity (µS)	335	393	388	390				
Water Temperature (°C)	15.7	17.2	18.2	18.2				
Turbidity (subjective: clear, slightly cloudy, cloudy)	9.29	8.67	7.66	6.43				
Dissolved Oxygen (mg/l)	6.27							

* slight petroleum odor.

Remarks: Sampled @ 1025 on 1/23/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1-21-14
Field Personnel DRM
General weather Conditions Sunny
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-11

Well Diameter (D) 2 inch of 51.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness sheen ft
Total Well Depth (TWD) 51.22 ft btoc
Depth to Groundwater (DGW) 46.61 ft btoc
Length of Water Colum (LWC = TWD-DGW) 4.61 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 0.78 gals
3 Casing Volumes = 3 X 0.00 = 2.34 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 2.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.0	2.0	2.5				
Time (military)	1441	1444	1448					
pH (s.u)	5.69	5.82	6.34					
Specific Conductivity (µS)	223	251	431					
Water Temperature (°C)	20.2	18.4	17.6					
Turbidity (subjective: clear, slightly cloudy, cloudy)	289	142	96.8					
Dissolved Oxygen (mg/l)	1.7							

well purged dry after 2.0 gal removed

sheen + strong petroleum odor present

Remarks: well sampled @ 1448 on 1-21-14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/23/14
Field Personnel RAJ
General weather Conditions Clear
Ambient Air Temperature (°F) 2°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-11D

Well Diameter (D) 2 inch of 90.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	—	ft
Total Well Depth (TWD)	90.22	ft btoc
Depth to Groundwater (DGW)	45.05	ft btoc
Length of Water Colum (LWC = TWD-DGW)	45.17	ft
1 Casing Volume (LWC*C) = 0.00 X .17	= 7.70	gals
3 Casing Volumes = 3 X 0.00	= 23.10	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 12.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol. 12.0	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	8.9	Max.	23.10				
Time (military)	1231	1237	1255					
pH (s.u)	8.47	8.15	8.13					
Specific Conductivity (µS)	258	230	217					
Water Temperature (°C)	17.0	18.8	19.2					
Turbidity (subjective: clear, slightly cloudy, cloudy)	9.23	6.94	8.87					
Dissolved Oxygen (mg/l)	4.33							

* Strong petroleum odor. Well purged dry after 12.0 gallons removed.

Remarks: Sampled @ 1255 on 1/23/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/23/14
Field Personnel Reid A. Doherty
General weather Conditions Clear
Ambient Air Temperature (°F) 20°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-11DD

Well Diameter (D) 2 inch of 161.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness — ft
Total Well Depth (TWD) 161.35 ft btoc
Depth to Groundwater (DGW) 55.91 ft btoc
Length of Water Colum (LWC = TWD-DGW) 105.44 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 17.92 gals
3 Casing Volumes = 3 X 0.00 = 53.76 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 22.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol. 22.0	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	18.0	~~22.0~~	~~53.76~~				
Time (military)	1144	1203	1225	~~1225~~				
pH (s.u)	10.72	8.95	8.74					
Specific Conductivity (µS)	619	482	501					
Water Temperature (°C)	12.2	16.8	16.8					
Turbidity (subjective: clear, slightly cloudy, cloudy)	6.27	21.8	8.27					
Dissolved Oxygen (mg/l)	6.28							

* slight petroleum odor. * well purged dry after 22.0 gallons removed.

Remarks: Sampled @ 1225 on 1/23/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/23/14
Field Personnel RAD
General weather Conditions clear
Ambient Air Temperature (°F) 20

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-11DDD

Well Diameter (D) 2 inch of 230.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness — ft
Total Well Depth (TWD) 230.40 ft btoc
Depth to Groundwater (DGW) 83.56 ft btoc
Length of Water Colum (LWC = TWD-DGW) 146.84 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 25.0 gals
3 Casing Volumes = 3 X 0.00 = 750 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 35.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol. 35.0	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	25.0	~~50.0~~	~~75.0~~				
Time (military)	1034	1115	1135					
pH (s.u)	12.38	~~12.38~~ 12.38	~~12.67~~ 12.67					
Specific Conductivity (µS)	6,390	6,760	4,940					
Water Temperature (°C)	14.8	16.7	17.2					
Turbidity (subjective: clear, slightly cloudy, cloudy)	4.23	9.24	7.36					
Dissolved Oxygen (mg/l)	5.92							

Remarks: well purged dry after 35.0 gallons removed.
Sampled @ 1135 on 1/23/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-12

Well Diameter (D) 2 inch of 53.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 52.72 ft btoc
Depth to Groundwater (DGW) ft btoc
Length of Water Colum (LWC = TWD-DGW) ft
1 Casing Volume (LWC*C) = 0.00 X .17 = gals
3 Casing Volumes = 3 X 0.00 = gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---							
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Not located at time of sampling event.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-13

Well Diameter (D) 2 inch of 48.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ____ ft
Total Well Depth (TWD) 48.13 ft btoc
Depth to Groundwater (DGW) Dry ft btoc
Length of Water Colum (LWC = TWD-DGW) ____ ft
1 Casing Volume (LWC*C) = 0.00 X .17 = ____ gals
3 Casing Volumes = 3 X 0.00 = ____ gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling ____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---							
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Well Dry

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel PSVH RAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 40°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-13R

Well Diameter (D) 2 inch of 56.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	56.03	ft btoc
Depth to Groundwater (DGW)	47.10	ft btoc
Length of Water Colum (LWC = TWD-DGW)	8.93	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.52	gals
3 Casing Volumes = 3 X 0.00 =	4.56	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	4.0	5.0				
Time (military)	1240	1245	1250	1255				
pH (s.u)	6.63	6.95	6.74	6.70				
Specific Conductivity (µS)	932	889	914	945				
Water Temperature (°C)	17.7	17.1	18.0	18.7				
Turbidity (subjective: clear, slightly cloudy, cloudy)	5.0	11.5	16.0	18.3				
Dissolved Oxygen (mg/l)	1.25							

sampled at 1255 1/21/14

Remarks: Strong Petrodor

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel PSVH DRM RAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 40

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-14

Well Diameter (D) 2 inch of 50.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				50.37	ft btoc
Depth to Groundwater (DGW)				43.0	ft btoc
Length of Water Colum (LWC = TWD-DGW)				7.37	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 1.25	gals
3 Casing Volumes = 3 X	0.00		=	3.75	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 4 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.0				
Time (military)	1321	1326	1331	1336				
pH (s.u)	7.00	6.88	6.58	6.62				
Specific Conductivity (µS)	179.9	252	250	242				
Water Temperature (°C)	17.9	18.0	17.7	17.7				
Turbidity (subjective: clear, slightly cloudy, cloudy)	9	13	8.76	7.32				
Dissolved Oxygen (mg/l)	7.90							

Sampled @ 1336 1/21/14

Remarks: Strong Petrodor Duplicate sample @ 1337 on 1/21/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/23/14
Field Personnel RAM
General weather Conditions Clear
Ambient Air Temperature (°F) -3°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-14D

Well Diameter (D) 2 inch of 81.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				81.67	ft btoc
Depth to Groundwater (DGW)				43.25	ft btoc
Length of Water Colum (LWC = TWD-DGW)				38.42	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 11.63	gals
3 Casing Volumes = 3 X	0.00		=	34.89	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 15.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol. 15.0	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	12.0	24.0	35.0				
Time (military)	0939	0947	0955					
pH (s.u)	9.21	8.05	7.94					
Specific Conductivity (µS)	523	578	581					
Water Temperature (°C)	8.0	16.9	17.0					
Turbidity (subjective: clear, slightly cloudy, cloudy)	6.34	7.42	9.31					
Dissolved Oxygen (mg/l)	6.24							

Remarks: well purged dry after 15.0 gallons removed.
Sampled @ 0955 on 1/23/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel PSH RAD DKM
General weather Conditions Sunny
Ambient Air Temperature (°F) 40

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-15

Well Diameter (D) 2 inch of 51.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				ft
Total Well Depth (TWD)			51.06	ft btoc
Depth to Groundwater (DGW)			44.91	ft btoc
Length of Water Colum (LWC = TWD-DGW)			6.15	ft
1 Casing Volume (LWC*C) =	0.00	X .17 =	1.05	gals
3 Casing Volumes = 3 X	0.00	=	3.15	gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling 3.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	3.5				
Time (military)	1351	1356	1401	1406				
pH (s.u)	6.37	6.36	6.23	6.35				
Specific Conductivity (µS)	235	236	235	236				
Water Temperature (°C)	17.1	16.9	17.6	17.6				
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.6	10.6	22.41	7.82				
Dissolved Oxygen (mg/l)	3.54							

Remarks: Sampled at 1406 1/21/14
Pet odor

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-16

Well Diameter (D) 2 inch of 49.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	0.02	ft
Total Well Depth (TWD)	48.83	ft btoc
Depth to Groundwater (DGW)	39.97	ft btoc
Length of Water Colum (LWC = TWD-DGW)	8.86	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.51	gals
3 Casing Volumes = 3 X 0.00 =	4.53	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling _____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	4.0	5.0				
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Not sampled due to 0.02-feet of free-product.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1-21-14
Field Personnel DRM
General weather Conditions P. Cloudy
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-17

Well Diameter (D) 2 inch of 48.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	48.20	ft btoc
Depth to Groundwater (DGW)	42.71	ft btoc
Length of Water Colum (LWC = TWD-DGW)		5.49 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	0.93 gals
3 Casing Volumes = 3 X	0.00 =	2.79 gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling _____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.0	2.0	3.0				
Time (military)	1540	1543	1546	1602				
pH (s.u)	5.17	5.21	5.19	5.19				
Specific Conductivity (µS)	73.5	73.1	74.1	75.2				
Water Temperature (°C)	17.3	19.7	19.3	19.3				
Turbidity (subjective: clear, slightly cloudy, cloudy)	124	78.2	32.8	9.7				
Dissolved Oxygen (mg/l)	0.7							

Remarks: well sampled @ 1602 on 1-21-14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1-21-14
Field Personnel DRM
General weather Conditions Sunny
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-18

Well Diameter (D) 2 inch of 55.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	—	ft
Total Well Depth (TWD)	58.98	ft btoc
Depth to Groundwater (DGW)	51.82	ft btoc
Length of Water Colum (LWC = TWD-DGW)	7.16	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.22	gals
3 Casing Volumes = 3 X 0.00 =	3.66	gals

(Standard Purge Volume)

Note: Well has 3.08 feet of stick-up.

Total Volume of Water Purged Before Sampling 3.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.0				
Time (military)	1229	1236	1240					
pH (s.u)	6.11	6.10	6.07					
Specific Conductivity (µS)	113.9	143.2	156.8					
Water Temperature (°C)	18.3	18.7	18.7					
Turbidity (subjective: clear, slightly cloudy, cloudy)	208	123	72.1					
Dissolved Oxygen (mg/l)	M1.2							

Remarks: well purged dry after 3.5 gal. well sampled @ 1241 on 1-21-14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel JOINT RAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 40's

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-19

Well Diameter (D) 2 inch of 55.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	—	ft
Total Well Depth (TWD)	58.19	ft btoc
Depth to Groundwater (DGW)	52.23	ft btoc
Length of Water Colum (LWC = TWD-DGW)	5.96	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.01	gals
3 Casing Volumes = 3 X 0.00 =	3.03	gals

(Standard Purge Volume)

Note: Well has 3.09 feet of stick-up.

Total Volume of Water Purged Before Sampling 3.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	3.5				
Time (military)	1207	1212	1217	1222				
pH (s.u)	6.34	6.29	6.32	6.38				
Specific Conductivity (µS)	372	353	370	361				
Water Temperature (°C)	16.4	16.7	16.5	16.7				
Turbidity (subjective: clear, slightly cloudy, cloudy)	6.5	19.0	15.0	8.7				
Dissolved Oxygen (mg/l)	2.38							

Remarks: Sample at 1222 1/21/14

BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/22/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 2°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-20

Well Diameter (D) 2 inch of 82.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness			ft
Total Well Depth (TWD)		85.23	ft btoc
Depth to Groundwater (DGW)		46.49	ft btoc
Length of Water Colum (LWC = TWD-DGW)		38.74	ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	6.59	gals
3 Casing Volumes = 3 X	0.00 =	~~19.78~~	gals 19.77

(Standard Purge Volume)

Note: Well has 3.23 feet of stick-up.

Total Volume of Water Purged Before Sampling 20.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	7.0	14.0	20.0				
Time (military)	1340	1355	1407	1415				
pH (s.u)	7.95	7.42	7.46	7.51				
Specific Conductivity (µS)	330	331	342	341				
Water Temperature (°C)	12.4	16.7	17.4	17.4				
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.24	21.7	11.2	7.67				
Dissolved Oxygen (mg/l)	5.54							

sampled @ 1415 on 1/22/14.

Remarks:

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BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel PMH RAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 10

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-21

Well Diameter (D) 2 inch of 43.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	—	ft
Total Well Depth (TWD)	47.57	ft btoc
Depth to Groundwater (DGW)	36.83	ft btoc
Length of Water Colum (LWC = TWD-DGW)	10.74	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.83	gals
3 Casing Volumes = 3 X 0.00 =	5.49	gals

(Standard Purge Volume)

Note: Well has 3.67 feet of stick-up.

Total Volume of Water Purged Before Sampling 5.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	4.0	5.5				
Time (military)	1055	1059	1103	1107				
pH (s.u)	6.15	6.36	6.35	6.29				
Specific Conductivity (µS)	239	246	243	243				
Water Temperature (°C)	16.3	16.6	16.9	16.5				
Turbidity (subjective: clear, slightly cloudy, cloudy)	7.0	11	8.0	8.0				
Dissolved Oxygen (mg/l)	1.2							

Remarks: Sampled at 1107 1/21/14 Slight Pet odor

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel RAD, PJH
General weather Conditions Clear
Ambient Air Temperature (°F) 13°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-22

Well Diameter (D) 2 inch of 45.20 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	—	ft	
Total Well Depth (TWD)	48.83	ft btoc	
Depth to Groundwater (DGW)	40.00	ft btoc	
Length of Water Colum (LWC = TWD-DGW)			8.83 ft
1 Casing Volume (LWC*C) =	0.00 X .17	=	1.50 gals
3 Casing Volumes = 3 X	0.00	=	4.50 gals

(Standard Purge Volume)

Note: Well has 3.63 feet of stick-up.

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.5				
Time (military)	1107	1111	1115	1119				
pH (s.u)	6.96	6.32	6.37	6.30				
Specific Conductivity (µS)	199.8	181.9	185.3	186.7				
Water Temperature (°C)	16.5	16.6	16.7	16.7				
Turbidity (subjective: clear, slightly cloudy, cloudy)	>1,190	227	78.9	8.49				
Dissolved Oxygen (mg/l)	3.70							

Remarks: Sampled @ 1119 on 1/21/14. * slight petroleum odor.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1-21-14
Field Personnel DRM
General weather Conditions Sunny
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-23

Well Diameter (D) 2 inch of 45.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	—	ft
Total Well Depth (TWD)	48.78	ft btoc
Depth to Groundwater (DGW)	39.49	ft btoc
Length of Water Colum (LWC = TWD-DGW)	9.29	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.58	gals
3 Casing Volumes = 3 X 0.00 =	4.74	gals

(Standard Purge Volume)

Note: Well has 3.28 feet of stick-up.

Total Volume of Water Purged Before Sampling 5.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	4.0	5.0				
Time (military)	1108	1120	1125	1131				
pH (s.u)	6.53	6.54	6.43	6.52				
Specific Conductivity (µS)	406	311	357	357				
Water Temperature (°C)	17.6	16.8	17.1	17.3				
Turbidity (subjective: clear, slightly cloudy, cloudy)	85.3	52.1	21.2	7.2				
Dissolved Oxygen (mg/l)	1.6							

Remarks: well sampled @ 1131 on 1-21-14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/22/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 10

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-24

Well Diameter (D) 2 inch of 77.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				80.48	ft btoc
Depth to Groundwater (DGW)				51.17	ft btoc
Length of Water Colum (LWC = TWD-DGW)				29.31	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 4.98	gals
3 Casing Volumes = 3 X	0.00		=	14.94	gals
	(Standard Purge Volume)				

Note: Well has 3.38 feet of stick-up.

Total Volume of Water Purged Before Sampling 15.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	5.0	10.0	15.0				
Time (military)	1239	1252	1302	1317				
pH (s.u)	8.17	8.13	7.81	7.05				
Specific Conductivity (µS)	321	323	331	349				
Water Temperature (°C)	13.8	16.5	17.8	17.8				
Turbidity (subjective: clear, slightly cloudy, cloudy)	>1,100	224	34.7	7.34				
Dissolved Oxygen (mg/l)	1.23							

Remarks: Sampled @ 1317 on 1/22/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel PJUIT RAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 40

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-25

Well Diameter (D) 2 inch of 57.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 61.30 ft btoc
Depth to Groundwater (DGW) 54.24 ft btoc
Length of Water Colum (LWC = TWD-DGW) 7.06 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 1.20 gals
3 Casing Volumes = 3 X 0.00 = 3.60 gals
(Standard Purge Volume)

Note: Well has 3.50 feet of stick-up.

Total Volume of Water Purged Before Sampling 4 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.0				
Time (military)	1025	1030	1035	1040				
pH (s.u)	7.10	6.42	6.35	6.15				
Specific Conductivity (µS)	137.2	134.6	132.6	134.5				
Water Temperature (°C)	15.3	15.8	15.9	15.5				
Turbidity (subjective: clear, slightly cloudy, cloudy)	10	17	15	7				
Dissolved Oxygen (mg/l)	3.70							

Remarks: Sampled at 1040 1/21/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/22/14
Field Personnel RAO
General weather Conditions Clear
Ambient Air Temperature (°F) 1°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-26

Well Diameter (D) 2 inch of 77.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	—	ft
Total Well Depth (TWD)	80.71	ft btoc
Depth to Groundwater (DGW)	48.24	ft btoc
Length of Water Colum (LWC = TWD-DGW)		32.47 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	5.52 gals
3 Casing Volumes = 3 X	0.00 =	16.56 gals
	(Standard Purge Volume)	

Note: Well has 3.41 feet of stick-up.

Total Volume of Water Purged Before Sampling 17.9 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	6.0	12.0	17.0				
Time (military)	1147	1200	1209	1215				
pH (s.u)	7.72	7.04	6.88	7.30				
Specific Conductivity (µS)	553	405	599	607				
Water Temperature (°C)	9.7	16.2	17.5	17.5				
Turbidity (subjective: clear, slightly cloudy, cloudy)	821	42.4	23.4	8.86				
Dissolved Oxygen (mg/l)	6.15							

Remarks: Sampled @ 1215 on 1/22/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/13
Field Personnel PJVH RAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 40

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-27

Well Diameter (D) 2 inch of 44.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	48.10	ft btoc
Depth to Groundwater (DGW)	44.73	ft btoc
Length of Water Colum (LWC = TWD-DGW)	3.37	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	0.57	gals
3 Casing Volumes = 3 X 0.00 =	1.71	gals

(Standard Purge Volume)

Note: Well has 3.40 feet of stick-up.

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol. 1	2nd Vol. 2	3rd Vol. 2.5	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	0.75	1.5	2.5				
Time (military)	855	902	905	910				
pH (s.u)	6.210	6.28	7.35	6.91				
Specific Conductivity (µS)	35.9	35.9	49.7	41.7				
Water Temperature (°C)	14.5	14.9	14.7	14.5				
Turbidity (subjective: clear, slightly cloudy, cloudy)	10.5	30	21	9.5				
Dissolved Oxygen (mg/l)	10.81	~~35~~						

Sampled at 910 1/21/13

Remarks:

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel DJH 2HD
General weather Conditions Sunny
Ambient Air Temperature (°F) 46

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-27R

Well Diameter (D) 2 inch of 53.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	55.94	ft btoc
Depth to Groundwater (DGW)	43.84	ft btoc
Length of Water Colum (LWC = TWD-DGW)		12.1 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	2.06 gals
3 Casing Volumes = 3 X	0.00 =	6.18 gals

(Standard Purge Volume)

Note: Well has 2.84 feet of stick-up.

Total Volume of Water Purged Before Sampling 7.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5	5	7.5				
Time (military)	920	925	930	935				
pH (s.u)	6.07	6.23	6.43	6.32				
Specific Conductivity (µS)	56.2	98.0	129.3	134.6				
Water Temperature (°C)	14.3	14.8	15.4	14.1				
Turbidity (subjective: clear, slightly cloudy, cloudy)	8.0	15.0	17.5	9.0				
Dissolved Oxygen (mg/l)	5.70							

Sampled at 935 1/21/14

Remarks:

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel RAD
General weather Conditions Clear to PC
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-27D

Well Diameter (D) 2 inch of 69.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	72.07	ft btoc
Depth to Groundwater (DGW)	43.28	ft btoc
Length of Water Colum (LWC = TWD-DGW)		28.79 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	4.89 gals
3 Casing Volumes = 3 X	0.00 =	14.67 gals
	(Standard Purge Volume)	

Note: Well has 2.47 feet of stick-up.

Total Volume of Water Purged Before Sampling 5.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	5.0	10.0	15.0				
Time (military)	0906	0957						
pH (s.u)	6.68	7.37						
Specific Conductivity (µS)	358	361						
Water Temperature (°C)	12.5	14.6						
Turbidity (subjective: clear, slightly cloudy, cloudy)	21.7	148.7						
Dissolved Oxygen (mg/l)	8.14							

Remarks: Well purged dry after 5.0 gallons removed.
Sampled @ 0957 on 1/21/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/22/14
Field Personnel RAD
General weather Conditions Clear to Partly Cloudy
Ambient Air Temperature (°F) 10

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-27DD

Well Diameter (D) 2 inch of 134.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				137.57	ft btoc
Depth to Groundwater (DGW)				63.20	ft btoc
Length of Water Colum (LWC = TWD-DGW)				74.34	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 12.64	gals
3 Casing Volumes = 3 X	0.00		=	37.92	gals
(Standard Purge Volume)					

Note: Well has 2.67 feet of stick-up.

Total Volume of Water Purged Before Sampling 20.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol. 20.0	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	13.0	Bldr	38.9				
Time (military)	1017	1055	1115					
pH (s.u)	7.95	8.77	9.21					
Specific Conductivity (µS)	314	780	905					
Water Temperature (°C)	11.4	15.4	16.5					
Turbidity (subjective: clear, slightly cloudy, cloudy)	4.86	47.1	98.7					
Dissolved Oxygen (mg/l)	5.94							

* Dry after 20.0 gallons removed.

Remarks: Sampled @ 1115 on 1/22/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1-21-14
Field Personnel DRM
General weather Conditions sunny
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-28

Well Diameter (D) 2 inch of 51.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	54.96	ft btoc
Depth to Groundwater (DGW)	48.50	ft btoc
Length of Water Colum (LWC = TWD-DGW)	4.46	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.10	gals
3 Casing Volumes = 3 X 0.00 =	3.30	gals

(Standard Purge Volume)

Note: Well has 3.26 feet of stick-up.

Total Volume of Water Purged Before Sampling 3.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5 ←	3.0	3.5				
Time (military)	1157	1201	1207	1209				
pH (s.u)	5.75	5.07	5.48					
Specific Conductivity (µS)	114.3	113.8	105.2	102.4				
Water Temperature (°C)	16.0	16.5	16.8	16.9				
Turbidity (subjective: clear, slightly cloudy, cloudy)	112	124	51.2	7.2				
Dissolved Oxygen (mg/l)	1.1							

Remarks: well sampled @ 1209 on 1-21-14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel Reid A. Doherty
General weather Conditions Clear
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-29

Well Diameter (D) 2 inch of 55.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 54.93 ft btoc
Depth to Groundwater (DGW) ft btoc
Length of Water Colum (LWC = TWD-DGW) ft
1 Casing Volume (LWC*C) = 0.00 X .17 = gals
3 Casing Volumes = 3 X 0.00 = gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---							
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Not located at time of sampling event.

Remarks:

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 7/21/14
Field Personnel PSH IAT RAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 60's

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-30

Well Diameter (D) 2 inch of 33.20 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 36.15 ft btoc
Depth to Groundwater (DGW) 30.74 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.41 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 1.00 gals
3 Casing Volumes = 3 X 0.00 = 3.00 gals
(Standard Purge Volume)
Note: Well has 2.95 feet of stick-up.

Total Volume of Water Purged Before Sampling 2 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1	2					
Time (military)	1410	1414	1418					
pH (s.u)	5.84	5.68	5.65					
Specific Conductivity (µS)	26.0	24.3	25.4					
Water Temperature (°C)	16.3	15.9	15.7					
Turbidity (subjective: clear, slightly cloudy, cloudy)	9.0	15	9.5					
Dissolved Oxygen (mg/l)	[illegible]							

Dry after 2 well vols (2 gallons)
Sampled at 1418

Remarks:

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel Reid A. Doherty
General weather Conditions Clear
Ambient Air Temperature (°F) 18°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-30R

Well Diameter (D) 2 inch of 40.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 42.57 ft btoc
Depth to Groundwater (DGW) 30.19 ft btoc
Length of Water Colum (LWC = TWD-DGW) 12.38 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 2.11 gals
3 Casing Volumes = 3 X 0.00 = 6.77 gals
(Standard Purge Volume)

Note: Well has 2.57 feet of stick-up.

Total Volume of Water Purged Before Sampling 6.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5	5.0	6.5				
Time (military)	1420	1423	1427	1431				
pH (s.u)	5.74	5.58	5.59	5.63				
Specific Conductivity (µS)	39.9	37.1	39.7	48.4				
Water Temperature (°C)	16.4	15.5	15.9	15.9				
Turbidity (subjective: clear, slightly cloudy, cloudy)	>1,100	407	87.1	7.42				
Dissolved Oxygen (mg/l)	9.38							

Remarks: Sampled @ 1431 on 1/20/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel PJ, HT, AJ, RAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 60

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-31

Well Diameter (D) 2 inch of 40.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	43.31	ft btoc
Depth to Groundwater (DGW)	37.37	ft btoc
Length of Water Colum (LWC = TWD-DGW)	5.94	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.0	gals
3 Casing Volumes = 3 X 0.00 =	3.0	gals

(Standard Purge Volume)

Note: Well has 3.31 feet of stick-up.

Total Volume of Water Purged Before Sampling 3 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1	2	3				
Time (military)	1444	1448	1452	1456				
pH (s.u)	5.93	5.97	6.19	6.06				
Specific Conductivity (µS)	72.5	68.5	66.3	68.1				
Water Temperature (°C)	16.0	16.0	16.0	17.1				
Turbidity (subjective: clear, slightly cloudy, cloudy)	12	15	9.0	9.0				
Dissolved Oxygen (mg/l)	12.55							

Remarks: sampled @ 1456 on 1/20/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel RAM
General weather Conditions Clear
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-31R

Well Diameter (D) 2 inch of 46.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	49.23	ft btoc
Depth to Groundwater (DGW)	36.27	ft btoc
Length of Water Colum (LWC = TWD-DGW)		12.96 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	2.20 gals
3 Casing Volumes = 3 X	0.00 =	6.60 gals

(Standard Purge Volume)

Note: Well has 2.93 feet of stick-up.

Total Volume of Water Purged Before Sampling 7.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5	5.0	7.0				
Time (military)	1450	1454	1457	1501				
pH (s.u)	6.03	6.04	6.04	6.01				
Specific Conductivity (µS)	111.4	111.9	110.8	106.8				
Water Temperature (°C)	16.3	16.2	16.2	16.4				
Turbidity (subjective: clear, slightly cloudy, cloudy)	>1,100	224	89.9	7.84				
Dissolved Oxygen (mg/l)	6.08							

Remarks: Sampled @ 1501 on 1/20/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel PDW VAI RAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 60°F

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-32

Well Diameter (D) 2 inch of 32.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	35.36	ft btoc
Depth to Groundwater (DGW)	30.98	ft btoc
Length of Water Colum (LWC = TWD-DGW)	4.38	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	0.75	gals
3 Casing Volumes = 3 X 0.00 =	2.25	gals

(Standard Purge Volume)

Note: Well has 2.96 feet of stick-up.

Total Volume of Water Purged Before Sampling 1 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.9	DRY	DRY				
Time (military)	1355	1400						
pH (s.u)	6.22	6.00						
Specific Conductivity (µS)	67.7	66.0						
Water Temperature (°C)	16.1	16.9						
Turbidity (subjective: clear, slightly cloudy, cloudy)	7.8	8.5						
Dissolved Oxygen (mg/l)	9.8							

Remarks:
Dry after 1 ~~gallon~~ Vol
Sampled at 1400

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 18°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-32R

Well Diameter (D) 2 inch of 40.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	43.11	ft btoc
Depth to Groundwater (DGW)	30.37	ft btoc
Length of Water Colum (LWC = TWD-DGW)	12.74	ft
1 Casing Volume (LWC*C) = 0.00 X .17	= 2.20	gals
3 Casing Volumes = 3 X 0.00	= 6.6	gals

(Standard Purge Volume)

Note: Well has 3.01 feet of stick-up.

Total Volume of Water Purged Before Sampling 7.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5	5.0	7.0				
Time (military)	1345	1349	1352	1357				
pH (s.u)	6.53	6.46	6.15	5.91				
Specific Conductivity (µS)	114.5	97.1	76.5	75.2				
Water Temperature (°C)	17.0	16.5	16.2	16.1				
Turbidity (subjective: clear, slightly cloudy, cloudy)	207	78.9	28.6	7.86				
Dissolved Oxygen (mg/l)	8.24							

Remarks: Sampled @ 1357 on 1/20/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel PSH VAI ZAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 60

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-33

Well Diameter (D) 2 inch of 48.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 51.92 ft btoc
Depth to Groundwater (DGW) 44.45 ft btoc
Length of Water Colum (LWC = TWD-DGW) 7.47 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 1.30 gals
3 Casing Volumes = 3 X 0.00 = 3.90 gals
(Standard Purge Volume)
Note: Well has 3.12 feet of stick-up.

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.5				
Time (military)	1515	1520	1525	1530				
pH (s.u)	6.05	6.67	5.95	5.98				
Specific Conductivity (µS)	52.6	53.7	52.6	54.1				
Water Temperature (°C)	16.3	16.2	15.2	15.6				
Turbidity (subjective: clear, slightly cloudy, cloudy)	8.0	180	180	15	9.5			
Dissolved Oxygen (mg/l)	3.8							

Sampled 1530

Remarks:

BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-33D

Well Diameter (D) 2 inch of 65.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	—	ft
Total Well Depth (TWD)	69.02	ft btoc
Depth to Groundwater (DGW)	45.38	ft btoc
Length of Water Colum (LWC = TWD-DGW)	23.64	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	4.01	gals
3 Casing Volumes = 3 X 0.00 = (Standard Purge Volume)	12.03	gals

Note: Well has 3.42 feet of stick-up.

Total Volume of Water Purged Before Sampling 12.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	4.5	9.0	12.5				
Time (military)	1523	1538	1551	1601				
pH (s.u)	6.11	5.84	5.94	5.92				
Specific Conductivity (µS)	97.4	108.6	109.4	110.4				
Water Temperature (°C)	16.9	16.7	16.7	16.7				
Turbidity (subjective: clear, slightly cloudy, cloudy)	224	65.4	7.88	6.23				
Dissolved Oxygen (mg/l)	6.98							

Remarks: Sampled @ 1601 on 1/20/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/22/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) ~20°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-33DD

Well Diameter (D) 2 inch of 131.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 133.91 ft btoc
Depth to Groundwater (DGW) 53.30 ft btoc
Length of Water Colum (LWC = TWD-DGW) 80.61 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 13.70 gals
3 Casing Volumes = 3 X 0.00 = 41.1 gals
(Standard Purge Volume)

Note: Well has 2.81 feet of stick-up.

Total Volume of Water Purged Before Sampling 27.9 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol. 27	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	14.0	[illegible]	[illegible]				
Time (military)	0931	0941	0955					
pH (s.u)	6.93	7.06	7.15					
Specific Conductivity (µS)	218	265	263					
Water Temperature (°C)	13.4	15.9	16.4					
Turbidity (subjective: clear, slightly cloudy, cloudy)	7.47	22.1	7.84					
Dissolved Oxygen (mg/l)	2.58							

Dry @ 27.0 gallons.
Sampled @ 0955

Remarks:

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/20/14
Field Personnel PSVH IAI RAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 60's

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-34

Well Diameter (D) 2 inch of 50.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	53.98	ft btoc
Depth to Groundwater (DGW)	45.39	ft btoc
Length of Water Colum (LWC = TWD-DGW)	8.59	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.46	gals
3 Casing Volumes = 3 X 0.00 =	4.38	gals

(Standard Purge Volume)

Note: Well has 3.38 feet of stick-up.

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.5				
Time (military)	1550	1555	1600	1605				
pH (s.u)	6.01	6.02	6.08	6.06				
Specific Conductivity (µS)	78.6	80.6	81.8	82.4				
Water Temperature (°C)	16.5	16.8	16.2	16.1				
Turbidity (subjective: clear, slightly cloudy, cloudy)	15.00	30	35	35				
Dissolved Oxygen (mg/l)	6.44							

Remarks: Sampled @ 1605 on 11/20/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel IdI, PJ, YH, RM D
General weather Conditions Sunny
Ambient Air Temperature (°F) 62

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-35

Well Diameter (D) 2 inch of 56.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				59.51	ft btoc
Depth to Groundwater (DGW)				48.70	ft btoc
Length of Water Colum (LWC = TWD-DGW)				10.81	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 1.84	gals
3 Casing Volumes = 3 X	0.00		=	5.52	gals

(Standard Purge Volume)

Note: Well has 3.11 feet of stick-up.

Total Volume of Water Purged Before Sampling 9 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2	4	6	8			
Time (military)	1424	1434	1442	1450	1456			
pH (s.u)	6.30	6.01	6.01	6.02	6.03			
Specific Conductivity (µS)	82.7	86.4	86.8	88.4	88.3			
Water Temperature (°C)	16.4	15.9	16.2	16.1	16.2			
Turbidity (subjective: clear, slightly cloudy, cloudy)	13.8	23.7	13.1	11.7	10.6			
Dissolved Oxygen (mg/l)	4.9							

Remarks: Sampled @ 1456 on 1/20/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel JAI, RAD, PSyH
General weather Conditions SUNNY
Ambient Air Temperature (°F) 61

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-36

Well Diameter (D) 2 inch of 61.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				ft
Total Well Depth (TWD)			60.69	ft btoc
Depth to Groundwater (DGW)			45.75	ft btoc
Length of Water Colum (LWC = TWD-DGW)			14.94	ft
1 Casing Volume (LWC*C) =	0.00	X .17 =	2.54	gals
3 Casing Volumes = 3 X	0.00	=	7.62	gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling 11.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	3.0	6.0	9.0	11.5			
Time (military)	1348	1358	1405	1412	1417			
pH (s.u)	7.88	6.79	6.65	6.46	6.47			
Specific Conductivity (µS)	117.6	110.2	105.6	105.6	105.5			
Water Temperature (°C)	16.7	16.3	16.1	16.0	16.0			
Turbidity (subjective: clear, slightly cloudy, cloudy)	8.77	20.1	16.7	10.8	10.0			
Dissolved Oxygen (mg/l)	4.5							

Sampled @ 1417 on 1/20/14

Remarks:

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BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/23/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) -4°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-37

Well Diameter (D) 2 inch of 101.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	—	ft
Total Well Depth (TWD)	101.77	ft btoc
Depth to Groundwater (DGW)	45.24	ft btoc
Length of Water Colum (LWC = TWD-DGW)		56.53 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	9.61 gals
3 Casing Volumes = 3 X	0.00 =	20.73 gals
	(Standard Purge Volume)	

Total Volume of Water Purged Before Sampling 30.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	10.0	20.0	30.0				
Time (military)	0904	0908	0916	0920				
pH (s.u)	11.52	10.85	11.34	11.44				
Specific Conductivity (µS)	603	256	514	545				
Water Temperature (°C)	14.5	15.4	16.4	16.3				
Turbidity (subjective: clear, slightly cloudy, cloudy)	8.54	11.71	12.14	7.84				
Dissolved Oxygen (mg/l)	1.62							

Remarks: Sampled @ 0920 on 1/23/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/22/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 30

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-37D

Well Diameter (D) 2 inch of 134.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	134.36	ft btoc
Depth to Groundwater (DGW)	46.10	ft btoc
Length of Water Colum (LWC = TWD-DGW)	88.26	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	15.0	gals
3 Casing Volumes = 3 X 0.00 =	45	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 20.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol. 705	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	15.0	30	45				
Time (military)	1427	1437	1457	1507				
pH (s.u)	8.43	7.57	7.56					
Specific Conductivity (µS)	1019	789	656					
Water Temperature (°C)	15.0	16.8	17.2					
Turbidity (subjective: clear, slightly cloudy, cloudy)	37.6	222	107.4					
Dissolved Oxygen (mg/l)	2.18							

Remarks: Well purged dry after 20.0 gallons removed.
Sampled @ 1457 on 1/22/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel Reid A. Doherty
General weather Conditions Clear
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-38

Well Diameter (D) 2 inch of 57.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	—	ft			
Total Well Depth (TWD)	60.39	ft btoc			
Depth to Groundwater (DGW)	54.00	ft btoc			
Length of Water Colum (LWC = TWD-DGW)				6.39	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 1.09	gals
3 Casing Volumes = 3 X	0.00		=	3.27	gals

(Standard Purge Volume)

Note: Well has 2.99 feet of stick-up.

Total Volume of Water Purged Before Sampling 3.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	3.5				
Time (military)	1205	1210	1215	1220				
pH (s.u)	6.73	6.64	6.52	6.41				
Specific Conductivity (µS)	97.2	91.1	82.4	80.1				
Water Temperature (°C)	15.9	16.2	16.5	16.4				
Turbidity (subjective: clear, slightly cloudy, cloudy)	62.4	74.3	32.7	9.22				
Dissolved Oxygen (mg/l)	5.94							

Remarks: Sampled @ 1220 on 1/21/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel RAD, DRM, PTV
General weather Conditions Clear
Ambient Air Temperature (°F) 18°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-39

Well Diameter (D) 2 inch of 56.20 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				56.06	ft btoc
Depth to Groundwater (DGW)				45.26	ft btoc
Length of Water Colum (LWC = TWD-DGW)				10.80	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 1.84	gals
3 Casing Volumes = 3 X	0.00		=	5.52	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	4.0	6.0				
Time (military)	1320	1325	1330	1333				
pH (s.u)	6.56	6.53	6.63	6.58				
Specific Conductivity (µS)	839	829	885	891				
Water Temperature (°C)	18.2	18.3	18.2	18.3				
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.43	>1,100	128.3	7.88				
Dissolved Oxygen (mg/l)	1.84							

Sampled @ 1333 on 1/21/14.

Remarks: Duplicate (MW-39 Dup) sampled @ 1334 on 1/21/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1-21-14
Field Personnel DRH
General weather Conditions Sunny
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-40

Well Diameter (D) 2 inch of 55.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				55.70	ft btoc
Depth to Groundwater (DGW)				45.25	ft btoc
Length of Water Colum (LWC = TWD-DGW)				10.45	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 1.78	gals
3 Casing Volumes = 3 X	0.00		=	5.34	gals
(Standard Purge Volume)					

Total Volume of Water Purged Before Sampling 5.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	4.0	~~5.0~~				
Time (military)	1325	1333	1337	~~1340~~				
pH (s.u)	5.48	6.28	6.48					
Specific Conductivity (µS)	114.9	344	533					
Water Temperature (°C)	17.3	17.2	17.6					
Turbidity (subjective: clear, slightly cloudy, cloudy)	123	91.8	52.1					
Dissolved Oxygen (mg/l)	1.0							

well sampled @ 1340 on 1-21-14

well purged dry @ ~~4.75~~ 5.0 gal

Remarks: Duplicate 00505 - MW-40 sampled @ 1341 on 1-21-14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1-21-14
Field Personnel DRM
General weather Conditions Sunny
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-41

Well Diameter (D) 2 inch of 55.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	–	ft	
Total Well Depth (TWD)	55.44	ft btoc	
Depth to Groundwater (DGW)	41.25	ft btoc	
Length of Water Colum (LWC = TWD-DGW)			14.19 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =		2.41 gals
3 Casing Volumes = 3 X	0.00 =		7.23 gals
	(Standard Purge Volume)		

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5	5.0	7.5				
Time (military)	1401	1411	1422					
pH (s.u)	6.62	6.56	6.54					
Specific Conductivity (µS)	460	621	645					
Water Temperature (°C)	18.5	18.2	17.7					
Turbidity (subjective: clear, slightly cloudy, cloudy)	123	63.1	72.4					
Dissolved Oxygen (mg/l)								

Remarks: well purged dry after 6.0 gal removed
well sampled @ 1422 on 1-21-14
Duplicate MW-41 Dup @ 1423 on 1-21-14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel IAI, PSYH, RAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 62

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-42

Well Diameter (D) 2 inch of 55.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	58.97	ft btoc
Depth to Groundwater (DGW)	42.81	ft btoc
Length of Water Colum (LWC = TWD-DGW)	16.16	ft
1 Casing Volume (LWC*C) = 0.00 X .17	= 2.74	gals
3 Casing Volumes = 3 X 0.00	= 8.22	gals

(Standard Purge Volume)

Note: Well has 3.17 feet of stick-up.

Total Volume of Water Purged Before Sampling 9.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	3.0	6.0	9.0	[illegible]			
Time (military)	1501	1512	1521	1532				
pH (s.u)	6.42	7.21	7.80	7.86				
Specific Conductivity (µS)	146.3	195.5	199.2	199.4				
Water Temperature (°C)	16.2	16.6	16.2	16.3				
Turbidity (subjective: clear, slightly cloudy, cloudy)	7.63	15.7	13.1	10.7				
Dissolved Oxygen (mg/l)	5.3							

Remarks: Dry @ T 9.5 Gallons
Sampled @ 1535 on 1/20/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel PJW RAD
General weather Conditions Sunny
Ambient Air Temperature (°F) 60

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-43

Well Diameter (D) 2 inch of 39.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				42.55	ft btoc
Depth to Groundwater (DGW)				31.30	ft btoc
Length of Water Colum (LWC = TWD-DGW)				11.25	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 1.91	gals
3 Casing Volumes = 3 X	0.00		=	5.73	gals
(Standard Purge Volume)					

Note: Well has 2.95 feet of stick-up.

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	4.0	6.0				
Time (military)	1620	1625	1630	1635				
pH (s.u)	6.21	6.06	6.31	6.06				
Specific Conductivity (µS)	71.8	73.4	76.1	76.5				
Water Temperature (°C)	16.0	16.0	16.0	15.7				
Turbidity (subjective: clear, slightly cloudy, cloudy)	15	15	42.7	7.89				
Dissolved Oxygen (mg/l)	7.9							

Remarks: Sampled at 1635 on 1/20/14

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/20/14
Field Personnel RAD
General weather Conditions Clear
Ambient Air Temperature (°F) 18°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-44

Well Diameter (D) 2 inch of 39.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				42.53	ft btoc
Depth to Groundwater (DGW)				31.30	ft btoc
Length of Water Colum (LWC = TWD-DGW)				11.23	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 1.91	gals
3 Casing Volumes = 3 X	0.00		=	5.73	gals
(Standard Purge Volume)					

Note: Well has 3.03 feet of stick-up.

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	4.0	6.0				
Time (military)	1609	1613	1618	1623				
pH (s.u)	6.00	5.97	5.98	5.98				
Specific Conductivity (µS)	67.9	69.1	67.7	69.9				
Water Temperature (°C)	15.8	15.9	15.9	15.9				
Turbidity (subjective: clear, slightly cloudy, cloudy)	74.2	104.7	62.9	6.97				
Dissolved Oxygen (mg/l)	7.33							

Remarks: sampled @ 1623 on 1/20/14.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/21/14
Field Personnel PJVH RAD DRM
General weather Conditions Sunny
Ambient Air Temperature (°F) 40

Facility Name: KMO #119 Site ID# 00505

Well # MW-45

Well Diameter (D) 2 inch of 41.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	40.91	ft btoc
Depth to Groundwater (DGW)	32.70	ft btoc
Length of Water Colum (LWC = TWD-DGW)	7.91	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.34	gals
3 Casing Volumes = 3 X 0.00 = (Standard Purge Volume)	4.02	gals

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.5				
Time (military)	1445	1450	1455	1500				
pH (s.u)	6.16	5.72	5.79	5.84				
Specific Conductivity (µS)	22.4	20.3	20.5	20.6				
Water Temperature (°C)	17.9	18.1	18.2	18.1				
Turbidity (subjective: clear, slightly cloudy, cloudy)	9.77	7.00	48.62	9.10				
Dissolved Oxygen (mg/l)	10.76							

Remarks: Sampled at 1500 1/21/14

APPENDIX B

DISPOSAL MANIFESTS

VLS recovery services, llc

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number 7517-03 513-521

GENERATOR

5. Generator's Name and Mailing Address

BUNNELL-LAMMON ENG, INC
6004 PONDERS COURT
GREENVILLE, SC 29615

Generator's Phone: 864-288-1265

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: BLE — U.S. EPA ID Number:

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address

VLS RECOVERY SERVICES, LLC
305 S. MAIN STREET
MAULDIN, SC 29662

U.S. EPA ID Number: SCR000752468

Facility's Phone: 864-962-9953

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	NON HAZ NON REG WELL WATER #11312 — MD Food Mart Anderson SC UST 00305			558	G
2.	non haz non reg well water #11312 — Cricket 3828 Cross Anchor SC UST 13907 — Purge & dev water 82 purge 16 dev			98	G
3.	non haz non reg well water #11312 — Kangs #20 Sumter SC UST 08892			119.5	G
4.	non haz non reg well water #11312 — Quick Pantry #27 Bamberg SC UST 04780			129	G
5.	non haz non reg well water #11312 — Cokesbury Grocery UST 04779 Hodges SC			294	G
6.	Non haz non reg well water #11312 — Prime Oil Co UST 09945 Landrum SC			515	G

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brian K. White — Signature: Brian K. White — Month 2 Day 18 Year 14

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month Day Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Steven Wilson — Signature — Month 2 Day 18 Year 14

APPENDIX C

LABORATORY DATA SHEETS

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615
Attention: Trevor Benton

Project Name: **MD Food Mart**

Project Number: **J13-3661-06**

Lot Number: **PA24057**

Date Completed: **02/03/2014**

Lucas Odom
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

Case Narrative
Bunnell-Lammons Engineering, Inc.
Lot Number: PA24057

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

VOCs by GC/MS

Sample -037 was contained large amounts of sediment in the vials. The sample could only be analyzed at a 50X dilution. All target compounds were non-detect at this dilution.

Sample Summary
Bunnell-Lammons Engineering, Inc.
Lot Number: PA24057

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	00505-MW1D	Aqueous	01/23/2014 1615	01/24/2014
002	00505-MW1D Dup	Aqueous	01/23/2014 1616	01/24/2014
003	00505-MW1DD	Aqueous	01/23/2014 1450	01/24/2014
004	00505-MW1DDD	Aqueous	01/23/2014 1409	01/24/2014
005	00505-MW03	Aqueous	01/21/2014 1510	01/24/2014
006	00505-MW04	Aqueous	01/21/2014 1443	01/24/2014
007	00505-MW05R	Aqueous	01/21/2014 1518	01/24/2014
008	00505-MW06	Aqueous	01/21/2014 1555	01/24/2014
009	00505-MW06D	Aqueous	01/23/2014 1700	01/24/2014
010	00505-MW07	Aqueous	01/21/2014 1537	01/24/2014
011	00505-MW07D	Aqueous	01/23/2014 1637	01/24/2014
012	00505-MW08	Aqueous	01/21/2014 1522	01/24/2014
013	00505-MW09	Aqueous	01/21/2014 1307	01/24/2014
014	00505-MW10D	Aqueous	01/23/2014 1025	01/24/2014
015	00505-MW11	Aqueous	01/21/2014 1448	01/24/2014
016	00505-MW11D	Aqueous	01/23/2014 1255	01/24/2014
017	00505-MW11DD	Aqueous	01/23/2014 1225	01/24/2014
018	00505-MW11DDD	Aqueous	01/23/2014 1135	01/24/2014
019	00505-MW13R	Aqueous	01/21/2014 1255	01/24/2014
020	00505-MW14	Aqueous	01/21/2014 1336	01/24/2014
021	00505-MW14 Dup	Aqueous	01/21/2014 1337	01/24/2014
022	00505-MW14D	Aqueous	01/23/2014 0955	01/24/2014
023	00505-MW15	Aqueous	01/21/2014 1406	01/24/2014
024	00505-MW17	Aqueous	01/21/2014 1602	01/24/2014
025	00505-MW18	Aqueous	01/21/2014 1241	01/24/2014
026	00505-MW19	Aqueous	01/21/2014 1222	01/24/2014
027	00505-MW20	Aqueous	01/22/2014 1415	01/24/2014
028	00505-MW21	Aqueous	01/21/2014 1107	01/24/2014
029	00505-MW22	Aqueous	01/21/2014 1119	01/24/2014
030	00505-MW23	Aqueous	01/21/2014 1131	01/24/2014
031	00505-MW24	Aqueous	01/22/2014 1317	01/24/2014
032	00505-MW25	Aqueous	01/21/2014 1040	01/24/2014
033	00505-MW26	Aqueous	01/22/2014 1215	01/24/2014
034	00505-MW27	Aqueous	01/21/2014 0910	01/24/2014
035	00505-MW27R	Aqueous	01/21/2014 0935	01/24/2014
036	00505-MW27D	Aqueous	01/21/2014 0957	01/24/2014
037	00505-MW27DD	Aqueous	01/22/2014 1115	01/24/2014
038	00505-MW28	Aqueous	01/21/2014 1209	01/24/2014
039	00505-MW30	Aqueous	01/20/2014 1418	01/24/2014
040	00505-MW30R	Aqueous	01/20/2014 1431	01/24/2014
041	00505-MW31	Aqueous	01/20/2014 1456	01/24/2014
042	00505-MW31R	Aqueous	01/20/2014 1501	01/24/2014
043	00505-MW32	Aqueous	01/20/2014 1400	01/24/2014
044	00505-MW32R	Aqueous	01/20/2014 1357	01/24/2014
045	00505-MW33	Aqueous	01/20/2014 1530	01/24/2014

Sample Summary (Continued)

Lot Number: PA24057

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
046	00505-MW33D	Aqueous	01/20/2014 1601	01/24/2014
047	00505-MW33DD	Aqueous	01/22/2014 0955	01/24/2014
048	00505-MW34	Aqueous	01/20/2014 1605	01/24/2014
049	00505-MW35	Aqueous	01/20/2014 1456	01/24/2014
050	00505-MW36	Aqueous	01/20/2014 1417	01/24/2014
051	00505-MW37	Aqueous	01/23/2014 0920	01/24/2014
052	00505-MW37D	Aqueous	01/22/2014 1457	01/24/2014
053	00505-MW38	Aqueous	01/21/2014 1220	01/24/2014
054	00505-MW39	Aqueous	01/21/2014 1333	01/24/2014
055	00505-MW40	Aqueous	01/21/2014 1340	01/24/2014
056	00505-MW40 Dup	Aqueous	01/21/2014 1341	01/24/2014
057	00505-MW41	Aqueous	01/21/2014 1422	01/24/2014
058	00505-MW41 Dup	Aqueous	01/21/2014 1423	01/24/2014
059	00505-MW42	Aqueous	01/20/2014 1535	01/24/2014
060	00505-MW43	Aqueous	01/20/2014 1635	01/24/2014
061	00505-MW44	Aqueous	01/20/2014 1623	01/24/2014
062	00505-MW45	Aqueous	01/21/2014 1500	01/24/2014
063	DW-01	Aqueous	01/23/2014 1715	01/24/2014
064	Field Blank 1	Aqueous	01/20/2014 1645	01/24/2014
065	Field Blank 2	Aqueous	01/21/2014 1615	01/24/2014
066	Field Blank 3	Aqueous	01/22/2014 1515	01/24/2014
067	Field Blank 4	Aqueous	01/23/2014 1730	01/24/2014
068	Trip Blank 1	Aqueous	01/24/2014	01/24/2014
069	Trip Blank 2	Aqueous	01/24/2014	01/24/2014

(69 samples)

Executive Summary

Bunnell-Lammons Engineering, Inc.

Lot Number: PA24057

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	00505-MW1D	Aqueous	tert-Amyl alcohol (TAA)	8260B	5700		ug/L	11
001	00505-MW1D	Aqueous	tert-Amyl methyl ether (TAME)	8260B	72	J	ug/L	11
001	00505-MW1D	Aqueous	Benzene	8260B	1400		ug/L	11
001	00505-MW1D	Aqueous	1,2-Dichloroethane	8260B	170		ug/L	11
001	00505-MW1D	Aqueous	Diisopropyl ether (IPE)	8260B	900		ug/L	11
001	00505-MW1D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	3800		ug/L	11
001	00505-MW1D	Aqueous	tert-butyl alcohol (TBA)	8260B	1200		ug/L	11
001	00505-MW1D	Aqueous	Toluene	8260B	29	J	ug/L	11
001	00505-MW1D	Aqueous	Xylenes (total)	8260B	33	J	ug/L	11
002	00505-MW1D Dup	Aqueous	tert-Amyl alcohol (TAA)	8260B	5800		ug/L	12
002	00505-MW1D Dup	Aqueous	tert-Amyl methyl ether (TAME)	8260B	74	J	ug/L	12
002	00505-MW1D Dup	Aqueous	Benzene	8260B	1400		ug/L	12
002	00505-MW1D Dup	Aqueous	1,2-Dichloroethane	8260B	170		ug/L	12
002	00505-MW1D Dup	Aqueous	Diisopropyl ether (IPE)	8260B	910		ug/L	12
002	00505-MW1D Dup	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	3900		ug/L	12
002	00505-MW1D Dup	Aqueous	tert-butyl alcohol (TBA)	8260B	1200		ug/L	12
002	00505-MW1D Dup	Aqueous	Toluene	8260B	30	J	ug/L	12
002	00505-MW1D Dup	Aqueous	Xylenes (total)	8260B	34	J	ug/L	12
003	00505-MW1DD	Aqueous	tert-Amyl alcohol (TAA)	8260B	68		ug/L	13
003	00505-MW1DD	Aqueous	tert-Amyl methyl ether (TAME)	8260B	1.2	J	ug/L	13
003	00505-MW1DD	Aqueous	Benzene	8260B	47		ug/L	13
003	00505-MW1DD	Aqueous	1,2-Dichloroethane	8260B	2.6	J	ug/L	13
003	00505-MW1DD	Aqueous	Diisopropyl ether (IPE)	8260B	24		ug/L	13
003	00505-MW1DD	Aqueous	Ethylbenzene	8260B	9.4		ug/L	13
003	00505-MW1DD	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	51		ug/L	13
003	00505-MW1DD	Aqueous	Naphthalene	8260B	3.8	J	ug/L	13
003	00505-MW1DD	Aqueous	tert-butyl alcohol (TBA)	8260B	24		ug/L	13
003	00505-MW1DD	Aqueous	Toluene	8260B	38		ug/L	13
003	00505-MW1DD	Aqueous	Xylenes (total)	8260B	41		ug/L	13
004	00505-MW1DDD	Aqueous	tert-Amyl alcohol (TAA)	8260B	2800		ug/L	14
004	00505-MW1DDD	Aqueous	tert-Amyl methyl ether (TAME)	8260B	35	J	ug/L	14
004	00505-MW1DDD	Aqueous	Benzene	8260B	3900		ug/L	14
004	00505-MW1DDD	Aqueous	1,2-Dichloroethane	8260B	220	J	ug/L	14
004	00505-MW1DDD	Aqueous	Diisopropyl ether (IPE)	8260B	620		ug/L	14
004	00505-MW1DDD	Aqueous	Ethylbenzene	8260B	160	J	ug/L	14
004	00505-MW1DDD	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2000		ug/L	14
004	00505-MW1DDD	Aqueous	tert-butyl alcohol (TBA)	8260B	690	J	ug/L	14
004	00505-MW1DDD	Aqueous	Toluene	8260B	670		ug/L	14
004	00505-MW1DDD	Aqueous	Xylenes (total)	8260B	640		ug/L	14
006	00505-MW04	Aqueous	Diisopropyl ether (IPE)	8260B	2.5	J	ug/L	16
006	00505-MW04	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2.9	J	ug/L	16
013	00505-MW09	Aqueous	tert-Amyl alcohol (TAA)	8260B	12000		ug/L	23
013	00505-MW09	Aqueous	tert-Amyl methyl ether (TAME)	8260B	73	J	ug/L	23
013	00505-MW09	Aqueous	Benzene	8260B	710		ug/L	23
013	00505-MW09	Aqueous	1,2-Dichloroethane	8260B	430		ug/L	23

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
013	00505-MW09	Aqueous	Diisopropyl ether (IPE)	8260B	1600		ug/L	23
013	00505-MW09	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2500		ug/L	23
013	00505-MW09	Aqueous	tert-butyl alcohol (TBA)	8260B	2100		ug/L	23
014	00505-MW10D	Aqueous	tert-Amyl alcohol (TAA)	8260B	2400		ug/L	24
014	00505-MW10D	Aqueous	tert-Amyl methyl ether (TAME)	8260B	29	J	ug/L	24
014	00505-MW10D	Aqueous	Benzene	8260B	2200		ug/L	24
014	00505-MW10D	Aqueous	1,2-Dichloroethane	8260B	120	J	ug/L	24
014	00505-MW10D	Aqueous	Diisopropyl ether (IPE)	8260B	620		ug/L	24
014	00505-MW10D	Aqueous	Ethylbenzene	8260B	270		ug/L	24
014	00505-MW10D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1700		ug/L	24
014	00505-MW10D	Aqueous	tert-butyl alcohol (TBA)	8260B	570	J	ug/L	24
014	00505-MW10D	Aqueous	Toluene	8260B	200	J	ug/L	24
014	00505-MW10D	Aqueous	Xylenes (total)	8260B	440		ug/L	24
015	00505-MW11	Aqueous	Benzene	8260B	950	J	ug/L	25
015	00505-MW11	Aqueous	Ethylbenzene	8260B	3000		ug/L	25
015	00505-MW11	Aqueous	Naphthalene	8260B	1800	J	ug/L	25
015	00505-MW11	Aqueous	Toluene	8260B	3700		ug/L	25
015	00505-MW11	Aqueous	Xylenes (total)	8260B	17000		ug/L	25
015	00505-MW11	Aqueous	1,2-Dibromoethane (EDB)	8011	0.10		ug/L	25
016	00505-MW11D	Aqueous	tert-Amyl alcohol (TAA)	8260B	260		ug/L	26
016	00505-MW11D	Aqueous	tert-Amyl methyl ether (TAME)	8260B	4.0	J	ug/L	26
016	00505-MW11D	Aqueous	Benzene	8260B	340		ug/L	26
016	00505-MW11D	Aqueous	1,2-Dichloroethane	8260B	19	J	ug/L	26
016	00505-MW11D	Aqueous	Diisopropyl ether (IPE)	8260B	88		ug/L	26
016	00505-MW11D	Aqueous	Ethylbenzene	8260B	76		ug/L	26
016	00505-MW11D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	260		ug/L	26
016	00505-MW11D	Aqueous	Naphthalene	8260B	23	J	ug/L	26
016	00505-MW11D	Aqueous	tert-butyl alcohol (TBA)	8260B	60	J	ug/L	26
016	00505-MW11D	Aqueous	Toluene	8260B	320		ug/L	26
016	00505-MW11D	Aqueous	Xylenes (total)	8260B	290		ug/L	26
017	00505-MW11DD	Aqueous	tert-Amyl alcohol (TAA)	8260B	4800		ug/L	27
017	00505-MW11DD	Aqueous	tert-Amyl methyl ether (TAME)	8260B	67	J	ug/L	27
017	00505-MW11DD	Aqueous	Benzene	8260B	11000		ug/L	27
017	00505-MW11DD	Aqueous	1,2-Dichloroethane	8260B	580		ug/L	27
017	00505-MW11DD	Aqueous	Diisopropyl ether (IPE)	8260B	1200		ug/L	27
017	00505-MW11DD	Aqueous	Ethylbenzene	8260B	960		ug/L	27
017	00505-MW11DD	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	3700		ug/L	27
017	00505-MW11DD	Aqueous	Naphthalene	8260B	180	J	ug/L	27
017	00505-MW11DD	Aqueous	tert-butyl alcohol (TBA)	8260B	1200	J	ug/L	27
017	00505-MW11DD	Aqueous	Toluene	8260B	8600		ug/L	27
017	00505-MW11DD	Aqueous	Xylenes (total)	8260B	4100		ug/L	27
018	00505-MW11DDD	Aqueous	tert-Amyl alcohol (TAA)	8260B	2800		ug/L	28
018	00505-MW11DDD	Aqueous	tert-Amyl methyl ether (TAME)	8260B	27	J	ug/L	28
018	00505-MW11DDD	Aqueous	Benzene	8260B	1800		ug/L	28
018	00505-MW11DDD	Aqueous	1,2-Dichloroethane	8260B	85	J	ug/L	28
018	00505-MW11DDD	Aqueous	Diisopropyl ether (IPE)	8260B	490		ug/L	28
018	00505-MW11DDD	Aqueous	Ethylbenzene	8260B	100		ug/L	28
018	00505-MW11DDD	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1600		ug/L	28

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
018	00505-MW11DDD	Aqueous	tert-butyl alcohol (TBA)	8260B	680		ug/L	28
018	00505-MW11DDD	Aqueous	Toluene	8260B	720		ug/L	28
018	00505-MW11DDD	Aqueous	Xylenes (total)	8260B	420		ug/L	28
019	00505-MW13R	Aqueous	tert-Amyl alcohol (TAA)	8260B	1400	J	ug/L	29
019	00505-MW13R	Aqueous	Benzene	8260B	4100		ug/L	29
019	00505-MW13R	Aqueous	Diisopropyl ether (IPE)	8260B	230	J	ug/L	29
019	00505-MW13R	Aqueous	Ethylbenzene	8260B	2100		ug/L	29
019	00505-MW13R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	150	J	ug/L	29
019	00505-MW13R	Aqueous	Naphthalene	8260B	1800		ug/L	29
019	00505-MW13R	Aqueous	tert-butyl alcohol (TBA)	8260B	1000	J	ug/L	29
019	00505-MW13R	Aqueous	Toluene	8260B	1200		ug/L	29
019	00505-MW13R	Aqueous	Xylenes (total)	8260B	12000		ug/L	29
019	00505-MW13R	Aqueous	1,2-Dibromoethane (EDB)	8011	0.61		ug/L	29
020	00505-MW14	Aqueous	Ethylbenzene	8260B	3300		ug/L	30
020	00505-MW14	Aqueous	Naphthalene	8260B	3600		ug/L	30
020	00505-MW14	Aqueous	Toluene	8260B	85	J	ug/L	30
020	00505-MW14	Aqueous	Xylenes (total)	8260B	5700		ug/L	30
021	00505-MW14 Dup	Aqueous	Ethylbenzene	8260B	1300		ug/L	31
021	00505-MW14 Dup	Aqueous	Naphthalene	8260B	1100		ug/L	31
021	00505-MW14 Dup	Aqueous	Toluene	8260B	54	J	ug/L	31
021	00505-MW14 Dup	Aqueous	Xylenes (total)	8260B	4600		ug/L	31
022	00505-MW14D	Aqueous	tert-Amyl alcohol (TAA)	8260B	420		ug/L	32
022	00505-MW14D	Aqueous	tert-Amyl methyl ether (TAME)	8260B	4.2	J	ug/L	32
022	00505-MW14D	Aqueous	Benzene	8260B	56		ug/L	32
022	00505-MW14D	Aqueous	1,2-Dichloroethane	8260B	17	J	ug/L	32
022	00505-MW14D	Aqueous	Diisopropyl ether (IPE)	8260B	91		ug/L	32
022	00505-MW14D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	180		ug/L	32
022	00505-MW14D	Aqueous	Naphthalene	8260B	25		ug/L	32
022	00505-MW14D	Aqueous	tert-butyl alcohol (TBA)	8260B	150		ug/L	32
022	00505-MW14D	Aqueous	Xylenes (total)	8260B	11	J	ug/L	32
023	00505-MW15	Aqueous	tert-Amyl alcohol (TAA)	8260B	24		ug/L	33
023	00505-MW15	Aqueous	Benzene	8260B	3.7	J	ug/L	33
023	00505-MW15	Aqueous	1,2-Dichloroethane	8260B	1.2	J	ug/L	33
023	00505-MW15	Aqueous	Diisopropyl ether (IPE)	8260B	5.4		ug/L	33
023	00505-MW15	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	6.2		ug/L	33
023	00505-MW15	Aqueous	Naphthalene	8260B	4.9	J	ug/L	33
023	00505-MW15	Aqueous	tert-butyl alcohol (TBA)	8260B	20		ug/L	33
024	00505-MW17	Aqueous	tert-Amyl alcohol (TAA)	8260B	170		ug/L	34
024	00505-MW17	Aqueous	Benzene	8260B	16		ug/L	34
024	00505-MW17	Aqueous	1,2-Dichloroethane	8260B	4.5	J	ug/L	34
024	00505-MW17	Aqueous	Diisopropyl ether (IPE)	8260B	33		ug/L	34
024	00505-MW17	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	0.77	J	ug/L	34
024	00505-MW17	Aqueous	tert-butyl alcohol (TBA)	8260B	72		ug/L	34
024	00505-MW17	Aqueous	Xylenes (total)	8260B	19		ug/L	34
025	00505-MW18	Aqueous	tert-Amyl alcohol (TAA)	8260B	1600		ug/L	35
025	00505-MW18	Aqueous	tert-Amyl methyl ether (TAME)	8260B	4.8	J	ug/L	35
025	00505-MW18	Aqueous	Benzene	8260B	84		ug/L	35
025	00505-MW18	Aqueous	1,2-Dichloroethane	8260B	34		ug/L	35

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
025	00505-MW18	Aqueous	Diisopropyl ether (IPE)	8260B	150		ug/L	35
025	00505-MW18	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	150		ug/L	35
025	00505-MW18	Aqueous	tert-butyl alcohol (TBA)	8260B	280		ug/L	35
026	00505-MW19	Aqueous	tert-Amyl alcohol (TAA)	8260B	5400		ug/L	36
026	00505-MW19	Aqueous	Benzene	8260B	1200		ug/L	36
026	00505-MW19	Aqueous	1,2-Dichloroethane	8260B	140	J	ug/L	36
026	00505-MW19	Aqueous	Diisopropyl ether (IPE)	8260B	580		ug/L	36
026	00505-MW19	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	820		ug/L	36
026	00505-MW19	Aqueous	Naphthalene	8260B	390	J	ug/L	36
026	00505-MW19	Aqueous	tert-butyl alcohol (TBA)	8260B	940	J	ug/L	36
027	00505-MW20	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1.7	J	ug/L	37
028	00505-MW21	Aqueous	Benzene	8260B	120		ug/L	38
028	00505-MW21	Aqueous	Diisopropyl ether (IPE)	8260B	12	J	ug/L	38
028	00505-MW21	Aqueous	Ethylbenzene	8260B	340		ug/L	38
028	00505-MW21	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	16	J	ug/L	38
028	00505-MW21	Aqueous	Naphthalene	8260B	260		ug/L	38
028	00505-MW21	Aqueous	Toluene	8260B	130		ug/L	38
028	00505-MW21	Aqueous	Xylenes (total)	8260B	1100		ug/L	38
029	00505-MW22	Aqueous	Benzene	8260B	49		ug/L	39
029	00505-MW22	Aqueous	Diisopropyl ether (IPE)	8260B	7.3	J	ug/L	39
029	00505-MW22	Aqueous	Ethylbenzene	8260B	100		ug/L	39
029	00505-MW22	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	9.3	J	ug/L	39
029	00505-MW22	Aqueous	Naphthalene	8260B	140		ug/L	39
029	00505-MW22	Aqueous	tert-butyl alcohol (TBA)	8260B	36	J	ug/L	39
029	00505-MW22	Aqueous	Toluene	8260B	32		ug/L	39
029	00505-MW22	Aqueous	Xylenes (total)	8260B	240		ug/L	39
030	00505-MW23	Aqueous	tert-Amyl alcohol (TAA)	8260B	400		ug/L	40
030	00505-MW23	Aqueous	tert-Amyl methyl ether (TAME)	8260B	3.4	J	ug/L	40
030	00505-MW23	Aqueous	Benzene	8260B	350		ug/L	40
030	00505-MW23	Aqueous	1,2-Dichloroethane	8260B	19	J	ug/L	40
030	00505-MW23	Aqueous	Diisopropyl ether (IPE)	8260B	68		ug/L	40
030	00505-MW23	Aqueous	Ethylbenzene	8260B	230		ug/L	40
030	00505-MW23	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	110		ug/L	40
030	00505-MW23	Aqueous	Naphthalene	8260B	220		ug/L	40
030	00505-MW23	Aqueous	tert-butyl alcohol (TBA)	8260B	130		ug/L	40
030	00505-MW23	Aqueous	Toluene	8260B	69		ug/L	40
030	00505-MW23	Aqueous	Xylenes (total)	8260B	420		ug/L	40
031	00505-MW24	Aqueous	Benzene	8260B	0.36	J	ug/L	41
031	00505-MW24	Aqueous	Naphthalene	8260B	1.7	J	ug/L	41
032	00505-MW25	Aqueous	Diisopropyl ether (IPE)	8260B	0.95	J	ug/L	42
032	00505-MW25	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2.3	J	ug/L	42
033	00505-MW26	Aqueous	tert-Amyl alcohol (TAA)	8260B	63		ug/L	43
033	00505-MW26	Aqueous	tert-Amyl methyl ether (TAME)	8260B	0.89	J	ug/L	43
033	00505-MW26	Aqueous	Benzene	8260B	6.4		ug/L	43
033	00505-MW26	Aqueous	1,2-Dichloroethane	8260B	3.8	J	ug/L	43
033	00505-MW26	Aqueous	Diisopropyl ether (IPE)	8260B	20		ug/L	43
033	00505-MW26	Aqueous	Ethylbenzene	8260B	5.3		ug/L	43
033	00505-MW26	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	28		ug/L	43

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
033	00505-MW26	Aqueous	Naphthalene	8260B	5.7		ug/L	43
033	00505-MW26	Aqueous	tert-butyl alcohol (TBA)	8260B	49		ug/L	43
033	00505-MW26	Aqueous	Xylenes (total)	8260B	6.2		ug/L	43
034	00505-MW27	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	0.97	J	ug/L	44
035	00505-MW27R	Aqueous	Benzene	8260B	0.34	J	ug/L	45
035	00505-MW27R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1.5	J	ug/L	45
036	00505-MW27D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	14		ug/L	46
038	00505-MW28	Aqueous	tert-Amyl alcohol (TAA)	8260B	1500		ug/L	48
038	00505-MW28	Aqueous	tert-Amyl methyl ether (TAME)	8260B	12	J	ug/L	48
038	00505-MW28	Aqueous	Benzene	8260B	420		ug/L	48
038	00505-MW28	Aqueous	1,2-Dichloroethane	8260B	86	J	ug/L	48
038	00505-MW28	Aqueous	Diisopropyl ether (IPE)	8260B	320		ug/L	48
038	00505-MW28	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	340		ug/L	48
038	00505-MW28	Aqueous	Naphthalene	8260B	81	J	ug/L	48
038	00505-MW28	Aqueous	tert-butyl alcohol (TBA)	8260B	270	J	ug/L	48
041	00505-MW31	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2.1	J	ug/L	51
042	00505-MW31R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2.6	J	ug/L	52
043	00505-MW32	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	0.50	J	ug/L	53
044	00505-MW32R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1.5	J	ug/L	54
045	00505-MW33	Aqueous	1,2-Dichloroethane	8260B	5.3		ug/L	55
045	00505-MW33	Aqueous	Diisopropyl ether (IPE)	8260B	5.7		ug/L	55
045	00505-MW33	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	55		ug/L	55
046	00505-MW33D	Aqueous	tert-Amyl alcohol (TAA)	8260B	46	J	ug/L	56
046	00505-MW33D	Aqueous	Benzene	8260B	31		ug/L	56
046	00505-MW33D	Aqueous	1,2-Dichloroethane	8260B	19	J	ug/L	56
046	00505-MW33D	Aqueous	Diisopropyl ether (IPE)	8260B	59		ug/L	56
046	00505-MW33D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	170		ug/L	56
046	00505-MW33D	Aqueous	Xylenes (total)	8260B	8.7	J	ug/L	56
047	00505-MW33DD	Aqueous	tert-Amyl alcohol (TAA)	8260B	120		ug/L	57
047	00505-MW33DD	Aqueous	tert-Amyl methyl ether (TAME)	8260B	1.2	J	ug/L	57
047	00505-MW33DD	Aqueous	Benzene	8260B	67		ug/L	57
047	00505-MW33DD	Aqueous	1,2-Dichloroethane	8260B	8.6		ug/L	57
047	00505-MW33DD	Aqueous	Diisopropyl ether (IPE)	8260B	27		ug/L	57
047	00505-MW33DD	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	63		ug/L	57
047	00505-MW33DD	Aqueous	Naphthalene	8260B	11		ug/L	57
047	00505-MW33DD	Aqueous	tert-butyl alcohol (TBA)	8260B	27		ug/L	57
047	00505-MW33DD	Aqueous	Xylenes (total)	8260B	3.7	J	ug/L	57
048	00505-MW34	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	3.4	J	ug/L	58
051	00505-MW37	Aqueous	tert-Amyl alcohol (TAA)	8260B	290		ug/L	61
051	00505-MW37	Aqueous	tert-Amyl methyl ether (TAME)	8260B	2.7	J	ug/L	61
051	00505-MW37	Aqueous	Benzene	8260B	5.7		ug/L	61
051	00505-MW37	Aqueous	1,2-Dichloroethane	8260B	7.3		ug/L	61
051	00505-MW37	Aqueous	Diisopropyl ether (IPE)	8260B	60		ug/L	61
051	00505-MW37	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	110		ug/L	61
051	00505-MW37	Aqueous	tert-butyl alcohol (TBA)	8260B	57		ug/L	61
052	00505-MW37D	Aqueous	tert-Amyl alcohol (TAA)	8260B	25		ug/L	62
052	00505-MW37D	Aqueous	Benzene	8260B	11		ug/L	62
052	00505-MW37D	Aqueous	Diisopropyl ether (IPE)	8260B	5.5		ug/L	62

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
052	00505-MW37D	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	13		ug/L	62
052	00505-MW37D	Aqueous	Xylenes (total)	8260B	5.1		ug/L	62
054	00505-MW39	Aqueous	tert-Amyl alcohol (TAA)	8260B	8.4	J	ug/L	64
054	00505-MW39	Aqueous	Benzene	8260B	0.32	J	ug/L	64
054	00505-MW39	Aqueous	Diisopropyl ether (IPE)	8260B	4.4	J	ug/L	64
054	00505-MW39	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	8.4		ug/L	64
054	00505-MW39	Aqueous	tert-butyl alcohol (TBA)	8260B	13	J	ug/L	64
055	00505-MW40	Aqueous	tert-Amyl alcohol (TAA)	8260B	31		ug/L	65
055	00505-MW40	Aqueous	Benzene	8260B	0.80	J	ug/L	65
055	00505-MW40	Aqueous	1,2-Dichloroethane	8260B	0.41	J	ug/L	65
055	00505-MW40	Aqueous	Diisopropyl ether (IPE)	8260B	4.6	J	ug/L	65
055	00505-MW40	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1.9	J	ug/L	65
055	00505-MW40	Aqueous	tert-butyl alcohol (TBA)	8260B	310		ug/L	65
056	00505-MW40 Dup	Aqueous	tert-Amyl alcohol (TAA)	8260B	28		ug/L	66
056	00505-MW40 Dup	Aqueous	Benzene	8260B	0.81	J	ug/L	66
056	00505-MW40 Dup	Aqueous	1,2-Dichloroethane	8260B	0.42	J	ug/L	66
056	00505-MW40 Dup	Aqueous	Diisopropyl ether (IPE)	8260B	4.3	J	ug/L	66
056	00505-MW40 Dup	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1.9	J	ug/L	66
056	00505-MW40 Dup	Aqueous	tert-butyl alcohol (TBA)	8260B	310		ug/L	66
057	00505-MW41	Aqueous	tert-Amyl alcohol (TAA)	8260B	810		ug/L	67
057	00505-MW41	Aqueous	tert-Amyl methyl ether (TAME)	8260B	3.1	J	ug/L	67
057	00505-MW41	Aqueous	Benzene	8260B	11		ug/L	67
057	00505-MW41	Aqueous	1,2-Dichloroethane	8260B	6.6		ug/L	67
057	00505-MW41	Aqueous	Diisopropyl ether (IPE)	8260B	72		ug/L	67
057	00505-MW41	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	110		ug/L	67
057	00505-MW41	Aqueous	tert-butyl alcohol (TBA)	8260B	280		ug/L	67
057	00505-MW41	Aqueous	Xylenes (total)	8260B	3.2	J	ug/L	67
058	00505-MW41 Dup	Aqueous	tert-Amyl alcohol (TAA)	8260B	770		ug/L	68
058	00505-MW41 Dup	Aqueous	tert-Amyl methyl ether (TAME)	8260B	3.0	J	ug/L	68
058	00505-MW41 Dup	Aqueous	Benzene	8260B	11		ug/L	68
058	00505-MW41 Dup	Aqueous	1,2-Dichloroethane	8260B	6.3		ug/L	68
058	00505-MW41 Dup	Aqueous	Diisopropyl ether (IPE)	8260B	71		ug/L	68
058	00505-MW41 Dup	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	110		ug/L	68
058	00505-MW41 Dup	Aqueous	tert-butyl alcohol (TBA)	8260B	270		ug/L	68
058	00505-MW41 Dup	Aqueous	Xylenes (total)	8260B	3.3	J	ug/L	68
059	00505-MW42	Aqueous	tert-Amyl alcohol (TAA)	8260B	14	J	ug/L	69
059	00505-MW42	Aqueous	Benzene	8260B	0.49	J	ug/L	69
059	00505-MW42	Aqueous	1,2-Dichloroethane	8260B	0.53	J	ug/L	69
059	00505-MW42	Aqueous	Diisopropyl ether (IPE)	8260B	4.0	J	ug/L	69
059	00505-MW42	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	8.6		ug/L	69
060	00505-MW43	Aqueous	1,2-Dichloroethane	8260B	0.79	J	ug/L	70
060	00505-MW43	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	6.5		ug/L	70
061	00505-MW44	Aqueous	1,2-Dichloroethane	8260B	5.4		ug/L	71
061	00505-MW44	Aqueous	Diisopropyl ether (IPE)	8260B	4.0	J	ug/L	71
061	00505-MW44	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	60		ug/L	71

(282 detections)

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-001**

Description: **00505-MW1D** Matrix: **Aqueous**

Date Sampled: **01/23/2014 1615**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	01/29/2014 1653	ALL		39393
2	5030B	8260B	50	01/30/2014 1651	JHD		39445

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**5700**		**200**	**67**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**72**	**J**	**100**	**2.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**1400**		**50**	**2.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		50	10	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**170**		**50**	**3.0**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**900**		**50**	**4.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		200	10	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	330	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**3800**		**250**	**20**	**ug/L**	**2**
Naphthalene	91-20-3	8260B	ND		50	17	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1200**		**200**	**67**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**29**	**J**	**50**	**17**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**33**	**J**	**50**	**17**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130		91	70-130
Bromofluorobenzene		90	70-130		80	70-130
Toluene-d8		90	70-130		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	01/31/2014 1931	JCG	01/27/2014 2049	39289

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		109	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-002**

Description: **00505-MW1D Dup** Matrix: **Aqueous**

Date Sampled: **01/23/2014 1616**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	01/29/2014 1713	ALL		39393
2	5030B	8260B	50	01/30/2014 1713	JHD		39445

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**5800**		**200**	**67**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**74**	**J**	**100**	**2.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**1400**		**50**	**2.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		50	10	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**170**		**50**	**3.0**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**910**		**50**	**4.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		200	10	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	330	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**3900**		**250**	**20**	**ug/L**	**2**
Naphthalene	91-20-3	8260B	ND		50	17	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1200**		**200**	**67**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**30**	**J**	**50**	**17**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**34**	**J**	**50**	**17**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130		94	70-130
Bromofluorobenzene		89	70-130		83	70-130
Toluene-d8		89	70-130		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	01/31/2014 1952	JCG	01/27/2014 2049	39289

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-003**

Description: **00505-MW1DD** Matrix: **Aqueous**

Date Sampled: **01/23/2014 1450**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1241	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**68**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**1.2**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**47**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**2.6**	**J**	**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**24**		**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**9.4**		**5.0**	**1.7**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**51**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**3.8**	**J**	**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**24**		**20**	**6.7**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**38**		**5.0**	**1.7**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**41**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	01/31/2014 2014	JCG	01/27/2014 2049	39289

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		102	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-004**

Description: **00505-MW1DDD** Matrix: **Aqueous**

Date Sampled: **01/23/2014 1409**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/29/2014 1604	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2800**		**1000**	**340**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**35**	**J**	**500**	**10**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**3900**		**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	50	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**220**	**J**	**250**	**15**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**620**		**250**	**20**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	1700	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**160**	**J**	**250**	**85**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	10	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2000**		**250**	**20**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		250	85	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**690**	**J**	**1000**	**340**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**670**		**250**	**85**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**640**		**250**	**85**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		86	70-130
Toluene-d8		93	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	01/31/2014 2035	JCG	01/27/2014 2049	39289

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		106	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-005**

Description: **00505-MW03** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1510**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1304	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		81	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	01/31/2014 2056	JCG	01/27/2014 2049	39289

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-006**

Description: **00505-MW04** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1443**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1326	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**2.5**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2.9**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		83	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	01/31/2014 2222	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		88	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-007**

Description: **00505-MW05R** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1518**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1348	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		83	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	01/31/2014 2244	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-008**

Description: **00505-MW06** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1555**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1411	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		90	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	01/31/2014 2305	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-009**

Description: **00505-MW06D** Matrix: **Aqueous**

Date Sampled: **01/23/2014 1700**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1433	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	01/31/2014 2327	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-010**

Description: **00505-MW07** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1537**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1455	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	01/31/2014 2349	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-011**

Description: **00505-MW07D** Matrix: **Aqueous**

Date Sampled: **01/23/2014 1637**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1517	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0010	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-012**

Description: **00505-MW08** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1522**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1542	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		82	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0032	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		136	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-013**

Description: **00505-MW09** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1307**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/29/2014 1626	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**12000**		**1000**	**340**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**73**	**J**	**500**	**10**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**710**		**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	50	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**430**		**250**	**15**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**1600**		**250**	**20**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	1700	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		250	85	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	10	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2500**		**250**	**20**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		250	85	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**2100**		**1000**	**340**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		250	85	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		250	85	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		83	70-130
Toluene-d8		94	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0054	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		125	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-014**

Description: **00505-MW10D** Matrix: **Aqueous**

Date Sampled: **01/23/2014 1025**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/29/2014 1649	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2400**		**1000**	**340**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**29**	**J**	**500**	**10**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**2200**		**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	50	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**120**	**J**	**250**	**15**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**620**		**250**	**20**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	1700	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**270**		**250**	**85**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	10	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1700**		**250**	**20**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		250	85	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**570**	**J**	**1000**	**340**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**200**	**J**	**250**	**85**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**440**		**250**	**85**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		95	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0115	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		123	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-015**

Description: **00505-MW11** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1448**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	01/29/2014 1711	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	3400	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		5000	100	ug/L	1
Benzene	**71-43-2**	**8260B**	**950**	**J**	**2500**	**100**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2500	500	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2500	150	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2500	200	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	500	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	17000	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3000**		**2500**	**850**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	100	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		2500	200	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**1800**	**J**	**2500**	**850**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	3400	ug/L	1
Toluene	**108-88-3**	**8260B**	**3700**		**2500**	**850**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**17000**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		93	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0221	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.10**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		88	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-016**

Description: **00505-MW11D** Matrix: **Aqueous**

Date Sampled: **01/23/2014 1255**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/29/2014 1733	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**260**		**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**4.0**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**340**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**19**	**J**	**25**	**1.5**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**88**		**25**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**76**		**25**	**8.5**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**260**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**23**	**J**	**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**60**	**J**	**100**	**34**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**320**		**25**	**8.5**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**290**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0243	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		121	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-017**

Description: **00505-MW11DD** Matrix: **Aqueous**

Date Sampled: **01/23/2014 1225**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	01/29/2014 1755	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**4800**		**2000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**67**	**J**	**1000**	**20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**11000**		**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	100	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**580**		**500**	**30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**1200**		**500**	**40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	3300	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**960**		**500**	**170**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**3700**		**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**180**	**J**	**500**	**170**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1200**	**J**	**2000**	**670**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**8600**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**4100**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		86	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0305	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		126	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-018**

Description: **00505-MW11DDD** Matrix: **Aqueous**

Date Sampled: **01/23/2014 1135**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	01/29/2014 1817	ALL		39395

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2800**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**27**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**1800**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**85**	**J**	**100**	**6.0**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**490**		**100**	**8.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**100**		**100**	**34**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1600**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		100	34	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**680**		**400**	**130**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**720**		**100**	**34**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**420**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0326	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		125	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-019**

Description: **00505-MW13R** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1255**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	01/29/2014 1532	ALL		39401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1400**	**J**	**2000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
Benzene	**71-43-2**	**8260B**	**4100**		**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	100	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**230**	**J**	**500**	**40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	3300	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2100**		**500**	**170**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**150**	**J**	**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**1800**		**500**	**170**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1000**	**J**	**2000**	**670**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**1200**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**12000**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		116	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0349	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.61**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		107	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-020**

Description: **00505-MW14** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1336**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	01/29/2014 1840	ALL		39395
2	5030B	8260B	20	01/31/2014 0258	PMM2		39486

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		400	130	ug/L	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		200	4.0	ug/L	2
Benzene	71-43-2	8260B	ND		100	4.0	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	2
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	2
Ethylbenzene	**100-41-4**	**8260B**	**3300**		**100**	**34**	**ug/L**	**2**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	8.0	ug/L	2
Naphthalene	**91-20-3**	**8260B**	**3600**		**100**	**34**	**ug/L**	**2**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		400	130	ug/L	2
Toluene	**108-88-3**	**8260B**	**85**	**J**	**100**	**34**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**5700**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130		93	70-130
Bromofluorobenzene		84	70-130		96	70-130
Toluene-d8		91	70-130		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0411	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-021**

Description: **00505-MW14 Dup** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1337**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	500	01/29/2014 1902	ALL		39395
2	5030B	8260B	20	01/30/2014 1547	ALL		39434

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		400	130	ug/L	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		200	4.0	ug/L	2
Benzene	71-43-2	8260B	ND		100	4.0	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	2
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	2
Ethylbenzene	**100-41-4**	**8260B**	**1300**		**100**	**34**	**ug/L**	**2**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	8.0	ug/L	2
Naphthalene	**91-20-3**	**8260B**	**1100**		**100**	**34**	**ug/L**	**2**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		400	130	ug/L	2
Toluene	**108-88-3**	**8260B**	**54**	**J**	**100**	**34**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**4600**		**2500**	**850**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130		92	70-130
Bromofluorobenzene		86	70-130		91	70-130
Toluene-d8		92	70-130		97	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0433	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		109	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-022**

Description: **00505-MW14D** Matrix: **Aqueous**

Date Sampled: **01/23/2014 0955**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/29/2014 1553	ALL		39401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**420**		**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**4.2**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**56**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**17**	**J**	**25**	**1.5**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**91**		**25**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**180**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**25**		**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**150**		**100**	**34**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**11**	**J**	**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		114	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0456	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-023**

Description: **00505-MW15** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1406**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1342	ALL		39401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**24**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**3.7**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**1.2**	**J**	**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**5.4**		**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**6.2**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**4.9**	**J**	**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**20**		**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		116	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0518	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-024**

Description: **00505-MW17** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1602**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1404	ALL		39401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**170**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**16**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**4.5**	**J**	**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**33**		**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.77**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**72**		**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**19**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		115	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0540	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		132	57-137

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time

ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-025**

Description: **00505-MW18** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1241**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/29/2014 1615	ALL		39401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1600**		**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**4.8**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**84**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**34**		**25**	**1.5**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**150**		**25**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**150**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		25	8.5	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**280**		**100**	**34**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		113	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0602	NCM	01/28/2014 0908	39302

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-026**

Description: **00505-MW19** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1222**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	01/29/2014 1743	ALL		39401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**5400**		**2000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
Benzene	**71-43-2**	**8260B**	**1200**		**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	100	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**140**	**J**	**500**	**30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**580**		**500**	**40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	3300	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		500	170	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**820**		**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**390**	**J**	**500**	**170**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**940**	**J**	**2000**	**670**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		500	170	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		500	170	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		115	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1407	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-027**

Description: **00505-MW20** Matrix: **Aqueous**

Date Sampled: **01/22/2014 1415**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1426	ALL		39401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.7**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		117	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1428	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		112	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-028**

Description: **00505-MW21** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1107**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	01/29/2014 1721	ALL		39401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		200	67	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		100	2.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**120**		**50**	**2.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		50	10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**12**	**J**	**50**	**4.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		200	10	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	330	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**340**		**50**	**17**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**16**	**J**	**50**	**4.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**260**		**50**	**17**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		200	67	ug/L	1
Toluene	**108-88-3**	**8260B**	**130**		**50**	**17**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**1100**		**50**	**17**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		111	70-130
Toluene-d8		117	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1449	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		112	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-029**

Description: **00505-MW22** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1119**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/29/2014 1637	ALL		39401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	34	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**49**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**7.3**	**J**	**25**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**100**		**25**	**8.5**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**9.3**	**J**	**25**	**2.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**140**		**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**36**	**J**	**100**	**34**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**32**		**25**	**8.5**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**240**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		115	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1552	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		112	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-030**

Description: **00505-MW23** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1131**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/29/2014 1659	ALL		39401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**400**		**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**3.4**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**350**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**19**	**J**	**25**	**1.5**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**68**		**25**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**230**		**25**	**8.5**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**110**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**220**		**25**	**8.5**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**130**		**100**	**34**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**69**		**25**	**8.5**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**420**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		116	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1614	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		115	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-031**

Description: **00505-MW24** Matrix: **Aqueous**

Date Sampled: **01/22/2014 1317**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1448	ALL		39401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.36**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**1.7**	**J**	**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		111	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1635	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-032**

Description: **00505-MW25** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1040**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 1510	ALL		39401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**0.95**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2.3**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		116	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1656	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-033**

Description: **00505-MW26** Matrix: **Aqueous**

Date Sampled: **01/22/2014 1215**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 2147	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**63**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**0.89**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**6.4**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**3.8**	**J**	**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**20**		**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**5.3**		**5.0**	**1.7**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**28**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**5.7**		**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**49**		**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**6.2**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		90	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1717	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		124	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-034**

Description: **00505-MW27** Matrix: **Aqueous**

Date Sampled: **01/21/2014 0910**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0344	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.97**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1738	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		97	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-035**

Description: **00505-MW27R** Matrix: **Aqueous**

Date Sampled: **01/21/2014 0935**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 2208	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.34**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.5**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1800	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-036**

Description: **00505-MW27D** Matrix: **Aqueous**

Date Sampled: **01/21/2014 0957**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 2229	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**14**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1821	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-037**

Description: **00505-MW27DD** Matrix: **Aqueous**

Date Sampled: **01/22/2014 1115**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/30/2014 0323	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		1000	340	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		500	10	ug/L	1
Benzene	71-43-2	8260B	ND		250	10	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		250	20	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	1700	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		250	85	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	10	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		250	20	ug/L	1
Naphthalene	91-20-3	8260B	ND		250	85	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		1000	340	ug/L	1
Toluene	108-88-3	8260B	ND		250	85	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		250	85	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		90	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1842	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.034	0.034	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		75	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-038**

Description: **00505-MW28** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1209**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	01/30/2014 0426	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1500**		**400**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**12**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**420**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**86**	**J**	**100**	**6.0**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**320**		**100**	**8.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**340**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**81**	**J**	**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**270**	**J**	**400**	**130**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		100	34	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/03/2014 1030	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-039**

Description: **00505-MW30** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1418**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 2250	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1924	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-040**

Description: **00505-MW30R** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1431**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 2311	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

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

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 1945	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		116	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-041**

Description: **00505-MW31** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1456**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 2332	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2.1**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 2007	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-042**

Description: **00505-MW31R** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1501**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 2353	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2.6**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 2028	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-043**

Description: **00505-MW32** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1400**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0014	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.50**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 2049	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		106	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-044**

Description: **00505-MW32R** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1357**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0035	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.5**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 2110	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-045**

Description: **00505-MW33** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1530**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0056	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**5.3**		**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**5.7**		**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**55**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 2131	JCG	01/28/2014 0908	39303

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		96	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-046**

Description: **00505-MW33D** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1601**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/30/2014 0405	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**46**	**J**	**100**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.0	ug/L	1
Benzene	**71-43-2**	**8260B**	**31**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**19**	**J**	**25**	**1.5**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**59**		**25**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**170**		**25**	**2.0**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		25	8.5	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	34	ug/L	1
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**8.7**	**J**	**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		93	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0134	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		102	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-047**

Description: **00505-MW33DD** Matrix: **Aqueous**

Date Sampled: **01/22/2014 0955**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0117	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**120**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**1.2**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**67**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**8.6**		**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**27**		**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**63**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**11**		**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**27**		**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**3.7**	**J**	**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0144	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-048**

Description: **00505-MW34** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1605**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0138	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**3.4**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0216	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-049**

Description: **00505-MW35** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1456**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0159	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		86	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0227	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-050**

Description: **00505-MW36** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1417**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0220	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0237	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-051**

Description: **00505-MW37** Matrix: **Aqueous**

Date Sampled: **01/23/2014 0920**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0241	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**290**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**2.7**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**5.7**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**7.3**		**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**60**		**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**110**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**57**		**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		90	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0248	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-052**

Description: **00505-MW37D** Matrix: **Aqueous**

Date Sampled: **01/22/2014 1457**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0302	ALL		39420

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**25**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**11**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**5.5**		**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**13**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**5.1**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0258	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-053**

Description: **00505-MW38** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1220**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0147	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		83	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0309	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		109	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-054**

Description: **00505-MW39** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1333**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0209	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**8.4**	**J**	**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.32**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**4.4**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**8.4**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**13**	**J**	**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		82	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0319	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-055**

Description: **00505-MW40** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1340**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0232	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**31**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.80**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**0.41**	**J**	**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**4.6**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.9**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**310**		**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		95	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0330	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		104	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-056**

Description: **00505-MW40 Dup** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1341**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0254	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**28**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.81**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**0.42**	**J**	**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**4.3**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.9**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**310**		**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		95	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0341	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time

ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-057**

Description: **00505-MW41** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1422**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0316	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**810**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**3.1**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**11**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**6.6**		**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**72**		**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**110**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**280**		**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**3.2**	**J**	**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0351	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time

ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-058**

Description: **00505-MW41 Dup** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1423**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0338	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**770**		**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**3.0**	**J**	**10**	**0.20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**11**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**6.3**		**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**71**		**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**110**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**270**		**20**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**3.3**	**J**	**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		83	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0402	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		104	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-059**

Description: **00505-MW42** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1535**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0400	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**14**	**J**	**20**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.49**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**0.53**	**J**	**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**4.0**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**8.6**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0412	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-060**

Description: **00505-MW43** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1635**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0422	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**0.79**	**J**	**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**6.5**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		82	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0423	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-061**

Description: **00505-MW44** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1623**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0444	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**5.4**		**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**4.0**	**J**	**5.0**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**60**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		82	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0434	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-062**

Description: **00505-MW45** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1500**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0506	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0444	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		107	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-063**

Description: **DW-01** Matrix: **Aqueous**

Date Sampled: **01/23/2014 1715**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0529	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		83	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0455	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-064**

Description: **Field Blank 1** Matrix: **Aqueous**

Date Sampled: **01/20/2014 1645**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 2333	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0505	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-065**

Description: **Field Blank 2** Matrix: **Aqueous**

Date Sampled: **01/21/2014 1615**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/29/2014 2356	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		93	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0516	NCM	01/29/2014 1050	39385

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-066**

Description: **Field Blank 3** Matrix: **Aqueous**

Date Sampled: **01/22/2014 1515**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0018	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		82	70-130
Toluene-d8		90	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0559	NCM	01/29/2014 1050	39387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		107	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-067**

Description: **Field Blank 4** Matrix: **Aqueous**

Date Sampled: **01/23/2014 1730**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0040	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	02/01/2014 0609	NCM	01/29/2014 1050	39387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		109	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **PA24057-068**

Description: **Trip Blank 1** Matrix: **Aqueous**

Date Sampled: **01/24/2014**

Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0102	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		82	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Laboratory ID: **PA24057-069**
Description: **Trip Blank 2**
Matrix: **Aqueous**
Date Sampled: **01/24/2014**
Date Received: **01/24/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2014 0124	ALL		39419

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		82	70-130
Toluene-d8		91	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39393-001
Batch: 39393
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	01/29/2014 1052
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	01/29/2014 1052
Benzene	ND		1	5.0	0.20	ug/L	01/29/2014 1052
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	01/29/2014 1052
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	01/29/2014 1052
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	01/29/2014 1052
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	01/29/2014 1052
Ethanol	ND		1	100	33	ug/L	01/29/2014 1052
Ethylbenzene	ND		1	5.0	1.7	ug/L	01/29/2014 1052
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	01/29/2014 1052
Naphthalene	ND		1	5.0	1.7	ug/L	01/29/2014 1052
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	01/29/2014 1052
Toluene	ND		1	5.0	1.7	ug/L	01/29/2014 1052
Xylenes (total)	ND		1	5.0	1.7	ug/L	01/29/2014 1052

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		91	70-130
1,2-Dichloroethane-d4		91	70-130
Toluene-d8		92	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39393-002
Batch: 39393
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	107	70-130	01/29/2014 0918
tert-Amyl methyl ether (TAME)	50	46		1	92	70-130	01/29/2014 0918
Benzene	50	41		1	81	70-130	01/29/2014 0918
tert-Butyl formate (TBF)	250	230		1	93	70-130	01/29/2014 0918
1,2-Dichloroethane	50	43		1	86	70-130	01/29/2014 0918
Diisopropyl ether (IPE)	50	43		1	87	70-130	01/29/2014 0918
3,3-Dimethyl-1-butanol	1000	1100		1	111	70-130	01/29/2014 0918
Ethanol	5000	4500		1	90	60-140	01/29/2014 0918
Ethylbenzene	50	50		1	101	70-130	01/29/2014 0918
Ethyl-tert-butyl ether (ETBE)	50	44		1	89	70-130	01/29/2014 0918
Naphthalene	50	60		1	119	70-130	01/29/2014 0918
tert-butyl alcohol (TBA)	1000	1000		1	103	70-130	01/29/2014 0918
Toluene	50	47		1	94	70-130	01/29/2014 0918
Xylenes (total)	100	100		1	101	70-130	01/29/2014 0918

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39393-003
Batch: 39393
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	106	1.6	70-130	20	01/29/2014 0950
tert-Amyl methyl ether (TAME)	50	45		1	91	1.5	70-130	20	01/29/2014 0950
Benzene	50	39		1	78	4.1	70-130	20	01/29/2014 0950
tert-Butyl formate (TBF)	250	230		1	92	1.3	70-130	20	01/29/2014 0950
1,2-Dichloroethane	50	43		1	85	1.1	70-130	20	01/29/2014 0950
Diisopropyl ether (IPE)	50	43		1	85	1.7	70-130	20	01/29/2014 0950
3,3-Dimethyl-1-butanol	1000	1100		1	110	1.2	70-130	20	01/29/2014 0950
Ethanol	5000	4500		1	90	0.64	60-140	20	01/29/2014 0950
Ethylbenzene	50	49		1	98	2.8	70-130	20	01/29/2014 0950
Ethyl-tert-butyl ether (ETBE)	50	44		1	87	1.6	70-130	20	01/29/2014 0950
Naphthalene	50	59		1	118	1.3	70-130	20	01/29/2014 0950
tert-butyl alcohol (TBA)	1000	1000		1	100	3.6	70-130	20	01/29/2014 0950
Toluene	50	45		1	90	4.0	70-130	20	01/29/2014 0950
Xylenes (total)	100	98		1	98	3.3	70-130	20	01/29/2014 0950

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		94	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		93	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PA24057-002MS
Batch: 39393
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	5800	10000	15000		10	94	70-130	01/29/2014 1817
tert-Amyl methyl ether (TAME)	74	500	590		10	103	70-130	01/29/2014 1817
Benzene	1400	500	1900		10	94	70-130	01/29/2014 1817
tert-Butyl formate (TBF)	ND	2500	950	N	10	38	70-130	01/29/2014 1817
1,2-Dichloroethane	170	500	670		10	100	70-130	01/29/2014 1817
Diisopropyl ether (IPE)	910	500	1400		10	93	70-130	01/29/2014 1817
3,3-Dimethyl-1-butanol	ND	10000	9600		10	96	70-130	01/29/2014 1817
Ethanol	ND	50000	39000		10	79	70-130	01/29/2014 1817
Ethylbenzene	ND	500	560		10	109	70-130	01/29/2014 1817
Ethyl-tert-butyl ether (ETBE)	ND	500	480		10	96	70-130	01/29/2014 1817
Naphthalene	ND	500	560		10	111	70-130	01/29/2014 1817
tert-butyl alcohol (TBA)	1200	10000	12000		10	105	70-130	01/29/2014 1817
Toluene	30	500	570		10	108	70-130	01/29/2014 1817
Xylenes (total)	34	1000	1100		10	108	70-130	01/29/2014 1817

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		91	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PA24057-002MD
Batch: 39393
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	5800	10000	16000		10	97	1.6	70-130	20	01/29/2014 1838
tert-Amyl methyl ether (TAME)	74	500	610		10	106	2.8	70-130	20	01/29/2014 1838
Benzene	1400	500	1900		10	100	1.5	70-130	20	01/29/2014 1838
tert-Butyl formate (TBF)	ND	2500	910	N	10	36	3.8	70-130	20	01/29/2014 1838
1,2-Dichloroethane	170	500	680		10	103	2.3	70-130	20	01/29/2014 1838
Diisopropyl ether (IPE)	910	500	1400		10	96	1.1	70-130	20	01/29/2014 1838
3,3-Dimethyl-1-butanol	ND	10000	10000		10	104	7.9	70-130	20	01/29/2014 1838
Ethanol	ND	50000	44000		10	87	10	70-130	20	01/29/2014 1838
Ethylbenzene	ND	500	570		10	112	2.5	70-130	20	01/29/2014 1838
Ethyl-tert-butyl ether (ETBE)	ND	500	480		10	96	0.93	70-130	20	01/29/2014 1838
Naphthalene	ND	500	560		10	112	1.1	70-130	20	01/29/2014 1838
tert-butyl alcohol (TBA)	1200	10000	12000		10	112	5.9	70-130	20	01/29/2014 1838
Toluene	30	500	580		10	109	0.96	70-130	20	01/29/2014 1838
Xylenes (total)	34	1000	1100		10	110	2.0	70-130	20	01/29/2014 1838

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		91	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39395-001
Batch: 39395
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	01/29/2014 1218
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	01/29/2014 1218
Benzene	ND		1	5.0	0.20	ug/L	01/29/2014 1218
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	01/29/2014 1218
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	01/29/2014 1218
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	01/29/2014 1218
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	01/29/2014 1218
Ethanol	ND		1	100	33	ug/L	01/29/2014 1218
Ethylbenzene	ND		1	5.0	1.7	ug/L	01/29/2014 1218
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	01/29/2014 1218
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	01/29/2014 1218
Naphthalene	ND		1	5.0	1.7	ug/L	01/29/2014 1218
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	01/29/2014 1218
Toluene	ND		1	5.0	1.7	ug/L	01/29/2014 1218
Xylenes (total)	ND		1	5.0	1.7	ug/L	01/29/2014 1218

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		86	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39395-002
Batch: 39395
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	950		1	95	70-130	01/29/2014 1049
tert-Amyl methyl ether (TAME)	50	50		1	100	70-130	01/29/2014 1049
Benzene	50	50		1	100	70-130	01/29/2014 1049
tert-Butyl formate (TBF)	250	250		1	98	70-130	01/29/2014 1049
1,2-Dichloroethane	50	49		1	98	70-130	01/29/2014 1049
Diisopropyl ether (IPE)	50	49		1	98	70-130	01/29/2014 1049
3,3-Dimethyl-1-butanol	1000	870		1	87	70-130	01/29/2014 1049
Ethanol	5000	4100		1	81	60-140	01/29/2014 1049
Ethylbenzene	50	53		1	106	70-130	01/29/2014 1049
Ethyl-tert-butyl ether (ETBE)	50	49		1	98	70-130	01/29/2014 1049
Methyl tertiary butyl ether (MTBE)	50	45		1	90	70-130	01/29/2014 1049
Naphthalene	50	56		1	113	70-130	01/29/2014 1049
tert-butyl alcohol (TBA)	1000	930		1	93	70-130	01/29/2014 1049
Toluene	50	52		1	103	70-130	01/29/2014 1049
Xylenes (total)	100	110		1	105	70-130	01/29/2014 1049

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		80	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		84	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39395-003
Batch: 39395
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	960		1	96	1.8	70-130	20	01/29/2014 1111
tert-Amyl methyl ether (TAME)	50	52		1	104	4.0	70-130	20	01/29/2014 1111
Benzene	50	49		1	98	1.2	70-130	20	01/29/2014 1111
tert-Butyl formate (TBF)	250	250		1	102	3.6	70-130	20	01/29/2014 1111
1,2-Dichloroethane	50	50		1	100	1.9	70-130	20	01/29/2014 1111
Diisopropyl ether (IPE)	50	49		1	99	0.84	70-130	20	01/29/2014 1111
3,3-Dimethyl-1-butanol	1000	890		1	89	1.8	70-130	20	01/29/2014 1111
Ethanol	5000	4400		1	88	7.3	60-140	20	01/29/2014 1111
Ethylbenzene	50	53		1	106	0.21	70-130	20	01/29/2014 1111
Ethyl-tert-butyl ether (ETBE)	50	50		1	100	2.6	70-130	20	01/29/2014 1111
Methyl tertiary butyl ether (MTBE)	50	48		1	95	5.3	70-130	20	01/29/2014 1111
Naphthalene	50	58		1	117	3.1	70-130	20	01/29/2014 1111
tert-butyl alcohol (TBA)	1000	980		1	98	6.0	70-130	20	01/29/2014 1111
Toluene	50	51		1	102	1.4	70-130	20	01/29/2014 1111
Xylenes (total)	100	110		1	105	0.10	70-130	20	01/29/2014 1111

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		83	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		83	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PA24057-021MS
Batch: 39395
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	ND	500000	470000		500	94	70-130	01/29/2014 1951
tert-Amyl methyl ether (TAME)	ND	25000	28000		500	112	70-130	01/29/2014 1951
Benzene	ND	25000	28000		500	111	70-130	01/29/2014 1951
tert-Butyl formate (TBF)	ND	130000	130000		500	104	70-130	01/29/2014 1951
1,2-Dichloroethane	ND	25000	28000		500	111	70-130	01/29/2014 1951
Diisopropyl ether (IPE)	ND	25000	27000		500	107	70-130	01/29/2014 1951
3,3-Dimethyl-1-butanol	ND	500000	450000		500	90	70-130	01/29/2014 1951
Ethanol	ND	2500000	2100000		500	86	70-130	01/29/2014 1951
Ethylbenzene	1300	25000	29000		500	113	70-130	01/29/2014 1951
Ethyl-tert-butyl ether (ETBE)	ND	25000	27000		500	109	70-130	01/29/2014 1951
Methyl tertiary butyl ether (MTBE)	ND	25000	25000		500	100	70-130	01/29/2014 1951
Naphthalene	1100	25000	31000		500	119	70-130	01/29/2014 1951
tert-butyl alcohol (TBA)	ND	500000	450000		500	90	70-130	01/29/2014 1951
Toluene	54	25000	28000		500	113	70-130	01/29/2014 1951
Xylenes (total)	4600	50000	61000		500	114	70-130	01/29/2014 1951

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		83	70-130
Toluene-d8		86	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PA24057-021MD
Batch: 39395
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	ND	500000	470000		500	93	1.3	70-130	20	01/29/2014 2013
tert-Amyl methyl ether (TAME)	ND	25000	27000		500	108	3.7	70-130	20	01/29/2014 2013
Benzene	ND	25000	27000		500	107	3.6	70-130	20	01/29/2014 2013
tert-Butyl formate (TBF)	ND	130000	130000		500	102	2.2	70-130	20	01/29/2014 2013
1,2-Dichloroethane	ND	25000	27000		500	107	3.7	70-130	20	01/29/2014 2013
Diisopropyl ether (IPE)	ND	25000	26000		500	104	2.3	70-130	20	01/29/2014 2013
3,3-Dimethyl-1-butanol	ND	500000	440000		500	89	0.89	70-130	20	01/29/2014 2013
Ethanol	ND	2500000	2100000		500	83	2.9	70-130	20	01/29/2014 2013
Ethylbenzene	1300	25000	28000		500	110	2.8	70-130	20	01/29/2014 2013
Ethyl-tert-butyl ether (ETBE)	ND	25000	27000		500	107	1.9	70-130	20	01/29/2014 2013
Methyl tertiary butyl ether (MTBE)	ND	25000	25000		500	98	2.3	70-130	20	01/29/2014 2013
Naphthalene	1100	25000	33000		500	125	4.4	70-130	20	01/29/2014 2013
tert-butyl alcohol (TBA)	ND	500000	470000		500	94	4.3	70-130	20	01/29/2014 2013
Toluene	54	25000	28000		500	110	3.1	70-130	20	01/29/2014 2013
Xylenes (total)	4600	50000	61000		500	112	1.4	70-130	20	01/29/2014 2013

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		82	70-130
Toluene-d8		84	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39401-001
Batch: 39401
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	01/29/2014 1320
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	01/29/2014 1320
Benzene	ND		1	5.0	0.20	ug/L	01/29/2014 1320
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	01/29/2014 1320
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	01/29/2014 1320
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	01/29/2014 1320
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	01/29/2014 1320
Ethanol	ND		1	100	33	ug/L	01/29/2014 1320
Ethylbenzene	ND		1	5.0	1.7	ug/L	01/29/2014 1320
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	01/29/2014 1320
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	01/29/2014 1320
Naphthalene	ND		1	5.0	1.7	ug/L	01/29/2014 1320
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	01/29/2014 1320
Toluene	ND		1	5.0	1.7	ug/L	01/29/2014 1320
Xylenes (total)	ND		1	5.0	1.7	ug/L	01/29/2014 1320

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		110	70-130
Toluene-d8		116	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39401-002
Batch: 39401
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	104	70-130	01/29/2014 1151
tert-Amyl methyl ether (TAME)	50	57		1	115	70-130	01/29/2014 1151
Benzene	50	53		1	107	70-130	01/29/2014 1151
tert-Butyl formate (TBF)	250	270		1	107	70-130	01/29/2014 1151
1,2-Dichloroethane	50	52		1	104	70-130	01/29/2014 1151
Diisopropyl ether (IPE)	50	58		1	115	70-130	01/29/2014 1151
3,3-Dimethyl-1-butanol	1000	1100		1	107	70-130	01/29/2014 1151
Ethanol	5000	5400		1	108	60-140	01/29/2014 1151
Ethylbenzene	50	53		1	107	70-130	01/29/2014 1151
Ethyl-tert-butyl ether (ETBE)	50	56		1	113	70-130	01/29/2014 1151
Methyl tertiary butyl ether (MTBE)	50	57		1	115	70-130	01/29/2014 1151
Naphthalene	50	52		1	103	70-130	01/29/2014 1151
tert-butyl alcohol (TBA)	1000	1100		1	112	70-130	01/29/2014 1151
Toluene	50	55		1	110	70-130	01/29/2014 1151
Xylenes (total)	100	110		1	109	70-130	01/29/2014 1151

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		112	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39401-003
Batch: 39401
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	102	2.2	70-130	20	01/29/2014 1213
tert-Amyl methyl ether (TAME)	50	57		1	114	1.2	70-130	20	01/29/2014 1213
Benzene	50	53		1	107	0.088	70-130	20	01/29/2014 1213
tert-Butyl formate (TBF)	250	270		1	106	0.57	70-130	20	01/29/2014 1213
1,2-Dichloroethane	50	52		1	103	0.94	70-130	20	01/29/2014 1213
Diisopropyl ether (IPE)	50	57		1	114	1.6	70-130	20	01/29/2014 1213
3,3-Dimethyl-1-butanol	1000	1000		1	102	4.8	70-130	20	01/29/2014 1213
Ethanol	5000	5300		1	106	1.9	60-140	20	01/29/2014 1213
Ethylbenzene	50	53		1	105	1.4	70-130	20	01/29/2014 1213
Ethyl-tert-butyl ether (ETBE)	50	57		1	113	0.51	70-130	20	01/29/2014 1213
Methyl tertiary butyl ether (MTBE)	50	56		1	112	2.9	70-130	20	01/29/2014 1213
Naphthalene	50	51		1	102	1.4	70-130	20	01/29/2014 1213
tert-butyl alcohol (TBA)	1000	1100		1	111	1.6	70-130	20	01/29/2014 1213
Toluene	50	55		1	110	0.44	70-130	20	01/29/2014 1213
Xylenes (total)	100	110		1	105	3.5	70-130	20	01/29/2014 1213

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		115	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PA24057-026MS
Batch: 39401
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	5400	100000	130000		100	120	70-130	01/29/2014 1805
tert-Amyl methyl ether (TAME)	ND	5000	6000		100	120	70-130	01/29/2014 1805
Benzene	1200	5000	6900		100	115	70-130	01/29/2014 1805
tert-Butyl formate (TBF)	ND	25000	26000		100	104	70-130	01/29/2014 1805
1,2-Dichloroethane	140	5000	5500		100	108	70-130	01/29/2014 1805
Diisopropyl ether (IPE)	580	5000	6500		100	119	70-130	01/29/2014 1805
3,3-Dimethyl-1-butanol	ND	100000	120000		100	117	70-130	01/29/2014 1805
Ethanol	ND	500000	640000		100	127	70-130	01/29/2014 1805
Ethylbenzene	ND	5000	5700		100	115	70-130	01/29/2014 1805
Ethyl-tert-butyl ether (ETBE)	ND	5000	5900		100	118	70-130	01/29/2014 1805
Methyl tertiary butyl ether (MTBE)	820	5000	6900		100	123	70-130	01/29/2014 1805
Naphthalene	390	5000	5200		100	96	70-130	01/29/2014 1805
tert-butyl alcohol (TBA)	940	100000	130000	N	100	132	70-130	01/29/2014 1805
Toluene	ND	5000	6000		100	119	70-130	01/29/2014 1805
Xylenes (total)	ND	10000	12000		100	115	70-130	01/29/2014 1805

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		117	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PA24057-026MD
Batch: 39401
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	5400	100000	130000		100	120	0.14	70-130	20	01/29/2014 1827
tert-Amyl methyl ether (TAME)	ND	5000	6000		100	120	0.43	70-130	20	01/29/2014 1827
Benzene	1200	5000	6800		100	114	0.76	70-130	20	01/29/2014 1827
tert-Butyl formate (TBF)	ND	25000	26000		100	102	1.6	70-130	20	01/29/2014 1827
1,2-Dichloroethane	140	5000	5400		100	106	1.8	70-130	20	01/29/2014 1827
Diisopropyl ether (IPE)	580	5000	6600		100	120	1.0	70-130	20	01/29/2014 1827
3,3-Dimethyl-1-butanol	ND	100000	120000		100	117	0.31	70-130	20	01/29/2014 1827
Ethanol	ND	500000	620000		100	125	1.7	70-130	20	01/29/2014 1827
Ethylbenzene	ND	5000	5700		100	113	1.6	70-130	20	01/29/2014 1827
Ethyl-tert-butyl ether (ETBE)	ND	5000	5900		100	117	0.77	70-130	20	01/29/2014 1827
Methyl tertiary butyl ether (MTBE)	820	5000	6900		100	121	0.97	70-130	20	01/29/2014 1827
Naphthalene	390	5000	5500		100	102	6.0	70-130	20	01/29/2014 1827
tert-butyl alcohol (TBA)	940	100000	130000	N	100	132	0.54	70-130	20	01/29/2014 1827
Toluene	ND	5000	6000		100	118	0.73	70-130	20	01/29/2014 1827
Xylenes (total)	ND	10000	11000		100	115	0.49	70-130	20	01/29/2014 1827

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		119	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39419-001
Batch: 39419
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	01/29/2014 2311
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	01/29/2014 2311
Benzene	ND		1	5.0	0.20	ug/L	01/29/2014 2311
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	01/29/2014 2311
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	01/29/2014 2311
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	01/29/2014 2311
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	01/29/2014 2311
Ethanol	ND		1	100	33	ug/L	01/29/2014 2311
Ethylbenzene	ND		1	5.0	1.7	ug/L	01/29/2014 2311
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	01/29/2014 2311
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	01/29/2014 2311
Naphthalene	ND		1	5.0	1.7	ug/L	01/29/2014 2311
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	01/29/2014 2311
Toluene	ND		1	5.0	1.7	ug/L	01/29/2014 2311
Xylenes (total)	ND		1	5.0	1.7	ug/L	01/29/2014 2311

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		84	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39419-002
Batch: 39419
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	940		1	94	70-130	01/29/2014 2142
tert-Amyl methyl ether (TAME)	50	51		1	102	70-130	01/29/2014 2142
Benzene	50	49		1	98	70-130	01/29/2014 2142
tert-Butyl formate (TBF)	250	220		1	89	70-130	01/29/2014 2142
1,2-Dichloroethane	50	50		1	99	70-130	01/29/2014 2142
Diisopropyl ether (IPE)	50	49		1	99	70-130	01/29/2014 2142
3,3-Dimethyl-1-butanol	1000	880		1	88	70-130	01/29/2014 2142
Ethanol	5000	4100		1	81	60-140	01/29/2014 2142
Ethylbenzene	50	50		1	100	70-130	01/29/2014 2142
Ethyl-tert-butyl ether (ETBE)	50	50		1	100	70-130	01/29/2014 2142
Methyl tertiary butyl ether (MTBE)	50	47		1	93	70-130	01/29/2014 2142
Naphthalene	50	54		1	107	70-130	01/29/2014 2142
tert-butyl alcohol (TBA)	1000	970		1	97	70-130	01/29/2014 2142
Toluene	50	51		1	102	70-130	01/29/2014 2142
Xylenes (total)	100	100		1	101	70-130	01/29/2014 2142

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		81	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		86	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39419-003
Batch: 39419
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	910		1	91	3.4	70-130	20	01/29/2014 2204
tert-Amyl methyl ether (TAME)	50	50		1	99	2.6	70-130	20	01/29/2014 2204
Benzene	50	50		1	100	1.9	70-130	20	01/29/2014 2204
tert-Butyl formate (TBF)	250	240		1	95	6.8	70-130	20	01/29/2014 2204
1,2-Dichloroethane	50	50		1	100	0.88	70-130	20	01/29/2014 2204
Diisopropyl ether (IPE)	50	50		1	99	0.13	70-130	20	01/29/2014 2204
3,3-Dimethyl-1-butanol	1000	860		1	86	2.3	70-130	20	01/29/2014 2204
Ethanol	5000	3900		1	77	5.3	60-140	20	01/29/2014 2204
Ethylbenzene	50	52		1	104	3.3	70-130	20	01/29/2014 2204
Ethyl-tert-butyl ether (ETBE)	50	50		1	100	0.61	70-130	20	01/29/2014 2204
Methyl tertiary butyl ether (MTBE)	50	46		1	92	1.4	70-130	20	01/29/2014 2204
Naphthalene	50	55		1	110	2.7	70-130	20	01/29/2014 2204
tert-butyl alcohol (TBA)	1000	930		1	93	4.3	70-130	20	01/29/2014 2204
Toluene	50	52		1	104	2.2	70-130	20	01/29/2014 2204
Xylenes (total)	100	100		1	102	1.6	70-130	20	01/29/2014 2204

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		81	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		85	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39420-001
Batch: 39420
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	01/29/2014 2126
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	01/29/2014 2126
Benzene	ND		1	5.0	0.20	ug/L	01/29/2014 2126
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	01/29/2014 2126
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	01/29/2014 2126
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	01/29/2014 2126
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	01/29/2014 2126
Ethanol	ND		1	100	33	ug/L	01/29/2014 2126
Ethylbenzene	ND		1	5.0	1.7	ug/L	01/29/2014 2126
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	01/29/2014 2126
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	01/29/2014 2126
Naphthalene	ND		1	5.0	1.7	ug/L	01/29/2014 2126
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	01/29/2014 2126
Toluene	ND		1	5.0	1.7	ug/L	01/29/2014 2126
Xylenes (total)	ND		1	5.0	1.7	ug/L	01/29/2014 2126

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		91	70-130
1,2-Dichloroethane-d4		91	70-130
Toluene-d8		92	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39420-002
Batch: 39420
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	890		1	89	70-130	01/29/2014 2002
tert-Amyl methyl ether (TAME)	50	50		1	101	70-130	01/29/2014 2002
Benzene	50	49		1	98	70-130	01/29/2014 2002
tert-Butyl formate (TBF)	250	230		1	92	70-130	01/29/2014 2002
1,2-Dichloroethane	50	48		1	96	70-130	01/29/2014 2002
Diisopropyl ether (IPE)	50	48		1	96	70-130	01/29/2014 2002
3,3-Dimethyl-1-butanol	1000	900		1	90	70-130	01/29/2014 2002
Ethanol	5000	4100		1	82	60-140	01/29/2014 2002
Ethylbenzene	50	50		1	99	70-130	01/29/2014 2002
Ethyl-tert-butyl ether (ETBE)	50	46		1	93	70-130	01/29/2014 2002
Methyl tertiary butyl ether (MTBE)	50	47		1	93	70-130	01/29/2014 2002
Naphthalene	50	56		1	111	70-130	01/29/2014 2002
tert-butyl alcohol (TBA)	1000	910		1	91	70-130	01/29/2014 2002
Toluene	50	50		1	99	70-130	01/29/2014 2002
Xylenes (total)	100	100		1	100	70-130	01/29/2014 2002

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		92	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39420-003
Batch: 39420
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	880		1	88	1.7	70-130	20	01/29/2014 2023
tert-Amyl methyl ether (TAME)	50	49		1	98	2.8	70-130	20	01/29/2014 2023
Benzene	50	48		1	97	1.3	70-130	20	01/29/2014 2023
tert-Butyl formate (TBF)	250	240		1	94	1.9	70-130	20	01/29/2014 2023
1,2-Dichloroethane	50	48		1	95	0.98	70-130	20	01/29/2014 2023
Diisopropyl ether (IPE)	50	48		1	96	0.10	70-130	20	01/29/2014 2023
3,3-Dimethyl-1-butanol	1000	890		1	89	2.1	70-130	20	01/29/2014 2023
Ethanol	5000	4000		1	80	2.1	60-140	20	01/29/2014 2023
Ethylbenzene	50	48		1	97	2.3	70-130	20	01/29/2014 2023
Ethyl-tert-butyl ether (ETBE)	50	46		1	92	1.2	70-130	20	01/29/2014 2023
Methyl tertiary butyl ether (MTBE)	50	46		1	92	0.94	70-130	20	01/29/2014 2023
Naphthalene	50	55		1	109	2.1	70-130	20	01/29/2014 2023
tert-butyl alcohol (TBA)	1000	880		1	88	2.9	70-130	20	01/29/2014 2023
Toluene	50	49		1	98	1.4	70-130	20	01/29/2014 2023
Xylenes (total)	100	98		1	98	2.8	70-130	20	01/29/2014 2023

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		89	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PA24057-038MS
Batch: 39420
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1500	20000	20000		20	94	70-130	01/30/2014 0447
tert-Amyl methyl ether (TAME)	12	1000	1000		20	103	70-130	01/30/2014 0447
Benzene	420	1000	1500		20	108	70-130	01/30/2014 0447
tert-Butyl formate (TBF)	ND	5000	1600	N	20	32	70-130	01/30/2014 0447
1,2-Dichloroethane	86	1000	1100		20	101	70-130	01/30/2014 0447
Diisopropyl ether (IPE)	320	1000	1300		20	102	70-130	01/30/2014 0447
3,3-Dimethyl-1-butanol	ND	20000	19000		20	96	70-130	01/30/2014 0447
Ethanol	ND	100000	90000		20	90	70-130	01/30/2014 0447
Ethylbenzene	ND	1000	1100		20	108	70-130	01/30/2014 0447
Ethyl-tert-butyl ether (ETBE)	ND	1000	950		20	95	70-130	01/30/2014 0447
Methyl tertiary butyl ether (MTBE)	340	1000	1300		20	98	70-130	01/30/2014 0447
Naphthalene	81	1000	1200		20	116	70-130	01/30/2014 0447
tert-butyl alcohol (TBA)	270	20000	21000		20	104	70-130	01/30/2014 0447
Toluene	ND	1000	1100		20	106	70-130	01/30/2014 0447
Xylenes (total)	ND	2000	2100		20	107	70-130	01/30/2014 0447

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		91	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PA24057-038MD
Batch: 39420
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1500	20000	19000		20	89	5.5	70-130	20	01/30/2014 0508
tert-Amyl methyl ether (TAME)	12	1000	1000		20	101	1.5	70-130	20	01/30/2014 0508
Benzene	420	1000	1500		20	109	1.0	70-130	20	01/30/2014 0508
tert-Butyl formate (TBF)	ND	5000	1500	N	20	30	5.2	70-130	20	01/30/2014 0508
1,2-Dichloroethane	86	1000	1100		20	99	2.0	70-130	20	01/30/2014 0508
Diisopropyl ether (IPE)	320	1000	1300		20	102	0.0067	70-130	20	01/30/2014 0508
3,3-Dimethyl-1-butanol	ND	20000	18000		20	92	3.8	70-130	20	01/30/2014 0508
Ethanol	ND	100000	85000		20	85	5.9	70-130	20	01/30/2014 0508
Ethylbenzene	ND	1000	1100		20	106	1.8	70-130	20	01/30/2014 0508
Ethyl-tert-butyl ether (ETBE)	ND	1000	940		20	94	2.0	70-130	20	01/30/2014 0508
Methyl tertiary butyl ether (MTBE)	340	1000	1300		20	98	0.28	70-130	20	01/30/2014 0508
Naphthalene	81	1000	1100		20	101	13	70-130	20	01/30/2014 0508
tert-butyl alcohol (TBA)	270	20000	20000		20	97	7.5	70-130	20	01/30/2014 0508
Toluene	ND	1000	1100		20	108	1.8	70-130	20	01/30/2014 0508
Xylenes (total)	ND	2000	2100		20	106	0.75	70-130	20	01/30/2014 0508

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		93	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39434-001
Batch: 39434
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	01/30/2014 0950
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	01/30/2014 0950
Benzene	ND		1	5.0	0.20	ug/L	01/30/2014 0950
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	01/30/2014 0950
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	01/30/2014 0950
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	01/30/2014 0950
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	01/30/2014 0950
Ethanol	ND		1	100	33	ug/L	01/30/2014 0950
Ethylbenzene	ND		1	5.0	1.7	ug/L	01/30/2014 0950
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	01/30/2014 0950
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	01/30/2014 0950
Naphthalene	ND		1	5.0	1.7	ug/L	01/30/2014 0950
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	01/30/2014 0950
Toluene	ND		1	5.0	1.7	ug/L	01/30/2014 0950

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39434-002
Batch: 39434
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	920		1	92	70-130	01/30/2014 0826
tert-Amyl methyl ether (TAME)	50	51		1	103	70-130	01/30/2014 0826
Benzene	50	51		1	102	70-130	01/30/2014 0826
tert-Butyl formate (TBF)	250	260		1	103	70-130	01/30/2014 0826
1,2-Dichloroethane	50	50		1	99	70-130	01/30/2014 0826
Diisopropyl ether (IPE)	50	50		1	100	70-130	01/30/2014 0826
3,3-Dimethyl-1-butanol	1000	950		1	95	70-130	01/30/2014 0826
Ethanol	5000	4600		1	93	60-140	01/30/2014 0826
Ethylbenzene	50	50		1	100	70-130	01/30/2014 0826
Ethyl-tert-butyl ether (ETBE)	50	48		1	97	70-130	01/30/2014 0826
Methyl tertiary butyl ether (MTBE)	50	49		1	98	70-130	01/30/2014 0826
Naphthalene	50	56		1	112	70-130	01/30/2014 0826
tert-butyl alcohol (TBA)	1000	910		1	91	70-130	01/30/2014 0826
Toluene	50	51		1	102	70-130	01/30/2014 0826

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39434-003
Batch: 39434
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	900		1	90	2.3	70-130	20	01/30/2014 0847
tert-Amyl methyl ether (TAME)	50	50		1	101	1.9	70-130	20	01/30/2014 0847
Benzene	50	51		1	101	0.47	70-130	20	01/30/2014 0847
tert-Butyl formate (TBF)	250	260		1	102	1.3	70-130	20	01/30/2014 0847
1,2-Dichloroethane	50	49		1	98	1.0	70-130	20	01/30/2014 0847
Diisopropyl ether (IPE)	50	49		1	98	2.6	70-130	20	01/30/2014 0847
3,3-Dimethyl-1-butanol	1000	920		1	92	2.4	70-130	20	01/30/2014 0847
Ethanol	5000	4500		1	91	2.2	60-140	20	01/30/2014 0847
Ethylbenzene	50	51		1	102	1.3	70-130	20	01/30/2014 0847
Ethyl-tert-butyl ether (ETBE)	50	47		1	95	2.3	70-130	20	01/30/2014 0847
Methyl tertiary butyl ether (MTBE)	50	48		1	97	1.5	70-130	20	01/30/2014 0847
Naphthalene	50	56		1	111	1.1	70-130	20	01/30/2014 0847
tert-butyl alcohol (TBA)	1000	900		1	90	1.1	70-130	20	01/30/2014 0847
Toluene	50	51		1	102	0.62	70-130	20	01/30/2014 0847

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39445-001
Batch: 39445
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	01/30/2014 1034

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		80	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		88	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39445-002
Batch: 39445
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Methyl tertiary butyl ether (MTBE)	50	46		1	91	70-130	01/30/2014 0905

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		78	70-130
1,2-Dichloroethane-d4		84	70-130
Toluene-d8		82	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39445-003
Batch: 39445
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Methyl tertiary butyl ether (MTBE)	50	46		1	91	0.0044	70-130	20	01/30/2014 0927

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		79	70-130
1,2-Dichloroethane-d4		83	70-130
Toluene-d8		82	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39486-001
Batch: 39486
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	6.7	ug/L	01/30/2014 2019
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	01/30/2014 2019
Benzene	ND		1	5.0	0.20	ug/L	01/30/2014 2019
tert-Butyl formate (TBF)	ND		1	5.0	1.0	ug/L	01/30/2014 2019
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	01/30/2014 2019
Diisopropyl ether (IPE)	ND		1	5.0	0.40	ug/L	01/30/2014 2019
3,3-Dimethyl-1-butanol	ND		1	20	1.0	ug/L	01/30/2014 2019
Ethanol	ND		1	100	33	ug/L	01/30/2014 2019
Ethylbenzene	ND		1	5.0	1.7	ug/L	01/30/2014 2019
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.20	ug/L	01/30/2014 2019
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	01/30/2014 2019
Naphthalene	ND		1	5.0	1.7	ug/L	01/30/2014 2019
tert-butyl alcohol (TBA)	ND		1	20	6.7	ug/L	01/30/2014 2019
Toluene	ND		1	5.0	1.7	ug/L	01/30/2014 2019

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		89	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39486-002
Batch: 39486
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	910		1	91	70-130	01/30/2014 1855
tert-Amyl methyl ether (TAME)	50	51		1	102	70-130	01/30/2014 1855
Benzene	50	50		1	100	70-130	01/30/2014 1855
tert-Butyl formate (TBF)	250	250		1	101	70-130	01/30/2014 1855
1,2-Dichloroethane	50	48		1	96	70-130	01/30/2014 1855
Diisopropyl ether (IPE)	50	50		1	100	70-130	01/30/2014 1855
3,3-Dimethyl-1-butanol	1000	940		1	94	70-130	01/30/2014 1855
Ethanol	5000	4900		1	98	60-140	01/30/2014 1855
Ethylbenzene	50	50		1	101	70-130	01/30/2014 1855
Ethyl-tert-butyl ether (ETBE)	50	48		1	96	70-130	01/30/2014 1855
Methyl tertiary butyl ether (MTBE)	50	50		1	100	70-130	01/30/2014 1855
Naphthalene	50	51		1	102	70-130	01/30/2014 1855
tert-butyl alcohol (TBA)	1000	890		1	89	70-130	01/30/2014 1855
Toluene	50	51		1	101	70-130	01/30/2014 1855

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39486-003
Batch: 39486
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	870		1	87	4.7	70-130	20	01/30/2014 1916
tert-Amyl methyl ether (TAME)	50	50		1	100	2.3	70-130	20	01/30/2014 1916
Benzene	50	48		1	96	3.4	70-130	20	01/30/2014 1916
tert-Butyl formate (TBF)	250	240		1	96	4.7	70-130	20	01/30/2014 1916
1,2-Dichloroethane	50	47		1	94	2.0	70-130	20	01/30/2014 1916
Diisopropyl ether (IPE)	50	48		1	97	3.6	70-130	20	01/30/2014 1916
3,3-Dimethyl-1-butanol	1000	900		1	90	4.2	70-130	20	01/30/2014 1916
Ethanol	5000	4500		1	91	7.3	60-140	20	01/30/2014 1916
Ethylbenzene	50	49		1	97	3.4	70-130	20	01/30/2014 1916
Ethyl-tert-butyl ether (ETBE)	50	46		1	91	5.4	70-130	20	01/30/2014 1916
Methyl tertiary butyl ether (MTBE)	50	49		1	98	2.0	70-130	20	01/30/2014 1916
Naphthalene	50	49		1	97	5.0	70-130	20	01/30/2014 1916
tert-butyl alcohol (TBA)	1000	890		1	89	0.80	70-130	20	01/30/2014 1916
Toluene	50	49		1	98	3.3	70-130	20	01/30/2014 1916

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		89	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		93	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: PQ39289-001
Batch: 39289
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/27/2014 2049

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	01/31/2014 1250

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		90	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: PQ39289-002
Batch: 39289
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/27/2014 2049

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.29		1	116	60-140	01/31/2014 1311

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: PQ39302-001
Batch: 39302
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/28/2014 908

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	01/31/2014 2139

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		72	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: PQ39302-002
Batch: 39302
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/28/2014 908

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.28		1	111	60-140	01/31/2014 2200

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: PA24057-014MS
Batch: 39302
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/28/2014 908

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.25	0.34		1	138	60-140	02/01/2014 0137

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: PA24057-014MD
Batch: 39302
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/28/2014 908

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.25	0.27	+	1	109	31	60-140	20	02/01/2014 0159

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		107	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: PQ39303-001
Batch: 39303
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/28/2014 908

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	02/01/2014 1324

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		97	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: PQ39303-002
Batch: 39303
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/28/2014 908

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.27		1	108	60-140	02/01/2014 1345

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		97	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: PA24057-028MS
Batch: 39303
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/28/2014 908

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.26		1	109	60-140	02/01/2014 1510

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		111	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: PA24057-028MD
Batch: 39303
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/28/2014 908

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.25		1	104	4.6	60-140	20	02/01/2014 1531

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		111	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: PQ39385-001
Batch: 39385
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/29/2014 1050

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	02/01/2014 0113

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: PQ39385-002
Batch: 39385
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/29/2014 1050

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.30		1	118	60-140	02/01/2014 0123

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		104	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: PA24057-047MS
Batch: 39385
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/29/2014 1050

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.31		1	130	60-140	02/01/2014 0155

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		107	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: PA24057-047MD
Batch: 39385
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/29/2014 1050

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.25	0.33		1	134	5.0	60-140	20	02/01/2014 0205

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		109	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: PQ39387-001
Batch: 39387
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/29/2014 1050

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	02/01/2014 0537

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: PQ39387-002
Batch: 39387
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 01/29/2014 1050

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.31		1	123	60-140	02/01/2014 0548

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		102	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody Record

Number 24883

Client: BLE	Report to Contact: Trevor Bantar, Reid A. Doherty	Sampler (Printed Name): Peter J. VanHeest, Dan R. Matz, Reid A. Doherty, Ivan A. Irizarry	Quote No.
Address: 6004 Ponders Court	Telephone No. / Fax No. / Email: trevor.bantar@reid.doherty@blecorp.com	Waybill No.	Page: 1 of 7
City: Greenville / State: SC / Zip Code: 29615	Preservative: 1. Unpres. 4. HNO3 7. NaOH; 2. NaOH/ZnA 5. HCL; 3. H2SO4 6. Na Thio.		
Project Name: MID Food Mart			
Project Number: J13-3661-06	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: BTEX (8260) +NH3-DGA+BOD+	BOD (EDB)	Number of Containers	Bottle (See Instructions on back)	Preservative	Lot No.	Remarks / Cooler ID
											3	3		PA24057	
											A	A			
											5	5			
00505-MW01D	1/23/14	1615	G	✓					✓	✓					
00505-MW01D DUP	1/23/14	1616													
00505-MW01DD	1/23/14	1450													
00505-MW01DDD	1/23/14	1409													
00505-MW03	1/21/14	1510													
00505-MW04	1/21/14	1443													
00505-MW05R	1/21/14	1518													
00505-MW06	1/21/14	1555													
00505-MW06D	1/23/14	1700													
00505-MW07	1/21/14	1537	↓	↓					↓	↓					

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

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

QC Requirements (Specify):

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

	Date	Time		Date	Time
1. Relinquished by / Sampler	1/24/14	1135	1. Received by	1/24/14	1135
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	1/24/14	1530	4. Laboratory Received by: Kelly W.	1-24-14	1530

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

LAB USE ONLY
Received on Ice (Check) ☒ Yes ☐ No ☐ Ice Pack
Receipt Temp: 2.1 °C 4.0
Temp. Blank ☐ Y / ☒ N

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Chain of Custody Record

Number 24884

Client: BLE	Report to Contact: Trevor Benton	Sampler (Printed Name): Peter Vanderwerf, David Metz, Reid A. Doherty, Evan A. Irizarry	Quote No.
Address: 6004 Ponder Court	Telephone No. / Fax No. / Email	Waybill No.	Page: 2 of 7
City: Greenville; State: SC; Zip Code: 29615	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: MD Ford Mart			
Project Number: 31661-06	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: Btex/8 (1,2-DCA+MTBE+1,3-DFB)	8011 (EDB)	Number of Containers	Bottle (See Instructions on back)	Preservative	Lot No.	Remarks / Cooler ID
									3	3				PA24057	
									A	A					
									S	S					
00505-MW07D	1/23/14	1637	G	X					X	X					
00505-MW08	1/21/14	1522													
00505-MW09	1/21/14	1307													
00505-MW10D	1/23/14	1025													
00505-MW11	1/21/14	1448													
00505-MW11D	1/23/14	1255													
00505-MW11DD	1/23/14	1225													
00505-MW11DDD	1/23/14	1135													
00505-MW13R	1/21/14	1255													
00505-MW14	1/21/14	1336	↓	↓					↓	↓					

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

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

QC Requirements (Specify):

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

	Date	Time		Date	Time
1. Relinquished by / Sampler	1/24/14	1135	1. Received by	1/24/14	1135
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	1/24/14	1830	4. Laboratory Received by: Kelly Wh	1-24-14	1636

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

LAB USE ONLY — Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack; Receipt Temp 2.1 °C; Temp. Blank ☐ Y / ☑ N

4.0

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Chain of Custody Record

Number 24885

Client: BLE	Report to Contact: Trevor Benton	Sampler (Printed Name): Peter J. VanHeest, Don R. Mote, Reid A. Doherty, Juan A. Irizarry	Quote No.
Address: 6004 Parkers Court	Telephone No. / Fax No. / Email	Waybill No.	Page: 3 of 7
City: Greenville; State: SC; Zip Code: 29615	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H_2SO_4 4. HNO_3 5. HCl 6. Na Thio. 7. NaOH		
Project Name: MD Food Mart			Lot No. PA24057
Project Number: 36661-QC	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: BTEX/Btex+MTBE	H_2SO_4 + 8-OXY	BOH (EDB)	Number of Containers	Bottle (See Instructions on back)	Preservative	Remarks / Cooler ID
										3	3				
										A	A				
										5	5				
00505-MW14 DUP	1/21/14	1337	G	X					X		X				
00505-MW14D	1/23/14	0955													
00505-MW15	1/21/14	1406													
00505-MW17	1/21/14	1602													
00505-MW18	1/21/14	1241													
00505-MW19	1/21/14	1222													
00505-MW20	1/22/14	1415													
00505-MW21	1/21/14	1107													
00505-MW22	1/21/14	1119													
00505-MW23	1/21/14	1131	↓	↓					↓		↓				

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

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

QC Requirements (Specify):

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

	Date	Time		Date	Time
1. Relinquished by / Sampler	1/24/14	1135	1. Received by	1/24/14	1135
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	1/24/14	1530	4. Laboratory Received by: Kelly W Price	1-24-14	Time 1530

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

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp: 2-1 °C 4.0
Temp. Blank ☐ Y / ☒ N

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Chain of Custody Record

Number 24886

Client: BLE	Report to Contact: Trevor Benton	Sampler (Printed Name): Peter T. Unthicker, Don R. Mesh, Stein A. Dhesty, Ivan A. Irrgang	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page 1 of 7
City / State / Zip Code	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: MD Food Mart			
Project Number: J13-3661-06	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: SM403(Strem Meth) H2-DCA + B-DMV	BOH (EDB)	Number of Containers	Bottle (See Instructions on back)	Preservative	Lot No. / Remarks / Cooler ID
									3	3				
									A	A				
									S	S				PA24057
00505-MW24	1/22/14	1317	G	X					X	X				
00505-MW25	1/21/14	1040												
00505-MW26	1/22/14	1215												
00505-MW27	1/21/14	0910												
00505-MW27R	1/21/14	0935												
00505-MW27D	1/21/14	0957												
00505-MW27DD	1/22/14	1115												
00505-MW28	1/21/14	1209												
00505-MW30	1/20/14	1418												
00505-MW30R	1/20/14	1431	↓	↓					↓	↓				

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

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

QC Requirements (Specify)

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

	Date	Time		Date	Time
1. Relinquished by / Sampler	1/24/14	1135	1. Received by	1/24/14	1135
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	1/24/14	1530	4. Laboratory Received by: Kelly Watkins	1-24-14	1530

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

LAB USE ONLY — Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack — Receipt Temp. 2.1 °C (4.0) — Temp. Blank ☐ Y / ☐ N

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Level 1 Report v2.1

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
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SHEALY **Chain of Custody Record** **Number** 24887

Client: BLE	Report to Contact: Trevor Benton	Sampler (Printed Name): Peter J. VanHaest, Dan R. Metz, Reid A. Doherty, Juan A. Irizarry	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page: 5 of 7
City / State / Zip Code	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		Number of Containers / Bottle (See Instructions on back) / Preservative
Project Name: MD Fault Mont			Lot No.: PA24051
Project Number: J13-36661-06	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: B260B (BTEX + MeNp, 1,2-DCA, EDB)	8011 (EDB)	Remarks / Cooler ID
00505 - MW31	1/20/14	1456	G	X					X	X	
00505 - MW31R	1/20/14	1501									
00505 - MW32	1/20/14	1400									
00505 - MW32R	1/20/14	1357									
00505 - MW33	1/20/14	1530									
00505 - MW33D	1/20/14	1601									
00505 - MW33DD	1/22/14	0955									
00505 - MW34	1/20/14	1605									
00505 - MW35	1/20/14	1456									
00505 - MW36	1/20/14	1417	↓	↓					↓	↓	

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

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

QC Requirements (Specify):

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

	Date	Time		Date	Time
1. Relinquished by / Sampler	1/24/14	1135	1. Received by	1/24/14	1135
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	1/24/14	1530	4. Laboratory Received by: Kelly Wilkins	1-24-14	Time: PA24 1530

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

LAB USE ONLY Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack | Receipt Temp. 2.1 °C | Temp. Blank ☐ Y / ☑ N

4.0

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West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Chain of Custody Record

Number 24888

Client	Report to Contact	Sampler (Printed Name)	Quote No.
BLE	Trevor Benton	Evan A. Mccorry, Brad. Metz, Reid A. Doherty, Peter VanHorst	
Address	Telephone No. / Fax No. / Email	Waybill No.	Page 6 of 7
City / State / Zip Code	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: MD Food Mart			
Project Number: J17-3601-06	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: Benzo(b)fluoranthene + Naphthalene by 8270D	Soil (ASG)	Number of Containers	Bottle (See Instructions on back)	Preservative	Lot No. PA24057	Remarks / Cooler ID
									3	3					
									A	A					
									S	S					
00505-MW37	1/23/14	0920	G	X					X	X					
00505-MW37D	1/22/14	1457													
00505-MW38	1/21/14	1220													
00505-MW39	1/21/14	1333													
00505-MW40	1/21/14	1340													
00505-MW40 DUP	1/21/14	1341													
00505-MW41	1/21/14	1422													
00505-MW41DUP	1/21/14	1423													
00505-MW42	1/20/14	1535													
00505-MW43	1/20/14	1635	↓	↓					↓	↓					

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

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

QC Requirements (Specify):

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

	Date	Time		Date	Time
1. Relinquished by / Sampler	1/24/14	1135	1. Received by	1/24/14	1135
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	1/24/14	1530	4. Laboratory Received by: Kelly W	1-24-14	1530

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

LAB USE ONLY — Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack — Receipt Temp. 2.1 °C — Temp. Blank ☐ Y / ☐ N

4.0

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West Columbia, South Carolina 29172
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www.shealylab.com

SHEALY

Chain of Custody Record

Number 24889

Client: BLE	Report to Contact: Trevor Benton	Sampler (Printed Name): Reid A. Doherty, Ivan A. Irizarry, Peter VanHeest, Dan R. Metz	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page: 7 of 7
City / State / Zip Code	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: MD Food Mart			
Project Number: J13-3661-06	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: 8260(BTEX+MTBE+Naph+1,2-DCA+EDB+1,2-DPA+8-oxy)	8011(EDB)	Number of Containers	Bottle (See Instructions on back)	Preservative	Lot No. PA24057	Remarks / Cooler ID
									3	3					
									A	A					
									S	S					
00505-MW44	1/20/14	1623	G	X					X	X					
00505-MW45	1/21/14	1500													
DW-01	1/23/14	1715													
Field Blank 1	1/20/14	1645													
Field Blank 2	1/21/14	1615													
Field Blank 3	1/22/14	1515													
Field Blank 4	1/23/14	1730								↓					
Trip Blank 1	1/24/14	—													
Trip Blank 2	1/24/14	—	↓	↓					↓						

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

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

QC Requirements (Specify):

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

	Date	Time		Date	Time
1. Relinquished by / Sampler	1/24/14	1135	1. Received by	1/24/14	1135
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	1/24/14	1530	4. Laboratory Received by: Kelly W.	1-24-14	1530

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

LAB USE ONLY
Received on Ice (Check) ☒ Yes ☐ No ☐ Ice Pack
Receipt Temp: 2.1 °C (4.0)
Temp. Blank ☐ Y / ☒ N

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SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 13

Replaces Date: 09/24/13
Effective Date: 09/26/13

Sample Receipt Checklist (SRC)

Client: BLE Cooler Inspected by/date: KWP 1-24-14 Lot #: PA24057

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

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

Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt:
16605 2.4 2.1 °C 16661 4.3 4.0 °C ___/___ °C ___/___ °C
Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: #3 IR Gun Correction Factor: -0.3 °C
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed?
Yes ☑	No ☐		7. Was collection date & time listed?
Yes ☑	No ☐		8. Were tests to be performed listed on the COC?
Yes ☑	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		12. Was adequate sample volume available?
Yes ☑	No ☐		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		14. Were any samples containers missing?
Yes ☐	No ☑		15. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s)_____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number) _____.

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

Sample(s)_____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/phenol

Sample labels verified by: _____ Date: _____

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐

SESI employee: _____ Date of response: _____

Comments: _____

APPENDIX D

CONTRACTOR CHECKLIST

Contractor Checklist

For each report submitted to the UST Management Division, the contractor will be required to verify that all data elements for the required scope of work have been provided. For items not required for the scope of work, the N/A box should be checked. For items required and not completed or provided, the No box should be checked and a thorough description of the reason must be provided.

Item #	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	✓		
2	Is UST Owner/Operator name, address, & phone number provided?	✓		
3	Is name, address, & phone number of current property owner provided?	✓		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	✓		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			✓
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	✓		
7	Has the facility history been summarized?	✓		
8	Has the regional geology and hydrogeology been described?			✓
9	Are the receptor survey results provided as required?			✓
10	Has current use of the site and adjacent land been described?	✓		
11	Has the site-specific geology and hydrogeology been described?			✓
12	Has the primary soil type been described?			✓
13	Have field screening results been described?			✓
14	Has a description of the soil sample collection and preservation been detailed?			✓
15	Has the field screening methodology and procedure been detailed?			✓
16	Has the monitoring well installation and development dates been provided?			✓
17	Has the method of well development been detailed?			✓
18	Has justification been provided for the locations of the monitoring wells?			✓
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			✓
20	Has the groundwater sampling methodology been detailed?	✓		
21	Have the groundwater sampling dates and groundwater measurements been provided?	✓		
22	Has the purging methodology been detailed?	✓		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete?	✓		
24	If free-product is present, has the thickness been provided?	✓		
25	Does the report include a brief discussion of the assessment done and the results?	✓		
26	Does the report include a brief discussion of the aquifer evaluation and results?	✓		
27	Does the report include a brief discussion of the fate & transport models used?			✓

Item #	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			✓
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			✓
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			✓
31	Have recommendations for further action been provided and explained?	✓		
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			✓
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)	✓		
34	Has the current and historical laboratory data been provided in tabular format?	✓		
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			✓
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			✓
37	Has the topographic map been provided with all required elements? (Figure 1)	✓		
38	Has the site base map been provided with all required elements? (Figure 2)	✓		
39	Have the CoC site maps been provided? (Figure 3 & Figure 4)	✓		
40	Has the site potentiometric map been provided? (Figure 5)	✓		
41	Have the geologic cross-sections been provided? (Figure 6)			✓
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			✓
43	Has the site survey been provided and include all necessary elements? (Appendix A)			✓
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	✓		
45	Is the laboratory performing the analyses properly certified?	✓		
46	Has the tax map been included with all necessary elements? (Appendix C)			✓
47	Have the soil boring/field screening logs been provided? (Appendix D)			✓
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			✓
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			✓
50	Have the disposal manifests been provided? (Appendix G)	✓		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			✓
52	Has all fate and transport modeling been provided? (Appendix I)			✓
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			✓
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided?	✓		

Explanation for missing and incomplete information?

Project Verifier (signature) _____

(print name) Trevor J. Benton, P.G.

Date 4/8/2014

00505

UST PROGRAM
DOCKETING # 21T

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

RECEIVED
MAR 23 2007
UNDERGROUND STORAGE
TANK PROGRAM

March 22, 2007

UST PROGRAM
DOCKETING # 22T

South Carolina Department of Health and Environmental Control
Underground Storage Tank Program
Bureau of Land and Waste Management
2600 Bull St.
Columbia, SC 29201-1708

Attention: Mr. Arthur Shrader, Hydrogeologist

Subject: **Interim Report of Aggressive Fluid Vapor Recovery Events**
KMO #119
1312 Williamston Road
Anderson, South Carolina
UST Permit #00505; CA # 22807
BLE Project No. J04-3661-02

Dear Mr. Shrader:

On behalf of Ken Moorhead Oil Company, Inc. (KMO), Bunnell-Lammons Engineering, Inc. (BLE) has completed additional Aggressive Fluid Vapor Recovery (AFVR) events at the above referenced site. This scope of work was performed as an interim corrective action measure during an ongoing Tier II Assessment at the site. The results of our activities are provided herein.

PROJECT INFORMATION

The subject property is located at 1312 Williamston Road in Anderson, South Carolina (Figure 1). Prior to 2004, the site was owned by the Ken Moorhead Oil Company and operated as a Citgo fueling station. Currently, the site is owned and operated by DEV Enterprises, LLC and is utilized as a convenience store where gasoline and kerosene fuels are sold.

Four gasoline underground storage tanks (USTs) were located on the northeastern portion of the site. A soil assessment performed in December 1989 discovered minor petroleum contamination in the area around the USTs. The South Carolina Department of Health and Environmental Control (SCDHEC) issued a No Further Action status to the site in June 1990. In December 1991, the USTs and associated equipment were removed.

In June 2004 a Phase II property transaction was conducted on the site. Results from the Phase II report indicated concentrations of petroleum hydrocarbons in groundwater. Pursuant to these results, the SCDHEC required a Tier I Assessment be performed with regard to the former UST system. The Tier I Assessment was completed by BLE in August 2004. Results from the Tier I Assessment

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE (864) 288-1265
FAX (864) 288-4430

indicated significant petroleum hydrocarbon impact to the groundwater along the eastern and northeastern portion of the site. Based on the Tier I results, SCDHEC required a Tier II Assessment be performed to define the horizontal and vertical extent of the groundwater contamination associated with the former UST system. We understand that the current UST system was relocated and updated with leak detection devices.

AGGRESSIVE FLUID VAPOR RECOVERY EVENTS

On February 28th and March 1, 2007, two separate 8-hour AFVR events were conducted in wells MW-10 and MW-14 (February 28th) and MW-11 (March 1). A hydrogeologist from BLE, Trevor J. Benton, P.G., was on site for observation and monitoring. The AFVR events were performed by Jamie McNeill of GARCO, Inc. of Asheboro, North Carolina (U.S. E.P.A. ID #NCR000135384). Prior to the AFVR events, BLE personnel gauged free-phase petroleum product in MW-10 (0.82 feet), MW-11 (0.78 feet), and MW-14 (0.77 feet). A sheen was measured in MW-16, but an AFVR was not conducted on this well at this time. Free-product measurements were made using a Solinst® Interface Meter Model 122. Depths and measurements are shown as feet below the top of PVC casing (btoc), unless noted otherwise. A site and well location plan is shown as Figure 2.

FEBRUARY 28, 2007 AFVR EVENT – MW-10 & MW-14

In wells MW-10 and MW-14, the initial free-product depth was 42.33 and 43.13, respectively. The initial depth to groundwater was 43.15 and 43.90, respectively. Additionally, initial water level measurements in near-by monitoring wells were 45.36 in MW-9, 45.10 in MW-13, and 45.06 in MW-15.

The AFVR event initiated at 08:15 and concluded at 16:15. The general weather conditions observed during this period of time were partly cloudy skies with intermittent rain showers; winds varied between 5 to 10 miles per hour (mph) with an ambient temperature between 50° and 60° Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 28 inches of mercury was applied to MW-10 and MW-14. The depth to water was measured every 30 minutes in wells MW-9, MW-13, and MW-15 to evaluate drawdown in the affected area of the AFVR event. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable Photo-Ionization Detector (PID) (Model PGM 7600). Gauging data observed during the event is shown in Table 1.

MW-10, MW-14 and the near-by wells (MW-9, MW-13, and MW-15) were gauged immediately following the conclusion of the AFVR event. The depth to water readings were 47.24 in MW-10, 47.39 in MW-14, 45.48 in MW-9, 45.16 in MW-13, and 45.08 in MW-15. No discernible drawdown was observed in monitoring wells MW-13 or MW-15.

At the completion of the AFVR event, a total volume of 446 gallons of petroleum impacted groundwater was determined to have been recovered from MW-10 and MW-14. A sheen of free-phase product was observed in the vacuum truck following the completion of the AFVR event. Petroleum product losses occur from emulsification with the groundwater and volatilization during the AFVR event. The recovered liquids were allowed to separate overnight to obtain free-product

measurements. Approximately 24 gallons of free-product was noted in the vacuum truck after separating overnight. This volume or free-product should be considered approximate, since the liquids may not have had sufficient time to separate.

On March 1, 2007 monitoring wells MW-10 and MW-14 were gauged to determine if free-phase petroleum product was present after the AFVR event. Approximately 0.60 feet and 0.02 feet of free-product was detected in wells MW-10 and MW-14, respectively. Waste transportation and disposal records are provided in Attachment A.

MARCH 1, 2007 AFVR EVENT – MW-11

In MW-11, the initial free-product depth was 43.12 and the water table depth was 43.90. Additionally, initial free-product/water level depths were measured in near-by monitoring wells MW-10, MW-11D, and MW-16 to evaluate drawdown observed during the AFVR event. Free-product was encountered in monitoring well MW-10. The initial depth to free-product in MW-10 was 42.64 and the initial depth to the water table was 43.04. The initial depths to the water table in MW-11D was 46.25, and 40.41 in MW-16.

The AFVR event initiated at 06:30 and concluded at 14:30. The general weather conditions observed during this period of time were cloudy skies with scattered light rain showers; winds varied between 10 to 20 mph with an ambient temperature between 55° and 65° Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 28 inches of mercury was applied to MW-11. The depth to free-product/groundwater was also measured every 30 minutes in wells MW-10, MW-11D and MW-16. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable PID (Model PGM 7600). Gauging data observed during the event is shown in Table 2.

MW-11 and near-by wells MW-10, MW-11D and MW-16 were gauged immediately following the conclusion of the AFVR event. The depth to free-product/groundwater readings were 48.29 (free-product) and 48.30 (water table) in MW-11, 42.57 (free-product) and 42.94 (water table) in MW-10, 46.63 feet (water table) in MW-11D, and 40.40 (water table) in MW-16. Minor drawdown was observed in MW-10 and MW-11D (Table 2). No discernible drawdown was observed in monitoring well MW-16.

At the completion of the AFVR event, a total volume of 48 gallons of petroleum impacted groundwater was determined to have been recovered from MW-11. A sheen of free-phase product was observed in the vacuum truck following the completion of the AFVR event. Petroleum product losses occur from emulsification with the groundwater and volatilization during the AFVR event. The recovered liquids were allowed to separate overnight to obtain free-product measurements. A total of 80 gallons (both events) of petroleum free-product was noted after separating overnight.

On March 20, 2007, petroleum free-product and/or groundwater was gauged in monitoring wells MW-10, MW-11, MW-14, and MW-16. BLE personnel detected 0.33 feet of free-product in MW-10, 0.21 feet of free-product in MW-11, 0.05 feet of free-product in MW-14, and no free-product (sheen) in MW-16. Waste transportation and disposal records for the petroleum impacted ground water recovered during the AFVR events are provided on Attachment A.

RECOMMENDATIONS

Since free-product is still present at similar levels as previously detected in MW-10, MW-11, and MW-14, we recommend that additional AFVR events be conducted at the site. Due to the extended distance between the affected monitoring wells, individual AFVR events may be required for wells MW-10, MW-11, MW-14, and MW-16.

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Ken Moorhead Oil Company, Inc. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

ASSESSMENT COMPONENT INVOICE

As approved by Mr. Art Shrader of SCDHEC, an interim invoice will be prepared for this assessment and submitted under separate cover to Ms. Robertha Dorsey of the SCDHEC accounting department. The Tier II invoice will be submitted upon completion of the assessment.

CLOSING

Please contact us at (864) 288-1265 if you have any questions.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina No. 2395

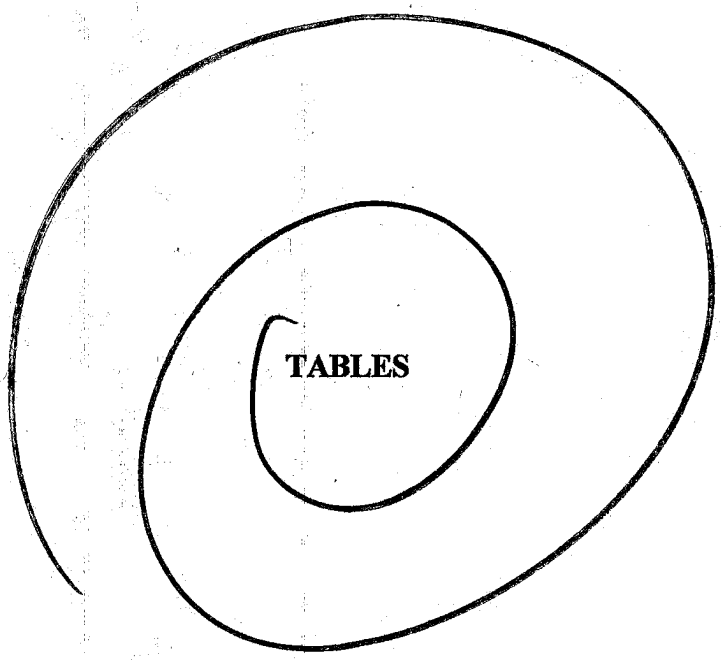
TREVOR J. BENTON REGISTERED No. 2395 SOUTH CAROLINA PROFESSIONAL GEOLOGIST

Thomas L. Lammons / jps

Thomas L. Lammons, P.G.
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Kris Moorhead, Ken Moorhead Oil Company, Inc., 820 S. Main St., Anderson, SC 29624

Attachments



TABLES

TABLE 1

AFVR Gauging Data (MW-10 & MW-14) - February 28, 2007
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #22807
BLE Project Number J04-3661-02

	Monitoring Well Gauging Data					Air Emmissions
	Vacuum (in.of Hg)		Depth to Groundwater (feet BTOC)			Effluent (ppm)
Time	MW-10	MW-14	MW-9	MW-13	MW-15	
8:15	20	25	45.36	45.10	45.06	845
8:45	20	25	45.36	45.10	45.06	1,868
9:15	20	25	45.37	45.10	45.06	1,859
9:45	20	25	45.36	45.09	45.07	1,849
10:15	20	25	45.36	45.09	45.07	1,790
10:45	20	25	45.38	45.10	45.06	1,690
11:15	20	25	45.39	45.11	45.06	1,658
11:45	20	25	45.42	45.14	45.07	1,668
12:15	20	25	45.45	45.15	45.06	1,647
12:45	20	25	45.45	45.17	45.07	1,640
13:15	20	25	45.46	45.17	45.07	1,655
13:45	20	25	45.46	45.16	45.07	1,643
14:15	20	25	45.45	45.16	45.08	1,622
14:45	20	25	45.47	45.17	45.07	1,601
15:15	20	25	45.48	45.16	45.08	1,624
15:45	20	25	45.48	45.16	45.08	1,611
16:15	20	25	45.48	45.16	45.08	1,608

NOTES:
AFVR event performed on 2/28/07
Vapor concentrations measured using a portable MiniRAE® 2000
Photo-Ionization Detector (PID).
0.82' (MW-10) and 0.77' (MW-14) free-product was detected prior to AFVR
inches of Hg - inches of mercury
BTOC - below top of casing
ppm - parts per million

TABLE 2

AFVR Gauging Data (MW-11) - March 1, 2007
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #22807
BLE Project Number J04-3661-02

	Monitoring Well Gauging Data				Air Emmissions
	Vacuum (in.of Hg)	Depth to Free-Product/Groundwater			Effluent (ppm)
Time	MW-11	MW-10	MW-11D	MW-12	
6:30	25	42.64 / 43.04	46.25	40.41	734
7:00	25	42.64 / 43.05	46.28	40.41	592
7:30	25	42.64 / 43.04	46.35	40.42	588
8:00	25	42.63 / 43.04	46.43	40.42	531
8:30	25	42.63 / 43.03	46.47	40.43	501
9:00	25	42.62 / 43.02	46.51	40.43	485
9:30	25	42.62 / 43.02	46.53	40.42	414
10:00	25	42.62 / 43.02	46.53	40.42	399
10:30	25	42.61 / 43.00	46.55	40.42	408
11:00	25	42.61 / 43.00	46.57	40.41	416
11:30	25	42.60 / 43.00	46.57	40.41	400
12:00	25	42.60 / 42.99	46.59	40.42	402
12:30	25	42.59 / 42.99	46.59	40.41	384
13:00	25	42.59 / 42.98	46.60	40.41	429
13:30	25	42.58 / 42.97	46.62	40.41	411
14:00	25	42.57 / 42.96	46.62	40.41	432
14:30	25	42.57 / 42.94	46.63	40.40	455

NOTES:

AFVR event performed on 3/1/07.

Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).

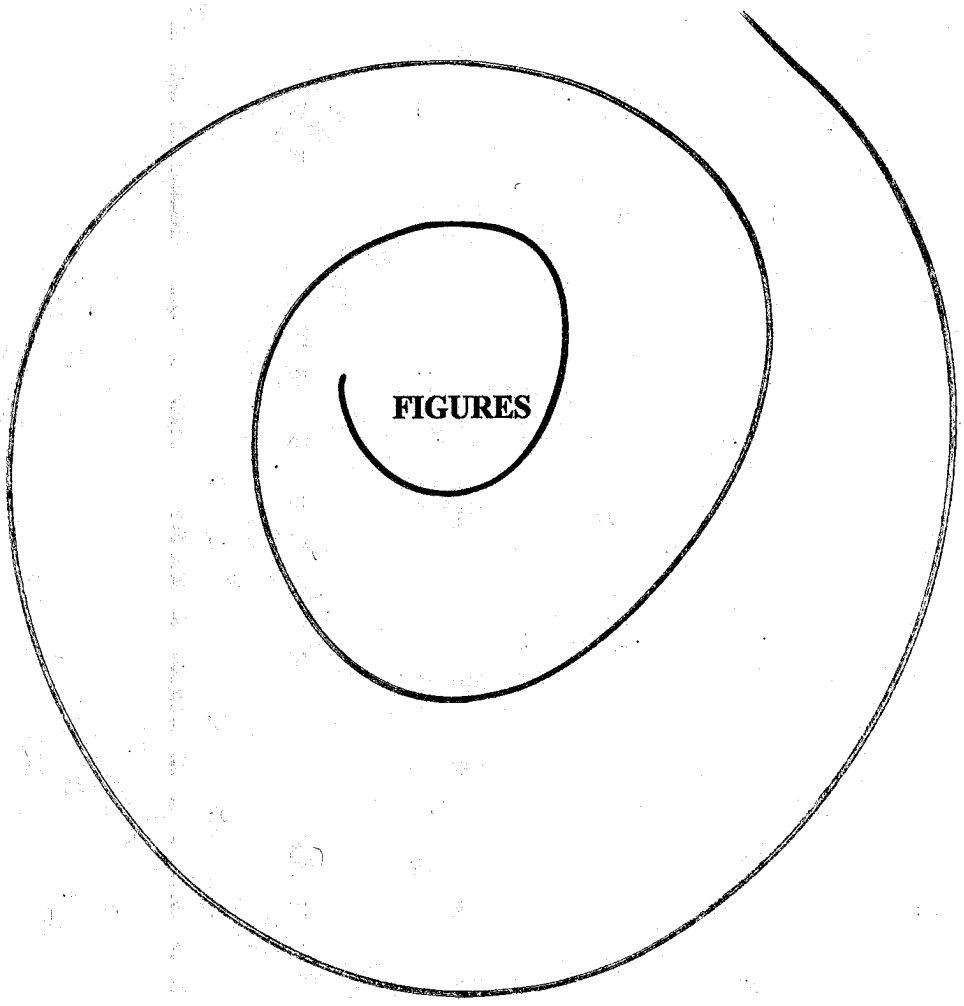
0.78' free-product was detected in MW-11 prior to AFVR event

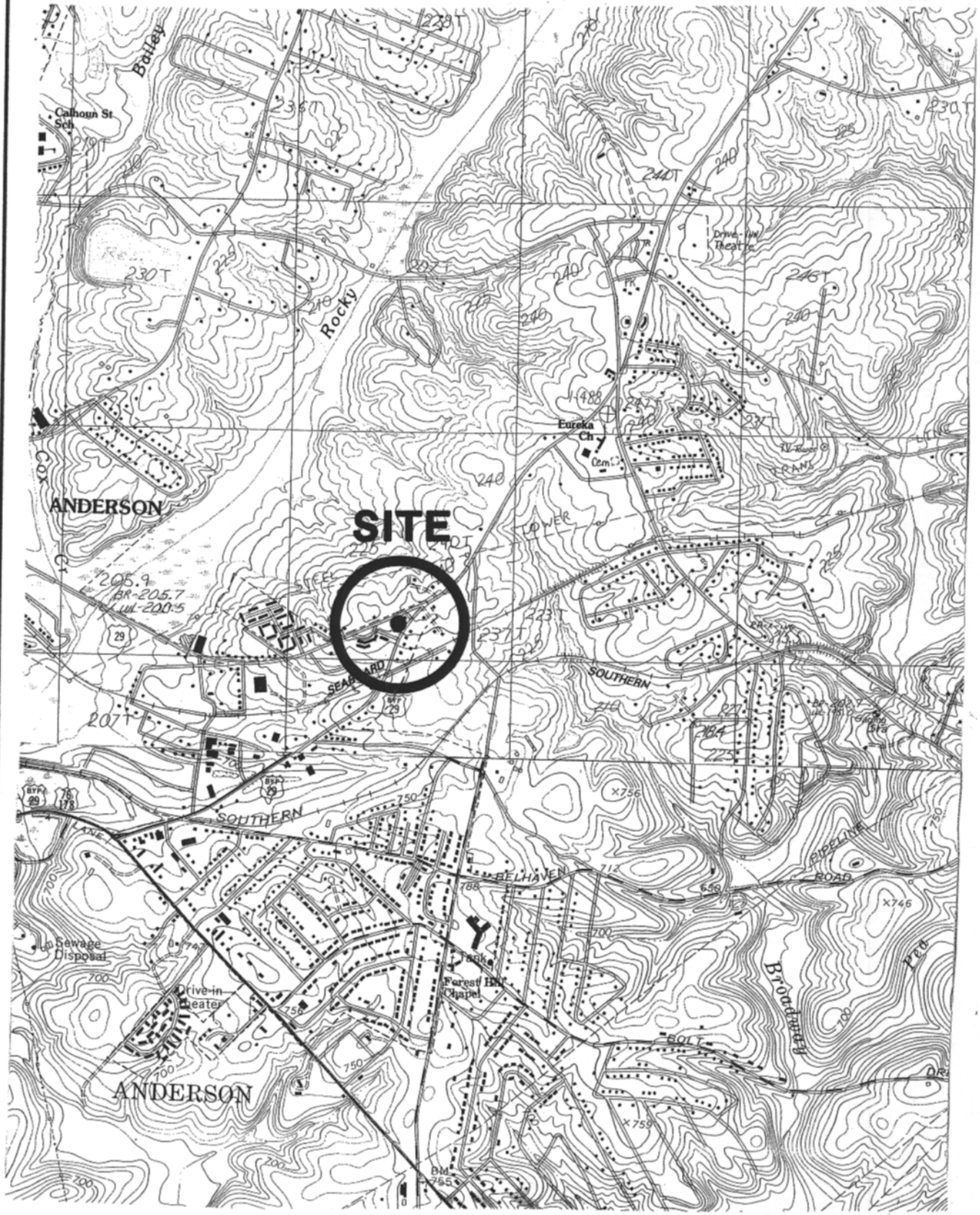
Free-product was detected in MW-10 (0.40') prior to AFVR

in. of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million


FIGURES

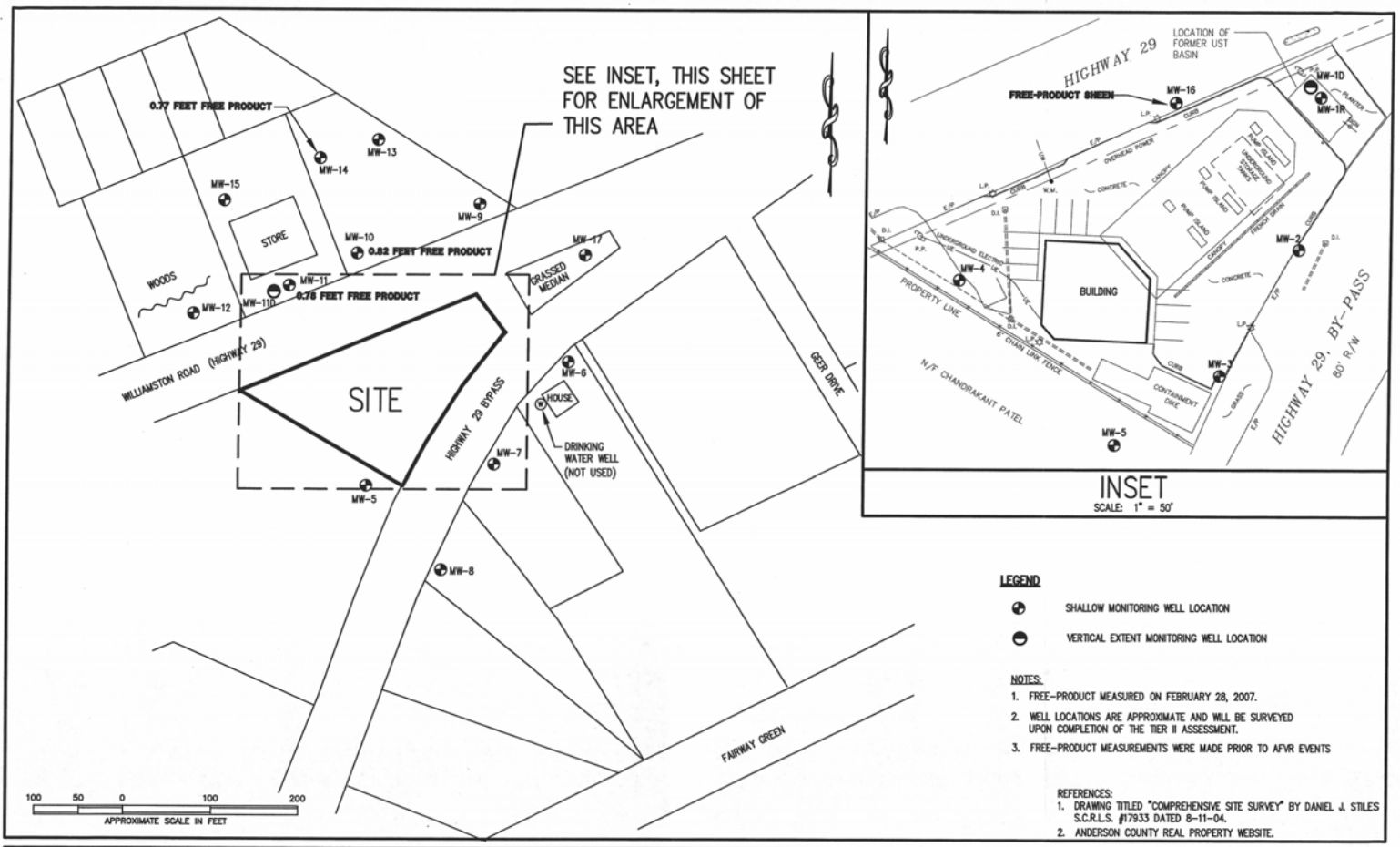


1 1000 .5 0 KILOMETERS 1 2
0 METERS 1000 2000

2000 1000 0 2000 4000
APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, BELTON WEST AND SAYLORS CROSSROADS, S.C. QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: AEH	DATE: 08-25-04	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 1200 WOODRUFF ROAD, SUITE B-7 GREENVILLE, SOUTH CAROLINA 29607 PHONE: (864)288-1265 FAX: (864)288-4430	FIGURE
CHECKED: TLL	CAD: MOOREHEAD-SLM	SITE LOCATION MAP MOORHEAD OIL COMPANY - KMO 119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA	1
APPROVED:	JOB NO: J04-3661-01		



LEGEND

- SHALLOW MONITORING WELL LOCATION
- VERTICAL EXTENT MONITORING WELL LOCATION

NOTES:

1. FREE-PRODUCT MEASURED ON FEBRUARY 28, 2007.
2. WELL LOCATIONS ARE APPROXIMATE AND WILL BE SURVEYED UPON COMPLETION OF THE TIER II ASSESSMENT.
3. FREE-PRODUCT MEASUREMENTS WERE MADE PRIOR TO AFVR EVENTS

REFERENCES:

1. DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY DANIEL J. STILES S.C.R.L.S. #17933 DATED 8-11-04.
2. ANDERSON COUNTY REAL PROPERTY WEBSITE.

DRAWN BY: AEH	DATE: 03-20-07	REVISIONS	
CHECKED BY: TJB	FILE: MOORHEAD-MWPLAN2	No. / DESCRIPTION / BY	
APPROVED BY:	JOB NO: J04-3661-02		

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

MONITORING WELL LOCATION PLAN
TIER II ASSESSMENT
MOORHEAD OIL COMPANY, KMO 119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE 2

ATTACHMENTS

ATTACHMENT A

WASTE TRANSPORTATION AND DISPOSAL RECORDS

GARCO, Inc.

Environmental, Industrial & Recycling Services

Certificate of Disposal

GENERATOR: Ken Moorehead Oil Co/KMO # 19
1312 Williamston Rd
Anderson, SC

MATERIAL ACCEPTED:	DISPOSAL METHOD:
1 - Vacuum Truck(s) - (446 - gal.) - Non-Hazardous Materials - Petroleum Contaminated Water	Waste Water Treatment
1 - Vacuum Truck(s) - (48 - gal.) - Non-Hazardous Materials - Petroleum Contaminated Water	Waste Water Treatment

GARCO, Inc. accepted the above listed materials on 03/02/2007.

GARCO, Inc. has accepted custody of the above referenced non-hazardous material. This material has been determined to be non-hazardous by a material profile, generator knowledge, and/or analytical data provided to GARCO, Inc..

Greg Russell
President

Post Office Box 1907 / Asheboro, NC 27204-1907 / 336-683-0911 / Fax 336-683-0811

GARCO, Inc.

NON-HAZARDOUS WASTE MANIFEST

Please print or type

NON-HAZARDOUS WASTE MANIFEST

Manifest Document No.: 07001 | 2. Page 1 of

3. Generator's Name and Mailing Address: Ken Moorehead Oil Co/KMO # 19 (KMO)
1312 Williamston Rd
Anderson, SC

1. Generator's US EPA ID No.:

4. Generator's Phone:

5. Transporter 1 Company Name: GARCO, Inc.

6. US EPA ID No.: NCR000135384

B. Transporter 1 Phone: (336) 683-0911

7. Transporter 2 Company Name:

8. US EPA ID No.:

D. Transporter 2 Phone:

9. Designated Facility Name and Site Address: GARCO, Inc.
2503 N. Fayetteville St.
Asheboro, NC 27203

10. US EPA ID Number: NCR000135384

F. Facility's Phone: (336) 683-0911

11. Waste Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
A) Non-Hazardous-Materials 2/28/07	1	Vacuum Truck	446	G
B) 3/1/07	1		48	G
C)				
D)				

G. Additional Descriptions for Materials Listed Above

A) Petroleum Contaminated Water

C)

B)

D)

15. Special Handling Instructions and Additional Information

24 Hour ER# 800-814-1204

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: TREVOR BENTON AGENT FOR KMO
Signature:
Date: 3/1/07

Printed/Typed Name: JOAN GORMAN AGENT FOR KMO
Signature:
Date: Month 2 Day 28 Year 07

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Jamie McNeill
Signature: Jamie McNeill
Date: Month 2 Day 28 Year 07

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Jamie McNeill
Signature: Jamie McNeill
Date: Month 3 Day 1 Year 07

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt for waste materials covered by this manifest, except as noted above.

Printed/Typed Name: Dennis Crowder
Signature: Dennis Crowder
Date: Month 3 Day 2 Year 07

GARCO, Inc.
AFVR Form

Page ____ of ____

Client: BLE

Date: 2/28/07

Site: Anderson S.C.

Site Contact: Trevor

Time leaving GARCO: 0700 Comfort Inn

Arrival time @ site: 0730

AFVR start time: 0815

		HG on truck	Temp	Humid	Anemometer Reading ft/min	MW #10	MW#14	MW#	MW#	MW#	MW#
Readings: Start	0815	28	170.5	0.0%	4350	20	25				
Readings: Time:	0915	28	183.4	0.0%	4388	20	25				
Time:	1015	28	187.6	0.0%	3788	20	25				
Time:	1115	28	193.1	0.0%	4754	20	25				
Time:	1215	28	199.4	0.0%	3950	20	25				
Time:	1315	28	212.3	0.0%	3922	20	25				
Time:	1415	28	215.3	0.0%	4010	20	25				
Time:	1515	28	213.3	0.0%	4050	20	25				
Time:	1615	28	219.2	0.0%	3983	20	25				

AFVR stop time: 1615

Product recovered: ____

Total volume generated from AFVR: 4466

GARCO, Inc. operator: Jamie

Vacuum Truck # 4

* 2 Day event 80 gals recovered

GARCO, Inc.
AFVR Form

Page ____ of ____

Client: BLE

Date: 3/1/07

Site: Anderson S.C.

Site Contact: Trevor

Time leaving ~~GARCO~~ Comfort Inn: 0530

Arrival time @ site: 0615

AFVR start time: 0630

		HG on truck	Temp	Humid	Anemometer Reading ft/min	MW#11	MW#	MW#	MW#	MW#	MW#
Readings: Start	0630	28	132.8	0.0%	3773	25					
Readings: Time:	0730	28	192.2	0.0%	4191	25					
Time:	0830	28	201.5	0.0%	4428	25					
Time:	0930	28	192.7	0.0%	3918	25					
Time:	1030	28	197.9	0.0%	4064	25					
Time:	1130	28	200.3	0.0%	3988	25					
Time:	1230	28	200.9	0.0%	4034	25					
Time:	1330	28	204.6	0.0%	3974	25					
Time:	1430	28	204.5	0.0%	4005	25					

AFVR stop time: 1430

Product recovered: ____

Total volume generated from AFVR: 48

Vacuum Truck # 4

GARCO, Inc. operator: Jamie

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DEC 18 2006
UNDERGROUND STORAGE TANK PROGRAM

qst

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

December 14, 2006

South Carolina Department of Health and Environmental Control
Underground Storage Tank Program
Bureau of Land and Waste Management
2600 Bull St.
Columbia, SC 29201-1708

Attention: Mr. Arthur Shrader, Hydrogeologist

Subject: **Interim Report of Aggressive Fluid Vapor Recovery Events**
KMO #119
1312 Williamston Road
Anderson, South Carolina
UST Permit #00505; CA # 22807
BLE Project No. J04-3661-02

Dear Mr. Shrader:

On behalf of Ken Moorhead Oil Company, Inc. (KMO), Bunnell-Lammons Engineering, Inc. (BLE) has completed an Aggressive Fluid Vapor Recovery (AFVR) event at the above referenced site. This scope of work was performed as an interim corrective action measure during an ongoing Tier II Assessment at the site. The results of our activities are provided herein.

PROJECT INFORMATION

The subject property is located at 1312 Williamston Road in Anderson, South Carolina (Figure 1). Prior to 2004, the site was owned by the Ken Moorhead Oil Company and operated as a Citgo fueling station. Currently, the site is owned and operated by DEV Enterprises, LLC and is utilized as a convenience store where gasoline and kerosene fuels are sold.

Four gasoline underground storage tanks (USTs) were located on the northeastern portion of the site. A soil assessment performed in December 1989 discovered minor petroleum contamination in the area around the USTs. The South Carolina Department of Health and Environmental Control (SCDHEC) issued a No Further Action status to the site in June 1990. In December 1991, the USTs and associated equipment were removed.

In June 2004 a Phase II property transaction was conducted on the site. Results from the Phase II report indicated concentrations of petroleum hydrocarbons in groundwater. Pursuant to these results,

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

UST PROGRAM
DOCKETING # 23T

PHONE (864) 288-1265
FAX (864) 288-4430

RECEIVED
DEC 18 2006
UNDERGROUND STORAGE TANK PROGRAM

the SCDHEC required a Tier I Assessment be performed with regard to the former UST system. The Tier I Assessment was completed by BLE in August 2004. Results from the Tier I Assessment indicated significant petroleum hydrocarbon impact to the groundwater along the eastern and northeastern portion of the site. Based on the Tier I results, SCDHEC required a Tier II Assessment be performed to define the horizontal and vertical extent of the groundwater contamination associated with the former UST system. We understand that the current UST system was relocated and updated with leak detection devices.

AGGRESSIVE FLUID VAPOR RECOVERY EVENTS

On November 29th and 30th, 2006, two separate 8-hour AFVR events were conducted in wells MW-16 and MW-14, respectively. A hydrogeologist from BLE, Trevor J. Benton, P.G., was on site for observation and monitoring. The AFVR event was performed by Jamie McNeill of GARCO, Inc. of Asheboro, North Carolina (U.S. E.P.A. ID #NCR000135384). Prior to the AFVR events, BLE personnel gauged free-phase petroleum product in MW-16 (0.01 feet) and MW-14 (0.33 feet) (Figure 2). Product measurements were made using a Solinst® Interface Meter Model 122. All depths measurements are shown as feet below the top of PVC casing (btoc).

NOVEMBER 29, 2006 AFVR EVENT – MW-16

In well MW-16, the initial free-product depth was 40.82 feet and the water table depth was 40.83 feet. Additionally, initial water level measurements in adjacent source area monitoring wells were 40.25 in MW-1R and 35.39 in MW-2.

The AFVR event initiated at 08:15 and concluded at 16:15. The general weather conditions observed during this period of time were partly cloudy to cloudy skies with intermittent rain showers; winds varied between 5 to 15 miles per hour (mph) with an ambient temperature between 55° and 60° Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 25 inches of mercury was applied to MW-16. The depth to water was measured every 30 minutes in wells MW-1R and MW-2 to evaluate drawdown in the affected area of the AFVR event. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable Photo-Ionization Detector (PID) (Model PGM 7600). Gauging data observed during the event is shown in Table 1.

MW-16 and the adjacent source area wells (MW-1R and MW-2) were gauged immediately following the conclusion of the AFVR event. The depth to water readings were 45.00 feet in MW-16, 40.25 feet in MW-1R, and 35.37 feet in MW-2. No discernible drawdown was observed in monitoring wells MW-1R or MW-2.

At the completion of the AFVR event, a total volume of 98 gallons of petroleum impacted groundwater was determined to have been recovered from MW-16. Only a slight sheen of free-phase product was observed in the vacuum truck following the completion of the AFVR event. Petroleum product losses occur from emulsification with the groundwater and volatilization during

the AFVR event. The recovered liquids were allowed to separate overnight to obtain free-product measurements. Only a slight sheen was noted in the vacuum truck after separating overnight.

On November 30, 2006 monitoring well MW-16 was gauged to determine if free-phase petroleum product was present after the AFVR event. No free-product was detected in the monitoring well. Waste transportation and disposal records are provided in Appendix A.

NOVEMBER 30, 2006 AFVR EVENT – MW-14

In MW-14, the initial free-product depth in MW-14 was 43.13 feet and the water table depth was 43.46 feet. Additionally, initial free-product/water level depths were measured in near-by monitoring wells MW-10, MW-11, and MW-13 to evaluate drawdown observed during the AFVR event. Free-product was encountered in monitoring wells MW-10 and MW-11. The initial depth to free-product in MW-10 was 42.22 feet and the initial depth to the water table was 42.91 feet. The initial depth to free-product in MW-11 was 45.63 feet and the initial depth to the water table was 46.21 feet. Finally, the initial depth to the water table in MW-13 was 44.57 feet.

The AFVR event initiated at 07:00 and concluded at 15:00. The general weather conditions observed during this period of time were cloudy skies with scattered light rain showers; winds varied between 5 to 15 mph with an ambient temperature between 55° and 65° Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 25 inches of mercury was applied to MW-14. The depth to free-product/groundwater was also measured every 30 minutes in wells MW-10, MW-11 and MW-13. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable PID (Model PGM 7600). Gauging data observed during the event is shown in Table 2.

MW-16 and near-by wells MW-10, MW-11 and MW-13 were gauged immediately following the conclusion of the AFVR event. The depth to free-product/groundwater readings were 44.49 feet in MW-14, 42.21 feet (free-product) and 42.89 feet (water table) in MW-10, 45.63 feet (free-product) and 46.21 feet (water table) in MW-11, and 44.57 feet in MW-13. No discernible drawdown was observed in the near-by monitoring wells.

At the completion of the AFVR event, a total volume of 203 gallons of petroleum impacted groundwater was determined to have been recovered from MW-14. Only a slight sheen of free-phase product was observed in the vacuum truck following the completion of the AFVR event. Petroleum product losses occur from emulsification with the groundwater and volatilization during the AFVR event. The recovered liquids were allowed to separate overnight to obtain free-product measurements. A total of 30 gallons of petroleum free-product was noted after separating overnight.

On December 1, 2006, petroleum free-product and/or groundwater was gauged in monitoring wells MW-10, MW-11, MW-14, and MW-16. BLE personnel detected 0.68 feet of free-product in MW-10, 0.57 feet of free-product in MW-11, 0.06 feet of free-product in MW-14, and no free-product in MW-16. Waste transportation and disposal records for the petroleum impacted ground water recovered during the AFVR events are provided in Appendix A.

monitoring wells have been installed. Due to the extended distance between the affected monitoring wells, a single AFVR event may be required for each individual well. Additionally, approximately one month after completion of the final AFVR event, the Tier II comprehensive groundwater sampling event will be conducted.

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Ken Moorhead Oil Company, Inc. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

ASSESSMENT COMPONENT INVOICE

As approved by Mr. Art Shrader of SCDHEC, an interim invoice will be prepared for this assessment and submitted under separate cover to Ms. Robertha Dorsey of the SCDHEC accounting department. The Tier II invoice will be submitted upon completion of the assessment.

CLOSING

Please contact us at (864) 288-1265 if you have any questions.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina No. 2395

Thomas L. Lammons, P.G.
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Kris Moorhead, Ken Moorhead Oil Company, Inc., 820 S. Main St., Anderson, SC 29624

Attachments

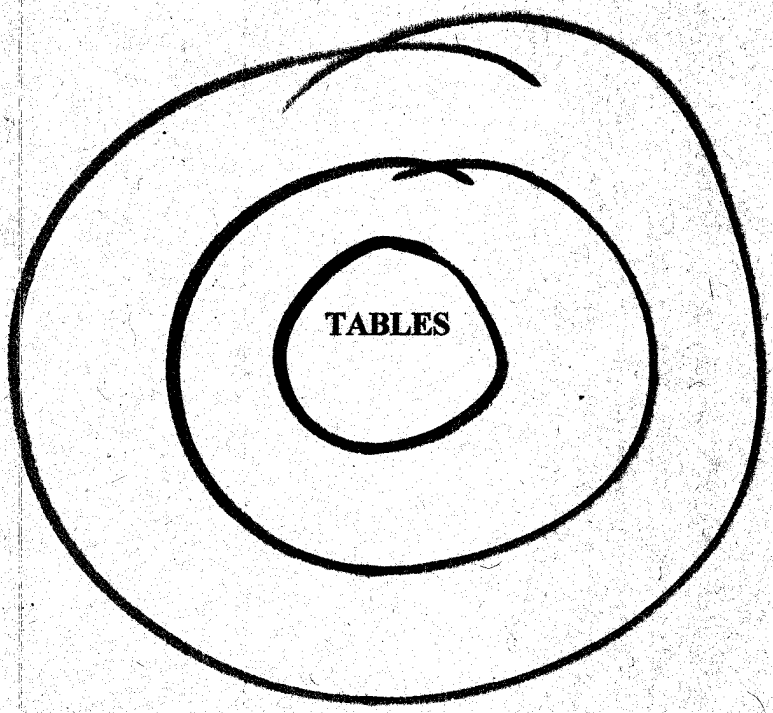

TABLES

TABLE 1

AFVR Gauging Data (MW-16) - September 29, 2006

KMO #119

Anderson, South Carolina

SCDHEC UST Permit #00505; Cost Agreement #22807

BLE Project Number J04-3661-02

	Monitoring Well Gauging Data			Air Emmissions
	Vacuum (in.of Hg)	Depth to Groundwater (feet BTOC)		Effluent (ppm)
Time	MW-16	MW-1R	MW-2	
8:15	25	40.25	35.37	190
8:45	25	40.25	35.37	187
9:15	25	40.23	35.37	243
9:45	25	40.23	35.38	199
10:15	25	40.23	35.37	191
10:45	25	40.23	35.38	194
11:15	25	40.23	35.39	188
11:45	25	40.23	35.38	169
12:15	25	40.22	35.38	176
12:45	25	40.23	35.38	188
13:15	25	40.21	35.38	187
13:45	25	40.21	35.37	177
14:15	25	40.20	35.38	182
14:45	25	40.22	35.37	177
15:15	25	40.25	35.37	186
15:45	25	40.24	35.37	185
16:15	25	40.25	35.37	190

NOTES:

AFVR event performed on 9/29/06

Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).

0.01' free-product was detected in MW-16 prior to AFVR

inches of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

TABLE 2

AFVR Gauging Data (MW-14) - September 30, 2006

KMO #119

Anderson, South Carolina

SCDHEC UST Permit #00505; Cost Agreement #22807

BLE Project Number J04-3661-02

	Monitoring Well Gauging Data				Air Emmissions
	Vacuum (in.of Hg)	Depth to Free-Product/Groundwater			Effluent (ppm)
Time	MW-14	MW-10	MW-11	MW-13	
7:00	25	42.22	45.63	44.57	266
7:30	25	42.22	45.63	44.57	198
8:00	25	42.21	45.63	44.56	174
8:30	25	42.22	45.63	44.57	181
9:00	25	42.22	45.63	44.57	199
9:30	25	42.22	45.62	44.56	170
10:00	25	42.23	45.63	44.56	166
10:30	25	42.22	45.63	44.56	177
11:00	25	42.22	45.62	44.55	155
11:30	25	42.21	45.63	44.56	151
12:00	25	42.21	45.63	44.56	128
12:30	25	42.21	45.63	44.57	166
13:00	25	42.22	45.63	44.56	139
13:30	25	42.21	45.63	44.57	144
14:00	25	42.21	45.62	44.57	132
14:30	25	42.21	45.63	44.56	129
15:00	25	42.21	45.63	44.56	135

NOTES:

AFVR event performed on 9/30/2006.

Vapor concentrations measured using a portable MiniRAE® 2000 Photo-Ionization Detector (PID).

0.33' free-product was detected in MW-14 prior to AFVR event

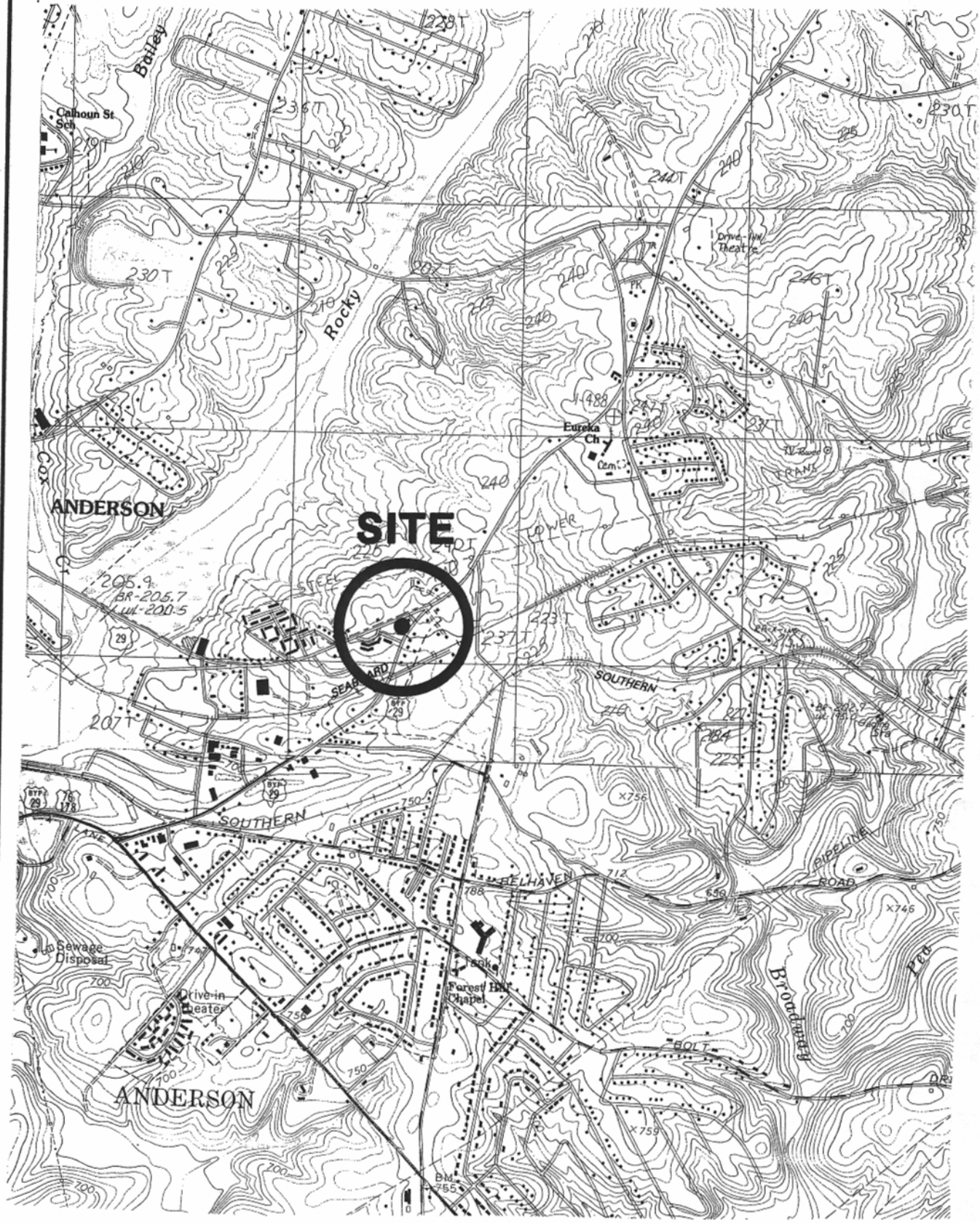
Free-product was detected in MW-10 (0.69') and MW-11 (0.58')

in. of Hg - inches of mercury

BTOC - below top of casing

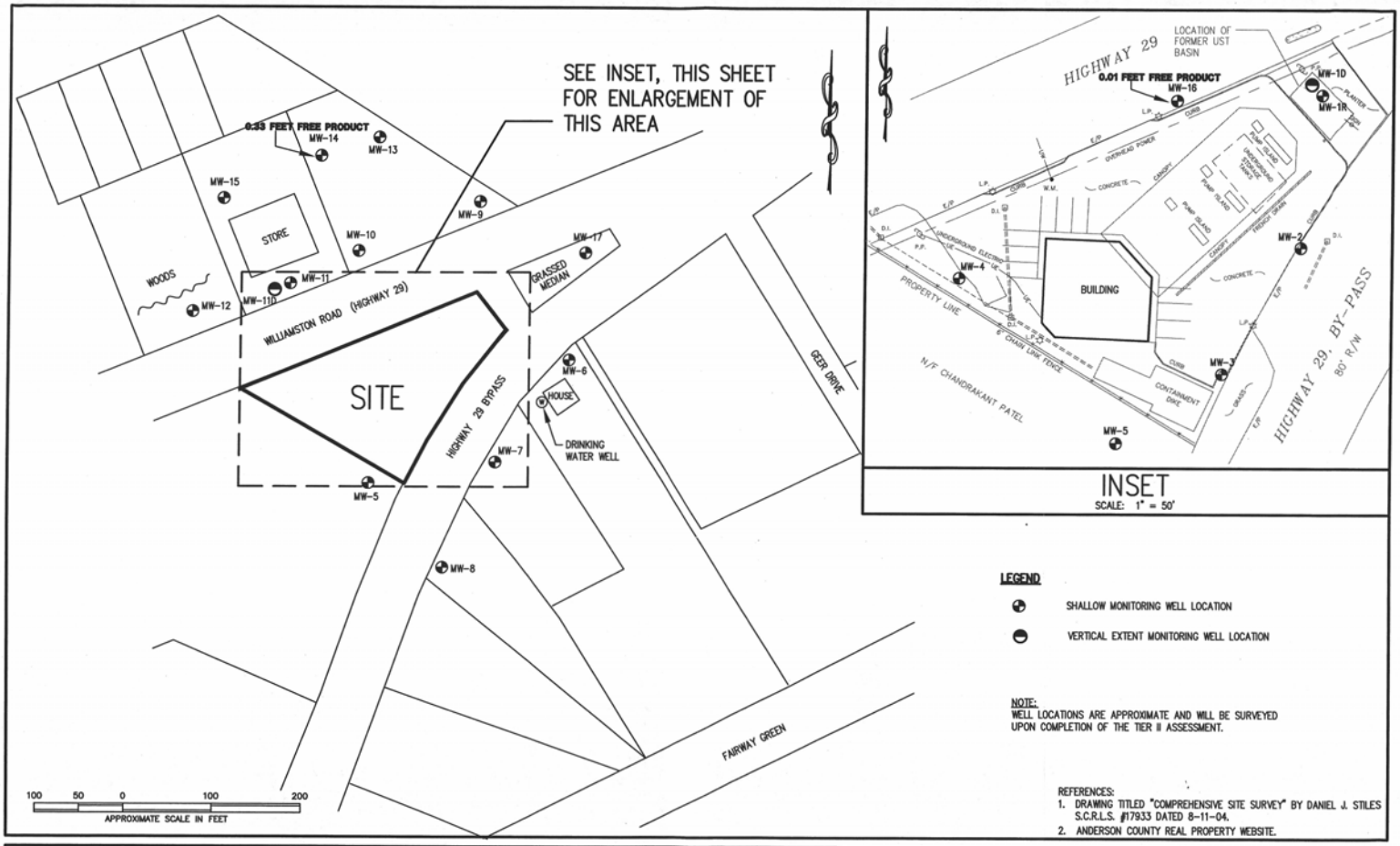
ppm - parts per million

FIGURES



REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, BELTON WEST AND SAYLORS CROSSROADS, S.C. QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: AEH	DATE: 08-25-04	BUNNELL-LAMMONS ENGINEERING, INC.	FIGURE
CHECKED: TLL	CAD: MOOREHEAD-SLM	1200 WOODRUFF ROAD, SUITE B-7 GREENVILLE, SOUTH CAROLINA 29607 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP MOORHEAD OIL COMPANY - KMO 119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
APPROVED:	JOB NO: J04-3661-01		1



DRAWN BY: AEH	DATE: 12-06-06	REVISIONS	
CHECKED BY: TJB	FILE: MOORHEAD-MWPLAN	No. / DESCRIPTION / BY	
APPROVED BY:	JOB NO: J04-3661-02		

BLE INC. BUNNELL-LAMBIONS ENGINEERING, INC.
1200 WOODRUFF ROAD, SUITE B-7
GREENVILLE, SOUTH CAROLINA 29607
PHONE: (864)288-1265 FAX: (864)288-4430

MONITORING WELL LOCATION PLAN
TIER II ASSESSMENT
MOORHEAD OIL COMPANY, KMO 119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE 2

ATTACHMENTS

ATTACHMENT A

WASTE TRANSPORTATION AND DISPOSAL RECORDS

GARCO, Inc.

Environmental, Industrial & Recycling Services

Certificate of Disposal

GENERATOR: Ken Moorehead Oil Co/KMO # 19
1312 Williamston Rd
Anderson, SC

MATERIAL ACCEPTED:

1 - Vacuum Truck(s) - (98 - gal.) - Non-Hazardous Material - Petroleum Contaminated Material

DISPOSAL METHOD:

Waste Water Treatment

GARCO, Inc. accepted the above listed materials on 12/01/2006.

GARCO, Inc. has accepted custody of the above referenced non-hazardous material. This material has been determined to be non-hazardous by a material profile, generator knowledge, and/or analytical data provided to GARCO, Inc..

Greg Russell
President

Post Office Box 1907 / Asheboro, NC 27204-1907 / 336-683-0911 / Fax 336-683-0811

GARCO, Inc.

NON-HAZARDOUS WASTE MANIFEST

Please print or type

NON-HAZARDOUS WASTE MANIFEST		Manifest Document No. 06001	2. Page 1 of
3. Generator's Name and Mailing Address	KMO #19 Ken Moorhead Oil Company 1312 Williamston Rd Anderson, SC	1. Generator's US EPA ID No.	
		4. Generator's Phone	
5. Transporter 1 Company Name GARCO, Inc.	6. US EPA ID No. NCR000135384	B. Transporter 1 Phone (336) 683-0911	
7. Transporter 2 Company Name	8. US EPA ID No.	D. Transporter 2 Phone	
9. Designated Facility Name and Site Address	GARCO, Inc. 2503 N. Fayetteville St. Asheboro, NC 27203	10. US EPA ID Number NCR000135384	
		F. Facility's Phone (336) 683-0911	

11. Waste Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
A) Non-Hazardous Material	1	Vacuum Truck	98	G
B)				
C)				
D)				

G. Additional Descriptions for Materials Listed Above

A) Petroleum Contaminated Water C)

B) D)

15. Special Handling Instructions and Additional Information

24 Hour ER# 800-814-1204

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	Date Month	Day	Year
TREVOR BENTON FOR KMO CO.		11	29	06

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year
Jamie McNeill	Jamie McNeill	11	29	06

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt for waste materials covered by this manifest, except as noted above.

Printed/Typed Name	Signature	Date Month	Day	Year
Dennis Crowder	Dennis Crowder	12	01	06

GARCO, Inc.
AFVR Form

Page _____ of _____

Client: BLE Date: 11/29/06

Site: Anderson S.C Site Contact: TREVOR

Time leaving GARCO: 0630

Arrival time @ site: 0800

AFVR start time: 0815

		HG on truck	Temp	Humid	Anemometer Reading ft/min	MW # 16	MW#	MW#	MW#	MW#	MW#
Readings: Start	0815	23	174.4	0.0%	2872	25					
Readings: Time:	0915	23	214.9	0.0%	4034	25					
Time:	1015	23	226.5	0.0%	2440	25					
Time:	1115	23	225.5	0.0%	2774	25					
Time:	1215	23	229.2	0.0%	3050	25					
Time:	1315	23	230.5	0.0%	3286	25					
Time:	1415	23	231.3	0.0%	2833	25					
Time:	1515	23	220.1	0.0%	3030	25					
Time:	1615	23	224.8	0.0%	3365	25					

AFVR stop time: 1615

Product recovered: _____

Total volume generated from AFVR: 98

GARCO, Inc. operator: Jamie

Vacuum Truck # 2

GARCO, Inc.

Environmental, Industrial & Recycling Services

Certificate of Disposal

GENERATOR: Ken Moorehead Oil Co/KMO # 19
1312 Williamston Rd
Anderson, SC

MATERIAL ACCEPTED:

1 - Vacuum Truck(s) - (203 - gal.) - Non-Hazardous Material - Petroleum Contaminated Material

DISPOSAL METHOD:

Waste Water Treatment

GARCO, Inc. accepted the above listed materials on 12/01/2006.

GARCO, Inc. has accepted custody of the above referenced non-hazardous material. This material has been determined to be non-hazardous by a material profile, generator knowledge, and/or analytical data provided to GARCO, Inc..

Greg Russell
President

Post Office Box 1907 / Asheboro, NC 27204-1907 / 336-683-0911 / Fax 336-683-0811

GARCO, Inc.

NON-HAZARDOUS WASTE MANIFEST

Please print or type

NON-HAZARDOUS WASTE MANIFEST		Manifest Document No. 01002	2. Page 1 of
3. Generator's Name and Mailing Address	KMO #19 Ken Moorhead Oil Company 1312 Williamston Rd Anderson, SC	1. Generator's US EPA ID No.	
		4. Generator's Phone	
5. Transporter 1 Company Name GARCO, Inc.	6. US EPA ID No. NCR000135384	B. Transporter 1 Phone (336) 683-0911	
7. Transporter 2 Company Name	8. US EPA ID No.	D. Transporter 2 Phone	
9. Designated Facility Name and Site Address	GARCO, Inc. 2503 N. Fayetteville St. Asheboro, NC 27203	10. US EPA ID Number NCR000135384	
		F. Facility's Phone (336) 683-0911	

11. Waste Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
A) Non-Hazardous Material	1	Vacuum Truck	203	G
B)				
C)				
D)				

G. Additional Descriptions for Materials Listed Above

A) Petroleum Contaminated Water C)

B) D)

15. Special Handling Instructions and Additional Information

24 Hour ER# 800-814-1204

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	Date Month	Day	Year
TREVOR BENTON FOR KMO CO.		11	30	06

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year
Jamie McNeill	Jamie McNeill	11	30	06

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt for waste materials covered by this manifest, except as noted above.

Printed/Typed Name	Signature	Date Month	Day	Year
Dennis Crowder	Dennis Crowder	12	01	06

GARCO, Inc.
AFVR Form

Page ____ of ____

Client: BLF

Date: 11/30/06

Site: Anderson S.C.

Site Contact: Trevor

Time leaving GARCO: 0545

Arrival time @ site: 0630

AFVR start time: 0700

		HG on truck	Temp	Humid	Anemometer Reading ft/min	MW #14	MW#	MW#	MW#	MW#	MW#
Readings: Start	0700	22	152.1	0.0%	2655	25					
Readings: Time:	0800	22	196.4	0.0%	3129	25					
Time:	0900	22	209.4	0.0%	3936	25					
Time:	1000	22	210.8	0.0%	3837	25					
Time:	1100	22	214.1	0.0%	3936	25					
Time:	1200	22	214.0	0.0%	3444	25					
Time:	1300	22	213.5	0.0%	3562	25					
Time:	1400	22	218.2	0.0%	3404	25					
Time:	1500	22	218.9	0.0%	3502	25					

AFVR stop time: 1500

Product recovered: 30 total gallons

Total volume generated from AFVR: 203 G

Vacuum Truck # 2

GARCO, Inc. operator: Jamie

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

OCT 0 6 2004

MS EUNICE FULLER
KEN MOORHEAD OIL INCORPORATED
PO BOX 2587
ANDERSON SC 29622-2587

UST PROGRAM
DOCKETING # 24T

Re: KMO #119, 1312 Williamston Road, Anderson, SC
UST Permit #00505; CA #22807; MWA #UMW-18621
Release Reported December 20, 1989
Tier I Report received September 2, 2004
Tier II Plan and Associated Cost Agreement received September 2, 2004
Anderson County

Ms. Fuller:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC), has reviewed the referenced plan submitted by Bunnell-Lammons Engineering Incorporated. The UST Program agrees with your contractor that additional assessment activities are needed to delineate horizontal and vertical extent of the petroleum plume.

Assessment activities at the site should begin immediately upon receipt of this letter. Characterization of all exposure pathways should be completed using field screening points. Based on the field screening results, monitoring wells should be installed in appropriate locations to monitor the migration of chemicals of concern (CoC) along these pathways. The original monitoring well approval has been provided Bunnell-Lammons Engineering Incorporated. Please have your contractor contact the Program prior to well installation for concurrence regarding the final well locations. Final monitoring wells shall be properly installed and bracketed at the water table. Please have your contractor contact the UST Program for locations of monitoring wells. Existing monitoring wells with screens that bracket the water table should not be purged. Groundwater sample should be analyzed for BTEX, naphthalene, EDB and MtBE. Laboratory analysis will be in accordance with *Analytical Methodology* dated June 1, 2004. A copy of this publication is available on line at http://www.scdhec.gov/eqc/ust/pubs/analmet.pdf. **A Tier II Report and invoice are due within 90 days from the date of this letter.** Please note that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Cost agreement number 22087 has been approved for the amounts shown on the enclosed cost agreement form. Bunnell-Lammons Engineering Incorporated may directly bill the State Underground Petroleum Environmental Response Bank (SUPERB) Account for reasonable costs. An interim well drilling invoice may be submitted for this scope of work. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Program is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Program for the cost to be paid. The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Program grants preapproval for transportation of virgin petroleum contaminated soil and groundwater from the referenced site to a permitted treatment facility. The contaminated soil or groundwater must be properly stored in labeled containers or covered with plastic as appropriate. The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report. If the levels of petroleum contamination based on laboratory analysis are below risk-based screening levels, please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not compensate for transportation or treatment of clean soil and/or groundwater.

The SUPERB Site Rehabilitation and Fund Access Regulations R.61-98 require the UST owner/operator to develop and implement a reasonable, cost-effective corrective action to be performed by a SCDHEC-certified site rehabilitation contractor. As the owner/operator for the referenced release, you were provided a choice on whether you wanted to select the contractor, or have the UST Program select a contractor on your behalf. The UST Program understands that you wish to select a contractor if assessment activities indicate future active corrective action is necessary.

On all correspondence or inquiries regarding this project, please reference UST permit number 00505 and cost agreement 22807. If you have any questions, please contact me at (803) 896-6669, (800) 826-5435 (within South Carolina only), fax me at (803) 896-6245, or e-mail me at shradeaa@dhec.sc.gov if you have questions or need additional information.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Monitoring Well Approval (MWA)
Approved Cost Agreement (ACA)

cc: Bunnell-Lammons Engineering Inc., 6004 Ponders Ct., Greenville, SC 29615 (with enc.)
Technical File (with enc.)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

Monitoring Well Installation Approval Form

Date of Issue: September 2, 2004 Approval No.: UMW-18621

Approval is hereby granted to:	Bunnell-Lammons Engineering Inc
(on behalf of):	Ken Moorhead Oil Incorporated
UST Permit #:	00505
Address:	1312 Williamston Road, Anderson, SC
County:	Anderson

This approval is for the construction of 945 feet of screening, and 17 monitoring wells (15 shallow and 2 deep pit cased wells) in accordance with the construction plans and technical specifications outlined in the in the South Carolina Well Standards and Regulations (R.61-71). The well is to be constructed within the surficial aquifer for the intended purpose of monitoring groundwater quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well will be submitted with the technical report.

2. Each well will be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate will provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.

3. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.

4. **A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Arthur Shrader at (803) 896-6669 or shradeaa@dhec.sc.gov. and Eddie Clements (District Contact) at (864) 260-5569 or clemence@dhec.sc.gov.**

5. Please provide groundwater quality analytical data (chemical analysis and/or water level(s)) and associated measurements (i.e., in-situ field measurements) to me with the technical report.

6. Monitoring wells and temporary monitoring wells will be installed by or under the direct supervision of a licensed well driller certified by the State of South Carolina.

7. Monitoring wells and temporary monitoring wells will be abandoned by or under the direct supervision of a licensed well driller certified by the State of South Carolina. Temporary monitoring wells shall not remain in place for longer than 30 days from the date of installation. Monitoring wells may be abandoned only upon concurrence by this Division.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71. Please remember to have a copy of this approval on the site during well installation.

Approved by:

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

Approved Cost Agreement 22807

Facility: 00505 KMO 119 KEN MOORHEAD OIL INC
SHRADEAA
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
01 PLAN					
		A PLAN PREPARATION	1.0000	100.00	100.00
04 MOB/DEMOB					
		A EQUIPMENT	2.0000	500.00	1,000.00
		B PERSONNEL	5.0000	250.00	1,250.00
06 SOIL BORINGS (DRILLED)					
		SOIL BORINGS & FLD SCREENING	945.0000	17.00	16,065.00
09 WELL INSTALLATION					
		B WATER TABLE (DRILLED)	675.0000	38.00	25,650.00
		C TELESCOPING	130.0000	58.00	7,540.00
		D ROCK DRILLING	40.0000	58.00	2,320.00
10 SAMPLE COLLECTION					
		A GROUND WATER	17.0000	55.00	935.00
		C WATER SUPPLY	1.0000	25.00	25.00
		D GROUNDWATER NO-PURGE	3.0000	35.00	105.00
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	24.0000	100.00	2,400.00
		E LEAD	21.0000	20.00	420.00
		F EDB	21.0000	55.00	1,155.00
		K NITRATE	20.0000	20.00	400.00
		L SULFATE	20.0000	20.00	400.00
		M FERROUS IRON	20.0000	20.00	400.00
		N METHANE	20.0000	110.00	2,200.00
	SOIL SOIL	Q BTEX+NAPTH	21.0000	100.00	2,100.00
12 AQUIFER CHARACTERIZATION					
		B SLUG TEST	3.0000	150.00	450.00
17 DISPOSAL					
		A1 WASTEWATER - PURGING/SAMPLING	2.0000	90.00	180.00
		C SOIL (TREATMENT/DISPOSAL)	20.0000	50.00	1,000.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	66,095.00	9,914.25
			Total Amount		76,009.25

BLE INC.

Bunnell-Lammons Engineering, Inc.
1200 Woodruff Road, Suite B-7
Greenville, South Carolina 29607
Phone (864) 288-1265 FAX (864) 288-4430

LETTER OF TRANSMITTAL

RECEIVED
SEP 17 2004
UNDERGROUND STORAGE TANK PROGRAM

TO: **SCDHEC**
2600 Bull Street
Columbia, SC 29201

ATTENTION: **Mr. Art Shrader**

DATE: **September 15, 2004**

RE: **Disposal Manifests**

WE ARE SENDING YOU:

☒ Attached ☐ Under separate cover via: U.S. MAIL

☐ Report	☐ Prints	☐ Change order	☐ Letter	☐ Copy of report
☒ Other	☐ W.A.S.	☐ Plans	☐ Invoice	☐ Specifications
☐ Proposals	☐ Preliminary Data:			

THESE ARE TRANSMITTED AS CHECKED BELOW:

☐ For approval ☐ For your use ☐ As requested ☒ Other ☐ For review and comment

Number of copies: 1 each

REMARKS:

Please find the enclosed disposal manifest for the Ken Moorhead Oil Co. site, KMO 119, UST Permit # 00505.

If you have any questions or need further information, please do not hesitate to contact me at (864) 288-1265.

We appreciate this opportunity to be of service.

Joy P. Stugg

Joy P. Stugg
Environmental Dept. Administrator

Enclosure

UST PROGRAM
DOCKETING # 25T

MATERIAL MANIFEST

JBR Environmental Services
P. O. Box 4098
Spartanburg, SC 29305

Manifest Document No. D-0910793

Page of

Job No. D-0910793

Emergency Phone Number: (864) 583-2717

GENERATOR INFORMATION

Name: KEN MOOREHEAD OIL / BLE

US EPA ID No.

Street Address: 1312 WILLIAMSTON RD. ANDERSON, SC

Mailing Address: 1200 WOODRUFF RD. SUITE B7 GREENVILLE, SC 29607

Phone No.: 288-1265

Contact: ROBIN SMITH

DESCRIPTION OF MATERIALS

	HM	USDOT Proper Shipping Name (Complete All Items for Hazardous Materials)	Hazard Class	UN/NA ID No.	Packing Group	Containers Qty	Containers Type	Total Quantity	Unit Wt./Vol.
a.		NON-HAZ SOLID, NOS	—	—	—	7	DM	7	DM
b.		NON-HAZ LIQUID, NOS	—	—	—	1	DM	1	DM 1.8 TON
c.									

ADDITIONAL INFORMATION		ERG No.	JBR Profile Code	Facility Use
a.	TPH SOIL		BL-110320	APP. FOR DISPOSAL
b.	PURGE WATER		BL-110320	APP. FOR SOLIDIFICATION
c.				

GENERATORS CERTIFICATION

This is to certify that the above-described materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40 CFR Part 261 or any applicable state law, and unless specifically identified above, the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2 ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Printed/Typed Name: Robin L. Smith As an Agent for Ken Moorhead Oil

Signature: R. L. Smith As an agent of Moorhead Oil Company

Mo./Day/Yr.: 09/14/04

TRANSPORTER INFORMATION

Transporter: JBR Environmental Services

Address: 210 Alice Street, Spartanburg, SC 29303

Transporter or EPA ID No.: SCR000004358

Unit No.: 4

Phone: 864-583-2717

I hereby acknowledge receipt of the above-described materials for transport from the generator site listed above.

Signature: [signature] Shipment Date: 09-10-04

I hereby acknowledge that the above-described materials were received from the generator site and were transported to the facility listed below.

Signature: [signature] Delivery Date: 09-10-04

FACILITY INFORMATION

Facility: JBR Environmental Services

Address: 210 Alice Street, Spartanburg, SC 29303

Facility or EPA ID No.: SCR000004358

Phone: 864-583-2717

Contact: Rex Russell

I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy noted below.

Signature: [signature] Receipt Date: 9-10-04

	Discrepancies	Routing Codes	Handling Methods
a.			
b.			
c.			

Original - Facility Retain | COPY 2 - Return to Generator | COPY 3 - Transporter Retain | COPY 4 - Generator Retain

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

September 8, 2004

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
2600 Bull Street
Columbia, South Carolina 29201-1708

RECEIVED
SEP 13 2004
UNDERGROUND STORAGE TANK PROGRAM

Attention: Mr. Art Shrader
Hydrogeologist

Subject: **Private Water Supply Well Receptor**
Tier I Assessment – KMO 119
Ken Moorhead Oil Company
1312 Williamston Road, Anderson, SC
UST Permit #00505
BLE Project No. J04-3661-01

Dear Mr. Shrader:

Bunnell-Lammons Engineering, Inc. (BLE) is providing herein a revision to the receptor survey as submitted in the Ken Moorehead Oil Co., KMO 119, Tier I Assessment Report (August 31, 2004).

BLE personnel visited the surrounding properties in the field on Tuesday, September 7, 2004 and identified a private water supply well at 610 Highway 29 Bypass. This new information modifies the reported findings of the Tier I Assessment which stated that no private water supply wells were present within 1000 feet of the site. The 610 Highway 29 Bypass property is a residence downgradient and within 100 feet of the KMO 119 store. The attached Tax Map shows the location of this property. Please note this revision to the Tier I Report.

We apologize for this initial oversight and trust the attached information is useful. If you have any questions please feel free to call us at (864) 288-1265.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Thomas L. Lammons, P.G.
Principal Hydrogeologist
Registered, South Carolina No. 893

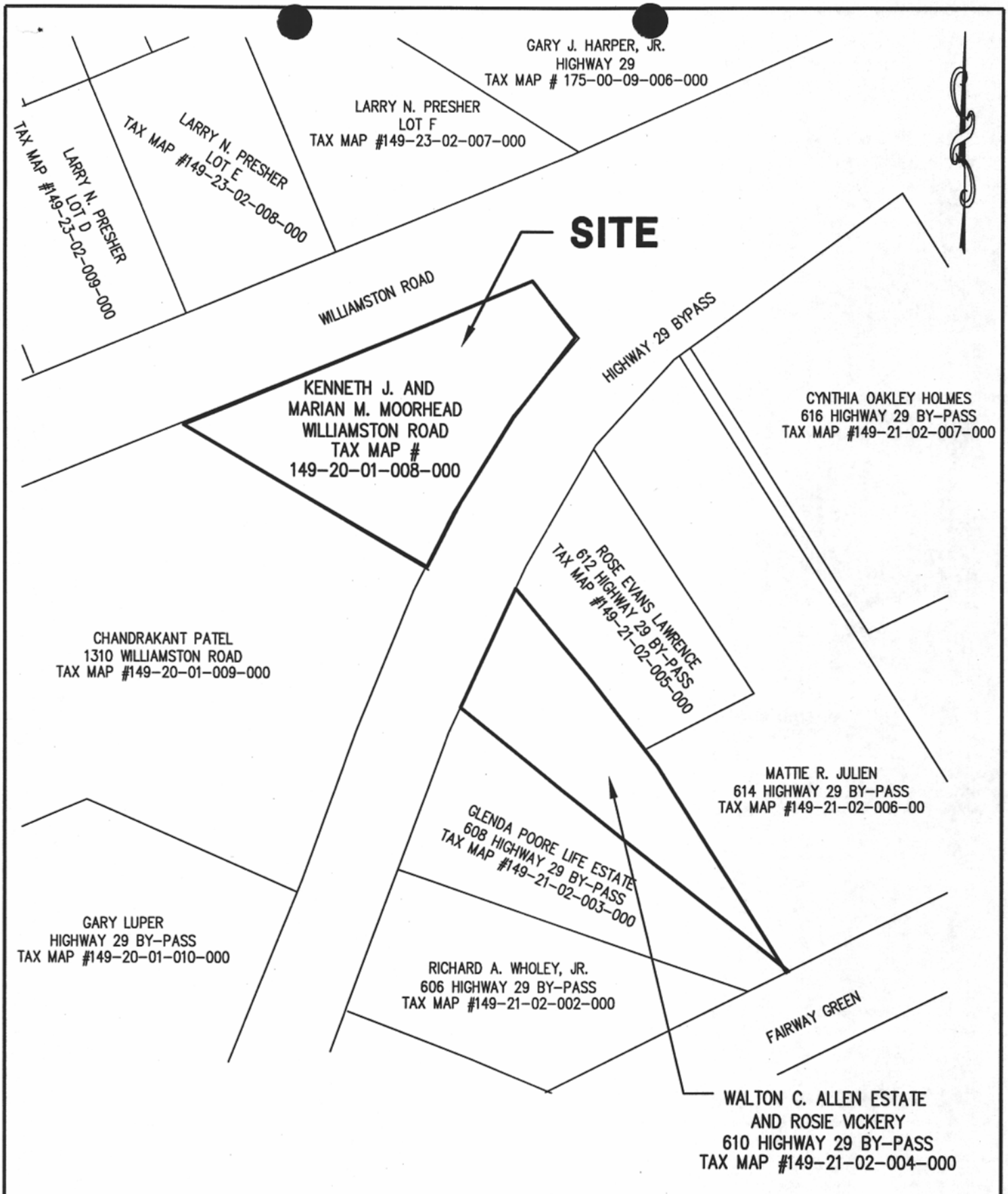
Cc: Chris Moorehead, Ken Moorehead Oil Co.

UST PROGRAM
DOCKETING # 267

Attachment

Across street from edge of former AST basin

1200 WOODRUFF ROAD, SUITE B-7
GREENVILLE, SOUTH CAROLINA 29607
PHONE (864) 288-1265
FAX (864) 288-4430



REFERENCE:
ANDERSON COUNTY REAL PROPERTY SEARCH WEBSITE.

DRAWN: AEH	DATE: 09-08-04	BUNNELL-LAMMONS ENGINEERING, INC.	FIGURE
CHECKED: TLL	CAD: MOOREHEAD-SMTAX	1200 WOODRUFF ROAD, SUITE B-7 GREENVILLE, SOUTH CAROLINA 29607 PHONE: (864)288-1265 FAX: (864)288-4430	TAX MAP MOORHEAD OIL COMPANY, KMO 119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
APPROVED:	JOB NO: J04-3661-01		

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

August 31, 2004

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
2600 Bull Street
Columbia, South Carolina 29201-1708

Attention: Mr. Art Shrader
Hydrogeologist

Subject: **Tier I Assessment Report**
Ken Moorhead Oil Company
415 Service Center Road
Anderson, SC
UST Permit #00505
BLE Project No. J04-3661-01

Dear Mr. Shrader:

On behalf of Moorhead Oil Company, Bunnell-Lammons Engineering, Inc. (BLE) submits herein the Tier I Assessment Report and Tier II Plan for the subject site.

A copy of the Underground Storage Tank (UST) Owner/Operator Lead Information Sheet is attached for your use. A copy of the form will be forwarded to Ms. Pat Holland of SCDHEC, Bureau of Business Management, Division of Procurement Services.

We appreciate this opportunity to be of service. If you have any questions please feel free to call us at (864) 288-1265.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

PROFESSIONAL GEOLOGIST REGISTERED No. 893 SOUTH CAROLINA THOMAS L. LAMMONS

Thomas L. Lammons, P.G.
Principal Hydrogeologist
Registered, South Carolina No. 893

Trevor J. Benton /jps
Trevor J. Benton
Staff Geologist

Cc: Pat Holland, DHEC

Attachment

1200 WOODRUFF ROAD, SUITE B-7
GREENVILLE, SOUTH CAROLINA 29607

PHONE (864) 288-1265
FAX (864) 288-4430

D H E C
PROMOTE PROTECT PROSPER

TIER I ASSESSMENT REPORT OF FINDINGS
DIVISION OF UNDERGROUND STORAGE TANK MANAGEMENT

I INTRODUCTION

A. Owner/Operator Information

Facility Name: Citgo Store KMO 119 UST Permit #: 00505

Tank, pump and island owner:

Name: Ken Moorehead Oil Co

Address: 820 South Main Street
Anderson, South Carolina 29624

Telephone Number (include area code): (864) 260-0202

Store owner and pump operator:

Name: Same

Address: Same

Telephone Number (include area code): Same

B. Property Owner Information

Name (if different than above): Ken Moorehead Oil Co, Citgo Store KMO 119

Address: 820 South Main Street
Anderson, South Carolina 29624

Telephone Number (include area code): (864) 226-6076

C. Contractor Information

Name: Bunnell-Lammons Engineering, Inc. SCDHEC Certification #: 10

Address: 1200 Woodruff Road, Suite B-7, Greenville, SC 29607

Telephone Number (include area code): (864) 288-1265

D. Site Information

Address: 1312 Williamston Road, Anderson, South Carolina

Description of Adjacent Land Use. Include documentation(e.g. zoning regulations) as appropriate: According to the Anderson County Assessors Office, the adjacent land uses are zoned as Commercial and Residential. The site area slopes to the south. An active convenience store and Citgo gas station occupies the site. The current UST system is updated with all required leak detection devices. This Tier I assessment addresses the old UST system that was removed in the 1991s pursuant to SCDHEC regulations. The project is approved under the SUPERB amnesty program. (SCDHEC Approval No. UMW-18494). Documentation is included in Appendix G.

E. Site History

Date Release Reported to SCDHEC: December 13, 1989, Preliminary Subsurface Soil Investigation

Estimated Quantity of Product Released: Unknown- not documented

Cause of Release: Unknown. Release initially discovered during 12/13/89 soil investigation and later confirmed during UST closure in 12/91. Files have been purged from SCHEC and owners records.

UST #	Product	Date Installed	Currently in use (Yes or No)	If not in use, Date Removed
1	Gasoline	Unknown	No	December 1991
2	Gasoline	Unknown	No	December 1991
3	Gasoline	Unknown	No	December 1991
4	Gasoline	Unknown	No	December 1991

Other Releases at this Site? Yes ☒ No ☐

If Yes, Date Release Reported to SCDHEC: June 8, 2004

Status of Release: Phase II Assessment for real estate transaction. Two downgradient ground-water samples collected using direct push technology by a contractor, Spero Corporation, working for a prospective buyer. Samples were analyzed for volatile organic compounds (EPA 8260B) and base neutral semi-volatile organics (EPA 8270C).

No Further Action Date: June 11, 1990 – from SCDHEC after the soil assessment (1989). See Appendix G.

II SITE CHARACTERISTICS

A. Site Geography

Describe the topography of the site and surrounding area (slope, vegetation, bodies of water, major land features, etc.) The site is covered with asphalt, fuel pump islands and the convenience store building. Behind the building is a concrete storm water catch basin. The site slopes southward. (Figure 1). No major bodies of water are present within 500 feet of the site.

Mean Elevation of Site: 730 feet msl

Additional Comments: None

B. Exposure Analysis

Describe all potential receptors and preferential pathways within a 1000-foot radius of the site.

Description of Receptor	Distance/Direction from Site
Underground Public Water Line	Approximately 110 feet southwest of the source area
Underground Sanitary Sewer Line	Approximately 200 feet southwest of source area
Underground Storm Drain	Approximately 40 feet south of the source area

Provide any additional comments necessary to complete the exposure analysis: N/A

C. Utilities Survey

List the utilities on site, and adjacent to the site within a 250-foot radius, that could serve as exposure points or as preferential pathways.

Utility	On-site or Distance/Direction from Site	Depth to Utility
Water	~110 feet southwest; on-site	~2 feet
Sanitary Sewer	~200 feet southwest; on-site	~2 feet
Storm Drain	~40 feet south; on site	~5 feet

Additional Comments: N/A

D. Site Geology

Provide a brief description of the regional geology and hydrogeology:

The project site is located in the Piedmont Physiographic Province, an area underlain by igneous and metamorphic rocks. The subsurface soils encountered in this area are fill material grading to a residual product (saprolite) of in-place weathering of local bedrock, which is characterized as a gneiss-schist complex.

The subsurface hydrogeology consists of two primary aquifers. The upper, unconfined aquifer consists of unconsolidated and semi-consolidated materials. The lower aquifer unit generally consists of fractured crystalline bedrock.

Provide a brief description of the site specific geology and stratigraphy:

The underlying subsurface material is primarily residual soils (saprolite) and partially weathered rock (PWR) composed of reddish-brown and brown, micaceous, silty sand and gravel, and silty clay and gravel. Auger refusal depth was encountered in each well boring; MW-1 (45.65 ft), MW-2 (42.61 ft), and MW-3 (40.35 ft). Geoprobe boring locations GP-1 and GP-2 encountered gravel characteristic of UST basin backfill.

E. Soil Boring Data

Drilling Dates: 7/21/04 – 7/26/04, 7/30/04

Provide a brief justification for the location of the soil borings:

GP-1 Former UST Basin

GP-2 Former UST Basin

GP-3 Former product piping area – Limited information is available regarding the exact locations product piping lines of the former UST system. In addition, the former piping area generally overlaps the new UST system, therefore only one soil boring was performed along the former product piping line.

GP-4 Background

Standard Operating Procedure for Field Screening:

Continuous soil cores were collected at each Geoprobe location and contained in sealed acetate liners. At one-foot intervals, a small opening was punctured into the sealed liner suitable for measuring organic vapors using a PID. PID readings were recorded on site and are shown on the following tables.

Complete the table below for each soil boring.

UST Area Borings

Borehole GP- 1 **Sampling Date- 7/30/04** **Sample Depth- 17'-18'**

Geoprobe Interval (ft.)	PID Field Screening Results (ppm)	Lithology (soil type, color, rocks/minerals present)	Soil Conditions (dry, moist, etc; petroleum odor)
1	58.6	Reddish-brown, slightly micaceous, clayey SILT	Dry; no odor
2	75.8	"	Dry; no odor
3	161.7	"	Dry; no odor
4	13.7	"	Dry; no odor
5	10.5	"	Slightly moist; no odor
6	11.1	"	Slightly moist; no odor
7	197.8	"	Slightly moist; no odor
8	117.3	"	Slightly moist; petroleum odor
9	87.9	"	Slightly moist; petroleum odor
10	19.2	"	Slightly moist; no odor
11	42.3	"	Slightly moist; petroleum odor
12	187.9	"	Slightly moist; petroleum odor
13	281.4	"	Slightly moist; petroleum odor
14	298.1	"	Dry; petroleum odor
15	164.7	"	Dry; petroleum odor
16	392.2	"	Dry; petroleum odor
17	**1116**	"	**Dry; petroleum odor (sample)**
18	**1439**	"	**Slightly moist; strong odor (sample)**
19	**1735**	"	**Slightly moist; strong odor (sample)**
20	1012	"	Slightly moist; petroleum odor
21	143.7	"	Slightly moist; petroleum odor
22	49.2	"	Slightly moist; petroleum odor
23	108.3	"	Slightly moist; petroleum odor
24	826.1	"	Slightly moist; petroleum odor
25	59.7	"	Slightly moist; petroleum odor
Probe terminated at 25 feet bgs			

Borehole GP- 2 **Sampling Date- 7/30/04** **Sample Depth- 15'-17'**

Geoprobe Interval (ft.)	PID Field Screening Results (ppm)	Lithology (soil type, color, rocks/minerals present)	Soil Conditions (dry, moist, etc; petroleum odor)
1	53.1	Reddish-brown, slightly micaceous, clayey SILT	Dry; no odor
2	220.2	"	Dry; no odor
3	385.7	"	Dry; no odor
4	388.8	"	Dry; no odor
5	137.1	"	Dry; no odor
6	13.3	Reddish-brown, f/m sandy, SILT w/ clay	Dry; no odor
7	105.7	"	Dry; no odor
8	304.6	"	Dry; no odor
9	292.8	"	Dry; no odor
10	260.7	"	Dry; no odor
11	563.4	"	Dry; no odor
12	141.6	"	Dry; no odor
13	299.9	"	Dry; slight petroleum odor
14	221.4	"	Dry; slight petroleum odor
15	**1842**	"	**Moist; strong petroleum odor (sample)**
16	**1361**	"	**Moist; petroleum odor (sample)**
17	**1319**	"	**Moist; petroleum odor (sample)**
18	421.3	"	Dry; petroleum odor
19	1999	"	Dry; strong petroleum odor
20	461.9	"	Dry; petroleum odor
21	53.3	"	Dry; petroleum odor
22	391.2	"	Dry; petroleum odor
23	982.9	"	Dry; petroleum odor
24	423.2	"	Dry; petroleum odor
25	503.7	"	Dry; petroleum odor
Probe terminated at 25 feet bgs			

Piping and Dispenser Area Borings

Borehole GP- 3 **Sampling Date- 7/30/04** **Sample Depth- 6' - 7'**

Geoprobe Interval (ft.)	PID Field Screening Results (ppm)	Lithology (soil type, color, rocks/minerals present)	Soil Conditions (dry, moist, etc; petroleum odor)
1	673.8	6-inches of ASPHALT to Reddish-brown, f/m sandy, silty CLAY	Dry; no odor
2	1999	"	Dry; strong petroleum odor
3	1999	Reddish-brown, f/m sandy, clayey SILT	Dry; strong petroleum odor
4	1999	"	Dry; strong petroleum odor
5	1873	"	Dry; strong petroleum odor
6	**1999**	"	**Dry; strong petroleum odor (sample)**
7	**1999**	"	**Dry; strong petroleum odor (sample)**
8	1684	"	Dry; petroleum odor
9	1999	"	Dry; strong petroleum odor
10	367.4	"	Dry; petroleum odor

Borehole GP- 4 **Sampling Date- 7/30/04** **Sample Depth- 2' - 3'**

Geoprobe Interval (ft.)	PID Field Screening Results (ppm)	Lithology (soil type, color, rocks/minerals present)	Soil Conditions (dry, moist, etc; petroleum odor)
1	21.2	Reddish-brown, f/m sandy, clayey SILT	Moist; no odor
2	41.6	"	Moist; slight petroleum odor
3	32.9	"	Dry; slight petroleum odor
4	**8.9**	"	**Dry; no odor, (sample)**
5	**7.5**	"	**Sight odor, (sample)**
6	12.1	"	Dry; no odor
7	23.4	"	Dry; no odor
8	29.9	"	Dry; no odor
9	34.5	"	Dry; no odor
10	20.0	"	Dry; no odor

Enter the soil analytical data for each soil boring for all COC in the table below and on the following page. Enter the appropriate Risk Based Screening Level (RBSL) for the soil type from B-3, B-4, and B-6 in SCDHEC Risk-Based Corrective Action (RBCA) for Petroleum Releases Guidance Document.

COC (mg/kg)	RBSL	GP-1	GP-2	GP-3	GP-4				
Benzene	0.007	0.0238	0.0076	ND	ND				
Toluene	1.450	ND	0.0116	1.73	ND				
Ethylbenzene	1.150	0.0114	0.0022	4.25	ND				
Xylenes	14.50	0.0307	0.0142	29.9	ND				
Total BTEX	NA	0.0659	0.0356	35.88	ND				
Naphthalene	0.036	ND	0.00825	5.14	ND				
Benzo(a)anthracene	0.066	ND	ND	ND	ND				
Benzo(b)flouranthene	0.066	ND	ND	ND	ND				
Benzo(k)flouranthene	0.066	ND	ND	ND	ND				
Chrysene	0.066	ND	ND	ND	ND				
Dibenz(a,h)anthracene	0.066	ND	ND	ND	ND				
Fluorene	NE	ND	ND	ND	ND				
Naphthalene (semi-voc)	0.036	ND	ND	ND	ND				
TPH (EPA 8015B)	NA	NA	NA	72.7	NA				
TOC (Background boring	NA	NA	NA	NA	5540				

ND – Not Detected
NA – Not Applicable
NT – Not Tested
NE – Not Established
Bold-faced numbering indicates concentrations above RBSL's

Discuss the horizontal and vertical extent of COC in the soil: Soil Chemicals of Concern (COCs) were detected at moderate concentrations around the former UST basin and product piping lines. We suspect that these areas were excavated out and backfilled during the 1991 UST removals. Former fuel pump areas were not sampled since they overlap with a currently upgraded and active facility. Laboratory analysis detected relatively low concentrations compared to the high soil vapors in field samples. Field screening vapor results may be from the underlying ground water or nearby adjacent soils that were not removed during the prior UST closure. Auger refusal was encountered in the boreholes for MW-1 and MW-2, however, sufficient ground water was present atop the bedrock surface to sample. Partially weathered rock was also encountered in the MW-3 boring. The upper 10 to 15 feet of subsurface in this area appears to have been backfilled with imported soil after UST removals. Field screening and laboratory analysis results indicate that COCs are greatest around GP-3 – outside of the former excavation areas. No soil COC were detected in the background sample, GP-4.

Additional Comments: None

F. Chemicals of Concern – Ground Water

Provide well installation information in the table below.

MW #	Installation Date	Development Date	Sampling Date
MW-1	7/24/04	7/27/04	7/27/04
MW-2	7/24/04	7/27/04	7/27/04
MW-3	7/21/04	7/27/04	7/27/04

Enter the soil analytical data for each monitoring well for all COC in the table below.

COC (mg/kg)	MW-1	MW-2	MW-3	
Depth of sample (ft)	10	10	10	
Benzene	0.79	1	ND	
Toluene	14.3	10.7	ND	
Ethylbenzene	8.7	7.5	ND	
Xylenes	45.2	33.6	ND	
Total BTEX	68.99	52.87	ND	
Naphthalene	14.5	4.77	ND	
Benzo(a)anthracene	ND	ND	ND	
Benzo(b)flouranthene	ND	ND	ND	
Benzo(k)flouranthene	ND	ND	ND	
Chrysene	ND	ND	ND	
Dibenz(a,h)anthracene	ND	ND	ND	
Lead	NT	NT	NT	
EDB	NT	NT	NT	

N/D = Not Detected
N/T = Not Tested
Bold-faced numbering indicates concentrations above RBSL's

Summarize the monitoring well and ground-water data in the table below.

MW #	TOC Elevation (ft)	Screened Interval (ft)	Depth to Water (ft)	Water Table Elevation (ft)
MW-1	101.31	35.53 - 45.53	39.96	61.35
MW-2	97.00	32.52 – 42.52	35.99	61.01
MW-3	94.72	30.40 – 40.40	34.16	60.56

Elevations are relative to an arbitrary site datum of 100 feet established by the surveyor

Enter field data measurements (temperature, pH, conductivity) taken during well purging on the form provided (Appendix C). Complete for each well.

Enter dissolved oxygen measurements for each well in the table below.

Monitoring Well #	MW-1	MW-2	MW-3		
Dissolved Oxygen (mg/l)	Not measured	Not measured	Not measured		

Enter the ground water analytical data for each monitoring well for all COC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet. Use additional sheets as necessary.

COC (µg/L)	RBSL (µg/L)	MW-1	MW-2	MW-3		
Free Product of Thickness	None	0	0	0		
Benzene	5	**32,700**	**13,100**	4.7		
Toluene	1,000	**48,800**	**23,600**	ND		
Ethylbenzene	700	**3,450**	**3,580**	ND		
Xylenes	10,000	**16,200**	**16,300**	2.1		
Total BTEX	NA	101,150	56,580	6.8		
MTBE	40	**7,450**	**1,510**	3.5		
Naphthalene	25	**720**	**2,800**	ND		
EDB	0.05	**18.2**	**23.8**	ND		
Benzo(a)anthracene	10	ND	ND	ND		
Benzo(b)flouranthene	10	ND	ND	ND		
Benzo(k)flouranthene	10	ND	ND	ND		
Chrysene	10	ND	ND	ND		
Dibenz(a,h)anthracene	10	ND	ND	ND		
Lead	15	**360**	13	90		
Dissolved Lead	15	NA	NA	NA		
Ferrous Iron	NA	NA	NA	NA		
Nitrates (mg/L)	NA	NA	NA	NA		
Sulfates (mg/L)	NA	NA	NA	NA		

ND – Not Detected
NT – Not Tested
NA – Not Applicable
Bold-faced numbering indicates concentrations above RBSL's

Additional Comments: None

G. Aquifer Characteristics

Hydraulic Conductivity: 4.97 E-05 cm/sec

Hydraulic Gradient: 0.00513

Porosity: 15% [Estimated from specific yield: Table 4-3, *Applied Hydrogeology*, Fetter (1994)]

Estimated Seepage Velocity: 1.76 ft/year

Complete the slug test form and include in Appendix C of the report. Include all data, graphs, and equations used to derive the aquifer characteristics and hydrologic parameters (hydraulic conductivity, seepage velocity, hydraulic gradient, etc.) in Appendix C.

III. Tier I Evaluation

A. CURRENT LAND USE – Identify any potential receptors or human exposure pathways (e.g. basements, contaminated soils from UST closures, etc.) within a 1000-foot radius for current land use. Complete the table below. Additional sheets may be attached if necessary.

Media (for exposure)	Exposure Route	Pathway Selected for Evaluation? (Yes or No)	Exposure Point or Reason for Non-Selection	Data Requirements (IF pathway selected)
Air	Inhalation	Yes (No)	All product piping, pumps, UST's, and associated equipment have been removed from the site. No vapors were detected in the breathing area.	
	Explosion Hazard	Yes (No)		
Ground-Water	Ingestion	Yes (No)	No public or private water-supply wells were noted a within 1000-foot radius. Note: Significant petroleum hydrocarbon concentrations have been detected on-site in MW-1 and MW-2.	
	Dermal Contact	Yes (No)		
	Inhalation	Yes (No)		
Surface Water	Ingestion	Yes (No)	No surface waters, creeks, streams and ponds within 1000 feet of site.	
	Dermal Contact	Yes (No)		
	Inhalation	Yes (No)		
Surficial Soil	Ingestion	Yes (No)	Areas of concern are capped by concrete or asphalt. A human exposure pathway is only possible if excavation of the area were to take place.	
	Dermal Contact	Yes (No)		
	Inhalation	Yes (No)		
	Leaching to Ground-Water	Yes (No)		
Subsurface Soil	Ingestion	Yes (No)	No human exposure pathways would exist unless excavation was to occur in the source area.	
	Dermal Contact	Yes (No)		
	Inhalation	Yes (No)		
	Leaching to Ground-Water	Yes (No)		

B. FUTURE LAND USE – Identify any potential receptors or human exposure pathways (e.g. basements, contaminated soils from UST closures, etc.) within a 1000-foot radius for projected future land use. Complete the table below. Additional sheets may be attached if necessary.

Media (for exposure)	Exposure Route	Pathway Selected for Evaluation? (Yes or No)		Exposure Point or Reason for Non-Selection	Data Requirements (IF pathway selected)
Air	Inhalation	Yes	(No)	The subject site is not reasonably expected to be developed beyond it's current use. UST systems have been upgraded.	Field screening should take place if future excavation occurs.
	Explosion Hazard	Yes	(No)		
Ground-Water	Ingestion	Yes	(No)	No public or private water-supply wells within 1000-foot radius.	
	Dermal Contact	Yes	(No)		
	Inhalation	Yes	(No)		
Surface Water	Ingestion	Yes	(No)	No surface waters, creeks, streams and ponds within 1000 feet of site.	
	Dermal Contact	Yes	(No)		
	Inhalation	Yes	(No)		
Surficial Soil	Ingestion	Yes	(No)	The source areas are covered by asphalt or concrete. If excavation were to occur, site workers and bystanders would be exposed to petroleum hydrocarbons.	Shallow soil COCs (on-site) have been detected above published RBSLs. If excavation occurred, a human exposure pathway would exist.
	Dermal Contact	Yes	(No)		
	Inhalation	Yes	(No)		
	Leaching to Ground-Water	Yes	(No)		
Subsurface Soil	Ingestion	(Yes)	No	The source areas are covered by asphalt or concrete. Only if excavation were to occur in the source area, site workers and bystanders would be exposed to petroleum hydrocarbons.	On-site soil COCs are above published RBSLs. If excavation of the soil occurred, a human exposure pathway would exist.
	Dermal Contact	(Yes)	No		
	Inhalation	(Yes)	No		
	Leaching to Ground-Water	(Yes)	No		

Recommendations for further action: Investigate horizontal and vertical extent of petroleum hydrocarbon constituents at the site.

IV. Maps and Figures

Complete and attach all maps and appendices as outlined below.

A. Figures

All maps must include the following:

- the Facility Name,
- Address,
- UST Permit Number,
- Date,
- Bar Scale,

- North Arrow.

1. **Figure 1** – Topographic Map
   Prepare a copy of the relevant portion of the appropriate United States Geological Survey 7.5 minute topographic map. Indicate the location of the site and location of any receptors (e.g., marsh, ground-water well, city water well, etc.).

2. **Figure 2** – Scaled Site Location Map
   Prepare a site location map identifying the site and any pertinent property boundaries (residential and commercial), streets, receptors, etc. within a 500-foot radius.

3. **Figure 3** – Surveyed Site Map
   Prepare a site base map to scale and plot all the utilities. This map will include:
   a. Location of property lines.
   b. Streets and highways (indicate names).
   c. Location of buildings.
   d. Paved areas on or adjacent to site.
   e. Location of all present and former above ground and underground storage tanks and associated lines, pumps, and dispensers.
   f. Underground utilities on or adjacent to site (sewer, water, telephone, gas, electric, etc.).
   g. Location of any other potential receptors.
   h. Eight soil boring locations.
   i. Three monitoring well locations.
   j. Survey datum location.

4. **Figure 4** – Soil COC Site Map
   Prepare a COC site map from a copy of Figure 3. Add all accompanying soil data. The soil analytical data will be plotted adjacent to each soil boring (SB) using the following format:

SB#	
Sample Depth (ft)	
Benzene (mg/kg)	
Toluene (mg/kg)	
Ethylbenzene (mg/kg)	
Xylenes (mg/kg)	
PAHs (mg/kg)	

5. **Figure 5** – Ground Water COC Site Map
   Prepare a COC site map from a copy of Figure 3. Add potentiometric surface (elevation) data, an arrow indicating ground water flow direction, and accompanying ground-water data. The ground-water data should be plotted adjacent to the monitoring wells (MW) using the following format:

MW #	
Ground water elevation	
Benzene (ug/l)	
Toluene (ug/l)	
Ethylbenzene (ug/l)	
Xylenes (ug/l)	
PAHs (ug/l)	

B. Appendices

1. **Appendix A** – Soil Boring And Monitoring Well Construction Logs
   The soil boring logs should indicate lithology, water level (if encountered), split-spoon sample intervals and field screening results. Also, the presence of hydrocarbon odors and qualitative indication of soil conditions (dry, moist, wet, saturated, etc.) should be noted on the logs.

   The monitoring well construction logs must include all information as outlined in the S.C. Well Standards and Regulations R.61-71.11E(2). Additionally, a copy of DHEC Form 1903 (Water Well Record) should be included for each monitoring well installed.

2. **Appendix B** – Chain of Custody and Laboratory Forms
   A copy of the completed chain of custody, certificates of analysis and field sampling logs should be attached. The sampling logs should note the location and type of each sample submitted for analysis. The laboratory certificates of analysis should include the analytical results, the reporting limit, the analytical method utilized, and the laboratory certification number.

3. **Appendix C** – Slug Test Data Form
   The slug test summary forms, and all data, graphs, and equations that were used to derive the aquifer characteristics and hydrologic parameters should be included.

5. **Appendix D** – Soil and water disposal manifests.

6. **Appendix E** – Zoning Classification – Anderson County

7. **Appendix F** – Site and Vicinity Tax Map
   The tax map should be accompanied by the list of names and addresses of the adjacent property owners.

8. **Appendix G** – SCDHEC Correspondence

TABLE 1

Monitoring Well and Ground-Water Surface Elevation Data

Moorehead Oil Company - KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; UMW-18494
BLE Project Number J04-3661-01

Monitoring Well	TOC Elev.	GW Depth BTOC	GW Elev.	Well Depth	Screened Interval Depth	Screened Interval Elevation
MW-1	101.31	39.96	61.35	45.53	35.53 - 45.53	65.78 - 55.78
MW-2	97.00	35.99	61.01	42.52	32.52 - 42.52	64.48 - 54.48
MW-3	94.72	34.16	60.56	40.40	30.40 - 40.40	64.32 - 54.32

NOTES:
Ground-water levels were measured on 7/27/04
Measurements are in feet; elevations are relative to an arbitrary site datum
BTOC - below top of casing

Prepared By:_____
Checked By: MD

TABLE 2

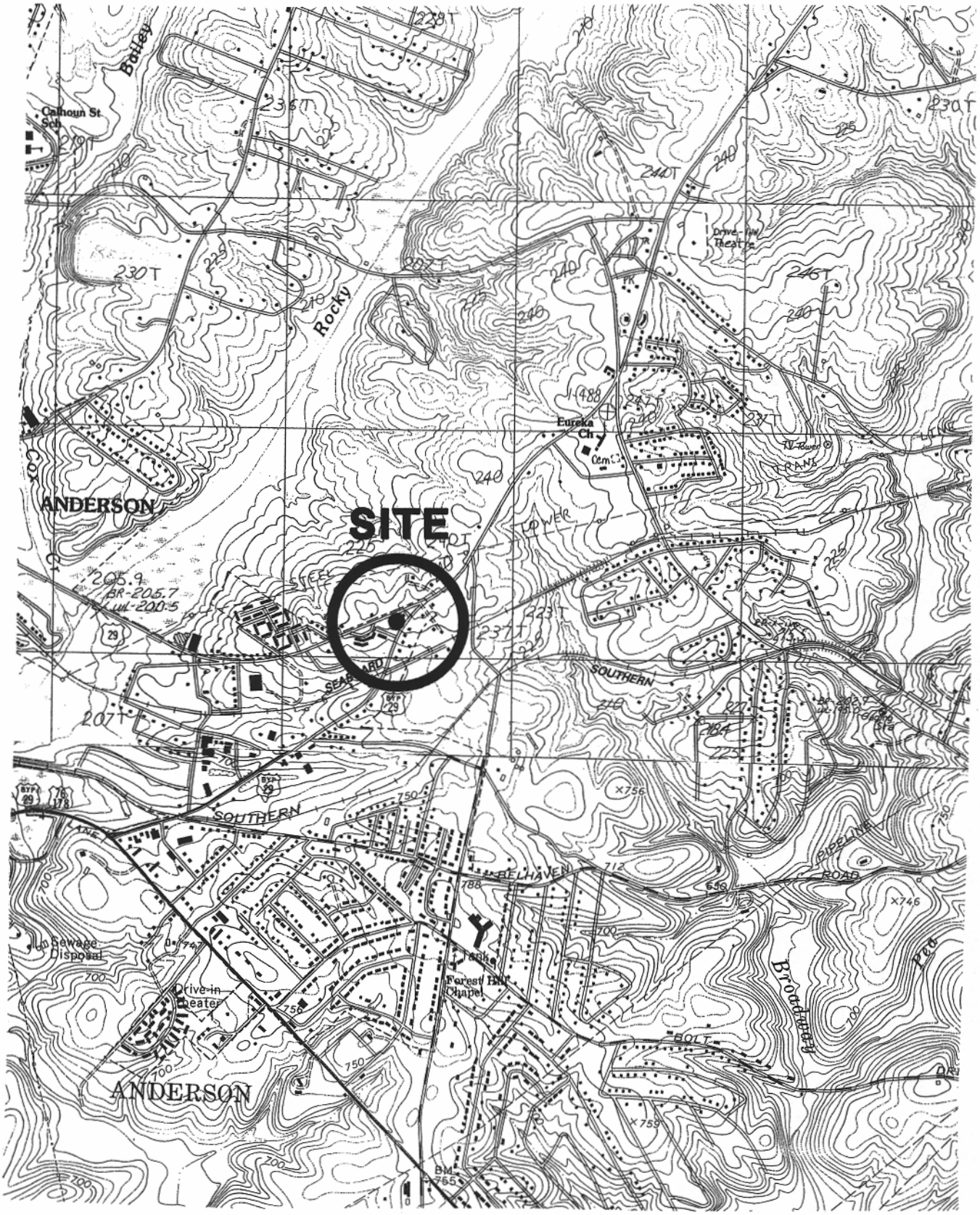
Interstitial Ground-Water Velocity

Moorehead Oil Company - KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; UMW-18494
BLE Project Number J04-3661-01

VELOCITY CALCULATION	Hydraulic Conductivity (K) (centimeters/second)	Hydraulic Conductivity (K) (feet/day)	Hydraulic Conductivity (K) (feet/year)	Hydraulic Gradient (i) (unitless)	Effective Porosity (n) (unitless)	Ground-Water Velocity (V) (feet/day)	Ground-Water Velocity (V) (feet/year)	Ground-Water Velocity (V) (meters/second)
MW-2	3.38E-05	9.59E-02	3.50E+01	0.00513	0.15	3.28E-03	1.20	1.16E-08
MW-3	6.56E-05	1.86E-01	6.79E+01	0.00513	0.15	6.36E-03	2.32	2.24E-08
Mean Value	4.97E-05	1.41E-01	5.14E+01	0.00513	0.15	4.82E-03	1.76	1.70E-08

Notes:
Hydraulic conductivity value from slug tests performed by BLE on July 28, 2004
Effective porosity estimated from specific yield as described by Fetter (1994)

Prepared By:_____
Checked By: jyb



1 1000 .5 0 0 KILOMETERS 1 1000 2 2000

METERS

2000 1000 0 2000 4000

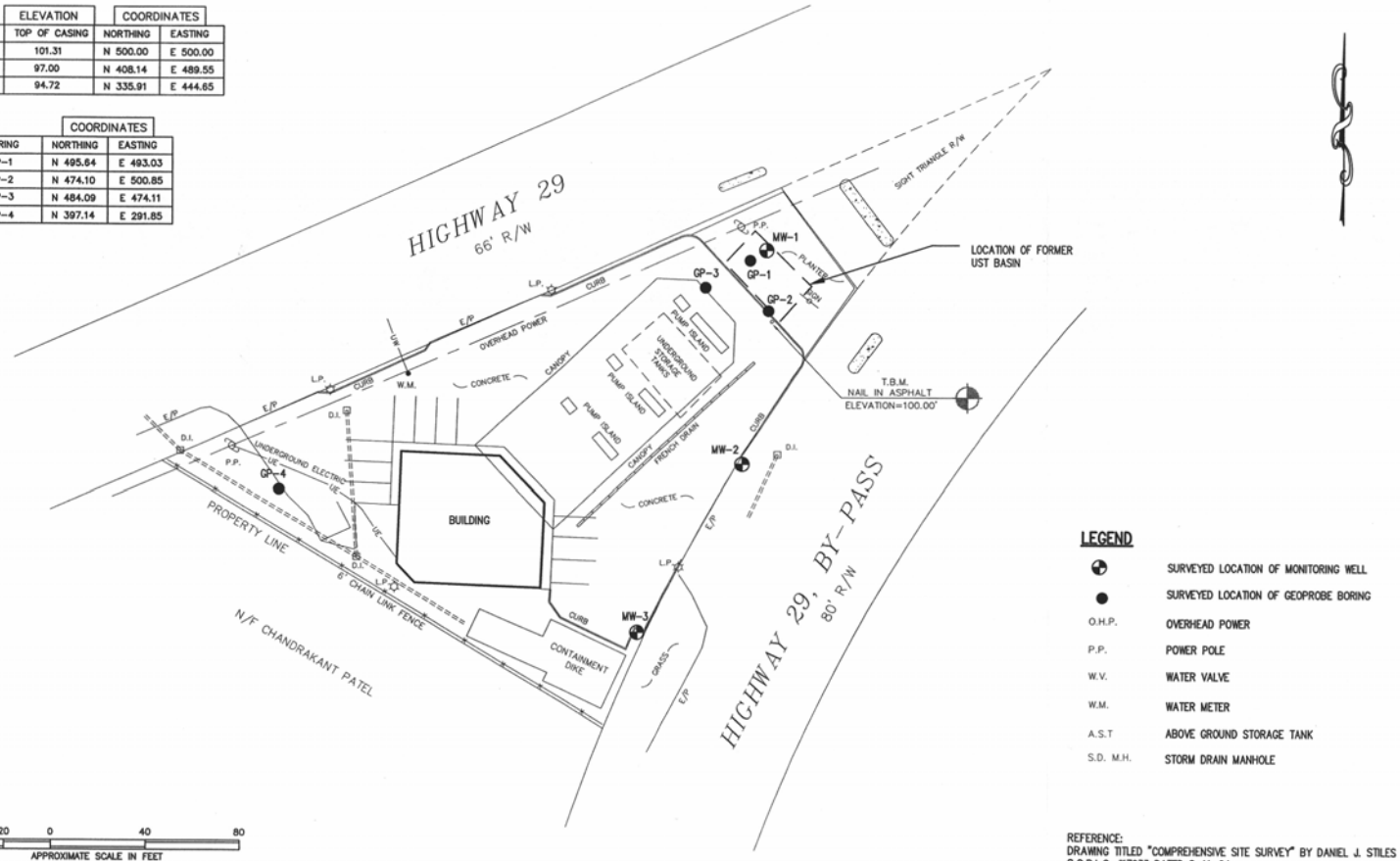
APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, BELTON WEST AND SAYLORS CROSSROADS, S.C. QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: AEH	DATE: 08-25-04	BUNNELL-LAMMONS ENGINEERING, INC.	FIGURE
CHECKED: TLL	CAD: MOOREHEAD-SLM	1200 WOODRUFF ROAD, SUITE B-7 GREENVILLE, SOUTH CAROLINA 29607 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP MOORHEAD OIL COMPANY - KMO 119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
APPROVED:	JOB NO: J04-3661-01		1

WELL	ELEVATION TOP OF CASING	COORDINATES NORTHING	COORDINATES EASTING
MW-1	101.31	N 500.00	E 500.00
MW-2	97.00	N 408.14	E 489.55
MW-3	94.72	N 335.91	E 444.65

BORING	COORDINATES NORTHING	COORDINATES EASTING
GP-1	N 495.64	E 493.03
GP-2	N 474.10	E 500.85
GP-3	N 484.09	E 474.11
GP-4	N 397.14	E 291.85



LEGEND

- SURVEYED LOCATION OF MONITORING WELL
- SURVEYED LOCATION OF GEOPROBE BORING
- O.H.P. OVERHEAD POWER
- P.P. POWER POLE
- W.V. WATER VALVE
- W.M. WATER METER
- A.S.T ABOVE GROUND STORAGE TANK
- S.D. M.H. STORM DRAIN MANHOLE

REFERENCE:
DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY DANIEL J. STILES S.C.R.L.S. #17933 DATED 8-11-04.

DRAWN BY:	AEH	DATE:	08-25-04
CHECKED BY:	TLL	FILE:	MOOREHEAD-SAM
APPROVED BY:		JOB NO:	J04-3661-01

REVISIONS No.	DESCRIPTION	BY

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
1200 WOODRUFF ROAD, SUITE B-7
GREENVILLE, SOUTH CAROLINA 29607
PHONE: (864)288-1265 FAX: (864)288-4430

SCALED SITE LOCATION MAP
MOORHEAD OIL COMPANY, KMO 119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

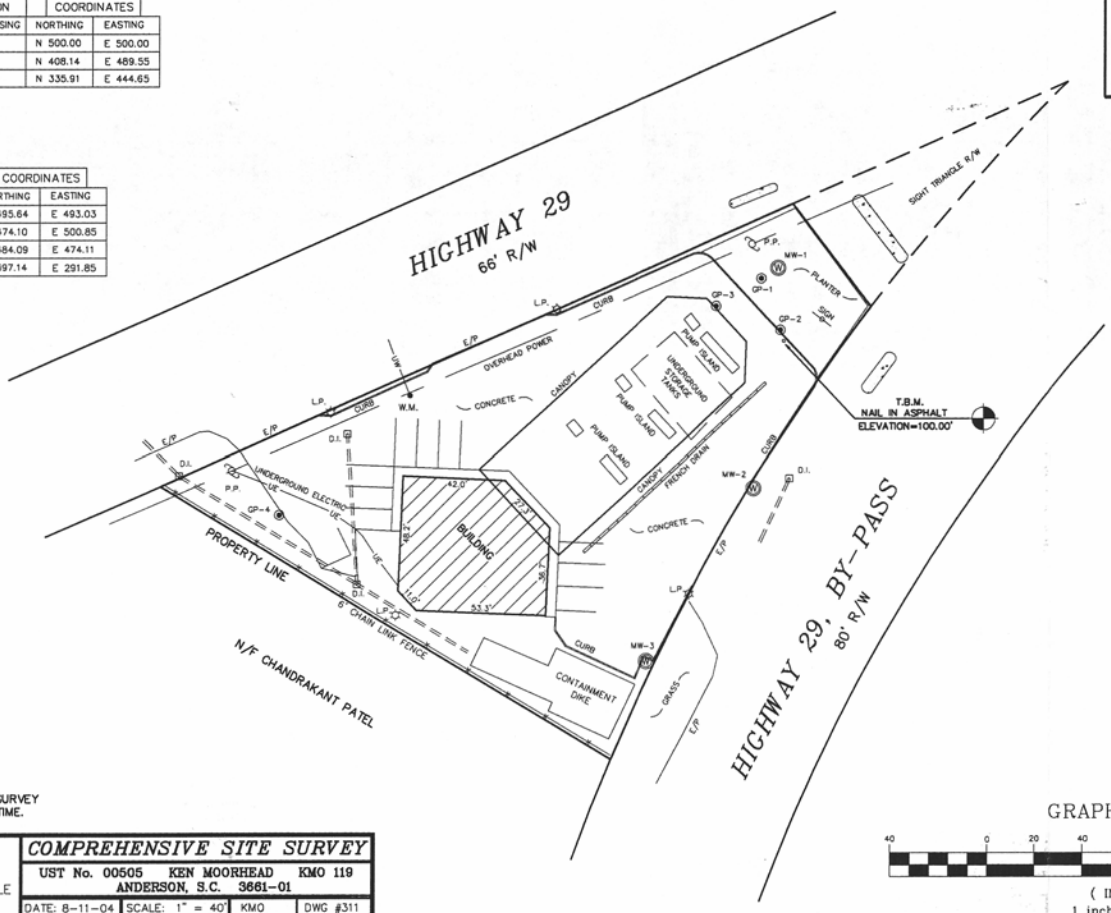
FIGURE 2

WELL	ELEVATION TOP OF CASING	COORDINATES NORTHING	COORDINATES EASTING
MW-1	101.31	N 500.00	E 500.00
MW-2	97.00	N 408.14	E 489.55
MW-3	94.72	N 335.91	E 444.65

BORING	COORDINATES NORTHING	COORDINATES EASTING
GP-1	N 495.64	E 493.03
GP-2	N 474.10	E 500.85
GP-3	N 484.09	E 474.11
GP-4	N 397.14	E 291.85

LEGEND:

MW-01 (W) ------- MONITOR WELL LOCATION
O.H.P. ---------- OVERHEAD POWER
P.P. ---------- POWER POLE
E/P ---------- EDGE OF PAVEMENT
W.V. ---------- WATER VALVE
W.M. ---------- WATER METER
A.S.T. ---------- ABOVE GROUND STORAGE TANK
S.D. M.H. --------STORM DRAIN MAN HOLE



A COMPLETE BOUNDARY SURVEY WAS NOT DONE AT THIS TIME.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

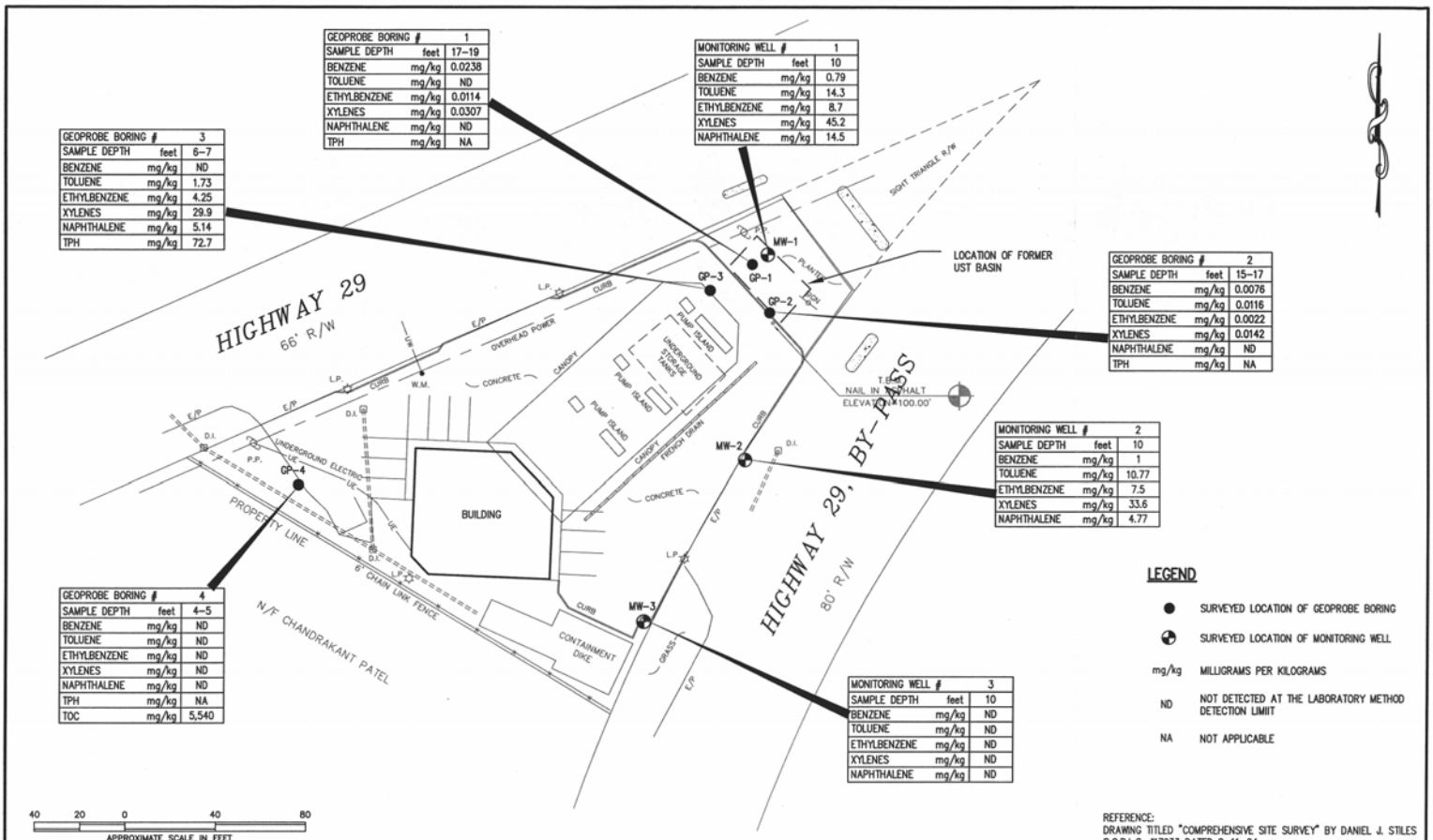
FIGURE 3

DANIEL J. STILES
224 BENDINGWOOD CIRCLE
TAYLORS, S.C. 29687
PHONE (864) 244-8786

COMPREHENSIVE SITE SURVEY

UST No. 00505 KEN MOORHEAD KMO 119
ANDERSON, S.C. 3661-01

DATE: 8-11-04	SCALE: 1" = 40'	KMO	DWG #311
S.C. REG. NO. 17933	Daniel J. Stiles		



REFERENCE:
DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY DANIEL J. STILES S.C.R.L.S. #17933 DATED 8-11-04.

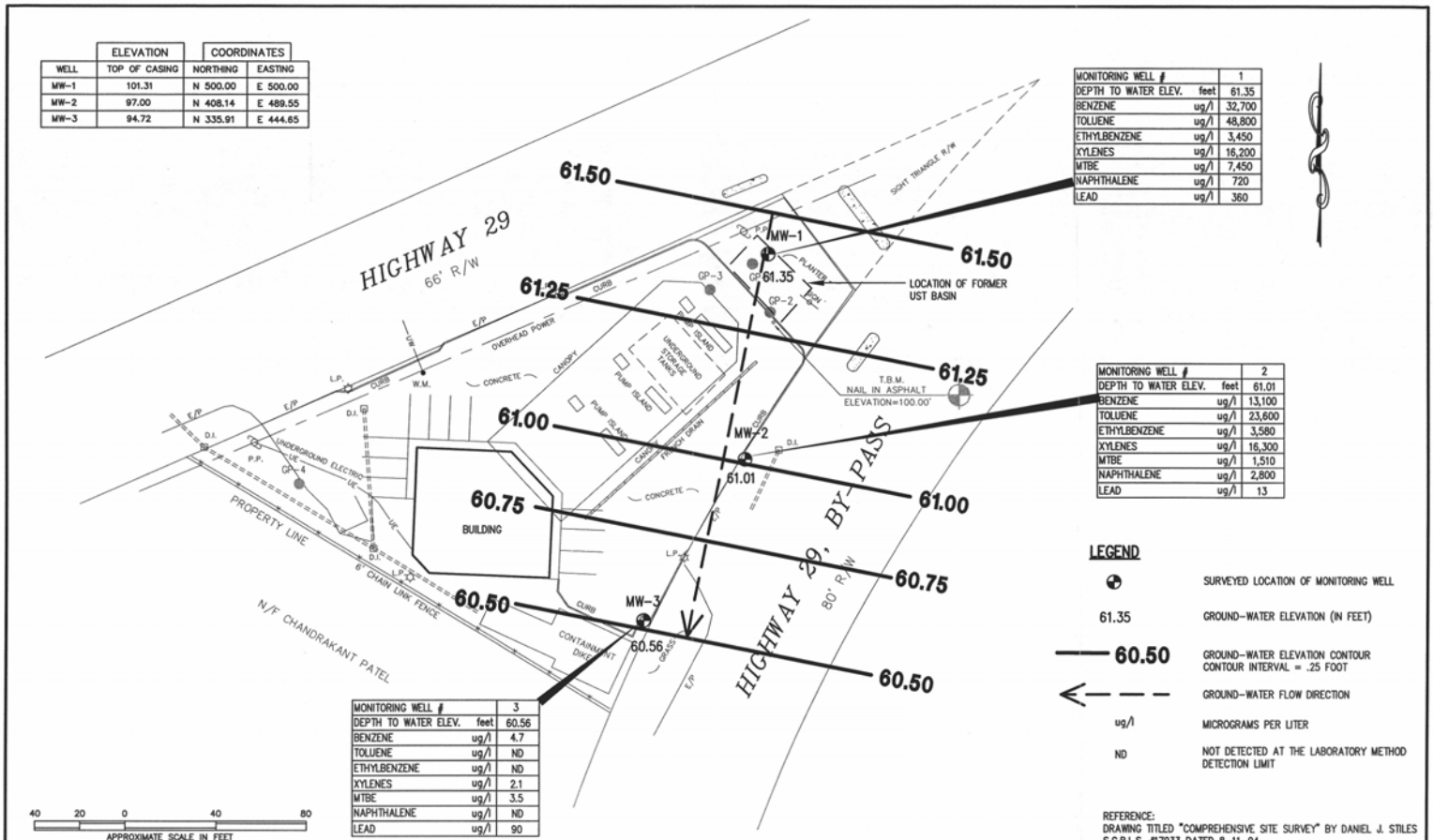
DRAWN BY:	AEH	DATE:	08-25-04
CHECKED BY:	TLL	FILE:	MOOREHEAD-SOILCOC
APPROVED BY:		JOB NO:	J04-3661-01

REVISIONS		
No.	DESCRIPTION	BY

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
1200 WOODRUFF ROAD, SUITE B-7
GREENVILLE, SOUTH CAROLINA 29607
PHONE: (864)288-1265 FAX: (864)288-4430

SOIL COC MAP
MOOREHEAD OIL COMPANY, KMO 119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE 4



WELL	ELEVATION TOP OF CASING	COORDINATES NORTHING	COORDINATES EASTING
MW-1	101.31	N 500.00	E 500.00
MW-2	97.00	N 408.14	E 489.55
MW-3	94.72	N 335.91	E 444.65

MONITORING WELL #		1
DEPTH TO WATER ELEV.	feet	61.35
BENZENE	ug/l	32,700
TOLUENE	ug/l	48,800
ETHYLBENZENE	ug/l	3,450
XYLENES	ug/l	16,200
MTBE	ug/l	7,450
NAPHTHALENE	ug/l	720
LEAD	ug/l	360

MONITORING WELL #		2
DEPTH TO WATER ELEV.	feet	61.01
BENZENE	ug/l	13,100
TOLUENE	ug/l	23,600
ETHYLBENZENE	ug/l	3,580
XYLENES	ug/l	16,300
MTBE	ug/l	1,510
NAPHTHALENE	ug/l	2,800
LEAD	ug/l	13

MONITORING WELL #		3
DEPTH TO WATER ELEV.	feet	60.56
BENZENE	ug/l	4.7
TOLUENE	ug/l	ND
ETHYLBENZENE	ug/l	ND
XYLENES	ug/l	2.1
MTBE	ug/l	3.5
NAPHTHALENE	ug/l	ND
LEAD	ug/l	90

LEGEND

- SURVEYED LOCATION OF MONITORING WELL
- 61.35 — GROUND-WATER ELEVATION (IN FEET)
- 60.50 — GROUND-WATER ELEVATION CONTOUR, CONTOUR INTERVAL = .25 FOOT
- GROUND-WATER FLOW DIRECTION
- ug/l — MICROGRAMS PER LITER
- ND — NOT DETECTED AT THE LABORATORY METHOD DETECTION LIMIT

REFERENCE:
DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY DANIEL J. STILES S.C.R.L.S. #17933 DATED 8-11-04.

DRAWN BY:	AEH	DATE:	08-25-04
CHECKED BY:	TLL	FILE:	MOOREHEAD-GWCOC
APPROVED BY:		JOB NO:	J04-3661-01

REVISIONS No.	DESCRIPTION	BY

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
1200 WOODRUFF ROAD, SUITE B-7
GREENVILLE, SOUTH CAROLINA 29607
PHONE (864)288-1265 FAX (864)288-4430

GROUND WATER ELEVATION AND COC MAP
MOOREHEAD OIL COMPANY, KMO 119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE 5

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-1

PROJECT: Moorehead Oil Company KMO119 — PROJECT NO.: J04-3661-01

CLIENT: Chris Moorehead - Ken Moorehead Oil Co. — START: 7-21-04 END: 7-21-04

LOCATION: Anderson, South Carolina — ELEVATION: 101.31

DRILLER: Landprobe, Kevin Thomas — LOGGED BY: TLL

DRILLING METHOD: Geoprobe 2200 DT

DEPTH TO - WATER> INITIAL: ▽ 34.05 AFTER 72 HOURS: ▼ 34.09 CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
100 / 2	Red, clayey SILT		SURFACE COMPLETION Flush-mount on surface
95 / 6	Reddish-brown, clayey SILT		
90 / 12			Neat cement, 0 to 30 feet
85 / 16			
80 / 22			
75 / 26	Reddish-brown, moist, clayey SILT		
70 / 30	PARTIALLY WEATHERED ROCK - Hard drilling		Bentonite seal, 30 to 33.53 feet
34 ▼			Filter pack, sand 33.53 to 45.53 feet
65 / 36			
60 / 42			0.010-inch slotted Schedule 40 PVC well screen, 35.53 to 45.53 feet
55 / 46	Auger refusal at 45.53 feet. Ground water encountered at 34.05 feet at time of drilling and at 34.09 feet after 72 hours.		Pipe cap Total well depth, 45.53 feet
48			

GEOT_WELLNB 3661-01.GPJ 8/25/04

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-2

PROJECT: Moorehead Oil Company KMO119 PROJECT NO.: J04-3661-01

CLIENT: Chris Moorehead - Ken Moorehead Oil Co. START: 7-24-04 END: 7-24-04

LOCATION: Anderson, South Carolina ELEVATION: 97.00

DRILLER: Landprobe, Kevin Thomas LOGGED BY: TLL

DRILLING METHOD: Geoprobe 2200 DT

DEPTH TO - WATER> INITIAL: ▽ 37.94 AFTER 24 HOURS: ▼ CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
95 / 2	Red, clayey SILT		SURFACE COMPLETION Flush-mount on surface
4			
6			
90 / 8	Reddish-brown, clayey SILT		
10			
85 / 12			
14			Neat cement, 0 to 28 feet
16			
80 / 18			
20			
75 / 22			
24			
26	Reddish-brown, moist, clayey SILT		
70 / 28			
30			Bentonite seal, 28 to 30 feet Filter pack, sand 30 to 42.52 feet
	PARTIALLY WEATHERED ROCK - Hard drilling		
65 / 32			
34			
36			
60 / 38 ▽			0.010-inch slotted Schedule 40 PVC well screen, 32.52 to 42.52 feet
40			
55 / 42			Pipe cap
	Auger refusal at 45.52 feet. Ground water encountered at 37.94 feet at time of drilling.		Total well depth, 42.52 feet
44			
46			
50 / 48			

GEOT_WELLNB 3661-01.GPJ 8/25/04

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GROUND WATER MONITORING WELL NO. MW-3

PROJECT: Moorehead Oil Company KMO119 PROJECT NO.: J04-3661-01

CLIENT: Chris Moorehead - Ken Moorehead Oil Co. START: 7-21-04 END: 7-21-04

LOCATION: Anderson, South Carolina ELEVATION: 94.72

DRILLER: Landprobe, Kevin Thomas LOGGED BY: TLL

DRILLING METHOD: Geoprobe 2200 DT

DEPTH TO - WATER> INITIAL: ▽ 34.09 AFTER 24 HOURS: ▼ _____ CAVING> _____

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	MONITOR WELL INSTALLATION DETAILS
90 / 2–6	Red, clayey SILT		SURFACE COMPLETION Flush-mount on surface
85 / 8–12	Reddish-brown, clayey SILT		Neat cement, 0 to 26 feet
80 / 14–18			
75 / 20–24			
70 / 26–28	Reddish-brown, moist, clayey SILT		Bentonite seal, 26 to 28 feet Filter pack, sand 28 to 40.4 feet
65 / 30–34	PARTIALLY WEATHERED ROCK - Hard drilling		
60 / 36–38			0.010-inch slotted Schedule 40 PVC well screen, 30.4 to 40.4 feet
55 / 40–42	Auger refusal at 40.4 feet. Ground water encountered at 34.09 feet at time of drilling.		Pipe cap Total well depth, 40.4 feet
50 / 44–48			
45			

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: Chris Moorehead - Ken Moorehead Oil Co.
Address:
City: Anderson State: SC Zip:
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name:
Street Address:
City: Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME:
PUBLIC SYSTEM NUMBER:

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-1 Bentonite seal 33' - 30'.

6. PERMIT NUMBER:

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

8. WELL DEPTH (completed) Date Started (MM/DD/YYYY): 07/21/2004
45.00 ft. Date Completed (MM/DD/YYYY): 07/21/2004

9. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable tool ☒ Other

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 45 ft. depth
in. to ft. depth
Height: Above/Below Surface 0.5 ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 10'
Set Between: 45 ft. and 35 ft. NOTE: MULTIPLE SCREENS
ft. and ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL 34.00 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 45 ft. to 33 ft.
Effective size fx50 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other
Depth: From 30.00 ft. to 0.00 ft.

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

18. PUMP: Date installed (MM/DD/YYYY): 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: CERT. NO.: 1155
Name: Kevin Thomas
Address: 1200 Woodruff Rd City: Greenville
State: South Carolina Zip: 29607
Telephone No.: (864) 288-1265 Fax No.: (864) 288-4430

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

Signed: Kevin Thomas Date: 08/30/2004
Authorized Representative (MM/DD/YYYY)

DHEC 1903 (03/2002)

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: Chris Moorehead - Ken Moorehead Oil Co.
Address:
City: Anderson State: SC Zip:
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name:
Street Address:
City: Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME:
PUBLIC SYSTEM NUMBER:

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-2 Bentonite seal 30' - 28'.

6. PERMIT NUMBER:

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

8. WELL DEPTH (completed) Date Started (MM/DD/YYYY): 07/24/2004
42.00 ft. Date Completed (MM/DD/YYYY): 07/24/2004

9. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable tool ☒ Other

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 0.5 ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 10'
Set Between: 42 ft. and 32 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL 37.90 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 30 ft.
Effective size fx50 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other
Depth: From 28.00 ft. to 0.00 ft.

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

18. PUMP: Date installed (MM/DD/YYYY): 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: CERT. NO.: 1155
Name: Kevin Thomas
Address: 1200 Woodruff Rd City: Greenville
State: South Carolina Zip: 29607
Telephone No.: (864) 288-1265 Fax No.: (864) 288-4430

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

Signed: Kevin Thomas Date: 08/30/2004
Authorized Representative (MM/DD/YYYY)

DHEC 1903 (03/2002)

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Chris Moorehead - Ken Moorehead Oil Co.
Address:
City: Anderson State: SC Zip:
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Anderson
Name:
Street Address:
City: Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME:
PUBLIC SYSTEM NUMBER:

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-3 Bentonite seal 28' - 26'.

6. PERMIT NUMBER:

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

8. WELL DEPTH (completed) Date Started (MM/DD/YYYY): 07/21/2004
40.00 ft. Date Completed (MM/DD/YYYY): 07/21/2004

9. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable tool ☒ Other

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 40 ft. depth
in. to ft. depth
Height: Above/Below Surface 0.5 ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 10'
Set Between: 40 ft. and 30 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL 34.00 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 40 ft. to 28 ft.
Effective size fx50 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other
Depth: From 26.00 ft. to 0.00 ft.

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

18. PUMP: Date installed (MM/DD/YYYY): 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: CERT. NO.: 1155
Name: Kevin Thomas
Address: 1200 Woodruff Rd City: Greenville
State: South Carolina Zip: 29607
Telephone No.: (864) 288-1265 Fax No.: (864) 288-4430

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

Signed: Kevin Thomas Date: 08/30/2004
Authorized Representative (MM/DD/YYYY)

DHEC 1903 (03/2002)

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

KEY TO SOIL CLASSIFICATIONS AND CONSISTENCY DESCRIPTIONS

BUNNELL-LAMMONS ENGINEERING, INC.
GREENVILLE, SOUTH CAROLINA

Penetration Resistance* Blows per Foot	Relative Density
SANDS	
0 to 4	Very Loose
5 to 10	Loose
11 to 20	Firm
21 to 30	Very Firm
31 to 50	Dense
over 50	Very Dense

Penetration Resistance* Blows per Foot	Consistency
SILTS and CLAYS	
0 to 2	Very Soft
3 to 4	Soft
5 to 8	Firm
9 to 15	Stiff
16 to 30	Very Stiff
31 to 50	Hard
over 50	Very Hard

*ASTM D 1586

Particle Size Identification

Boulder: Greater than 300 mm
Cobble: 75 to 300 mm
Gravel:
Coarse - 19 to 75 mm
Fine - 4.75 to 19 mm
Sand:
Coarse - 2 to 4.75 mm
Medium - 0.425 to 2 mm
Fine - 0.075 to 0.425 mm
Silt & Clay: Less than 0.075 mm

KEY TO DRILLING SYMBOLS

Grab Sample

Split Spoon Sample

Undistrurbed Sample

WOH = Weight of hammer

Groundwater Table at Time of Drilling

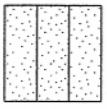
Groundwater Table 24 Hours after Completion of Drilling

KEY TO SOIL CLASSIFICATIONS

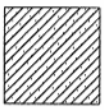
Well-graded Gravel
GW

Low Plasticity Clay
CL

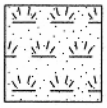
Clayey Silt
MH


Silty Sand
SM

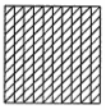
Poorly-graded Gravel
GP

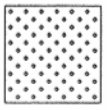

Sandy Clay
CLS

Sandy Silt
MLS


Topsoil
TOPSOIL

Partially Weathered Rock
BLDRCBBL

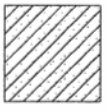

Silty Clay
CL-ML

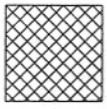

Sand
SW

Bedrock
BEDROCK

High Plasticity Clay
CH

Silt
ML


Clayey Sand
SC


Fill
FILL

D H E C

PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): 7/27/04
Field Personnel: Gordon Alverson
General Weather Conditions: Rain

Ambient Air Temperature: 30 °C

Quality Assurance

pH Meter	pH strips	Conductivity Meter	YSI 30/10
serial no.		serial no.	97A0751 AD
pH=4.0		Standard	1,000 µS
pH=7.0		Standard	
pH=10.0		Standard	

Chain of Custody

Gorden Alverson	7/29 / 0900	Test America	7/30
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Ken Moorehead Oil Co., KMO 119 – Citgo
Facility ID#: UST Permit #00505 **Well #:** MW-1

Well Diameter (D): 2 inch of 45.53 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: None Feet
Depth to Ground Water (DGW) 39.96 feet
Total Well Depth (TWD) 45.53 feet
Length of Water Column (LWC=TWD-DGW) 5.57 feet

1 Casing Volume (CV = LWC X C) = 5.57 X 0.17 = 0.947 gals
3 Casing Volume 3 X CV = 2.84 Gals (standard purge volume)

Total Volume of Water Purged Before Sampling 3 gals.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Cumulative Volume Purged (gallons)		1	2	3				
Time (military)	1115	1118	1120					
pH (s.u.)	6.0	6.0	6.0					
Specific Cond. (µmhos/cm)	227.8	2227.7	234.1					
Water Temperature (°C)	21.0	20.5	20.6					
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	cloudy	cloudy					
PID Readings (if required)								

Remarks: Dry after 2.5 gallons, Sampled at15:00

D H E C
PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): 7/27/04
Field Personnel: Gordon Alverson
General Weather Conditions: Sunny

Ambient Air Temperature: 30 °C

Quality Assurance

pH Meter	pH strips	Conductivity Meter	YSI 30/10
serial no.		serial no.	97A0751 AD
pH=4.0		standard	1,000 µS
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Gordon Alverson	7/29 0900	Test America	7/30
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Ken Moorehead Oil Co., KMO 119 – Citgo
Facility ID#: UST Permit #00505 **Well #:** MW-2

Well Diameter (D): 2 inch of 42.53 feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: None Feet
Depth to Ground Water (DGW) 35.99 feet
Total Well Depth (TWD) 42.53 feet
Length of Water Column (LWC=TWD-DGW) 6.54 feet

1 Casing Volume (CV = LWC X C) = 6.54 X 0.17 = 1.11 gals
3 Casing Volume 3 X CV = 3.33 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 3.75 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Cumulative Volume Purged (gallons)	0	1						
Time (military)	1110	1111						
pH (s.u.)	5.0	5.0						
Specific Cond. (µmhos/cm)	171.5	180.9						
Water Temperature (°C)	21.2	21.3						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Clear	Cloudy						
PID Readings (if required)								

Remarks: Dry after 1.25 gallons. Sampled at 14:30

D H E C
PROMOTE PROTECT PROSPER

Field Data Information Sheet for Ground-Water Sampling
Division of Underground Storage Tank Management

Date (mm/dd/yy): 7/27/04
Field Personnel: Gordon Alverson
General Weather Conditions: Rain

Ambient Air Temperature: 30 °C

Quality Assurance

pH Meter	pH strips	Conductivity Meter	YSI 30/10
serial no.		serial no.	97A0751 AD
pH=4.0		Standard	1,000 µS
pH=7.0		Standard	
pH=10.0		Standard	

Chain of Custody

Gordon Alverson	7/29 0900	Test America	7/30
Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Ken Moorehead Oil Co., KMO 119 – Citgo
Facility ID#: UST Permit #00505 **Well #:** MW-3

Well Diameter (D): 2 inch of 40.40 Feet

Conversion factor (C): 3.14 X $(D/2)^2$ for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness: None Feet
Depth to Ground Water (DGW) 34.16 Feet
Total Well Depth (TWD) 40.40 Feet
Length of Water Column (LWC=TWD-DGW) 6.24 feet

1 Casing Volume (CV = LWC X C) = 6.24 X 0.17 = 1.06 gals
3 Casing Volume 3 X CV = 3.18 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 3.75 gals.

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Cumulative Volume Purged (gallons)		1.25						
Time (military)	1100	1103						
pH (s.u.)	5.0	5.0						
Specific Cond. (µmhos/cm)	88.3	84.7						
Water Temperature (°C)	20.7	20.8						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Cloudy	Cloudy						
PID Readings (if required)								

Remarks: Dry after 1.25 gallons, Sampled 14:10

TestAmerica
ANALYTICAL TESTING CORPORATION

383979

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: [redacted] BLE Client #: 2123
Address: 1200 Woodruff Rd suite B-7
City/State/Zip Code: Greenville SC 29607
Project Manager: Thomas Lammens
Telephone Number: (864) 288-1265 Fax:
Sampler Name: (Print Name) Gordon Alverson
Sampler Signature: Gordon Alverson

Project Name: Moorhead 01
Project #: 3661-01
Site/Location ID: Citgo gas Station State: SC
Report To: BLE
Invoice To: Same
Quote #: PO#:

TAT: ☑ Standard ☐ Rush (surcharges may apply)
Date Needed: ASAP
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix (SL - Sludge DW - Drinking Water; GW - Groundwater S - Soil/Solid; WW - Wastewater Specify Other)	Preservation & # of Containers: HNO_3	HCl	NaOH $NAHSO_4$	H_2SO_4	Methanol	None	Other (Specify) $NaHSO_4$	Analyze For: BTEX + Naph	DRO	PAH	[redacted]	BTEX	PAH	NO_3/SO_4	FE^{+2}			QC Deliverables: ___ None ___ Level 2 (Batch QC) ___ Level 3 ___ Level 4 Other:	REMARKS
MW-1	7-27-04	1330	G		S			2		1	3		X	X	X									115742
MW-2	7-27-04	1315	G		S			2		1	3		X	X	X									43
MW-3	7-27-04	1300	G		S			2		1	3		X	X	X									44
MW-1	7-27-04	1500	G		GW	1	4				2						X	X	X	X				45
MW-2	7-27-04	1430	G		GW	1	4				2						X	X	X	X				46
MW-3	7-27-04	1410	G		GW	1	4				2						X	X	X	X				155747

Special Instructions:

Relinquished By:	Date: 7/27/04	Time: 17:00	Received By:	Date: 7/28/04	Time: 8:00	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 3.8
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Lab Number: 04-A115742
Sample ID: MW-1
Sample Type: Soil
Site ID:

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: GORDON ALVERSON

Date Collected: 7/27/04
Time Collected: 13:30
Date Received: 7/28/04
Time Received: 8:00

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	84.1	%		1	7/28/04	12:40	B.Plett	CLP	7784
ORGANIC PARAMETERS									
Naphthalene	0.314	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Acenaphthene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Anthracene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Fluoranthene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Fluorene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Pyrene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Benzo(a)anthracene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Benzo(a)pyrene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Benzo(b)fluoranthene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Benzo(k)fluoranthene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Chrysene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Dibenzo(a,h)anthracene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Acenaphthylene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Benzo(g,h,i)perylene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
Phenanthrene	ND	mg/kg	0.078	1	7/31/04	11:08	J.Shelton	8270C	9066
VOLATILE ORGANICS									
Benzene	0.79	mg/kg	0.147	50	7/31/04	4:36	J. Bundy	8260B	824
Ethylbenzene	8.7	mg/kg	0.147	50	7/31/04	4:36	J. Bundy	8260B	824
Naphthalene	14.5	mg/kg	0.369	50	7/31/04	4:36	J. Bundy	8260B	824
Toluene	14.3	mg/kg	0.147	50	7/31/04	4:36	J. Bundy	8260B	824
Xylenes (Total)	45.2	mg/kg	2.95	1000	7/31/04	3:34	J. Bundy	8260B	826

Sample report continued . . .

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ANALYTICAL TESTING CORPORATION
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ANALYTICAL REPORT

Laboratory Number: 04-A115742
Sample ID: MW-1
Project: 3661-01

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	29.8 gm	1.0 ml	7/29/04		K. Turner	3550
Volatile Organics	4.03 g	5.0 ml	7/27/04	13:30	Fitzwater	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	92.	59. - 134.
VOA Surr Toluene-d8	94.	67. - 129.
VOA Surr, 4-BFB	100.	60. - 134.
VOA Surr, DBFM	100.	67. - 126.
BNA Surr-Nitrobenzene-d5	68.	10. - 164.
BNA Surr-2-Fluorobiphenyl	70.	51. - 96.
BNA Surr-Terphenyl-d14	76.	52. - 106.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All reported results for metals or Organic analyses have been corrected for dry weight.

End of Sample Report.

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Lab Number: 04-A115743
Sample ID: MW-2
Sample Type: Soil
Site ID:

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: GORDON ALVERSON

Date Collected: 7/27/04
Time Collected: 13:15
Date Received: 7/28/04
Time Received: 8:00

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	79.7	%		1	7/28/04	12:40	B.Plett	CLP	7784
ORGANIC PARAMETERS									
Naphthalene	0.381	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Acenaphthene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Anthracene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Fluoranthene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Fluorene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Pyrene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Benzo(a)anthracene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Benzo(a)pyrene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Benzo(b)fluoranthene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Benzo(k)fluoranthene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Chrysene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Dibenzo(a,h)anthracene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Acenaphthylene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Benzo(g,h,i)perylene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
Phenanthrene	ND	mg/kg	0.083	1	7/31/04	11:37	J.Shelton	8270C	9066
VOLATILE ORGANICS									
Benzene	1	mg/kg	0.122	50	7/31/04	5:06	J. Bundy	8260B	824
Ethylbenzene	7.5	mg/kg	0.122	50	7/31/04	5:06	J. Bundy	8260B	824
Naphthalene	4.77	mg/kg	0.305	50	7/31/04	5:06	J. Bundy	8260B	824
Toluene	10.7	mg/kg	0.122	50	7/31/04	5:06	J. Bundy	8260B	824
Xylenes (Total)	33.6	mg/kg	2.45	1000	7/31/04	4:05	J. Bundy	8260B	826

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A115743
Sample ID: MW-2
Project: 3661-01

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	30.2 gm	1.0 ml	7/29/04		K. Turner	3550
Volatile Organics	5.14 g	5.0 ml	7/27/04	13:15	Fitzwater	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	92.	59. - 134.
VOA Surr Toluene-d8	94.	67. - 129.
VOA Surr, 4-BFB	103.	60. - 134.
VOA Surr, DBFM	99.	67. - 126.
BNA Surr-Nitrobenzene-d5	66.	10. - 164.
BNA Surr-2-Fluorobiphenyl	71.	51. - 96.
BNA Surr-Terphenyl-d14	81.	52. - 106.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All reported results for metals or Organic analyses have been corrected for dry weight.

End of Sample Report.

TestAmerica
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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: GORDON ALVERSON

Lab Number: 04-A115744
Sample ID: MW-3
Sample Type: Soil
Site ID:

Date Collected: 7/27/04
Time Collected: 13:00
Date Received: 7/28/04
Time Received: 8:00

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	81.4	%		1	7/28/04	12:40	B.Plett	CLP	7784
ORGANIC PARAMETERS									
Naphthalene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Acenaphthene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Anthracene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Fluoranthene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Fluorene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Pyrene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Benzo(a)anthracene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Benzo(a)pyrene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Benzo(b)fluoranthene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Benzo(k)fluoranthene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Chrysene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Dibenzo(a,h)anthracene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Acenaphthylene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Benzo(g,h,i)perylene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
Phenanthrene	ND	mg/kg	0.081	1	7/31/04	12:07	J.Shelton	8270C	9066
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.0032	1	7/30/04	16:35	J. Bundy	8260B	694
Ethylbenzene	ND	mg/kg	0.0032	1	7/30/04	16:35	J. Bundy	8260B	694
Naphthalene	ND	mg/kg	0.00802	1	7/30/04	16:35	J. Bundy	8260B	694
Toluene	ND	mg/kg	0.0032	1	7/30/04	16:35	J. Bundy	8260B	694
Xylenes (Total)	ND	mg/kg	0.0032	1	7/30/04	16:35	J. Bundy	8260B	694

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A115744
Sample ID: MW-3
Project: 3661-01

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	29.8 gm	1.0 ml	7/29/04		K. Turner	3550
Volatile Organics	3.83 g	5.0 ml	7/27/04	13:00	Fitzwater	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	107.	59. - 134.
VOA Surr Toluene-d8	92.	67. - 129.
VOA Surr, 4-BFB	99.	60. - 134.
VOA Surr, DBFM	104.	67. - 126.
BNA Surr-Nitrobenzene-d5	68.	10. - 164.
BNA Surr-2-Fluorobiphenyl	70.	51. - 96.
BNA Surr-Terphenyl-d14	82.	52. - 106.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All reported results for metals or Organic analyses have been corrected for dry weight.

End of Sample Report.

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Lab Number: 04-A115745
Sample ID: MW-1
Sample Type: Water
Site ID:

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: GORDON ALVERSON

Date Collected: 7/27/04
Time Collected: 15:00
Date Received: 7/28/04
Time Received: 8:00

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Naphthalene	370.	ug/l	10.0	5.0	7/30/04	11:55	J.Shelton	8270C	9069
Acenaphthene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Anthracene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Fluoranthene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Fluorene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Pyrene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Benzo(a)anthracene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Benzo(a)pyrene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Benzo(b)fluoranthene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Benzo(k)fluoranthene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Chrysene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Dibenzo(a,h)anthracene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Indeno(1,2,3-cd)pyrene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Acenaphthylene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Benzo(g,h,i)perylene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
Phenanthrene	ND	ug/l	2.0	1.0	7/29/04	21:14	J.Shelton	8270C	9069
VOLATILE ORGANICS									
Benzene	32700	ug/l	500.	500.	7/29/04	21:02	S. Roberts	8260B	9550
Toluene	48800	ug/l	500.	500.	7/29/04	21:02	S. Roberts	8260B	9550
Ethylbenzene	3450	ug/l	50.0	50.0	7/29/04	20:33	S. Roberts	8260B	9534
Xylenes (Total)	16200	ug/l	50.0	50.0	7/29/04	20:33	S. Roberts	8260B	9534
Methyl-t-butyl ether	7450	ug/l	50.0	50.0	7/29/04	20:33	S. Roberts	8260B	9534
Naphthalene	720.	ug/l	250.	50.0	7/29/04	20:33	S. Roberts	8260B	9534
METALS									
Lead	360.	ug/l	3.0	10.0	8/ 2/04	12:17	R.Street	7421	9611

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A115745
Sample ID: MW-1

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	1000 ml	1.0 ml	7/29/04		K. Turner	3510/625

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	96.	71. - 128.
VOA Surr Toluene-d8	106.	77. - 119.
VOA Surr, 4-BFB	109.	79. - 123.
VOA Surr, DBFM	95.	78. - 124.
BNA Surr-Nitrobenzene-d5	76.	25. - 121.
BNA Surr-2-Fluorobiphenyl	72.	33. - 111.
BNA Surr-Terphenyl-d14	80.	11. - 139.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: GORDON ALVERSON

Lab Number: 04-A115746
Sample ID: MW-2
Sample Type: Water
Site ID:

Date Collected: 7/27/04
Time Collected: 14:30
Date Received: 7/28/04
Time Received: 8:00

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Naphthalene	500.	ug/l	10.0	5.0	7/30/04	12:32	J.Shelton	8270C	9069
Acenaphthene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Anthracene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Fluoranthene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Fluorene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Pyrene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Benzo(a)anthracene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Benzo(a)pyrene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Benzo(b)fluoranthene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Benzo(k)fluoranthene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Chrysene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Dibenzo(a,h)anthracene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Indeno(1,2,3-cd)pyrene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Acenaphthylene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Benzo(g,h,i)perylene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
Phenanthrene	ND	ug/l	2.0	1.0	7/29/04	21:50	J.Shelton	8270C	9069
VOLATILE ORGANICS									
Benzene	13100	ug/l	200.	200.	7/30/04	21:53	C. Wani	8260B	411
Toluene	23600	ug/l	200.	200.	7/30/04	21:53	C. Wani	8260B	411
Ethylbenzene	3580	ug/l	20.0	20.0	7/29/04	21:59	S. Roberts	8260B	9550
Xylenes (Total)	16300	ug/l	200.	200.	7/30/04	21:53	C. Wani	8260B	411
Methyl-t-butyl ether	1510	ug/l	20.0	20.0	7/29/04	21:59	S. Roberts	8260B	9550
Naphthalene	2800	ug/l	1000	200.	7/30/04	21:53	C. Wani	8260B	411
METALS									
Lead	13.0	ug/l	3.0	1.0	8/ 2/04	12:17	R.Street	7421	9611

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A115746
Sample ID: MW-2

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	1000 ml	1.0 ml	7/29/04		K. Turner	3510/625

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	95.	71. - 128.
VOA Surr Toluene-d8	104.	77. - 119.
VOA Surr, 4-BFB	107.	79. - 123.
VOA Surr, DBFM	95.	78. - 124.
BNA Surr-Nitrobenzene-d5	73.	25. - 121.
BNA Surr-2-Fluorobiphenyl	74.	33. - 111.
BNA Surr-Terphenyl-d14	69.	11. - 139.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: GORDON ALVERSON

Lab Number: 04-A115747
Sample ID: MW-3
Sample Type: Water
Site ID:

Date Collected: 7/27/04
Time Collected: 14:10
Date Received: 7/28/04
Time Received: 8:00

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Naphthalene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Acenaphthene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Anthracene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Fluoranthene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Fluorene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Pyrene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Benzo(a)anthracene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Benzo(a)pyrene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Benzo(b)fluoranthene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Benzo(k)fluoranthene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Chrysene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Dibenzo(a,h)anthracene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Indeno(1,2,3-cd)pyrene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Acenaphthylene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Benzo(g,h,i)perylene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
Phenanthrene	ND	ug/l	2.0	1.0	7/29/04	22:26	J.Shelton	8270C	9069
VOLATILE ORGANICS									
Benzene	4.7	ug/l	1.0	1.0	7/29/04	17:42	S. Roberts	8260B	9534
Toluene	ND	ug/l	1.0	1.0	7/29/04	17:42	S. Roberts	8260B	9534
Ethylbenzene	ND	ug/l	1.0	1.0	7/29/04	17:42	S. Roberts	8260B	9534
Xylenes (Total)	2.1	ug/l	1.0	1.0	7/29/04	17:42	S. Roberts	8260B	9534
Methyl-t-butyl ether	3.5	ug/l	1.0	1.0	7/29/04	17:42	S. Roberts	8260B	9534
Naphthalene	ND	ug/l	5.00	1.0	7/29/04	17:42	S. Roberts	8260B	9534
METALS									
Lead	90.0	ug/l	3.0	10.0	8/ 2/04	12:17	R.Street	7421	9611

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A115747
Sample ID: MW-3

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	1000 ml	1.0 ml	7/29/04		K. Turner	3510/625

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	97.	71. - 128.
VOA Surr Toluene-d8	105.	77. - 119.
VOA Surr, 4-BFB	107.	79. - 123.
VOA Surr, DBFM	96.	78. - 124.
BNA Surr-Nitrobenzene-d5	68.	25. - 121.
BNA Surr-2-Fluorobiphenyl	70.	33. - 111.
BNA Surr-Terphenyl-d14	76.	11. - 139.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL
Page: 1
Laboratory Receipt Date: 7/28/04

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
UST ANALYSIS								
Naphthalene	mg/l	< 0.0007	0.0330	0.0500	66	32. - 101.	9069	BLANK
Naphthalene	mg/kg	< 0.066	1.19	1.67	71	34. - 111.	9066	'115406
Acenaphthene	mg/kg	< 0.066	1.32	1.67	79	39. - 116.	9066	'115406
Anthracene	mg/kg	< 0.066	1.48	1.67	89	41. - 118.	9066	'115406
Fluoranthene	mg/kg	< 0.066	1.48	1.67	89	42. - 123.	9066	'115406
Fluorene	mg/kg	< 0.066	1.39	1.67	83	40. - 120.	9066	'115406
Pyrene	mg/kg	< 0.066	1.32	1.67	79	40. - 125.	9066	'115406
Benzo(a)anthracene	mg/kg	< 0.066	1.39	1.67	83	42. - 123.	9066	'115406
Benzo(a)pyrene	mg/kg	< 0.066	1.42	1.67	85	41. - 123.	9066	'115406
Benzo(b)fluoranthene	mg/kg	< 0.066	1.39	1.67	83	40. - 123.	9066	'115406
Benzo(k)fluoranthene	mg/kg	< 0.066	1.39	1.67	83	42. - 130.	9066	'115406
Chrysene	mg/kg	< 0.066	1.29	1.67	77	40. - 123.	9066	'115406
Dibenzo(a,h)anthracene	mg/kg	< 0.066	1.29	1.67	77	16. - 139.	9066	'115406
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.066	1.39	1.67	83	12. - 138.	9066	'115406
Acenaphthylene	mg/kg	< 0.066	1.32	1.67	79	39. - 116.	9066	'115406
Benzo(g,h,i)perylene	mg/kg	< 0.066	1.39	1.67	83	9. - 144.	9066	'115406
Phenanthrene	mg/kg	< 0.066	1.39	1.67	83	39. - 119.	9066	'115406
Naphthalene	mg/l	< 0.0007	0.0330	0.0500	66	32. - 101.	9069	BLANK
Acenaphthene	mg/l	< 0.0008	0.0360	0.0500	72	40. - 113.	9069	BLANK
Anthracene	mg/l	< 0.0009	0.0430	0.0500	86	48. - 122.	9069	BLANK
Fluoranthene	mg/l	< 0.0008	0.0400	0.0500	80	48. - 127.	9069	BLANK
Fluorene	mg/l	< 0.0008	0.0370	0.0500	74	45. - 120.	9069	BLANK
Pyrene	mg/l	< 0.0009	0.0400	0.0500	80	49. - 127.	9069	BLANK
Benzo(a)anthracene	mg/l	< 0.0009	0.0390	0.0500	78	49. - 126.	9069	BLANK
Benzo(a)pyrene	mg/l	< 0.0008	0.0310	0.0500	62	48. - 126.	9069	BLANK
Benzo(b)fluoranthene	mg/l	< 0.0007	0.0300	0.0500	60	45. - 127.	9069	BLANK
Benzo(k)fluoranthene	mg/l	< 0.0009	0.0280	0.0500	56	46. - 134.	9069	BLANK
Chrysene	mg/l	< 0.0010	0.0360	0.0500	72	48. - 126.	9069	BLANK
Dibenzo(a,h)anthracene	mg/l	< 0.0008	0.0280	0.0500	56	31. - 149.	9069	BLANK
Indeno(1,2,3-cd)pyrene	mg/l	< 0.0008	0.0300	0.0500	60	26. - 147.	9069	BLANK
Acenaphthylene	mg/l	< 0.0008	0.0370	0.0500	74	41. - 112.	9069	BLANK
Benzo(g,h,i)perylene	mg/l	< 0.0007	0.0290	0.0500	58	26. - 152.	9069	BLANK
Phenanthrene	mg/l	< 0.0008	0.0380	0.0500	76	47. - 122.	9069	BLANK

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL

Laboratory Receipt Date: 7/28/04

VOA PARAMETERS									
Benzene	mg/l	0.0009	0.0500	0.0500	98	73 -	135	9534	'115686
Benzene	mg/l	< 0.0010	0.0486	0.0500	97	73 -	135	411	116389
Benzene	mg/kg	< 0.0003	0.0548	0.0500	110	33 -	139	694	BLANK
Benzene	mg/kg	< 0.0020	0.0458	0.0500	92	33 -	139	824	04-A116513
Toluene	mg/l	0.0047	0.0529	0.0500	96	69 -	139	9534	'115686
Toluene	mg/l	0.0018	0.0510	0.0500	98	69 -	139	411	116389
Toluene	mg/kg	< 0.0008	0.0494	0.0500	99	18 -	150	694	BLANK
Toluene	mg/kg	0.0008	0.0391	0.0500	77	18 -	150	824	04-A116513
VOA Surr 1,2-DCA-d4	% Rec				96	71 -	128	9534	
VOA Surr 1,2-DCA-d4	% Rec				98	71 -	128	411	
VOA Surr Toluene-d8	% Rec				106	77 -	119	9534	
VOA Surr Toluene-d8	% Rec				106	77 -	119	411	
VOA Surr, 4-BFB	% Rec				107	79 -	123	9534	
VOA Surr, 4-BFB	% Rec				107	79 -	123	411	
VOA Surr, DBFM	% Rec				95	78 -	124	9534	
VOA Surr, DBFM	% Rec				97	78 -	124	411	
BNA Surr-Nitrobenzene-d5	% Rec				72	25 -	121	9069	
BNA Surr-2-Fluorobiphenyl	% Rec				76	33 -	111	9069	
BNA Surr-Terphenyl-d14	% Rec				85	11 -	139	9069	
METALS									
Lead	mg/l	< 0.0030	0.0560	0.0500	112	80 - 120		9611	04-A115180

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
UST PARAMETERS						
Naphthalene	mg/kg	1.19	1.35	12.60	38.	9066
Acenaphthene	mg/kg	1.32	1.42	7.30	40.	9066
Anthracene	mg/kg	1.48	1.52	2.67	34.	9066
Fluoranthene	mg/kg	1.48	1.55	4.62	42.	9066
Fluorene	mg/kg	1.39	1.48	6.27	40.	9066
Pyrene	mg/kg	1.32	1.32	0.00	37.	9066
Benzo(a)anthracene	mg/kg	1.39	1.48	6.27	35.	9066
Benzo(a)pyrene	mg/kg	1.42	1.45	2.09	36.	9066
Benzo(b)fluoranthene	mg/kg	1.39	1.39	0.00	40.	9066
Benzo(k)fluoranthene	mg/kg	1.39	1.52	8.93	36.	9066
Chrysene	mg/kg	1.29	1.29	0.00	34.	9066
Dibenzo(a,h)anthracene	mg/kg	1.29	1.32	2.30	37.	9066

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL

Laboratory Receipt Date: 7/28/04

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Indeno(1,2,3-cd)pyrene	mg/kg	1.39	1.39	0.00	40.	9066
Acenaphthylene	mg/kg	1.32	1.52	14.08	42.	9066
Benzo(g,h,i)perylene	mg/kg	1.39	1.39	0.00	37.	9066
Phenanthrene	mg/kg	1.39	1.45	4.23	34.	9066
Naphthalene	mg/l	0.0330	0.0310	6.25	44.	9069
Acenaphthene	mg/l	0.0360	0.0340	5.71	42.	9069
Anthracene	mg/l	0.0430	0.0420	2.35	35.	9069
Fluoranthene	mg/l	0.0400	0.0380	5.13	38.	9069
Fluorene	mg/l	0.0370	0.0350	5.56	38.	9069
Pyrene	mg/l	0.0400	0.0380	5.13	36.	9069
Benzo(a)anthracene	mg/l	0.0390	0.0370	5.26	37.	9069
Benzo(a)pyrene	mg/l	0.0310	0.0300	3.28	37.	9069
Benzo(b)fluoranthene	mg/l	0.0300	0.0300	0.00	38.	9069
Benzo(k)fluoranthene	mg/l	0.0280	0.0270	3.64	36.	9069
Chrysene	mg/l	0.0360	0.0340	5.71	38.	9069
Dibenzo(a,h)anthracene	mg/l	0.0280	0.0260	7.41	45.	9069
Indeno(1,2,3-cd)pyrene	mg/l	0.0300	0.0280	6.90	43.	9069
Acenaphthylene	mg/l	0.0370	0.0350	5.56	39.	9069
Benzo(g,h,i)perylene	mg/l	0.0290	0.0270	7.14	47.	9069
Phenanthrene	mg/l	0.0380	0.0370	2.67	38.	9069
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0556	10.61	21.	9534
Benzene	mg/l	0.0486	0.0504	3.64	21.	411
Benzene	mg/kg	0.0548	0.0560	2.17	43.	694
Benzene	mg/kg	0.0458	0.0356	25.06	43.	824
Toluene	mg/l	0.0529	0.0579	9.03	24.	9534
Toluene	mg/l	0.0510	0.0526	3.09	24.	411
Toluene	mg/kg	0.0494	0.0496	0.40	48.	694
Toluene	mg/kg	0.0391	0.0238	48.65#	48.	824
VOA Surr 1,2-DCA-d4	% Rec		95.			9534
VOA Surr 1,2-DCA-d4	% Rec		97.			411
VOA Surr 1,2-DCA-d4	% Rec		92.			694
VOA Surr Toluene-d8	% Rec		106.			9534
VOA Surr Toluene-d8	% Rec		106.			411
VOA Surr Toluene-d8	% Rec		93.			694
VOA Surr, 4-BFB	% Rec		108.			9534
VOA Surr, 4-BFB	% Rec		108.			411
VOA Surr, 4-BFB	% Rec		97.			694

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL

Laboratory Receipt Date: 7/28/04

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA Surr, DBFM	% Rec		96.			9534
VOA Surr, DBFM	% Rec		96.			411
VOA Surr, DBFM	% Rec		100.			694
BNA Surr-Nitrobenzene-d5	% Rec		66.			9069
BNA Surr-2-Fluorobiphenyl	% Rec		72.			9069
BNA Surr-Terphenyl-d14	% Rec		81.			9069
METALS						
Lead	mg/l	0.0560	0.0540	3.64	20	9611

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
UST PARAMETERS						
Naphthalene	mg/kg	1.67	1.32	79	34 - 111	9066
Acenaphthene	mg/kg	1.67	1.35	81	39 - 116	9066
Anthracene	mg/kg	1.67	1.52	91	41 - 118	9066
Fluoranthene	mg/kg	1.67	1.52	91	42 - 123	9066
Fluorene	mg/kg	1.67	1.42	85	40 - 120	9066
Pyrene	mg/kg	1.67	1.52	91	40 - 125	9066
Benzo(a)anthracene	mg/kg	1.67	1.52	91	42 - 123	9066
Benzo(a)pyrene	mg/kg	1.67	1.48	89	41 - 123	9066
Benzo(b)fluoranthene	mg/kg	1.67	1.52	91	40 - 123	9066
Benzo(k)fluoranthene	mg/kg	1.67	1.48	89	42 - 130	9066
Chrysene	mg/kg	1.67	1.39	83	40 - 123	9066
Dibenzo(a,h)anthracene	mg/kg	1.67	1.29	77	16 - 139	9066
Indeno(1,2,3-cd)pyrene	mg/kg	1.67	1.35	81	12 - 138	9066
Acenaphthylene	mg/kg	1.67	1.42	85	39 - 116	9066
Benzo(g,h,i)perylene	mg/kg	1.67	1.35	81	9 - 144	9066
Phenanthrene	mg/kg	1.67	1.42	85	39 - 119	9066
Naphthalene	mg/l	0.0500	0.0320	64	32 - 101	9069
Acenaphthene	mg/l	0.0500	0.0340	68	40 - 113	9069
Anthracene	mg/l	0.0500	0.0430	86	48 - 122	9069
Fluoranthene	mg/l	0.0500	0.0390	78	48 - 127	9069
Fluorene	mg/l	0.0500	0.0360	72	45 - 120	9069

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL

Laboratory Receipt Date: 7/28/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Pyrene	mg/l	0.0500	0.0400	80	49 - 127	9069
Benzo(a)anthracene	mg/l	0.0500	0.0380	76	49 - 126	9069
Benzo(a)pyrene	mg/l	0.0500	0.0300	60	48 - 126	9069
Benzo(b)fluoranthene	mg/l	0.0500	0.0300	60	45 - 127	9069
Benzo(k)fluoranthene	mg/l	0.0500	0.0280	56	46 - 134	9069
Chrysene	mg/l	0.0500	0.0350	70	48 - 126	9069
Dibenzo(a,h)anthracene	mg/l	0.0500	0.0250	50	31 - 149	9069
Indeno(1,2,3-cd)pyrene	mg/l	0.0500	0.0280	56	26 - 147	9069
Acenaphthylene	mg/l	0.0500	0.0360	72	41 - 112	9069
Benzo(g,h,i)perylene	mg/l	0.0500	0.0260	52	26 - 152	9069
Phenanthrene	mg/l	0.0500	0.0380	76	47 - 122	9069
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0457	91	81 - 121	9534
Benzene	mg/l	0.0500	0.0457	91	81 - 121	9550
Benzene	mg/l	0.0500	0.0447	89	81 - 121	411
Benzene	mg/kg	0.0500	0.0554	111	69 - 128	694
Benzene	mg/kg	0.0500	0.0554	111	69 - 128	824
Ethylbenzene	mg/l	0.0500	0.0498	100	78 - 126	9534
Ethylbenzene	mg/l	0.0500	0.0498	100	78 - 126	9550
Ethylbenzene	mg/kg	0.0500	0.0512	102	72 - 125	694
Ethylbenzene	mg/kg	0.0500	0.0512	102	72 - 125	824
Naphthalene	mg/l	0.0500	0.0608	122	53 - 152	9534
Naphthalene	mg/l	0.0500	0.0645	129	53 - 152	411
Naphthalene	mg/kg	0.0500	0.0475	95	58 - 143	694
Naphthalene	mg/kg	0.0500	0.0475	95	58 - 143	824
Toluene	mg/l	0.0500	0.0479	96	77 - 125	9534
Toluene	mg/l	0.0500	0.0479	96	77 - 125	9550
Toluene	mg/l	0.0500	0.0463	93	77 - 125	411
Toluene	mg/kg	0.0500	0.0508	102	74 - 123	694
Toluene	mg/kg	0.0500	0.0508	102	74 - 123	824
Xylenes (Total)	mg/l	0.150	0.152	101	78 - 127	9534
Xylenes (Total)	mg/l	0.150	0.148	99	78 - 127	411
Xylenes (Total)	mg/kg	0.150	0.153	102	70 - 128	694
Xylenes (Total)	mg/kg	0.150	0.153	102	70 - 128	826
Methyl-t-butyl ether	mg/l	0.0500	0.0536	107	68 - 134	9534
Methyl-t-butyl ether	mg/l	0.0500	0.0536	107	68 - 134	9550

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PROJECT QUALITY CONTROL DATA
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Project Name: MOORHEAD OIL

Laboratory Receipt Date: 7/28/04

VOA Surr 1,2-DCA-d4	% Rec			96	71 - 128	9534
VOA Surr 1,2-DCA-d4	% Rec			96	71 - 128	9550
VOA Surr 1,2-DCA-d4	% Rec			97	71 - 128	411
VOA Surr 1,2-DCA-d4	% Rec			87	59 - 134	694
VOA Surr 1,2-DCA-d4	% Rec			87	59 - 134	826
VOA Surr Toluene-d8	% Rec			105	77 - 119	9534
VOA Surr Toluene-d8	% Rec			105	77 - 119	9550
VOA Surr Toluene-d8	% Rec			105	77 - 119	411
VOA Surr Toluene-d8	% Rec			94	67 - 129	694
VOA Surr Toluene-d8	% Rec			94	67 - 129	826
VOA Surr, 4-BFB	% Rec			106	79 - 123	9534
VOA Surr, 4-BFB	% Rec			106	79 - 123	9550
VOA Surr, 4-BFB	% Rec			107	79 - 123	411
VOA Surr, 4-BFB	% Rec			100	60 - 134	694
VOA Surr, 4-BFB	% Rec			100	60 - 134	826
VOA Surr, DBFM	% Rec			95	78 - 124	9534
VOA Surr, DBFM	% Rec			95	78 - 124	9550
VOA Surr, DBFM	% Rec			95	78 - 124	411
VOA Surr, DBFM	% Rec			98	67 - 126	694
VOA Surr, DBFM	% Rec			98	67 - 126	826
BNA Surr-Nitrobenzene-d5	% Rec			71	25 - 121	9069
BNA Surr-2-Fluorobiphenyl	% Rec			75	33 - 111	9069
BNA Surr-Terphenyl-d14	% Rec			84	11 - 139	9069
METALS						
Lead	mg/l	0.0500	0.0600	120 #	80 - 120	9611

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
Naphthalene	< 0.066	mg/kg	9066	7/31/04	8:12

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL

Laboratory Receipt Date: 7/28/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Acenaphthene	< 0.066	mg/kg	9066	7/31/04	8:12
Anthracene	< 0.066	mg/kg	9066	7/31/04	8:12
Fluoranthene	< 0.066	mg/kg	9066	7/31/04	8:12
Fluorene	< 0.066	mg/kg	9066	7/31/04	8:12
Pyrene	< 0.066	mg/kg	9066	7/31/04	8:12
Benzo(a)anthracene	< 0.066	mg/kg	9066	7/31/04	8:12
Benzo(a)pyrene	< 0.066	mg/kg	9066	7/31/04	8:12
Benzo(b)fluoranthene	< 0.066	mg/kg	9066	7/31/04	8:12
Benzo(k)fluoranthene	< 0.066	mg/kg	9066	7/31/04	8:12
Chrysene	< 0.066	mg/kg	9066	7/31/04	8:12
Dibenzo(a,h)anthracene	< 0.066	mg/kg	9066	7/31/04	8:12
Indeno(1,2,3-cd)pyrene	< 0.066	mg/kg	9066	7/31/04	8:12
Acenaphthylene	< 0.066	mg/kg	9066	7/31/04	8:12
Benzo(g,h,i)perylene	< 0.066	mg/kg	9066	7/31/04	8:12
Phenanthrene	< 0.066	mg/kg	9066	7/31/04	8:12
Naphthalene	< 0.0007	mg/l	9069	7/29/04	18:12
Acenaphthene	< 0.0008	mg/l	9069	7/29/04	18:12
Anthracene	< 0.0009	mg/l	9069	7/29/04	18:12
Fluoranthene	< 0.0008	mg/l	9069	7/29/04	18:12
Fluorene	< 0.0008	mg/l	9069	7/29/04	18:12
Pyrene	< 0.0009	mg/l	9069	7/29/04	18:12
Benzo(a)anthracene	< 0.0009	mg/l	9069	7/29/04	18:12
Benzo(a)pyrene	< 0.0008	mg/l	9069	7/29/04	18:12
Benzo(b)fluoranthene	< 0.0007	mg/l	9069	7/29/04	18:12
Benzo(k)fluoranthene	< 0.0009	mg/l	9069	7/29/04	18:12
Chrysene	< 0.0010	mg/l	9069	7/29/04	18:12
Dibenzo(a,h)anthracene	< 0.0008	mg/l	9069	7/29/04	18:12
Indeno(1,2,3-cd)pyrene	< 0.0008	mg/l	9069	7/29/04	18:12
Acenaphthylene	< 0.0008	mg/l	9069	7/29/04	18:12
Benzo(g,h,i)perylene	< 0.0007	mg/l	9069	7/29/04	18:12
Phenanthrene	< 0.0008	mg/l	9069	7/29/04	18:12
VOA PARAMETERS					
Benzene	< 0.0005	mg/l	9534	7/29/04	16:13
Benzene	< 0.0005	mg/l	9550	7/29/04	16:13
Benzene	< 0.0005	mg/l	411	7/30/04	17:07
Benzene	< 0.0003	mg/kg	694	7/30/04	15:03
Benzene	< 0.0003	mg/kg	824	7/31/04	2:32
Ethylbenzene	< 0.0003	mg/l	9534	7/29/04	16:13

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL

Laboratory Receipt Date: 7/28/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Ethylbenzene	< 0.0003	mg/l	9550	7/29/04	16:13
Ethylbenzene	< 0.0005	mg/kg	694	7/30/04	15:03
Ethylbenzene	< 0.0005	mg/kg	824	7/31/04	2:32
Naphthalene	< 0.00120	mg/l	9534	7/29/04	16:13
Naphthalene	< 0.00120	mg/l	411	7/30/04	17:07
Naphthalene	0.00200	mg/kg	694	7/30/04	15:03
Naphthalene	0.00140	mg/kg	824	7/31/04	2:32
Toluene	< 0.0006	mg/l	9534	7/29/04	16:13
Toluene	< 0.0006	mg/l	9550	7/29/04	16:13
Toluene	< 0.0006	mg/l	411	7/30/04	17:07
Toluene	< 0.0008	mg/kg	694	7/30/04	15:03
Toluene	< 0.0008	mg/kg	824	7/31/04	2:32
Xylenes (Total)	< 0.0009	mg/l	9534	7/29/04	16:13
Xylenes (Total)	< 0.0009	mg/l	411	7/30/04	17:07
Xylenes (Total)	< 0.0013	mg/kg	694	7/30/04	15:03
Xylenes (Total)	< 0.0013	mg/kg	826	7/31/04	2:32
Methyl-t-butyl ether	< 0.0005	mg/l	9534	7/29/04	16:13
Methyl-t-butyl ether	< 0.0005	mg/l	9550	7/29/04	16:13
VOA Surr 1,2-DCA-d4	97.	% Rec	9534	7/29/04	16:13
VOA Surr 1,2-DCA-d4	97.	% Rec	9550	7/29/04	16:13
VOA Surr 1,2-DCA-d4	95.	% Rec	411	7/30/04	17:07
VOA Surr 1,2-DCA-d4	110.	% Rec	694	7/30/04	15:03
VOA Surr 1,2-DCA-d4	102.	% Rec	826	7/31/04	2:32
VOA Surr Toluene-d8	105.	% Rec	9534	7/29/04	16:13
VOA Surr Toluene-d8	105.	% Rec	9550	7/29/04	16:13
VOA Surr Toluene-d8	105.	% Rec	411	7/30/04	17:07
VOA Surr Toluene-d8	93.	% Rec	694	7/30/04	15:03
VOA Surr Toluene-d8	93.	% Rec	826	7/31/04	2:32
VOA Surr, 4-BFB	106.	% Rec	9534	7/29/04	16:13
VOA Surr, 4-BFB	106.	% Rec	9550	7/29/04	16:13
VOA Surr, 4-BFB	106.	% Rec	411	7/30/04	17:07
VOA Surr, 4-BFB	104.	% Rec	694	7/30/04	15:03
VOA Surr, 4-BFB	100.	% Rec	826	7/31/04	2:32
VOA Surr, DBFM	95.	% Rec	9534	7/29/04	16:13
VOA Surr, DBFM	95.	% Rec	9550	7/29/04	16:13
VOA Surr, DBFM	96.	% Rec	411	7/30/04	17:07
VOA Surr, DBFM	108.	% Rec	694	7/30/04	15:03
VOA Surr, DBFM	102.	% Rec	826	7/31/04	2:32

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
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BNA Surr-Nitrobenzene-d5	62.	% Rec	9069	7/29/04	18:12
BNA Surr-2-Fluorobiphenyl	67.	% Rec	9069	7/29/04	18:12
BNA Surr-Terphenyl-d14	83.	% Rec	9069	7/29/04	18:12
METALS					
Lead	< 0.0010	mg/l	9611	8/ 2/04	12:17

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 383979

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8/ 2/04

CASE NARRATIVE

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: MOORHEAD OIL
Project Number: 3661-01.
Laboratory Project Number: 383979.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Sample Identification	Lab Number	Collection Date
MW-1	04-A115742	7/27/04
MW-2	04-A115743	7/27/04
MW-3	04-A115744	7/27/04
MW-1	04-A115745	7/27/04
MW-2	04-A115746	7/27/04
MW-3	04-A115747	7/27/04

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Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
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Report Approved By: Gail A Lage Report Date: 8/ 2/04

Johnny A. Mitchell, Operations Manager
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Technical Services
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Technical Services
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Technical Services
Mark Hollingsworth, Director of Project

Laboratory Certification Number: 84009

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384239

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ANALYTICAL TESTING CORPORATION

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: BLE Client #: 2123
Address: 1200 Woodruff Rd, Suite B-7
City/State/Zip Code: Greenville SC 29607
Project Manager: Tom Lammons
Telephone Number: 864-288-1265 Fax:
Sampler Name: (Print Name) Gordon Alverson
Sampler Signature: Gordon Alverson

Project Name: Moorhead O:1
Project #: 3661-01
Site/Location ID: Anderson State: SC
Report To: Tom Lammons
Invoice To: BLE
Quote #: PO#:

TAT: ✓ Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: DW - Drinking Water, GW - Groundwater, WW - Wastewater, S - Soil/Solid, SL - Sludge, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: 8011 EDB	REMARKS
MW-1	7-28-07	1100	G		GW		3						X	116989
MW-2	7-28-07	1050	G		GW		3						X	116990
MW-3	7-28-07	1040	G		GW		3						X	116991

QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 0.3
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

Relinquished By	Date	Time	Received By	Date	Time
Gordon Alverson	7/29/07	0900	[signature]	7/30/07	8:00
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

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ANALYTICAL TESTING CORPORATION

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8/ 9/04

CASE NARRATIVE

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: MOORHEAD OIL
Project Number: 3661-01.
Laboratory Project Number: 384239.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Sample Identification	Lab Number	Collection Date
MW-1	04-A116989	7/28/04
MW-2	04-A116990	7/28/04
MW-3	04-A116991	7/28/04

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Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
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Report Approved By: Gail A. Lage Report Date: 8/ 9/04

Johnny A. Mitchell, Operations Manager
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Technical Services
Eric S. Smith, QA/QC Director
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Laboratory Certification Number: 84009

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: GORDON ALVERSON

Lab Number: 04-A116989
Sample ID: MW-1
Sample Type: Ground water
Site ID:

Date Collected: 7/28/04
Time Collected: 11:00
Date Received: 7/30/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS by GC									
Ethylene Dibromide	18.2	ug/l	0.39	20	8/ 9/04	9:32	K. Burritt	8011	1193

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
EDB surrogate diluted out due to sample matrix.

End of Sample Report.

TestAmerica
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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: GORDON ALVERSON

Lab Number: 04-A116990
Sample ID: MW-2
Sample Type: Ground water
Site ID:

Date Collected: 7/28/04
Time Collected: 10:50
Date Received: 7/30/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS by GC									
Ethylene Dibromide	23.8	ug/l	0.97	50	8/ 9/04	9:51	K. Burritt	8011	1193

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
EDB surrogate diluted out due to sample matrix.

End of Sample Report.

TestAmerica
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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: GORDON ALVERSON

Lab Number: 04-A116991
Sample ID: MW-3
Sample Type: Ground water
Site ID:

Date Collected: 7/28/04
Time Collected: 10:40
Date Received: 7/30/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	8/ 6/04	18:19	K. Burritt	8011	1193

Surrogate	% Recovery	Target Range
Surr., 1,3-DCB	99.0	50. - 150.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL
Page: 1
Laboratory Receipt Date: 7/30/04

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Ethylene Dibromide	mg/l	0.00029	0.00029	100	81 - 137	1193

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL
Page: 2
Laboratory Receipt Date: 7/30/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
Ethylene Dibromide	< 0.00002	mg/l	1193	8/ 6/04	12:33

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 384239

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM **BC#**

Client Name : BLE

Cooler Received/Opened On: 7/28/04 **Accessioned By:** Mark Beasley

M. Beasley
Log-in Personnel Signature

1. Temperature of Cooler when triaged: 3.8 **Degrees Celsius**
2. Were custody seals on outside of cooler?..... (YES)...NO....NA
   a. If yes, how many, what kind and where: 1 Front
3. Were custody seals on containers and intact?..... (NO)..YES...NA
4. Were the seals intact, signed, and dated correctly?..... (YES)...NO...NA
5. Were custody papers inside cooler?..... (YES)..NO...NA
6. Were custody papers properly filled out (ink, signed, etc)?..... (YES)...NO...NA
7. Did you sign the custody papers in the appropriate place?..... (YES)..NO...NA
8. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite Other None
9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None
10. Did all containers arrive in good condition (unbroken)?..... (YES)...NO...NA
11. Were all container labels complete (#, date, signed, pres., etc)?..... (YES)...NO...NA
12. Did all container labels and tags agree with custody papers?..... (YES)...NO...NA
13. Were correct containers used for the analysis requested?..... (YES)...NO...NA
14. a. Were VOA vials received?..... (YES)...NO...NA
    b. Was there any observable head space present in any VOA vial?..... (NO)..YES...NA
15. Was sufficient amount of sample sent in each container?..... (YES)...NO...NA
16. Were correct preservatives used?..... (YES)...NO...NA
    If not, record standard ID of preservative used here_____
17. Was residual chlorine present?..... (NO)..YES...NA
18. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below:

6894						
UPS	Velocity	Airborne	Route	Off-street	(Fedex)	Misc.

19. If a Non-Conformance exists, see attached or comments below:

TestAmerica
ANALYTICAL TESTING CORPORATION

Charlotte office
FAX# (704) 392-9073

384440

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: BLE Client #: 2123
Address: 1200 WOODRUFF RD B7
te/Zip Code: GREENVILLE SC 29607
...ject Manager: TOM LAMMONS
Telephone Number: 864 288 1265 Fax: 288 4430
Sampler Name: (Print Name) KEVIN THOMAS
Sampler Signature: Kevin Thomas

Project Name: MOORHEAD OIL
Project #: 36661-01
Site/Location ID: HW4 29 State: SC
Report To: TOM LAMMONS
Invoice To:
Quote #: PO#:

TAT
✓ Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: (Y) N

Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other
Preservation & # of Containers: HNO_3, HCl, NaOH, H_2SO_4, Methanol, None, Other (Specify) NAH_4SO_4
Analyze For: 8260B BTEX + NAPH; 8270C PAH; TPH (DRO) 3550B; 9060 TOC

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	NAH_4SO_4	8260B BTEX+NAPH	8270C PAH	TPH (DRO) 3550B	9060 TOC	REMARKS
GP-1	7/30	1430	G		S					1	2	2	✓	✓			118218
GP-2	7/30	1415	G		S					1	2	2	✓	✓			219
GP-3	7/30	1345	G		S					1	3	2	✓	✓	✓		220
GP-4	7/30	1330	G		S					1	3	2	✓	✓		✓	118221

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

Relinquished By	Date	Time	Received By	Date	Time
K Thomas	7/30	1700			
				7/31/04	8:10

TestAmerica
ANALYTICAL TESTING CORPORATION

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: KEVIN THOMAS

Lab Number: 04-A118218
Sample ID: GP-1
Sample Type: Soil
Site ID:

Date Collected: 7/30/04
Time Collected: 14:30
Date Received: 7/31/04
Time Received: 8:10

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	84.1	%		1	7/31/04	12:42	B.Plett	CLP	308
ORGANIC PARAMETERS									
Naphthalene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Acenaphthene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Anthracene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Fluoranthene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Fluorene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Pyrene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Benzo(a)anthracene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Benzo(a)pyrene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Benzo(b)fluoranthene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Benzo(k)fluoranthene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Chrysene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Acenaphthylene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Benzo(g,h,i)perylene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
Phenanthrene	ND	mg/kg	0.066	1	8/ 6/04	1:11	M.Schott	8270C	5501
VOLATILE ORGANICS									
Benzene	0.0238	mg/kg	0.0019	1	8/ 5/04	18:09	J. Yun	8260B	5561
Ethylbenzene	0.0114	mg/kg	0.0019	1	8/ 5/04	18:09	J. Yun	8260B	5561
Naphthalene	ND	mg/kg	0.00473	1	8/ 5/04	18:09	J. Yun	8260B	5561
Toluene	ND	mg/kg	0.0019	1	8/ 5/04	18:09	J. Yun	8260B	5561

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A118218
Sample ID: GP-1
Project: 3661-01

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Xylenes (Total)	0.0307	mg/kg	0.0019	1	8/ 5/04	18:09	J. Yun	8260B	5561

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	29.8 gm	1.0 ml	8/ 4/04		K. Turner	3550
Volatile Organics	5.29 g	5.0 ml	7/30/04	14:30	Fitzwater	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	104.	59. - 134.
VOA Surr Toluene-d8	91.	67. - 129.
VOA Surr, 4-BFB	99.	60. - 134.
VOA Surr, DBFM	102.	67. - 126.
BNA Surr-Nitrobenzene-d5	52.	10. - 164.
BNA Surr-2-Fluorobiphenyl	58.	51. - 96.
BNA Surr-Terphenyl-d14	61.	52. - 106.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.
Sample was received at 7.2 degrees Celsius.

End of Sample Report.

TestAmerica
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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: KEVIN THOMAS

Lab Number: 04-A118219
Sample ID: GP-2
Sample Type: Soil
Site ID:

Date Collected: 7/30/04
Time Collected: 14:15
Date Received: 7/31/04
Time Received: 8:10

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	85.3	%		1	7/31/04	12:42	B.Plett	CLP	308
ORGANIC PARAMETERS									
Naphthalene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Acenaphthene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Anthracene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Fluoranthene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Fluorene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Pyrene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Benzo(a)anthracene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Benzo(a)pyrene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Benzo(b)fluoranthene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Benzo(k)fluoranthene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Chrysene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Acenaphthylene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Benzo(g,h,i)perylene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
Phenanthrene	ND	mg/kg	0.066	1	8/ 6/04	1:34	M.Schott	8270C	5501
VOLATILE ORGANICS									
Benzene	0.0076	mg/kg	0.0021	1	8/ 5/04	18:40	J. Yun	8260B	5561
Ethylbenzene	0.0022	mg/kg	0.0021	1	8/ 5/04	18:40	J. Yun	8260B	5561
Naphthalene	0.00825B	mg/kg	0.00522	1	8/ 5/04	18:40	J. Yun	8260B	5561
Toluene	0.0116	mg/kg	0.0021	1	8/ 5/04	18:40	J. Yun	8260B	5561

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

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ANALYTICAL REPORT

Laboratory Number: 04-A118219
Sample ID: GP-2
Project: 3661-01

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Xylenes (Total)	0.0142	mg/kg	0.0021	1	8/ 5/04	18:40	J. Yun	8260B	5561

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	29.6 gm	1.0 ml	8/ 4/04		K. Turner	3550
Volatile Organics	4.79 g	5.0 ml	7/30/04	14:15	Fitzwater	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	102.	59. - 134.
VOA Surr Toluene-d8	91.	67. - 129.
VOA Surr, 4-BFB	101.	60. - 134.
VOA Surr, DBFM	101.	67. - 126.
BNA Surr-Nitrobenzene-d5	49.	10. - 164.
BNA Surr-2-Fluorobiphenyl	54.	51. - 96.
BNA Surr-Terphenyl-d14	52.	52. - 106.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.
Sample was received at 7.2 degrees Celsius.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: KEVIN THOMAS

Lab Number: 04-A118220
Sample ID: GP-3
Sample Type: Soil
Site ID:

Date Collected: 7/30/04
Time Collected: 13:45
Date Received: 7/31/04
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	87.1	%		1	7/31/04	12:42	B.Plett	CLP	308
ORGANIC PARAMETERS									
TPH (Diesel Range)	72.7	mg/kg	5	1	8/ 4/04	18:42	Weatherly	8015B	3724
Naphthalene	0.891	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Acenaphthene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Anthracene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Fluoranthene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Fluorene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Pyrene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Benzo(a)anthracene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Benzo(a)pyrene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Benzo(b)fluoranthene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Benzo(k)fluoranthene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Chrysene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Acenaphthylene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Benzo(g,h,i)perylene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
Phenanthrene	ND	mg/kg	0.066	1	8/ 6/04	1:58	M.Schott	8270C	5501
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.12	50	8/ 5/04	19:11	J. Yun	8260B	5561
Ethylbenzene	4.25	mg/kg	0.12	50	8/ 5/04	19:11	J. Yun	8260B	5561
Naphthalene	5.14	mg/kg	0.301	50	8/ 5/04	19:11	J. Yun	8260B	5561

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A118220
Sample ID: GP-3
Project: 3661-01

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Toluene	1.73	mg/kg	0.12	50	8/ 5/04	19:11	J. Yun	8260B	5561
Xylenes (Total)	29.9	mg/kg	0.12	50	8/ 5/04	19:11	J. Yun	8260B	5561

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	30.1 gm	1.0 ml	8/ 4/04		K. Turner	3550
EPH/DRO	25.3 gm	1.0 ml	8/ 4/04		K. Turner	3550
Volatile Organics	4.15 g	5.0 ml	7/30/04	13:45	Fitzwater	5035

Surrogate	% Recovery	Target Range
EPH surr-o-Terphenyl	84.	49. - 145.
VOA Surr 1,2-DCA-d4	81.	59. - 134.
VOA Surr Toluene-d8	95.	67. - 129.
VOA Surr, 4-BFB	97.	60. - 134.
VOA Surr, DBFM	94.	67. - 126.
BNA Surr-Nitrobenzene-d5	56.	10. - 164.
BNA Surr-2-Fluorobiphenyl	64.	51. - 96.
BNA Surr-Terphenyl-d14	74.	52. - 106.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A118220
Sample ID: GP-3
Project: 3661-01

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.
Sample was received at 7.2 degrees Celsius.

End of Sample Report.

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ANALYTICAL REPORT

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

Project: 3661-01
Project Name: MOORHEAD OIL
Sampler: KEVIN THOMAS

Lab Number: 04-A118221
Sample ID: GP-4
Sample Type: Soil
Site ID:

Date Collected: 7/30/04
Time Collected: 13:30
Date Received: 7/31/04
Time Received: 8:10

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	86.6	%		1	7/31/04	12:42	B.Plett	CLP	308
ORGANIC PARAMETERS									
Naphthalene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Acenaphthene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Anthracene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Fluoranthene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Fluorene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Pyrene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Benzo(a)anthracene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Benzo(a)pyrene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Benzo(b)fluoranthene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Benzo(k)fluoranthene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Chrysene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Acenaphthylene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Benzo(g,h,i)perylene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
Phenanthrene	ND	mg/kg	0.066	1	8/ 6/04	2:22	M.Schott	8270C	5501
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.0016	1	8/ 5/04	19:42	J. Yun	8260B	5561
Ethylbenzene	ND	mg/kg	0.0016	1	8/ 5/04	19:42	J. Yun	8260B	5561
Naphthalene	ND	mg/kg	0.00388	1	8/ 5/04	19:42	J. Yun	8260B	5561
Toluene	ND	mg/kg	0.0016	1	8/ 5/04	19:42	J. Yun	8260B	5561

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A118221
Sample ID: GP-4
Project: 3661-01

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Xylenes (Total)	ND	mg/kg	0.0016	1	8/ 5/04	19:42	J. Yun	8260B	5561
GENERAL CHEMISTRY PARAMETERS									
TOC	5540	mg/kg	1000	1	8/ 3/04	10:55	S. Prayter	9060M	640

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	29.7 gm	1.0 ml	8/ 4/04		K. Turner	3550
Volatile Organics	6.45 g	5.0 ml	7/30/04	13:30	Fitzwater	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	102.	59. - 134.
VOA Surr Toluene-d8	90.	67. - 129.
VOA Surr, 4-BFB	101.	60. - 134.
VOA Surr, DBFM	103.	67. - 126.
BNA Surr-Nitrobenzene-d5	51.	10. - 164.
BNA Surr-2-Fluorobiphenyl	59.	51. - 96.
BNA Surr-Terphenyl-d14	62.	52. - 106.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A118221
Sample ID: GP-4
Project: 3661-01

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis except as described below.
Extracted TOC result corrected for dry weight.
Sample was received at 7.2 degrees Celsius.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL
Page: 1
Laboratory Receipt Date: 7/31/04

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
UST ANALYSIS								
TPH (Diesel Range)	mg/kg	72.7	111.	40.0	96	33. - 146.	3724	04-A118220
Naphthalene	mg/kg	< 0.066	1.06	1.67	63	34. - 111.	5501	04-A118218
Acenaphthene	mg/kg	< 0.066	1.12	1.67	67	39. - 116.	5501	04-A118218
Anthracene	mg/kg	< 0.066	1.22	1.67	73	41. - 118.	5501	04-A118218
Fluoranthene	mg/kg	< 0.066	1.12	1.67	67	42. - 123.	5501	04-A118218
Fluorene	mg/kg	< 0.066	1.16	1.67	69	40. - 120.	5501	04-A118218
Pyrene	mg/kg	< 0.066	1.09	1.67	65	40. - 125.	5501	04-A118218
Benzo(a)anthracene	mg/kg	< 0.066	1.12	1.67	67	42. - 123.	5501	04-A118218
Benzo(a)pyrene	mg/kg	< 0.066	1.16	1.67	69	41. - 123.	5501	04-A118218
Benzo(b)fluoranthene	mg/kg	< 0.066	1.16	1.67	69	40. - 123.	5501	04-A118218
Benzo(k)fluoranthene	mg/kg	< 0.066	1.12	1.67	67	42. - 130.	5501	04-A118218
Chrysene	mg/kg	< 0.066	1.09	1.67	65	40. - 123.	5501	04-A118218
Dibenzo(a,h)anthracene	mg/kg	< 0.066	1.09	1.67	65	16. - 139.	5501	04-A118218
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.066	1.12	1.67	67	12. - 138.	5501	04-A118218
Acenaphthylene	mg/kg	< 0.066	1.12	1.67	67	39. - 116.	5501	04-A118218
Benzo(g,h,i)perylene	mg/kg	< 0.066	1.12	1.67	67	9. - 144.	5501	04-A118218
Phenanthrene	mg/kg	< 0.066	1.12	1.67	67	39. - 119.	5501	04-A118218
VOA PARAMETERS								
Benzene	mg/kg	< 0.0003	0.0585	0.0500	117	33 - 139	5561	blank
Toluene	mg/kg	< 0.0008	0.0500	0.0500	100	18 - 150	5561	blank
VOA Surr 1,2-DCA-d4	% Rec				91	59 - 134	5561	
VOA Surr Toluene-d8	% Rec				92	67 - 129	5561	
VOA Surr, 4-BFB	% Rec				98	60 - 134	5561	
VOA Surr, DBFM	% Rec				102	67 - 126	5561	

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL
Page: 2
Laboratory Receipt Date: 7/31/04

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
UST PARAMETERS						
TPH (Diesel Range)	mg/kg	111.	103.	7.48	50.	3724
Naphthalene	mg/kg	1.06	1.06	0.00	38.	5501
Acenaphthene	mg/kg	1.12	1.12	0.00	40.	5501
Anthracene	mg/kg	1.22	1.25	2.43	34.	5501
Fluoranthene	mg/kg	1.12	1.16	3.51	42.	5501
Fluorene	mg/kg	1.16	1.16	0.00	40.	5501
Pyrene	mg/kg	1.09	1.12	2.71	37.	5501
Benzo(a)anthracene	mg/kg	1.12	1.19	6.06	35.	5501
Benzo(a)pyrene	mg/kg	1.16	1.19	2.55	36.	5501
Benzo(b)fluoranthene	mg/kg	1.16	1.19	2.55	40.	5501
Benzo(k)fluoranthene	mg/kg	1.12	1.19	6.06	36.	5501
Chrysene	mg/kg	1.09	1.12	2.71	34.	5501
Dibenzo(a,h)anthracene	mg/kg	1.09	1.16	6.22	37.	5501
Indeno(1,2,3-cd)pyrene	mg/kg	1.12	1.16	3.51	40.	5501
Acenaphthylene	mg/kg	1.12	1.12	0.00	42.	5501
Benzo(g,h,i)perylene	mg/kg	1.12	1.16	3.51	37.	5501
Phenanthrene	mg/kg	1.12	1.16	3.51	34.	5501
VOA PARAMETERS						
Benzene	mg/kg	0.0585	0.0579	1.03	43.	5561
Toluene	mg/kg	0.0500	0.0500	0.00	48.	5561
VOA Surr 1,2-DCA-d4	% Rec		89.			5561
VOA Surr Toluene-d8	% Rec		92.			5561
VOA Surr, 4-BFB	% Rec		97.			5561
VOA Surr, DBFM	% Rec		100.			5561

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL
Page: 3
Laboratory Receipt Date: 7/31/04

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
UST PARAMETERS						
TPH (Diesel Range)	mg/kg	40.0	38.6	96	48 - 135	3724
UST PARAMETERS						
Naphthalene	mg/kg	1.67	0.891	53	34 - 111	5501
Acenaphthene	mg/kg	1.67	1.02	61	39 - 116	5501
Anthracene	mg/kg	1.67	1.12	67	41 - 118	5501
Fluoranthene	mg/kg	1.67	1.02	61	42 - 123	5501
Fluorene	mg/kg	1.67	1.02	61	40 - 120	5501
Pyrene	mg/kg	1.67	1.02	61	40 - 125	5501
Benzo(a)anthracene	mg/kg	1.67	1.06	63	42 - 123	5501
Benzo(a)pyrene	mg/kg	1.67	1.09	65	41 - 123	5501
Benzo(b)fluoranthene	mg/kg	1.67	1.02	61	40 - 123	5501
Benzo(k)fluoranthene	mg/kg	1.67	1.09	65	42 - 130	5501
Chrysene	mg/kg	1.67	1.02	61	40 - 123	5501
Dibenzo(a,h)anthracene	mg/kg	1.67	0.990	59	16 - 139	5501
Indeno(1,2,3-cd)pyrene	mg/kg	1.67	1.02	61	12 - 138	5501
Acenaphthylene	mg/kg	1.67	1.02	61	39 - 116	5501
Benzo(g,h,i)perylene	mg/kg	1.67	1.02	61	9 - 144	5501
Phenanthrene	mg/kg	1.67	1.02	61	39 - 119	5501
VOA PARAMETERS						
Benzene	mg/kg	0.0500	0.0535	107	69 - 128	5561
Ethylbenzene	mg/kg	0.0500	0.0480	96	72 - 125	5561
Naphthalene	mg/kg	0.0500	0.0479	96	58 - 143	5561
Toluene	mg/kg	0.0500	0.0472	94	74 - 123	5561
Xylenes (Total)	mg/kg	0.150	0.145	97	70 - 128	5561

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL
Page: 4
Laboratory Receipt Date: 7/31/04

VOA Surr 1,2-DCA-d4	% Rec			89	59 - 134	5561
VOA Surr Toluene-d8	% Rec			93	67 - 129	5561
VOA Surr, 4-BFB	% Rec			99	60 - 134	5561
VOA Surr, DBFM	% Rec			98	67 - 126	5561
MISC PARAMETERS						
TOC	mg/kg	29900	29900	100	65 - 135	640

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
TOC	mg/kg	5540	5790	4.41	25.	640	04-A118221

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
TPH (Diesel Range)	< 10.0	mg/kg	3724	8/ 4/04	18:25
Naphthalene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Acenaphthene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Anthracene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Fluoranthene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Fluorene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Pyrene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Benzo(a)anthracene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Benzo(a)pyrene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Benzo(b)fluoranthene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Benzo(k)fluoranthene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Chrysene	< 0.066	mg/kg	5501	8/ 5/04	23:36

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 3661-01
Project Name: MOORHEAD OIL
Page: 5
Laboratory Receipt Date: 7/31/04

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Dibenzo(a,h)anthracene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Indeno(1,2,3-cd)pyrene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Acenaphthylene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Benzo(g,h,i)perylene	< 0.066	mg/kg	5501	8/ 5/04	23:36
Phenanthrene	< 0.066	mg/kg	5501	8/ 5/04	23:36
EPH surr-o-Terphenyl	86.	% Recovery	3724	8/ 4/04	18:25
VOA PARAMETERS					
Benzene	< 0.0003	mg/kg	5561	8/ 5/04	16:05
Ethylbenzene	< 0.0005	mg/kg	5561	8/ 5/04	16:05
Naphthalene	0.00360	mg/kg	5561	8/ 5/04	16:05
Toluene	< 0.0008	mg/kg	5561	8/ 5/04	16:05
Xylenes (Total)	< 0.0013	mg/kg	5561	8/ 5/04	16:05
VOA Surr 1,2-DCA-d4	99.	% Rec	5561	8/ 5/04	16:05
VOA Surr Toluene-d8	92.	% Rec	5561	8/ 5/04	16:05
VOA Surr, 4-BFB	102.	% Rec	5561	8/ 5/04	16:05
VOA Surr, DBFM	100.	% Rec	5561	8/ 5/04	16:05
MISC PARAMETERS					
TOC	< 1000	mg/kg	640	8/ 3/04	10:55

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 384440

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Nashville Division

COOLER RECEIPT FORM **BC#** 384440

Client Name : BLE

Cooler Received/Opened On: 7/31/04 **Accessioned By:** Paul R. Buckingham II

MY
Log-in Personnel Signature

1. Temperature of Cooler when triaged: 2.2 **Degrees Celsius**
2. Were custody seals on outside of cooler?..... YES...NO...NA
   a. If yes, how many, what kind and where: 2 front
3. Were custody seals on containers and intact?..... NO...YES...NA
4. Were the seals intact, signed, and dated correctly?..... YES...NO...NA
5. Were custody papers inside cooler?..... YES...NO...NA
6. Were custody papers properly filled out (ink, signed, etc)?..... YES...NO...NA
7. Did you sign the custody papers in the appropriate place?..... YES...NO...NA
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None
10. Did all containers arrive in good condition (unbroken)?..... YES...NO...NA
11. Were all container labels complete (#, date, signed, pres., etc)?..... YES...NO...NA
12. Did all container labels and tags agree with custody papers?..... YES...NO...NA
13. Were correct containers used for the analysis requested?..... YES...NO...NA
14. a. Were VOA vials received?..... YES...NO...NA
    b. Was there any observable head space present in any VOA vial?..... NO...YES...NA
15. Was sufficient amount of sample sent in each container?..... YES...NO...NA
16. Were correct preservatives used?..... YES...NO...NA

    If not, record standard ID of preservative used here_____
17. Was residual chlorine present?..... NO...YES...NA
18. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below:

3296 _____ _____ _____ _____

Fed-Ex UPS Velocity Airborne Route Off-street Misc.

19. If a Non-Conformance exists, see attached or comments below:

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8/ 6/04

CASE NARRATIVE

BUNNELL-LAMMONS ENGINEERING 2123
TOM LAMMONS
1200 WOODRUFF RD. STE B-7
GREENVILLE, SC 29607

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: MOORHEAD OIL
Project Number: 3661-01.
Laboratory Project Number: 384440.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Sample Identification	Lab Number	Collection Date
GP-1	04-A118218	7/30/04
GP-2	04-A118219	7/30/04
GP-3	04-A118220	7/30/04
GP-4	04-A118221	7/30/04

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: Roxanne L Connor Report Date: 8/ 6/04

Johnny A. Mitchell, Operations Manager
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Technical Services
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Technical Services
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Technical Services

Laboratory Certification Number: 84009

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D H E C

PROMOTE PROTECT PROSPER

Summary Of Slug Test
Division Of Underground Storage Tank Management

Site Data

UST Permit #: #00505 County: Anderson

Facility Name: Ken Moorehead Oil Co., KMO-119

Slug Data

See Appendix C Table 1 Figure _____ for a list of all data measurements. [water level logs, etc. (complete as appropriate)].

Water Level Recovery Data was measured by In-Situ Hermit Data Logger
[Hermit Data Logger, Manually with Water Level Indicator, etc. (list method)].

Complete the following table for each well tested.

COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in Well(s) Number	MW-2	MW-3		
Initial Rise/Drawdown in Well (feet)	2.382	1.896		
Radius of Well Casing (feet)	0.0833	0.0833		
Effective Radius of Well (feet)	0.3542	0.3542		
Static Saturated Aquifer Thickness (feet)	50	50		
Length of Well Screen (feet)	10	10		
Static Height of Water Column in Well (ft)	6.53	6.24		

Calculations

See Appendix C and Table 2 Figure _____ for calculations (complete as appropriate).

The method for aquifer calculations was Bouwer-Rice (i.e. Bouwer-Rice, Cooper, etc.).

Calculated values by well were as follows:

Slug Test Conducted in Well(s) Number	MW-2	MW-3	
Hydraulic Conductivity	3.383E-05 cm/sec	6.56E-05 cm/sec	

Thickness of the aquifer used to calculate hydraulic conductivity was 50 Feet.

The aquifer is _____ confined _____ semi-confined X water table (check as appropriate).

The estimated seepage velocity is 1.76 feet per year based on a hydraulic conductivity of 4.97 E-05 cm/sec, a hydraulic gradient of 0.00513, and a porosity of 15 percent for clayey, silty, SAND soil (list type i.e., silty sand, clay, etc).

SOIL LABORATORY TEST ASSIGNMENT

BUNNELL-LAMMONS ENGINEERING, INC.
1200 WOODRUFF ROAD, SUITE B-7
GREENVILLE, SOUTH CAROLINA 29607
PHONE: (864) 288 - 1265 FAX: (864) 288 - 4430

ASSIGNMENT NUMBER
1721

PROJECT NAME : **MOORHEAD OIL**

BLE PROJECT NO.: **J04-3661-04**

BLE PROJECT MANAGER: **TREVOR BENTON**

SAMPLES RECEIVED BY: JM (INITIALS) DATE: 8/11/2004

TESTING ASSIGNED BY: TB (INITIALS) DATE: 8/11/2004

REQUESTED COMPLETION DATE: ASAP

ASSIGNMENT COMPLETE PY (INITIALS) DATE: 8/27/2004

OTHER LABORATORY: _____ (COMPANY) _____ (LOCATION)

SHIPPED BY: _____ (SHIPPING AGENCY) _____ (DATE)

COMPLETED

SAMPLE DESIGNATION				MOISTURE CONTENT	PI	PARTICLE SIZE ANALYSIS		% FINER NO. 200	PROCTOR		PERMEABILITY		CONST. HEAD PERM	ADDITIONAL TESTING
SAMPLE ID.	DEPTH IN FEET FROM	DEPTH IN FEET TO	TYPE			SIEVES ONLY	**WITH HYDROMETER**		STD.	MOD.	UD.	RMLD.		
				D-2216	D-4318	D-422		D-1140	D-698	D-1557	D-5084		D-2434	***
GP-3	6.0	7.0	BG				X							

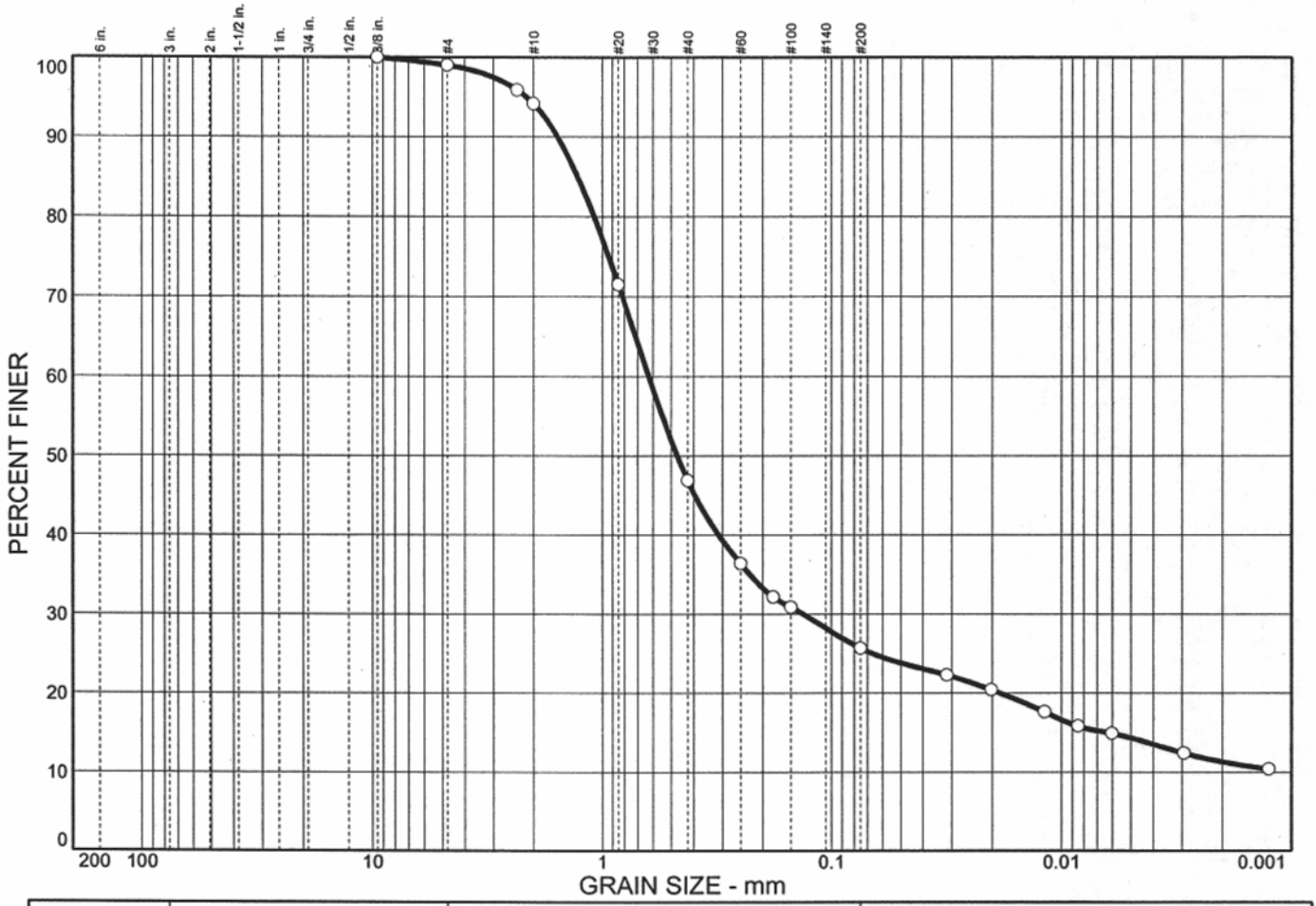
Comments: _____

ASSIGN TESTING WITH AN _X_.
X INDICATES BILLING INCLUDED WITH OTHER TEST
SAMPLE TYPE: JAR=J, BAGGIE=BG, UD. TUBE=UD, BULK=BK

***ADDITIONAL TESTING:** ENTER APPROPRIATE LETTER IN ADDITIONAL TESTING COLUMN. FML DESTRUCT=D
SPECIFIC GRAVITY=SG, CBR=CBR, UNIT WEIGHT=UW, pH=PH, CATION EXCHANGE=CEC, ORG. CARB. CON.=OCC
NOTE: ALL TEST PROCEDURES ARE ASTM UNLESS OTHERWISE SPECIFIED ----- AASHTO _____

'01 BILLING PERIOD 7-31-04 TO 8-27-04

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	1.0	4.8	47.3	21.2	11.4	14.3

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	DESCRIPTION	USCS
○	Boring	GP-3		Reddish brown silty fi.-med. SAND	

Particle Size Distribution Report

BUNNELL-LAMMONS ENGINEERING, INC.

Client: Ken Moorhead Oil

Project: Moorhead Oil

Project No.: J04-3661-04

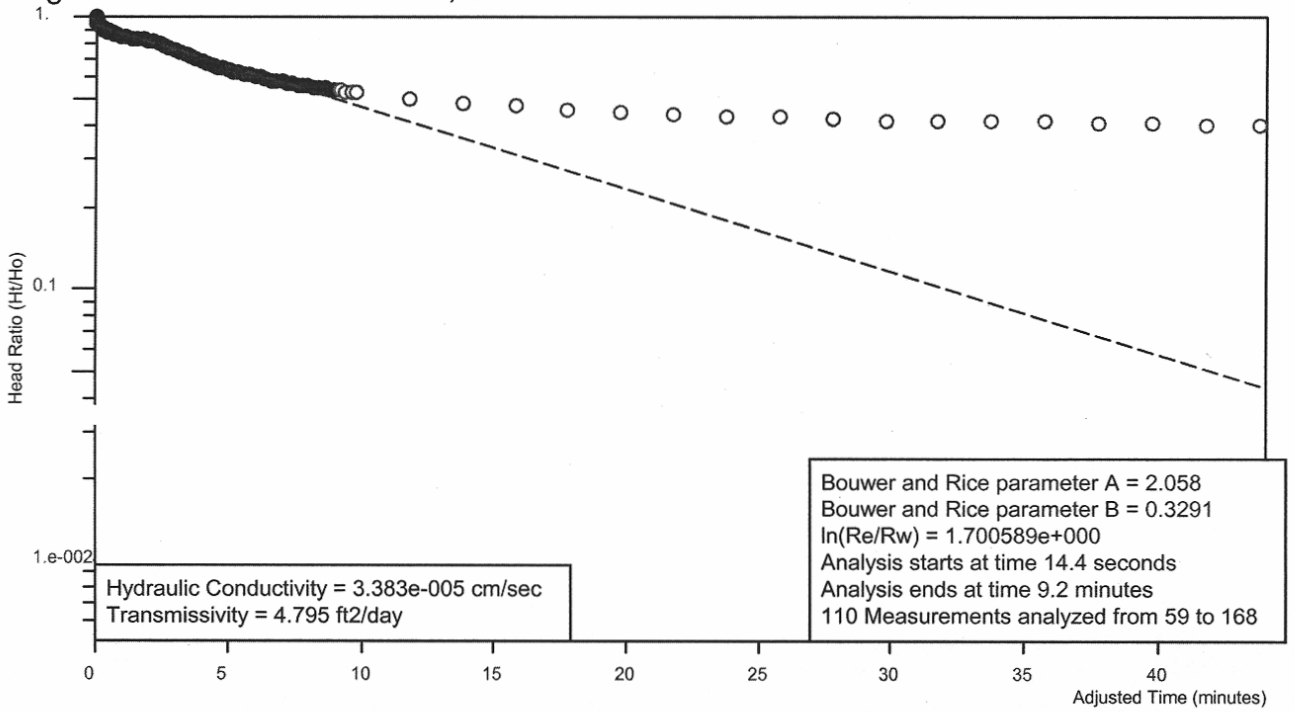
Plate

Rising Head Slug Test July 28, 2004

Bouwer and Rice Graph

Citgo Store KMO 119 Anderson, South Carolina

MW-2



Project Number J04-3661-01 for Ken Moorhead Oil Company

Analysis by Bunnell-Lammons Engineering, Inc.

Ho is 1.449 feet at 14.4 seconds

Rising Head Slug Test

Site Name:	Citgo Store KMO 119
Location:	Anderson, South Carolina
Test Date:	July 28, 2004
Client:	Ken Moorhead Oil Company
Project Number:	J04-3661-01
Import File:	\\PC020\Public PC020\Projects\IGWA, Tier I, Tier II\Moorehead Oil Co\KMO 11

Well Label:	MW-2
Aquifer Thickness:	50. feet
Screen Length:	6.28 feet
Casing Radius:	8.33e-002 feet
Effective Radius:	0.3542 feet
Static Water Level:	0. feet
Water Table to Screen Bottom:	6.28 feet
Anisotropy Ratio:	1.
Time Adjustment:	14.4 Seconds

Test starts with trial 0
There are 189 time and drawdown measurements
Maximum head is 2.382 feet
Minimum head is 0. feet

Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	4.66e-002	-0.1934	2.382	2.382	1.
2	5.e-002	-0.19	2.277	2.277	0.9559
3	5.33e-002	-0.1867	2.175	2.175	0.9131
4	5.66e-002	-0.1834	2.156	2.156	0.9051
5	6.e-002	-0.18	2.128	2.128	0.8934
6	6.33e-002	-0.1767	2.093	2.093	0.8787
7	6.66e-002	-0.1734	2.064	2.064	0.8665
8	7.e-002	-0.17	2.033	2.033	0.8535
9	7.33e-002	-0.1667	2.007	2.007	0.8426
10	7.66e-002	-0.1634	1.988	1.988	0.8346
11	8.e-002	-0.16	1.963	1.963	0.8241
12	8.33e-002	-0.1567	1.941	1.941	0.8149
13	8.66e-002	-0.1534	1.922	1.922	0.8069
14	9.e-002	-0.15	1.899	1.899	0.7972
15	9.33e-002	-0.1467	1.88	1.88	0.7893
16	9.66e-002	-0.1434	1.861	1.861	0.7813
17	0.1	-0.14	1.842	1.842	0.7733
18	0.1033	-0.1367	1.823	1.823	0.7653
19	0.1066	-0.1334	1.814	1.814	0.7615
20	0.11	-0.13	1.801	1.801	0.7561
21	0.1133	-0.1267	1.785	1.785	0.7494
22	0.1166	-0.1234	1.76	1.76	0.7389
23	0.12	-0.12	1.734	1.734	0.728
24	0.1233	-0.1167	1.715	1.715	0.72
25	0.1266	-0.1134	1.696	1.696	0.712
26	0.13	-0.11	1.681	1.681	0.7057
27	0.1333	-0.1067	1.668	1.668	0.7003
28	0.1366	-0.1034	1.655	1.655	0.6948
29	0.14	-1.e-001	1.642	1.642	0.6893
30	0.1433	-9.67e-002	1.63	1.63	0.6843
31	0.1466	-9.34e-002	1.614	1.614	0.6776
32	0.15	-9.e-002	1.604	1.604	0.6734
33	0.1533	-8.67e-002	1.598	1.598	0.6709

34	0.1566	-8.34e-002	1.592	1.592	0.6683
35	0.16	-8.e-002	1.576	1.576	0.6616
36	0.1633	-7.67e-002	1.57	1.57	0.6591
37	0.1666	-7.34e-002	1.563	1.563	0.6562
38	0.17	-7.e-002	1.557	1.557	0.6537
39	0.1733	-6.67e-002	1.547	1.547	0.6495
40	0.1766	-6.34e-002	1.541	1.541	0.6469
41	0.18	-6.e-002	1.535	1.535	0.6444
42	0.1833	-5.67e-002	1.525	1.525	0.6402
43	0.1866	-5.34e-002	1.522	1.522	0.639
44	0.19	-5.e-002	1.516	1.516	0.6364
45	0.1933	-4.67e-002	1.516	1.516	0.6364
46	0.1966	-4.34e-002	1.5	1.5	0.6297
47	0.2	-4.e-002	1.497	1.497	0.6285
48	0.2033	-3.67e-002	1.493	1.493	0.6268
49	0.2066	-3.34e-002	1.487	1.487	0.6243
50	0.21	-3.e-002	1.484	1.484	0.623
51	0.2133	-2.67e-002	1.481	1.481	0.6217
52	0.2166	-2.34e-002	1.478	1.478	0.6205
53	0.22	-2.e-002	1.471	1.471	0.6175
54	0.2233	-1.67e-002	1.465	1.465	0.615
55	0.2266	-1.34e-002	1.462	1.462	0.6138
56	0.23	-1.e-002	1.458	1.458	0.6121
57	0.2333	-6.7e-003	1.455	1.455	0.6108
58	0.2366	-3.4e-003	1.452	1.452	0.6096
59	0.24	0.	1.449	1.449	0.6083
60	0.2433	3.3e-003	1.446	1.446	0.6071
61	0.2466	6.6e-003	1.443	1.443	0.6058
62	0.25	1.e-002	1.439	1.439	0.6041
63	0.2533	1.33e-002	1.436	1.436	0.6029
64	0.2566	1.66e-002	1.433	1.433	0.6016
65	0.26	2.e-002	1.43	1.43	0.6003
66	0.2633	2.33e-002	1.43	1.43	0.6003
67	0.2666	2.66e-002	1.427	1.427	0.5991
68	0.27	3.e-002	1.424	1.424	0.5978
69	0.2733	3.33e-002	1.42	1.42	0.5961
70	0.2766	3.66e-002	1.42	1.42	0.5961
71	0.28	4.e-002	1.42	1.42	0.5961
72	0.2833	4.33e-002	1.408	1.408	0.5911
73	0.2866	4.66e-002	1.408	1.408	0.5911
74	0.29	5.e-002	1.411	1.411	0.5924
75	0.2933	5.33e-002	1.405	1.405	0.5898
76	0.2966	5.66e-002	1.401	1.401	0.5882
77	0.3	6.e-002	1.401	1.401	0.5882
78	0.3033	6.33e-002	1.401	1.401	0.5882
79	0.3066	6.66e-002	1.395	1.395	0.5856
80	0.31	7.e-002	1.395	1.395	0.5856
81	0.3133	7.33e-002	1.395	1.395	0.5856
82	0.3166	7.66e-002	1.389	1.389	0.5831
83	0.32	8.e-002	1.389	1.389	0.5831
84	0.3233	8.33e-002	1.386	1.386	0.5819
85	0.3266	8.66e-002	1.386	1.386	0.5819
86	0.33	9.e-002	1.382	1.382	0.5802
87	0.3333	9.33e-002	1.379	1.379	0.5789
88	0.35	0.11	1.373	1.373	0.5764
89	0.3666	0.1266	1.363	1.363	0.5722
90	0.3833	0.1433	1.354	1.354	0.5684

91	0.4	0.16	1.347	1.347	0.5655
92	0.4166	0.1766	1.341	1.341	0.563
93	0.4333	0.1933	1.332	1.332	0.5592
94	0.45	0.21	1.328	1.328	0.5575
95	0.4666	0.2266	1.325	1.325	0.5563
96	0.4833	0.2433	1.322	1.322	0.555
97	0.5	0.26	1.319	1.319	0.5537
98	0.5166	0.2766	1.316	1.316	0.5525
99	0.5333	0.2933	1.316	1.316	0.5525
100	0.55	0.31	1.309	1.309	0.5495
101	0.5666	0.3266	1.309	1.309	0.5495
102	0.5833	0.3433	1.306	1.306	0.5483
103	0.6	0.36	1.306	1.306	0.5483
104	0.6166	0.3766	1.303	1.303	0.547
105	0.6333	0.3933	1.3	1.3	0.5458
106	0.65	0.41	1.3	1.3	0.5458
107	0.6666	0.4266	1.297	1.297	0.5445
108	0.6833	0.4433	1.294	1.294	0.5432
109	0.7	0.46	1.29	1.29	0.5416
110	0.7166	0.4766	1.287	1.287	0.5403
111	0.7333	0.4933	1.287	1.287	0.5403
112	0.75	0.51	1.284	1.284	0.539
113	0.7666	0.5266	1.284	1.284	0.539
114	0.7833	0.5433	1.284	1.284	0.539
115	0.8	0.56	1.281	1.281	0.5378
116	0.8166	0.5766	1.278	1.278	0.5365
117	0.8333	0.5933	1.278	1.278	0.5365
118	0.85	0.61	1.275	1.275	0.5353
119	0.8666	0.6266	1.275	1.275	0.5353
120	0.8833	0.6433	1.271	1.271	0.5336
121	0.9	0.66	1.271	1.271	0.5336
122	0.9166	0.6766	1.268	1.268	0.5323
123	0.9333	0.6933	1.265	1.265	0.5311
124	0.95	0.71	1.265	1.265	0.5311
125	0.9666	0.7266	1.262	1.262	0.5298
126	0.9833	0.7433	1.262	1.262	0.5298
127	1.	0.76	1.259	1.259	0.5285
128	1.2	0.96	1.24	1.24	0.5206
129	1.4	1.16	1.227	1.227	0.5151
130	1.6	1.36	1.217	1.217	0.5109
131	1.8	1.56	1.211	1.211	0.5084
132	2.	1.76	1.202	1.202	0.5046
133	2.2	1.96	1.195	1.195	0.5017
134	2.4	2.16	1.183	1.183	0.4966
135	2.6	2.36	1.167	1.167	0.4899
136	2.8	2.56	1.141	1.141	0.479
137	3.	2.76	1.122	1.122	0.471
138	3.2	2.96	1.097	1.097	0.4605
139	3.4	3.16	1.075	1.075	0.4513
140	3.6	3.36	1.056	1.056	0.4433
141	3.8	3.56	1.033	1.033	0.4337
142	4.	3.76	1.018	1.018	0.4274
143	4.2	3.96	0.999	0.999	0.4194
144	4.4	4.16	0.98	0.98	0.4114
145	4.6	4.36	0.964	0.964	0.4047
146	4.8	4.56	0.948	0.948	0.398
147	5.	4.76	0.938	0.938	0.3938

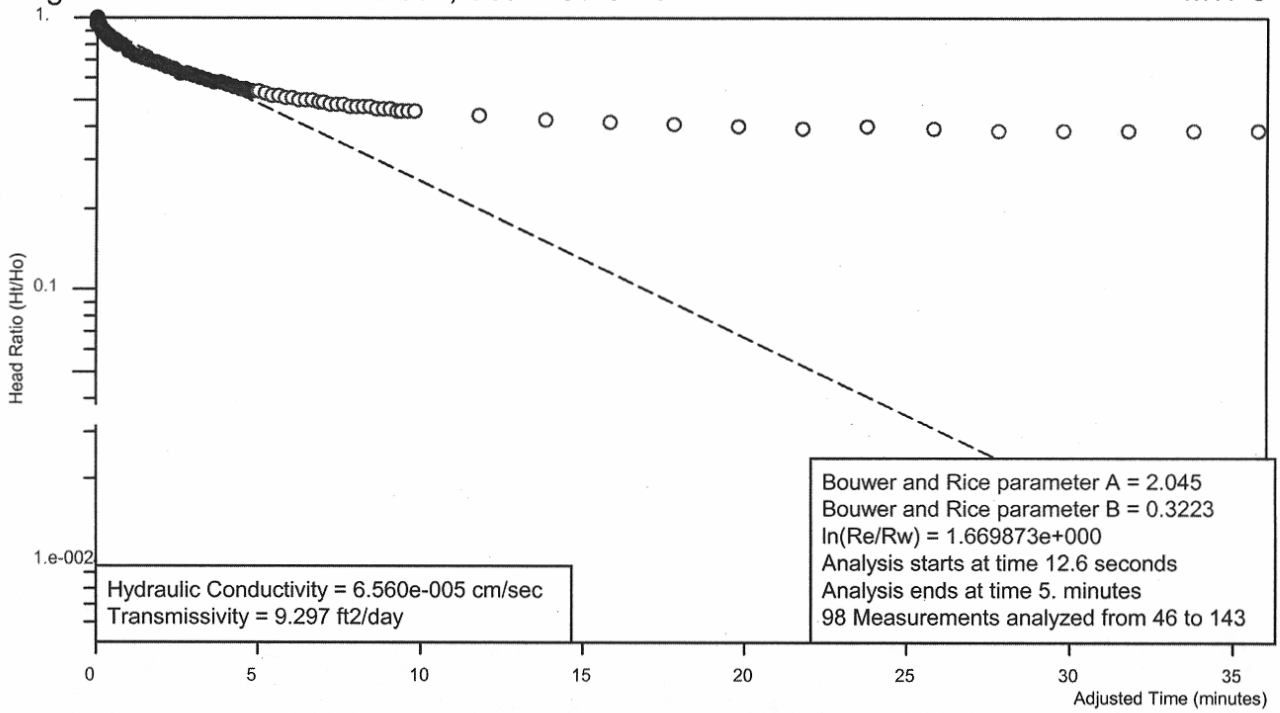
148	5.2	4.96	0.929	0.929	0.39
149	5.4	5.16	0.919	0.919	0.3858
150	5.6	5.36	0.907	0.907	0.3808
151	5.8	5.56	0.897	0.897	0.3766
152	6.	5.76	0.888	0.888	0.3728
153	6.2	5.96	0.878	0.878	0.3686
154	6.4	6.16	0.872	0.872	0.3661
155	6.6	6.36	0.862	0.862	0.3619
156	6.8	6.56	0.853	0.853	0.3581
157	7.	6.76	0.846	0.846	0.3552
158	7.2	6.96	0.84	0.84	0.3526
159	7.4	7.16	0.834	0.834	0.3501
160	7.6	7.36	0.827	0.827	0.3472
161	7.8	7.56	0.821	0.821	0.3447
162	8.	7.76	0.815	0.815	0.3421
163	8.2	7.96	0.808	0.808	0.3392
164	8.4	8.16	0.802	0.802	0.3367
165	8.6	8.36	0.799	0.799	0.3354
166	8.8	8.56	0.792	0.792	0.3325
167	9.	8.76	0.786	0.786	0.33
168	9.2	8.96	0.783	0.783	0.3287
169	9.4	9.16	0.78	0.78	0.3275
170	9.6	9.36	0.773	0.773	0.3245
171	9.8	9.56	0.767	0.767	0.322
172	10.	9.76	0.764	0.764	0.3207
173	12.	11.76	0.729	0.729	0.306
174	14.	13.76	0.704	0.704	0.2955
175	16.	15.76	0.681	0.681	0.2859
176	18.	17.76	0.662	0.662	0.2779
177	20.	19.76	0.646	0.646	0.2712
178	22.	21.76	0.634	0.634	0.2662
179	24.	23.76	0.627	0.627	0.2632
180	26.	25.76	0.621	0.621	0.2607
181	28.	27.76	0.615	0.615	0.2582
182	30.	29.76	0.605	0.605	0.254
183	32.	31.76	0.602	0.602	0.2527
184	34.	33.76	0.596	0.596	0.2502
185	36.	35.76	0.596	0.596	0.2502
186	38.	37.76	0.589	0.589	0.2473
187	40.	39.76	0.586	0.586	0.246
188	42.	41.76	0.58	0.58	0.2435
189	44.	43.76	0.58	0.58	0.2435

Rising Head Slug Test July 28, 2004

Bouwer and Rice Graph

Citgo Store KMO 119 Anderson, South Carolina

MW-3



Project Number J04-3661-01 for Ken Moorhead Oil Company

Analysis by Bunnell-Lammons Engineering, Inc.

Ho is 0.91 feet at 12.6 seconds

Rising Head Slug Test

Site Name:	Citgo Store KMO 119
Location:	Anderson, South Carolina
Test Date:	July 28, 2004
Client:	Ken Moorhead Oil Company
Project Number:	J04-3661-01
Import File:	\\Pc020\public pc020\Projects\IGWA, Tier I, Tier II\Moorehead Oil Co\KMO 119

Well Label:	MW-3
Aquifer Thickness:	50. feet
Screen Length:	6.04 feet
Casing Radius:	8.33e-002 feet
Effective Radius:	0.3542 feet
Static Water Level:	0. feet
Water Table to Screen Bottom:	6.04 feet
Anisotropy Ratio:	1.
Time Adjustment:	12.6 Seconds

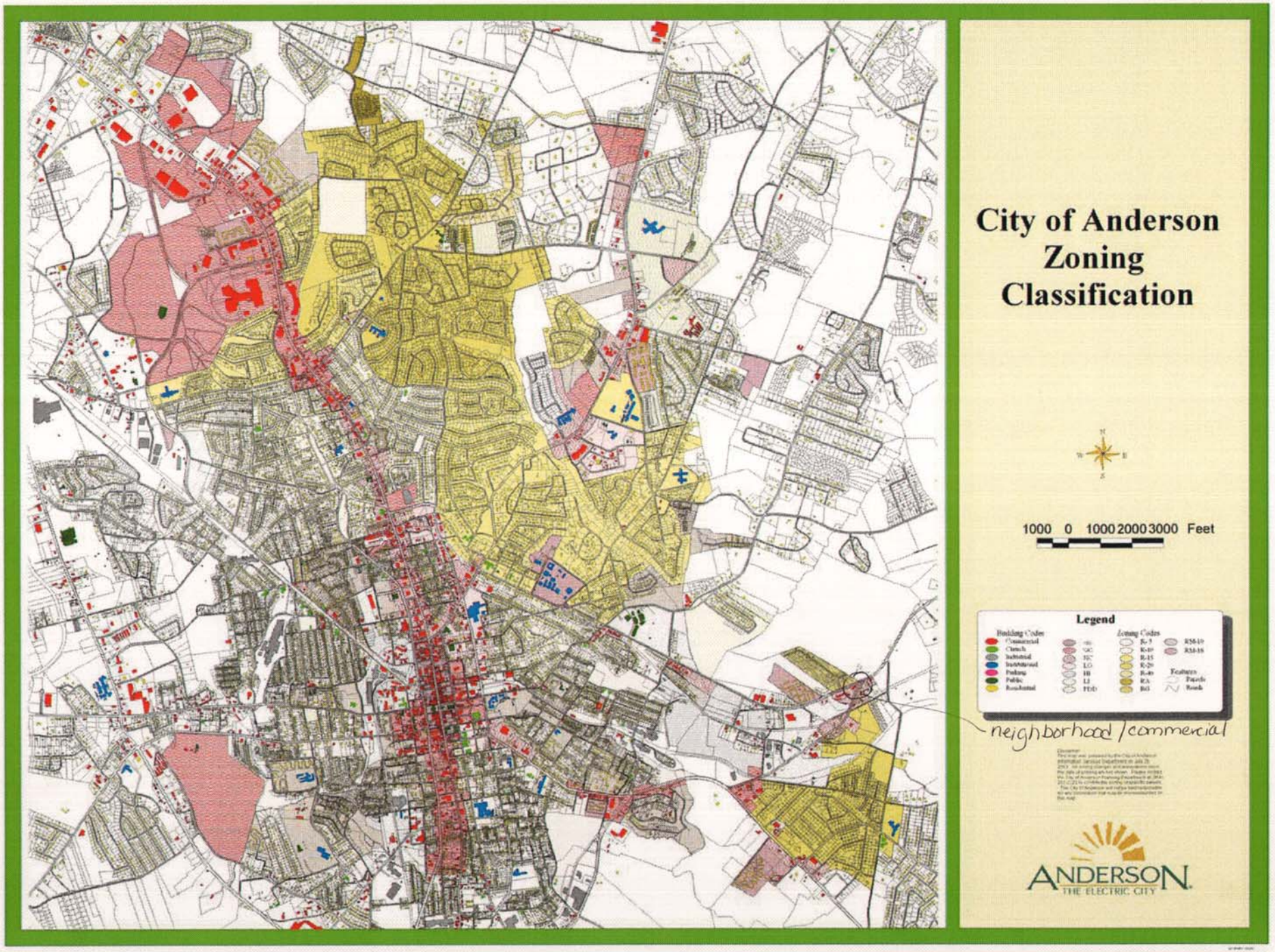
Test starts with trial 0
There are 181 time and drawdown measurements
Maximum head is 1.896 feet
Minimum head is 0. feet

Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	6.e-002	-0.15	1.896	1.896	1.
2	6.33e-002	-0.1467	1.766	1.766	0.9314
3	6.66e-002	-0.1434	1.649	1.649	0.8697
4	7.e-002	-0.14	1.627	1.627	0.8581
5	7.33e-002	-0.1367	1.614	1.614	0.8513
6	7.66e-002	-0.1334	1.604	1.604	0.846
7	8.e-002	-0.13	1.566	1.566	0.8259
8	8.33e-002	-0.1267	1.515	1.515	0.7991
9	8.66e-002	-0.1234	1.474	1.474	0.7774
10	9.e-002	-0.12	1.446	1.446	0.7627
11	9.33e-002	-0.1167	1.423	1.423	0.7505
12	9.66e-002	-0.1134	1.395	1.395	0.7358
13	0.1	-0.11	1.363	1.363	0.7189
14	0.1033	-0.1067	1.332	1.332	0.7025
15	0.1066	-0.1034	1.303	1.303	0.6872
16	0.11	-1.e-001	1.278	1.278	0.6741
17	0.1133	-9.67e-002	1.249	1.249	0.6588
18	0.1166	-9.34e-002	1.227	1.227	0.6472
19	0.12	-9.e-002	1.201	1.201	0.6334
20	0.1233	-8.67e-002	1.179	1.179	0.6218
21	0.1266	-8.34e-002	1.157	1.157	0.6102
22	0.13	-8.e-002	1.138	1.138	0.6002
23	0.1333	-7.67e-002	1.122	1.122	0.5918
24	0.1366	-7.34e-002	1.106	1.106	0.5833
25	0.14	-7.e-002	1.09	1.09	0.5749
26	0.1433	-6.67e-002	1.071	1.071	0.5649
27	0.1466	-6.34e-002	1.056	1.056	0.557
28	0.15	-6.e-002	1.046	1.046	0.5517
29	0.1533	-5.67e-002	1.03	1.03	0.5432
30	0.1566	-5.34e-002	1.017	1.017	0.5364
31	0.16	-5.e-002	1.005	1.005	0.5301
32	0.1633	-4.67e-002	0.995	0.995	0.5248
33	0.1666	-4.34e-002	0.986	0.986	0.52

34	0.17	-4.e-002	0.976	0.976	0.5148
35	0.1733	-3.67e-002	0.97	0.97	0.5116
36	0.1766	-3.34e-002	0.96	0.96	0.5063
37	0.18	-3.e-002	0.954	0.954	0.5032
38	0.1833	-2.67e-002	0.948	0.948	0.5
39	0.1866	-2.34e-002	0.941	0.941	0.4963
40	0.19	-2.e-002	0.935	0.935	0.4931
41	0.1933	-1.67e-002	0.932	0.932	0.4916
42	0.1966	-1.34e-002	0.929	0.929	0.49
43	0.2	-1.e-002	0.922	0.922	0.4863
44	0.2033	-6.7e-003	0.916	0.916	0.4831
45	0.2066	-3.4e-003	0.913	0.913	0.4815
46	0.21	0.	0.91	0.91	0.48
47	0.2133	3.3e-003	0.91	0.91	0.48
48	0.2166	6.6e-003	0.903	0.903	0.4763
49	0.22	1.e-002	0.9	0.9	0.4747
50	0.2233	1.33e-002	0.897	0.897	0.4731
51	0.2266	1.66e-002	0.894	0.894	0.4715
52	0.23	2.e-002	0.894	0.894	0.4715
53	0.2333	2.33e-002	0.891	0.891	0.4699
54	0.2366	2.66e-002	0.887	0.887	0.4678
55	0.24	3.e-002	0.887	0.887	0.4678
56	0.2433	3.33e-002	0.884	0.884	0.4662
57	0.2466	3.66e-002	0.884	0.884	0.4662
58	0.25	4.e-002	0.878	0.878	0.4631
59	0.2533	4.33e-002	0.878	0.878	0.4631
60	0.2566	4.66e-002	0.875	0.875	0.4615
61	0.26	5.e-002	0.872	0.872	0.4599
62	0.2633	5.33e-002	0.875	0.875	0.4615
63	0.2666	5.66e-002	0.868	0.868	0.4578
64	0.27	6.e-002	0.868	0.868	0.4578
65	0.2733	6.33e-002	0.868	0.868	0.4578
66	0.2766	6.66e-002	0.865	0.865	0.4562
67	0.28	7.e-002	0.862	0.862	0.4546
68	0.2833	7.33e-002	0.862	0.862	0.4546
69	0.2866	7.66e-002	0.859	0.859	0.4531
70	0.29	8.e-002	0.859	0.859	0.4531
71	0.2933	8.33e-002	0.859	0.859	0.4531
72	0.2966	8.66e-002	0.856	0.856	0.4515
73	0.3	9.e-002	0.856	0.856	0.4515
74	0.3033	9.33e-002	0.856	0.856	0.4515
75	0.3066	9.66e-002	0.853	0.853	0.4499
76	0.31	0.1	0.849	0.849	0.4478
77	0.3133	0.1033	0.849	0.849	0.4478
78	0.3166	0.1066	0.849	0.849	0.4478
79	0.32	0.11	0.846	0.846	0.4462
80	0.3233	0.1133	0.846	0.846	0.4462
81	0.3266	0.1166	0.846	0.846	0.4462
82	0.33	0.12	0.846	0.846	0.4462
83	0.3333	0.1233	0.846	0.846	0.4462
84	0.35	0.14	0.837	0.837	0.4415
85	0.3666	0.1566	0.834	0.834	0.4399
86	0.3833	0.1733	0.827	0.827	0.4362
87	0.4	0.19	0.821	0.821	0.433
88	0.4166	0.2066	0.818	0.818	0.4314
89	0.4333	0.2233	0.815	0.815	0.4299
90	0.45	0.24	0.811	0.811	0.4277

91	0.4666	0.2566	0.805	0.805	0.4246
92	0.4833	0.2733	0.802	0.802	0.423
93	0.5	0.29	0.799	0.799	0.4214
94	0.5166	0.3066	0.799	0.799	0.4214
95	0.5333	0.3233	0.795	0.795	0.4193
96	0.55	0.34	0.792	0.792	0.4177
97	0.5666	0.3566	0.789	0.789	0.4161
98	0.5833	0.3733	0.786	0.786	0.4146
99	0.6	0.39	0.783	0.783	0.413
100	0.6166	0.4066	0.78	0.78	0.4114
101	0.6333	0.4233	0.776	0.776	0.4093
102	0.65	0.44	0.773	0.773	0.4077
103	0.6666	0.4566	0.77	0.77	0.4061
104	0.6833	0.4733	0.767	0.767	0.4045
105	0.7	0.49	0.767	0.767	0.4045
106	0.7166	0.5066	0.764	0.764	0.403
107	0.7333	0.5233	0.761	0.761	0.4014
108	0.75	0.54	0.757	0.757	0.3993
109	0.7666	0.5566	0.754	0.754	0.3977
110	0.7833	0.5733	0.754	0.754	0.3977
111	0.8	0.59	0.748	0.748	0.3945
112	0.8166	0.6066	0.748	0.748	0.3945
113	0.8333	0.6233	0.745	0.745	0.3929
114	0.85	0.64	0.742	0.742	0.3914
115	0.8666	0.6566	0.742	0.742	0.3914
116	0.8833	0.6733	0.738	0.738	0.3892
117	0.9	0.69	0.735	0.735	0.3877
118	0.9166	0.7066	0.735	0.735	0.3877
119	0.9333	0.7233	0.732	0.732	0.3861
120	0.95	0.74	0.729	0.729	0.3845
121	0.9666	0.7566	0.729	0.729	0.3845
122	0.9833	0.7733	0.726	0.726	0.3829
123	1.	0.79	0.726	0.726	0.3829
124	1.2	0.99	0.697	0.697	0.3676
125	1.4	1.19	0.672	0.672	0.3544
126	1.6	1.39	0.656	0.656	0.346
127	1.8	1.59	0.64	0.64	0.3376
128	2.	1.79	0.627	0.627	0.3307
129	2.2	1.99	0.612	0.612	0.3228
130	2.4	2.19	0.602	0.602	0.3175
131	2.6	2.39	0.589	0.589	0.3107
132	2.8	2.59	0.577	0.577	0.3043
133	3.	2.79	0.57	0.57	0.3006
134	3.2	2.99	0.561	0.561	0.2959
135	3.4	3.19	0.551	0.551	0.2906
136	3.6	3.39	0.542	0.542	0.2859
137	3.8	3.59	0.532	0.532	0.2806
138	4.	3.79	0.526	0.526	0.2774
139	4.2	3.99	0.52	0.52	0.2743
140	4.4	4.19	0.51	0.51	0.269
141	4.6	4.39	0.504	0.504	0.2658
142	4.8	4.59	0.501	0.501	0.2642
143	5.	4.79	0.494	0.494	0.2605
144	5.2	4.99	0.488	0.488	0.2574
145	5.4	5.19	0.482	0.482	0.2542
146	5.6	5.39	0.478	0.478	0.2521
147	5.8	5.59	0.475	0.475	0.2505

148	6.	5.79	0.469	0.469	0.2474
149	6.2	5.99	0.466	0.466	0.2458
150	6.4	6.19	0.459	0.459	0.2421
151	6.6	6.39	0.456	0.456	0.2405
152	6.8	6.59	0.453	0.453	0.2389
153	7.	6.79	0.45	0.45	0.2373
154	7.2	6.99	0.447	0.447	0.2358
155	7.4	7.19	0.443	0.443	0.2336
156	7.6	7.39	0.44	0.44	0.2321
157	7.8	7.59	0.437	0.437	0.2305
158	8.	7.79	0.434	0.434	0.2289
159	8.2	7.99	0.431	0.431	0.2273
160	8.4	8.19	0.428	0.428	0.2257
161	8.6	8.39	0.428	0.428	0.2257
162	8.8	8.59	0.424	0.424	0.2236
163	9.	8.79	0.421	0.421	0.222
164	9.2	8.99	0.421	0.421	0.222
165	9.4	9.19	0.418	0.418	0.2205
166	9.6	9.39	0.415	0.415	0.2189
167	9.8	9.59	0.415	0.415	0.2189
168	10.	9.79	0.412	0.412	0.2173
169	12.	11.79	0.396	0.396	0.2089
170	14.	13.79	0.383	0.383	0.202
171	16.	15.79	0.377	0.377	0.1988
172	18.	17.79	0.371	0.371	0.1957
173	20.	19.79	0.364	0.364	0.192
174	22.	21.79	0.358	0.358	0.1888
175	24.	23.79	0.361	0.361	0.1904
176	26.	25.79	0.355	0.355	0.1872
177	28.	27.79	0.351	0.351	0.1851
178	30.	29.79	0.351	0.351	0.1851
179	32.	31.79	0.348	0.348	0.1835
180	34.	33.79	0.351	0.351	0.1851
181	36.	35.79	0.351	0.351	0.1851



City of Anderson Zoning Classification

1000 0 1000 2000 3000 Feet

Legend

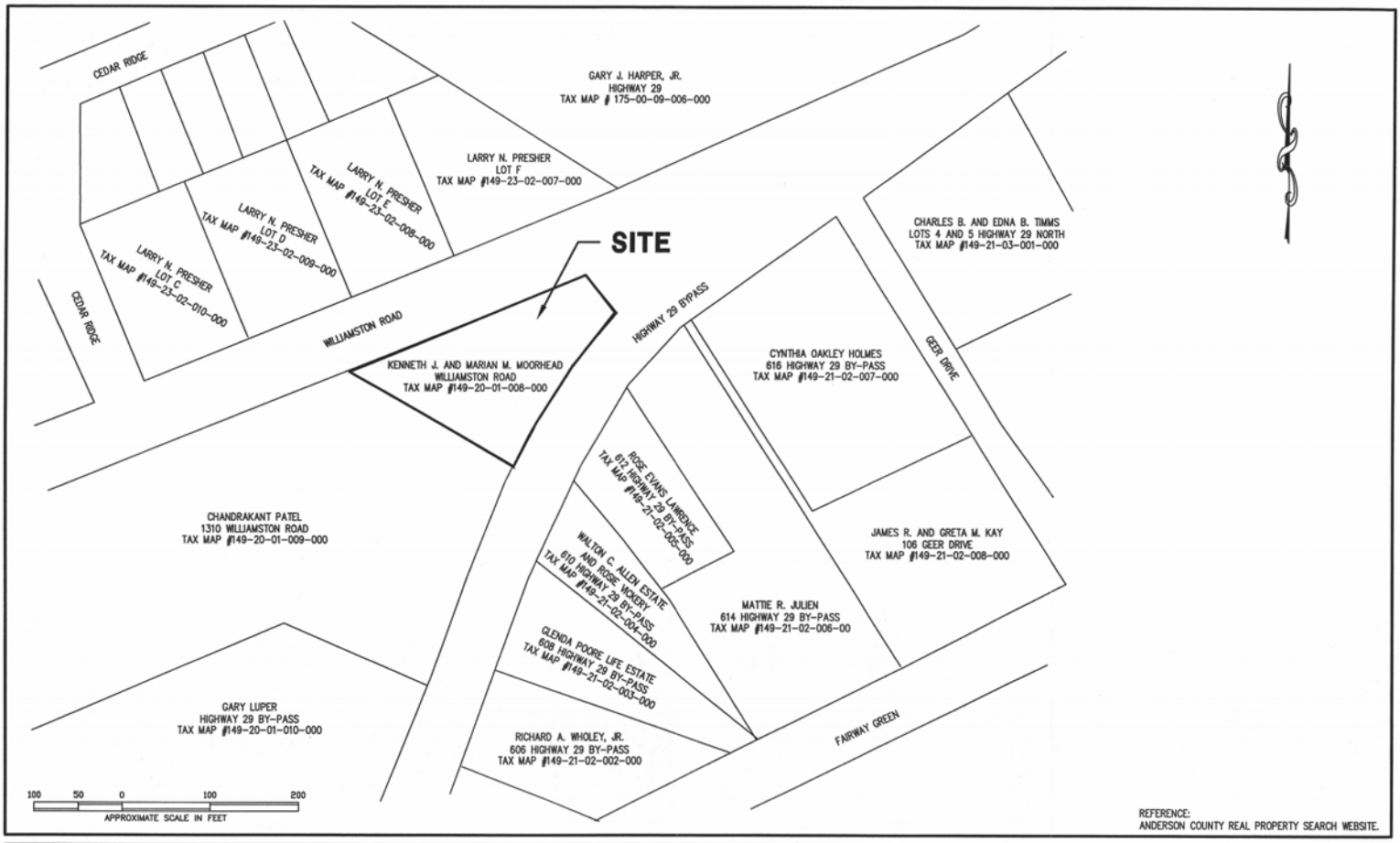
Building Codes
Commercial
Church
Industrial
Institutional
Parking
Public
Residential

Zoning Codes
GC
HC
LC
HI
LI
PDD
R-5
R-10
R-15
R-20
R-30
R-A
R-I
RM-10
RM-18

Features
Parcels
Roads

neighborhood / commercial

ANDERSON
THE ELECTRIC CITY



REFERENCE:
ANDERSON COUNTY REAL PROPERTY SEARCH WEBSITE.

DRAWN BY:	AEH	DATE:	08-30-04
CHECKED BY:	TLL	FILE:	MOOREHEAD-TAX
APPROVED BY:		JOB NO:	J04-3661-01

REVISIONS		
No.	DESCRIPTION	BY

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
1200 WOODRUFF ROAD, SUITE B-7
GREENVILLE, SOUTH CAROLINA 29607
PHONE: (864)288-1265 FAX: (864)288-4430

TAX MAP
MOORHEAD OIL COMPANY, KMO 119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE
X

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

May 17, 2004

Mr. Ken Moorehead
Ken Moorehead Oil Company Inc.
PO Box 2587
Anderson, SC 29622

Re: KMO 119, 1312 Williamston Road, Anderson, SC 29624
Permit ID# 00505
Assessment report received December 20, 1989

Dear Mr. Moorehead:

The Underground Storage Tank Program received your request for a copy of the "No Further Action" decision made in reference to an assessment report received December 20, 1989 for the referenced facility. The file for that particular report has been purged.

Requirements for the management of UST systems and guidelines for release reporting are established by the State Underground Petroleum Environmental Response Bank (SUPERB) Act and the South Carolina UST Control Regulations.

The report documented results of an environmental assessment performed during December 1989. Based on the information submitted to date, the SCDHEC closed the file on June 11, 1990 and the release was given No Further Action (NFA) status. However, should any contamination become evident which could be attributed to the UST system, this office can, under authority established by the SUPERB Act and SCUSTCR, require investigative and/or remedial activities.

If you have any questions, you may call me at (803) 896-6240, or within SC only, 800 826-5435.

Sincerely,

Chuck Hightower, Geotechnical Project Manager
Regulatory Assistance Section
Regulatory Compliance Division
Underground Storage Tank Program

South Carolina
DHEC
Department of Health and Environmental Control

June 11, 1990

Mr. Ken Moorhead
Ken Moorhead Oil, Inc.
820 South Main Street
Anderson, SC 29621

Re: Site Assessment for Underground Storage Tank(s)
C & L Quick Stop
1312 Williamston Road, Anderson, SC
Registration # N-04-NO-00505, PCAS # 7226

Dear Mr. Moorhead:

Your December 18, 1989 submittal has been received by the Ground-Water Protection Division of the South Carolina Department of Health and Environmental Control. The report documents the analytical results of soil samples obtained during an assessment of the referenced facility which took place in November 1989.

In consideration of the facts, this office will not at this time require additional investigation at this site. If, however, any contamination becomes evident and can be attributed to the underground storage tank(s) and/or associated piping, this office will, under authority established by SC Underground Storage Tank Control Regulations R.61-92, Part 280.60, require investigative and/or remedial activities.

If you have any questions or comments, feel free to call at (803) 734-5335.

Sincerely,

James R. Hess, P.G., Manager
Underground Storage Tank Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

JRH/mb
KM2:TXT

cc: Appalachia I District EQC
Stan Clark, TRUST Section

Commissioner: Michael D. Jarrett Board: Henry S. Jordan MD, Chairman John B. Pate, MD, Vice Chairman William E. Applegate, III, Secretary
Toney Graham, Jr., MD John H. Burriss Richard E. Jabbour, DDS Currie B. Spivey, Jr.

2600 Bull Street Columbia, South Carolina 29201

RECEIVED
SEP 09 2004
UNDERGROUND STORAGE TANK PROGRAM

BLE INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

BUNNELL-LAMMONS ENGINEERING, INC.
1200 Woodruff Road, Suite B-7
Greenville, SC 29607

Phone: 864-288-1265
Fax: 864-288-4430

FAX TRANSMITTAL

TO: Art Shrader
SCDHEC

PHONE NO.:
FAX NO.: 803.896.6245

FROM: Joy Stugg for Tom Lammons
BLE, Inc.

NO. OF PAGES: 2
(including cover sheet)

DATE: September 9, 2004

Subject: Tier I Assessment, KMO 119 – Ken Moorhead Oil Co., UST Permit #00505

☐ **Urgent** ☒ **For Your Use** ☐ **Please Complete** ☐ **Please Reply**

Dear Mr. Shrader,

Please see the attached list of names and addresses of the adjacent property owners for the above-referenced site, as requested.

Disposal manifests are still forthcoming.

If you have any questions, or need further information, please do not hesitate to contact me at (864) 288-1265.

We appreciate this opportunity to be of service.

UST PROGRAM DOCKETING # 27 T

RECEIVED
SEP 0 9 2004
UND STORAGE
NK PROGRAM

1. Larry N. Presher
2514 McKinley Drive
Anderson, SC 29621-6731

2. Gary J. Harper, Jr.
712 Timberlake Rd.
Anderson, SC 29625-1135

3. Patel Chandrakant
1310 Williamson Rd.
Anderson, SC 29621

4. Kenneth J. & Marian M. Moorhead
820 S. Main Street
Anderson, SC 29624-2310

5. Mattie R. Julien
614 Highway 29 By-pass
Anderson, SC 29621-0000

6. Rose Evans Lawrence
419 Westwood Drive
Anderson, SC 29626

7. Walton C. Allen Est. / Rosie Vickery
12703 E. 40th Street, Apt. 907
Tulsa, OK 74146-3511

8. Glenda Poore Life Estate
608 Highway 29 N
Anderson, SC 29621-0000

9. Richard A. Wholey, Jr.
3108 Pinehurst Lane
Anderson, SC 29621-0000

BLE INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

BUNNELL-LAMMONS ENGINEERING, INC.
1200 Woodruff Road, Suite B-7
Greenville, SC 29607

Phone: 864-288-1265
Fax: 864-288-4430

FAX TRANSMITTAL

TO: Mr. Art Shrader, Hydrogeologist
South Carolina DHEC

PHONE NO.:
FAX NO.: 803-896-6245

FROM: Thomas L. Lammons, P.G.
BLE, Inc.

NO. OF PAGES: 3
(Including cover sheet)

DATE: September 8, 2004

Subject: Private Water Supply Well Receptor
Tier I Assesment-KMO 119
Ken Moorhead Oil Company
1312 Williamston Road, Anderson, SC
UST Permit #00505
BLE Project No. J04-3661-01

☐ **Urgent** ☒ **For Your Use** ☐ **Please Complete** ☐ **Please Reply**

Please find the above referenced letter and figure attached for your use. Hard copies will follow in the mail.

If you have any questions, please give us a call.

RECEIVED
SEP 08 2004
UNDERGROUND STORAGE TANK PROGRAM

UST PROGRAM DOCKETING # 381

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

September 8, 2004

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
2600 Bull Street
Columbia, South Carolina 29201-1708

Attention: Mr. Art Shrader
Hydrogeologist

Subject: **Private Water Supply Well Receptor**
Tier I Assessment – KMO 119
Ken Moorhead Oil Company
1312 Williamston Road, Anderson, SC
UST Permit #00505
BLE Project No. J04-3661-01

Dear Mr. Shrader:

Bunnell-Lammons Engineering, Inc. (BLE) is providing herein a revision to the receptor survey as submitted in the Ken Moorehead Oil Co., KMO 119, Tier I Assessment Report (August 31, 2004).

BLE personnel visited the surrounding properties in the field on Tuesday, September 7, 2004 and identified a private water supply well at 610 Highway 29 Bypass. This new information modifies the reported findings of the Tier I Assessment which stated that no private water supply wells were present within 1000 feet of the site. The 610 Highway 29 Bypass property is a residence downgradient and within 100 feet of the KMO 119 store. The attached Tax Map shows the location of this property. Please note this revision to the Tier I Report.

We apologize for this initial oversight and trust the attached information is useful. If you have any questions please feel free to call us at (864) 288-1265.

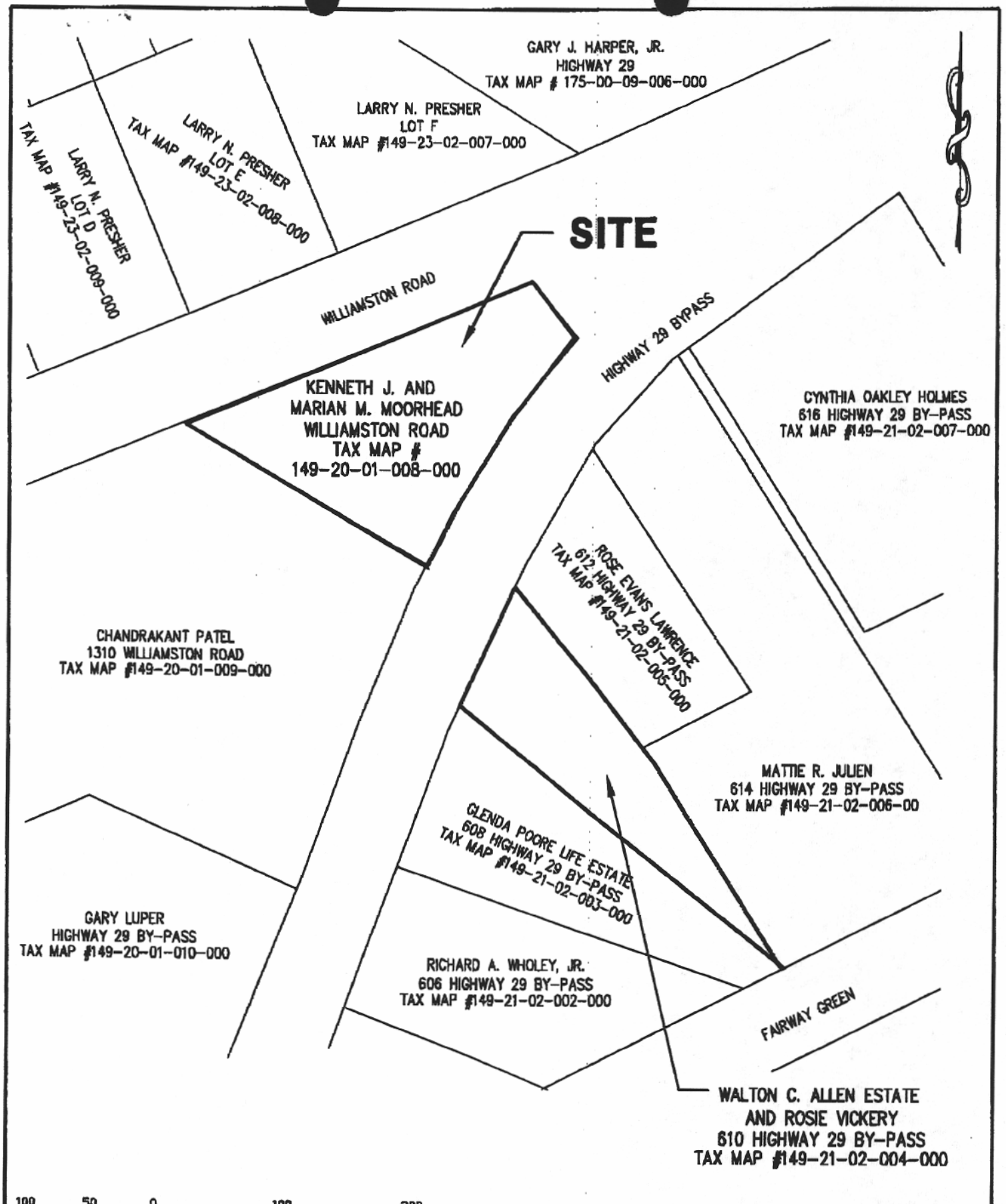
Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Thomas L. Lammons, P.G.
Principal Hydrogeologist
Registered, South Carolina No. 893

Cc: Chris Moorehead, Ken Moorehead Oil Co.

Attachment



REFERENCE:
ANDERSON COUNTY REAL PROPERTY SEARCH WEBSITE.

DRAWN: AEH	DATE: 09-08-04	BLE, INC. BURNELL-LAMMONS ENGINEERING, INC.	FIGURE
CHECKED: TLL	CAD: MOOREHEAD-SMTAX	TAX MAP MOORHEAD OIL COMPANY, KMO 119 UST PERMIT #00505	

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

September 3, 2004

PRASHANT AND DIPIKA PATEL
UPSTATE MEDICAL REHABILITATION
1003 GROVE ROAD SUITE E
GREENVILLE SC 29605-4601

291

UST PROGRAM
DOCKETING #

Re: KMO #119, 1312 Williamston Road, Anderson, SC
UST Permit #00505
Request for Environmental Clarification received September 3, 2004
Anderson County

Dear Mr. and Ms. Patel:

In response to your request, this office provides you with an update on the environmental conditions at the above referenced facility.

We received a report on December 20, 1989 documenting petroleum chemicals of concern in the soil in the subsurface in the vicinity of the former underground storage tanks. Our records revealed that a total of eight underground storage tanks (USTs) owned by Ken Moorehead Oil Incorporated have been registered with the UST Program at the referenced address. Four USTs were removed from the site in November 1991, and four USTs are still in operation. In response to the Phase II assessment by Spero Corporation, we will direct Ken Moorhead Oil Incorporated, as the party responsible for performing this activity under state and federal law, to assess the extent and severity of the contamination. The UST Program received a Tier I report today. Based on this report, the risk classification of this release is 4B meaning there is no immediate or short-term threat to human health. Additional assessment activities will be conducted in the future to define the extent of petroleum chemicals of concern.

You also wanted us to clarify for you the financial and liability issues surrounding the petroleum contamination at this facility. State funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account will be available for Ken Moorhead Oil Incorporated to access for site rehabilitation under the conditions of the SUPERB Act. Ken Moorhead Oil Incorporated is entitled to up to $1,000,000 in coverage from the SUPERB Account for this release.

In 1997, the General Assembly amended Section 80 (B) of the SUPERB Act to clarify that persons who hold "indicia of ownership" primarily to protect a security interest in property impacted by a release from a UST are exempt from the requirements to conduct site rehabilitation activities other than necessary abatement actions to eliminate any imminent threat to human health or the environment. The "indicia of ownership" exemption includes those persons who acquire title to property through foreclosure or other means necessary to protect their security interest, provided that person does not participate in the management of the UST and is not otherwise engaged in petroleum production, marketing, or refining. This applies equally to subsequent lenders who acquire the USTs and property through foreclosure in the future.

Section 80(C) of the SUPERB Act provides that a subsequent purchaser of property from which an UST has been removed is not responsible for site rehabilitation activities other than abatement actions necessary to eliminate any imminent threat to human health or the environment. This exemption applies to the extent that the release is eligible for compensation from the SUPERB Account, provided that the person allows reasonable access to the property for rehabilitation activities, and does not or has not had any familial, financial, or other interest with the person who owned or operated the UST. This applies equally to subsequent lenders or to those who would acquire this property through foreclosure in the future.

The Program is not aware of any laws or regulations that prohibit the use or development of properties where a petroleum release has occurred.

If you have any questions, please contact me at (803) 896-6669 or (800) 826-5435 (within South Carolina only).

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

cc: Ken Moorhead Oil Inc., PO Box 2587, Anderson, SC 29622-2587
Technical File

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

RECEIVED
JAN 15 2008
UNDERGROUND STORAGE TANK PROGRAM

January 14, 2008

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
2600 Bull St.
Columbia, SC 29201-1708

Attention: Mr. Arthur Sharder
Hydrogeologist

Subject: **Expanded Tier II Plan**
Former KMO #119
1312 Williamston Road
Anderson, South Carolina, Anderson County
UST Permit # 00505
BLE Project No. J08-4661-03

Dear Mr. Shrader:

On behalf of Ken Moorhead Oil Company, Inc., Bunnell-Lammons Engineering, Inc. (BLE) is pleased to submit this *Expanded Tier II Assessment Plan* for the Former KMO #119 site in Anderson, South Carolina. This proposed scope of work is based on the results of our original Tier II Assessment completed in 2007. The South Carolina Department of Health and Environmental Control's (SCDHEC) comments on the Tier II Assessment are incorporated in this plan.

Based on our present schedule we can begin the fieldwork after receipt of your written authorization to proceed. Our written report can be submitted within the timeframe required by SCDHEC.

As our authorization to proceed, please provide a written notice of approval. Please contact us if you have any questions.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, P.G.
Project Hydrogeologist

Thomas L. Lammons, P.G.
Principal Hydrogeologist

Attachment

cc: Mr. Kris Moorhead, Ken Moorhead Oil Co., Inc., P.O. Box 2587, Anderson, SC 29622

UST PROGRAM
DOCKETING # 3

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

D H E C
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Expanded Tier II Plan
Division of Underground Storage Tank Management

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UNDERGROUND STORAGE TANK PROGRAM

UST Permit #: 00505 County: Anderson Facility Name: Former KMO #119

Facility Address: 1312 Williamston Road, Anderson, South Carolina (Figure 1)

Responsible Party: Ken Moorhead Oil Company, Inc. Address: P.O. Box 2587, Anderson, South Carolina 29622

No. USTs: 4 Removed? Yes – December 1991 (date) Replaced? Yes – Alternate location (date)

Current use of facility/property: Petroleum Retail Facility and Convenience Store

Current property owner name: DEV Enterprises, Inc

Current property owner address: 1312 Williamston Road, Anderson, South Carolina

Field Screening Methodology

Specify the field screening methodology to be used. The use of field screening methods to optimize the number and location of permanent wells is required.

Geoprobe for soil and groundwater samples, field screening and laboratory analysis.

No. Samples	Location	Depth (ft)	Laboratory Analysis
NA – Completed during original Tier II Assessment			

Permanent Monitoring Wells (estimate number and total completed depth)

# of shallow wells:	9	Total depth:	450 ft.
# of intermediate wells:	2	Total depth:	100 ft.
# of deep wells:	4	Total depth:	480 ft.

Comments, if warranted: **See attached Figure 2 for well locations.**

Shallow Wells:
Wells MW-33 through MW-38 will be installed to define the horizontal extent of the petroleum contaminant plume to the northeast and northwest of the subject site. Wells MW-39 through MW-41 will be installed as petroleum free-product extraction wells located between existing wells MW-10 and MW-14 which exhibit free-product. These nine wells (MW-33 through MW-41) must be installed utilizing air rotary drilling techniques since groundwater is present beneath the bedrock interface. Wells MW-33 through MW-38 will be installed with ten foot screens. Wells MW-39 through MW-41 will be installed with 20 foot screens. For budgeting purposes, we have assumed each well will be drilled to 50 feet (450 feet total).

Intermediate Wells:
Wells MW-6D and MW-7D will be installed as intermediate wells located adjacent to their shallow well counterparts. These wells will be installed to the top of bedrock with five foot screens. We have assumed each well will be installed to 50 feet. The final depths of the wells may vary depending on the depth to bedrock.

Deep (Type III) Wells:
Wells MW-1DD, MW-10D, MW-11DD, and MW-14D will be installed as Type III "pit-cased" monitoring wells and located adjacent to their shallow well counterparts. The outer casings will be pit-cased in bedrock and drilled to the first occurrence of water below the termination depth of the deepest adjacent well. These wells will be installed with five foot screens. We have assumed wells MW-1DD and MW-11DD will be installed to 150 feet each. Also, we have assumed wells MW-10D and MW-14D will be installed to 90 feet each.

Analyses

List the analytical parameters (e.g., BTEX, MTBE) and estimated number.

49 (15 new wells and 34 existing) groundwater samples from monitoring wells analyzed for BTEX, naphthalene, MTBE, 1,2-DCA, EDB, and 8 oxygenates.

1 out-of-service drinking water well analyzed for BTEX, naphthalene, MTBE, 1,2-DCA, EDB, and 8 oxygenates.

Implementation Schedule

Start up date: 3/1/08 Completion date: 5/1/08

Report submittal date: 6/1/08

Site Maps

1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.

2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following.

North arrow	Legend with facility name and address, UST Permit number, date, and a bar scale
Location of property lines	Streets or highways (indicate names and numbers)
Location of buildings	Identification of located buildings
Paved areas on or adjacent to site	Location of all present and former ASTs and USTs
Previous soil sampling locations	Underground and above ground utilities on or adjacent to site
Previous monitoring well locations	Location of any other potential receptor

UST Permit #: 00505 Facility Name: Former KMO #119

Aquifer Characterization (Check one and provide explanation for choice)

Pump test: _____ Slug tests: _____

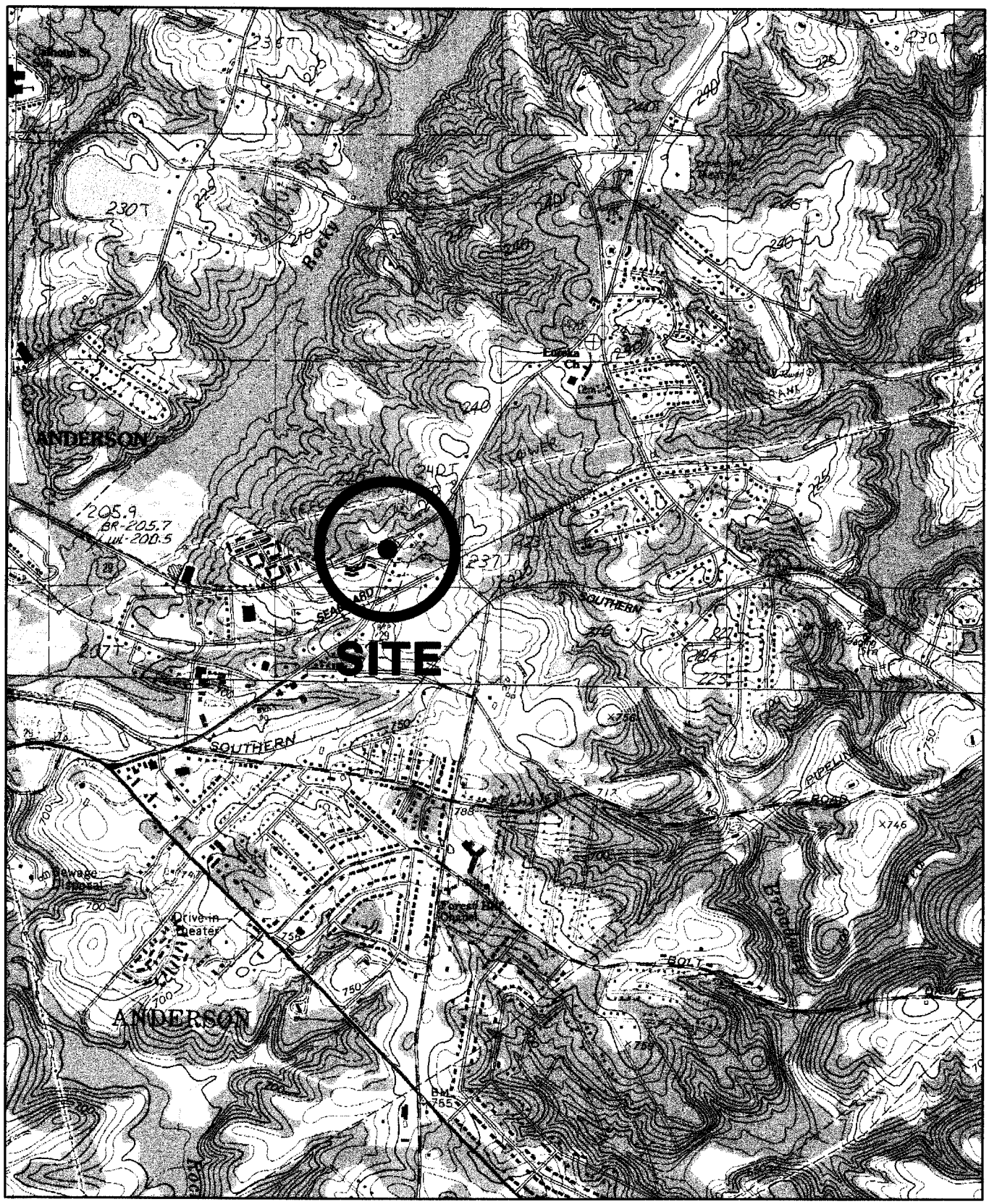
Free-product recovery rate test 3

Small Volume Disposal Type and Method

Soil: Contain in 55-gallon drums until transported and disposed at a permitted treatment/disposal facility.

Purge water: Contain in 55-gallon drums until transported and disposed at a permitted treatment/disposal facility.

Additional comments: Conduct two separate AFVR events due to distances between wells. One event will be conducted on existing wells MW-10, and MW-14 and the new wells MW-39, MW-40, and MW-41. The second event will be conducted on MW-11. Water from the events will be disposed at a permitted facility.



2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, BELTON WEST AND SAYLORS CROSSROADS, S.C. QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: AEH	DATE: 03-21-07	BLE inc. BURNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP MOOREHEAD OIL COMPANY - KMO 119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
CHECKED: TJB	CAD: MOOREHEAD-02SLM		FIGURE 1
APPROVED:	JOB NO: J07-3661-02		

Project No. J08-3661-03

	Name: Former KMO #119 - Expanded Tier II Assessment			UST Permit # 00505			Date 01/02/08
1	Plan						
		Plan Preparation	1			100	100.00
		Tax Maps				50	0.00
2	Receptor Survey					500	0.00
3	Comp Survey		1			1000	1,000.00
4	Mob/Demob	equipment **9(x2), 23(x2)**	4			550	2,200.00
		personnel **9, 10, 17, 23(x2)**	5			275	1,375.00
			#	feet / boring	total feet	$ / foot	
5	Soil Borings (Hand Auger)*				0	14	0.00
6	Field Screening	Geoprobe - soil		20	0	17	0.00
		Geoprobe - groundwater (horizontal delineation)		30	0	17	0.00
		Geoprobe - groundwater (vertical delineation)		50	0	17	0.00
		Total Field Screening (ft)			**0**		**feet**
7	Soil Leach Model					200	0.00
8	Abandonments	Geoprobe - soil		20	0	5	0.00
		Geoprobe - groundwater (horizontal delineation)		30	0	5	0.00
		Geoprobe - groundwater (vertical delineation)		50	0	5	0.00
		Total Abandonment (ft)			**0**		**feet**
9	Well Installation	Water Table (hand auger)		0	0	20	0.00
		Water Table (drilled) - MW-6D & MW-7D	2	50	100	38	3,800.00
		Type III (telescope) - MW-1DD & MW-11DD	2	150	300	58	17,400.00
		Type III (telescope) - MW-10D & MW-14D	2	90	180	58	10,440.00
		Rock drill - (MW-33 through MW-41)	9	50	450	58	26,100.00
		Total Drilling (ft)			**1030**		**feet**
10	Sample Collection	Ground water (15 new wells, 5 existing wells not bracketing water table)	20			55	1,100.00
		Air/Vapor				90	0.00
		Water Supply	1			25	25.00
		Groundwater No Purge (26 existing wells)	26			35	910.00
		Gauge Well Only				20	0.00
		Sample Below Product (MW-10, MW-11, and MW-14)	3			50	150.00
		Passive Diffusion Bag				40	0.00
11	GW Samples	BTEX + naphth + MTBE (49 wells and 1 DW well)	50			100	5,000.00
		Rush BTEX analysis				120	0.00
		BTEX + napth + MTBE Trimethylbenzene				135	0.00
		PAH				120	0.00
		Lead				20	0.00
		EDB	50			55	2,750.00
		8 RCRA Metals				140	0.00
		TPH				55	0.00
		pH				10	0.00
		BOD				40	0.00
		Nitrates				20	0.00
		Sulfates				20	0.00
		Ferrous Iron				20	0.00
		Methane				110	0.00
		Organic Lead				100	0.00
		8 Oxygenates	50			85	4,250.00
		1,2-DCA	50			10.75	537.50

11	Soil Samples	BTEX + naphth				100	0.00
		PAH				120	0.00
		8 RCRA Metals				150	0.00
		TPH (9071)				60	0.00
		TPH (3550)				65	0.00
		TPH (5035)				65	0.00
		Grain Size/hydrometer (boring w/ highest field screening result)				75	0.00
		TOC (background soil boring)				35	0.00
12	Aquifer Characterization*						
		Pumping Test		hours		120	0.00
		Slug Test		test		150	0.00
13	Free Product Test*		3	test		120	360.00
14	Fate/Transport Modeling						
		Modeling				300	0.00
		Dominico Modeling				500	0.00
15	Risk Evaluation						0.00
		Tier I				300	0.00
		Tier II				500	0.00
16	Subsequent Survey*					260	0.00
17	Disposal	Purging/Sampling	3	drums		90	270.00
		Pumping Test/AFVR	1000	gallons		0.6	600.00
		Product		drums		110	0.00
		Soil (Treatment/Disposal)	35	drums		50	1,750.00
23	AFVR	8-hour Event	2	each		3000	6,000.00
		Additional Hour		per hour		204	0.00
		Off-gas Treatment	16	per hour		35	560.00
	SUBTOTAL						86,677.50
	Report 15%						13,001.63
	TOTAL						**99,679.13**

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SEP 0 3 2004

UNDERGROUND STORAGE
TANK PROGRAM

September 3, 2004

Mr. Art Shrader,

Per our conversation, I am requesting a letter from you addressed to myself/my husband: Dipika Patel/Prashant Patel, stating that site KMO 119, UST Permit # 00505, is a site fully covered by Superb Fund. Please state that all actions of remediation are covered fully by Superb Fund and all actions will be directed to Ken Moorhead Oil Inc. Please also state, per our conversation, that the business will not be affected at this location during remediations.

I believe you sent a similar letter earlier but addressed to BB&T, which is no longer involved with this transaction.

Please fax to 864-232-1511 or email

Thank you.

Sincerely,

Dipika Patel

Dipika Patel

UST PROGRAM
DOCKETING # 30T

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

September 2, 2004

MS EUNICE FULLER
KEN MOORHEAD OIL INCORPORATED
PO BOX 2587
ANDERSON SC 29622-2587

Re: KMO #119, 1312 Williamston Road, Anderson, SC
UST Permit #00505
Release Reported December 20, 1989
Tier I Report received September 1, 2004
Tier II Plan and Associated Cost Agreement received September 1, 2004
Anderson County

UST PROGRAM DOCKETING # 31T

Ms. Fuller:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC), has reviewed the referenced assessment report submitted by Bunnell-Lammons Engineering Incorporated. The results contained in the referenced assessment report indicate the concentrations of chemicals of concern are above allowable risk- based screening levels (RBSL). Based on these results, the next necessary scope of work is additional assessment activities in order to delineate horizontal and vertical extent of the petroleum plume.

All releases from regulated underground storage tanks that have been reported to this Program have been prioritized using a ranking system that evaluates the risk to human health and the environment. The priority classification system identifies those releases that represent an immediate or short-term risk to human health where the Program should be allocating available State Underground Petroleum Environmental Response Bank (SUPERB) monies. Based on the available data, the priority classification of this release is 4A and does not pose an immediate or short-term risk to human health. Therefore, SUPERB funds are not currently available for additional site rehabilitation activities at this time. You will be informed when SUPERB funds become available.

Should you wish to proceed with site rehabilitation activities, you can fund the necessary activities and seek payment from the SUPERB Account when, and if, funds become available. The Program will forward a contract for $66,864.00, which outlines the conditions upon which reimbursement can occur, to you, should you decide to use this option. A signed contract must be submitted in order to seek potential future reimbursement. Please notify the Program of your intent within **21 days** from the date of this letter. A completed contract will be forwarded if you choose to proceed under this option. If you opt to wait for SUPERB funding, having a cost agreement on file will expedite technical and financial approval once funding does become available.

The UST Program has placed the Tier II Plan and associated cost agreement by Bunnell-Lammons Engineering on file. As soon as funding for risk classification 4A is available from the SUPERB Account, the necessary work and funding approvals will be forwarded to you for implementation.

On all correspondence regarding this site, please reference UST permit 00505. Should you have any questions regarding this correspondence, please feel free to contact me at (803) 896-6669 or (800) 826-5435 (within South Carolina only). I can also be reached by email at shradeaa@dhec.sc.gov. or by fax at (803) 896-6245.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

cc: Bunnell-Lammons Engineering, 1200 Woodruff Rd., Greenville, SC 29607

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

September 1, 2004

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UNDERGROUND STORAGE
TANK PROGRAM

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
2600 Bull Street
Columbia, South Carolina 29201

Attention: Mr. Arthur Schrader
Hydrogeologist

Subject: **Tier II Cost Proposal**
Ken Moorhead Oil Co, Citgo Store KMO 119
UST Permit #00505
Anderson, South Carolina
BLE Proposal Number P04-0448

Dear Mr. Schrader:

On behalf of our client, Ken Moorhead Oil Co., and pursuant to Tier II Assessment Guidelines, we have prepared this Cost Proposal (attached) for the above referenced facility. If you have any questions concerning this submittal, please contact us at 864-288-1265.

Sincerely,
BUNNELL-LAMMONS ENGINEERING, INC.

Thomas L. Lammons, P.G.
Principal Hydrogeologist
Registered, South Carolina No. 893

Trevor J. Benton/jps
Trevor J. Benton
Staff Hydrogeologist

Attachment

Cc: Mr. Chris Moorhead, Ken Moorhead Oil, Co.

SCANNED

UST PROGRAM
DOCKETING # 32T

1200 WOODRUFF ROAD, SUITE B-7
GREENVILLE, SOUTH CAROLINA 29607

PHONE (864) 288-1265
FAX (864) 288-4430

D H E C
PROMOTE PROTECT PROSPER

Tier II Plan
Division of Underground Storage Tank Management

UST Permit #: 00505 County: Anderson Facility Name: Citgo Store KMO 119

Facility Address: 1312 Williamston Road, Anderson, South Carolina

Responsible Party: Mr. Chris Moorehead Address: 820 South Main Street, Anderson, SC 29624

No. USTs: 4 Removed? November 13, 1991 (date) Replaced? January 1992 (date)

Current use of facility/property: Convenience store and Citgo gas station

Current property owner name: Ken Moorehead Oil Co.

Current property owner address: 820 South Main Street, Anderson, South Carolina 29624

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UNDERGROUND STORAGE TANK PROGRAM

Field Screening Methodology

Specify the field screening methodology to be used. The use of field screening methods to optimize the number and location of permanent wells is required.

Based on the Tier I findings, additional soil samples will be collected to define the extent of contamination around the former USTs and subgrade piping (Figure 2). Four (4) Geoprobe borings will be advanced for soil sample collection, field screening and laboratory analysis.

21 ground-water samples will be collected from Geoprobe borings for field screening off site. Three (3) of these samples will be submitted to the laboratory for confirmatory analysis before installing permanent wells. Based on ground-water screening results, 15 additional horizontal extent monitoring wells and two (2) additional vertical extent wells are proposed (Figure 2). The second vertical extent well will be installed to determine if contaminants of concern (notably MTBE and EDB) are plunging in depth from the UST source area.

Permanent Monitoring Wells (estimate number and total completed depth)

of shallow wells: 15 Total depth: 675 feet

# of deep wells: 2 Total depth: 130 feet (if necessary)

Comments, if warranted: Three (3) existing Tier I wells not included. Total Tier I and II wells will be 20

Analyses

List the analytical parameters (e.g., BTEX, MTBE) and estimated number.

Laboratory Analysis	Source	Media	No. Samples
BTEX + Naphthalene	Soil Boring	Soil	4
PAH	Soil Boring	Soil	4
BTEX + Naphthalene + MTBE	Wells	Water	20
EDB	Wells	Water	20
PAH	Wells	Water	20
Nitrate, Sulfates, Ferrous Iron, Methane, Lead	Wells	Water	20
BTEX + Naphthalene + MTBE	Geoprobe Screening	Water	3

UST Permit #: 00505 Facility Name: Ken Moorehead Oil Co., – KMO 119

Implementation Schedule

Start up date: 9/13/04 Completion date: 9/24/04

Report submittal date: 10/22/04

Site Maps

1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.

2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following.

North arrow	Legend with facility name and address, UST Permit number, date, and a bar scale
Location of property lines	Streets or highways (indicate names and numbers)
Location of buildings	Identification of located buildings
Paved areas on or adjacent to site	Location of all present and former ASTs and USTs
Previous soil sampling locations	Underground and above ground utilities on or adjacent to site
Previous monitoring well locations	Location of any other potential receptor

Aquifer Characterization (Check one and provide explanation for choice)

Pump test: Slug tests: 3

Three slug tests are to be conducted in different on-site wells to determine aquifer characteristics. One slug test will be performed in the downgradient vertical extent well.

Small Volume Disposal Type and Method

Soil: **Contain in 55-gallon drums until transportation and disposal to a permitted treatment/disposal facility.**

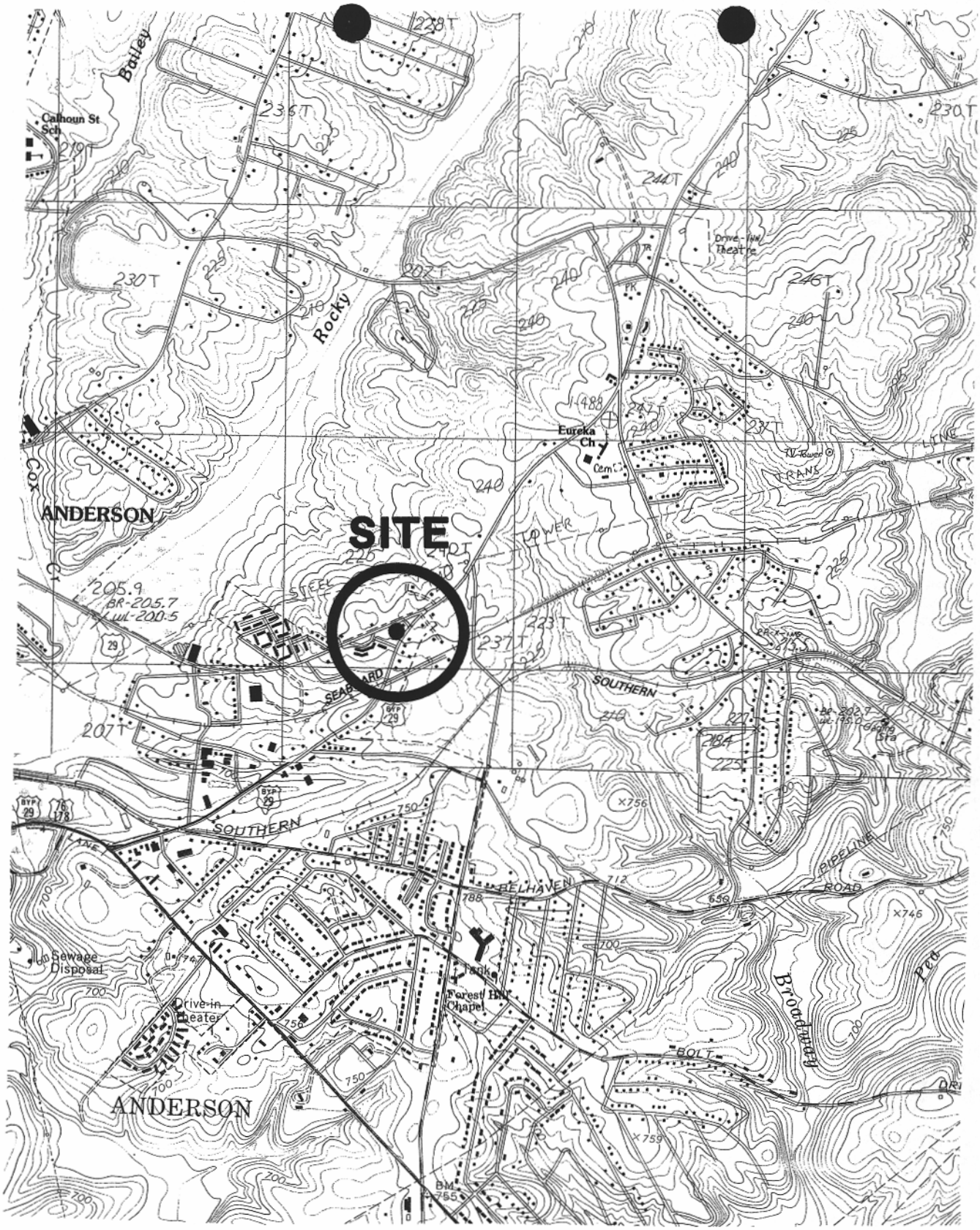
Purge water: **Contain in 55-gallon drums until transportation and disposal to a permitted treatment/disposal facility.**

Additional comments: **Proposed monitoring well depths are based on the Tier I findings. Bedrock (auger refusal) was encountered in wells MW-2 and MW-3 at approximately 42.52 and 40.40 feet below ground surface (bgs), respectively. Ground water was encountered in the three wells from 34.16 to 39.96 feet bgs. The proposed vertical extent wells are to be advanced 20 feet into bedrock from approximately 45 to 65 feet bgs.**

Tier II Proposal

J04-

	Moorehead Oil Co., KMO 119, Anderson, SC			UST Permit #	00505	8/31/2004
1	Plan					
	Plan Preparation	1			100	100
	Tax Maps	1			50	50
2	Receptor Survey	1			500	500
3	Comp Survey	1			1000	1000
4	Mob/Demob equipment 6,9	2			500	1000
	personnel 6,9,10,12,17	5			250	1250
		#	feet / boring	total feet	$ / foot	
5	Soil Borings (Hand Auger)			0	14	0
6	Field Screening - Geoprobes - soil	4	25	100	17	1700
	Soil Borings (DPT) sewerline SOIL samples		0	0	17	0
	buried electric line SOIL samples		0	0	17	0
	background SOIL samples		0	0	17	0
	Ground-Water samples		0	0	17	0
	Field Screening - Geoprobes - ground water	21	45	945	17	16065
	Temporary well screening		0	0	5	0
7	Soil Leach Model	1			200	200
8	Abandonments (DPT)		0	0	4	0
	Geoprobe field screening - Soil	4	25	100	4	400
	Geoprobe field screening - Ground-water	21	45	945	4	3780
9	Well Installation Water Table (hand auger)		0	0	20	0
	Water Table (drilled)	15	45	675	38	25650
	Type III (telescope)	2	65	130	58	7540
	rock drill	2	20	40	58	2320
10	GW & Surface Water sample collect	23	(20 Wells and 3 Screen Samples)		55	1265
11	GW Samples BTEX + napth + MTBE	23	(20 Wells and 3 Screen Samples)		100	2300
	BTEX + napth + MTBE Trimethylbenzene				135	0
	PAH	20	(20 Wells)		120	2400
	Lead	20	(20 Wells)		20	400
	EDB	20	(20 Wells)		55	1100
	8 RCRA Metals				140	0
	TPH (9070)				55	0
	pH				10	0
	BOD				40	0
	Nitrates	20	(20 Wells)		20	400
	Sulfates	20	(20 Wells)		20	400
	Ferrous Iron	20	(20 Wells)		20	400
	Methane	20	(20 Wells)		110	2200
	Organic Lead				100	0
11	Soil Samples BTEX + naphth	4			100	400
	PAH	4			120	480
	8 RCRA Metals				150	0
	TPH (9071)				60	0
	TPH (3550)				65	0
	TPH (5035)				65	0
	Grain Size/hydrometer				75	0
	TOC				35	0
12	Aquifer Characterization				150	0
	Pumping Test				120	0
	Slug Test	3			150	450
13	Free Product Test				120	0
14	Fate/Transport Modeling					
	Mathematical Modeling	1			300	300
	Computer Modeling	1			500	500
15	Risk Evaluation					0
	Tier I				300	0
	Tier II	1			500	500
16	Subsequent Survey				260	0
17	DRUMS Water	2			90	180
	Product				110	0
	Soil	20			50	1000
	SUBTOTAL					76130
	Report 15%					11419.5
	TOTAL					**87549.5**

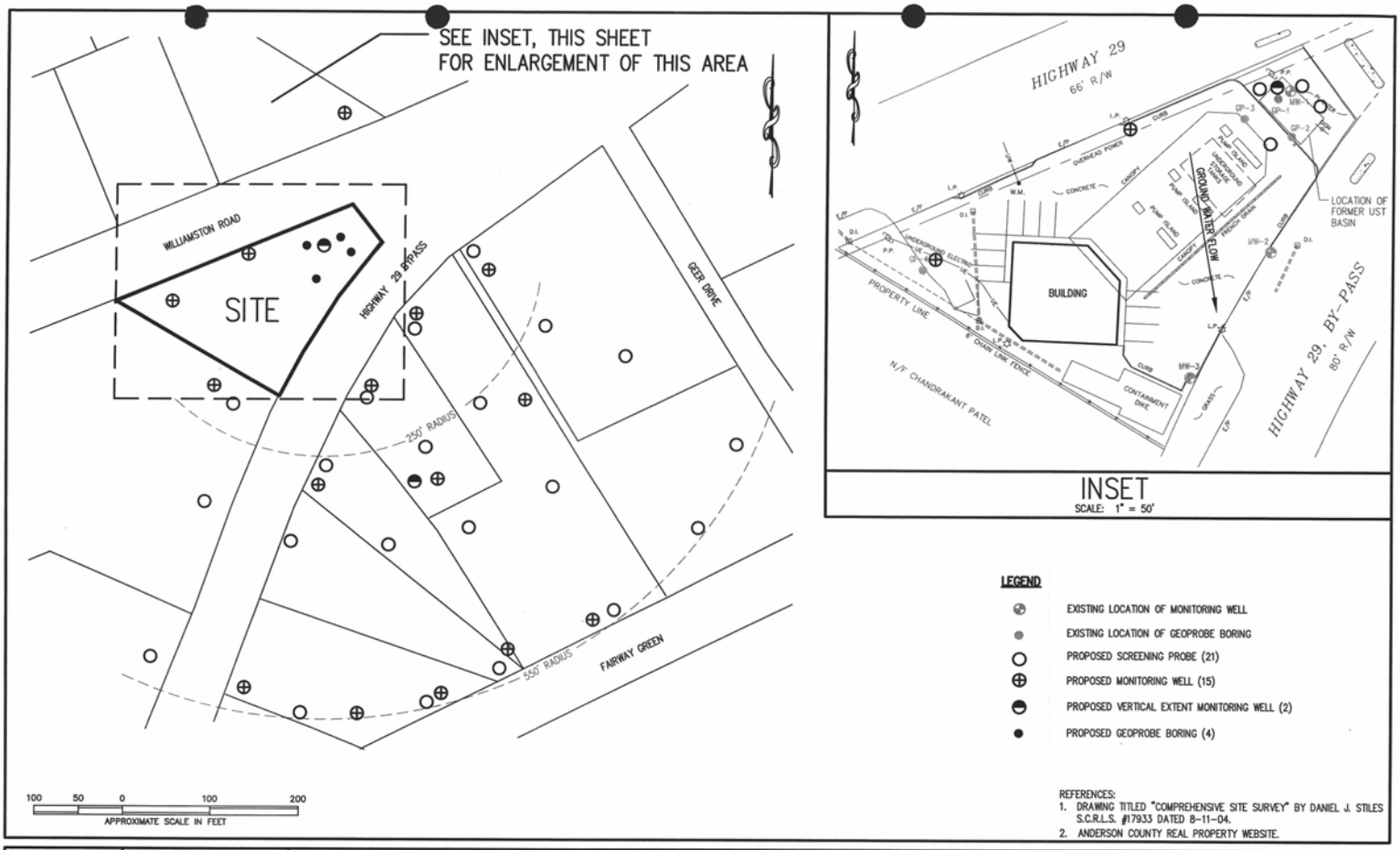


1 .5 0 KILOMETERS 1 2
1000 0 METERS 1000 2000

2000 1000 0 2000 4000
APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, BELTON WEST AND SAYLORS CROSSROADS, S.C. QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: AEH	DATE: 08-25-04	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 1200 WOODRUFF ROAD, SUITE B-7 GREENVILLE, SOUTH CAROLINA 29607 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP MOORHEAD OIL COMPANY – KMO 119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
CHECKED: TLL	CAD: MOOREHEAD-SLM		FIGURE 1
APPROVED:	JOB NO: J04-3661-01		



INSET
SCALE: 1" = 50'

LEGEND

- EXISTING LOCATION OF MONITORING WELL
- EXISTING LOCATION OF GEOPROBE BORING
- PROPOSED SCREENING PROBE (21)
- PROPOSED MONITORING WELL (15)
- PROPOSED VERTICAL EXTENT MONITORING WELL (2)
- PROPOSED GEOPROBE BORING (4)

REFERENCES:
1. DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY DANIEL J. STILES S.C.R.L.S. #17933 DATED 8-11-04.
2. ANDERSON COUNTY REAL PROPERTY WEBSITE.

DRAWN BY: AEH	DATE: 08-31-04	REVISIONS	
CHECKED BY: TLL	FILE: MOORHEAD-PBWLP	No. / DESCRIPTION / BY	
APPROVED BY:	JOB NO: J04-3661-02		

BUNNELL-LAMMONS ENGINEERING, INC.
1200 WOODRUFF ROAD, SUITE B-7
GREENVILLE, SOUTH CAROLINA 29607
PHONE: (864)288-1265 FAX: (864)288-4430

PROPOSED BORING AND WELL LOCATION PLAN
TIER II PLAN
MOORHEAD OIL COMPANY, KMO 119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE 2

RECEIVED

RECEIVED

AUG 03 2004

UNDERGROUND STORAGE TANK PROGRAM

UNDERGROUND STORAGE TANK (UST) OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

UNDERGROUND STORAGE TANK PROGRAM

As the UST Owner/Operator of the UST Permit #00505, I would like to use the contractor or person(s)* listed below and request that they represent me for:

☐ Tier II Assessment
☑ All future assessment scopes.**

Name of Contractor/Person(s) Bunnell-Lammons Engineering

Address 1200 Woodruff Rd
Greenville, S.C. 29607

Telephone Number 864 288-1265

SCDHEC Certification Number 00505

Note: After September 20, 1997, rehabilitation activities must be performed by a SC Certified Site Rehabilitation Contractor.

*indicate if the person listed is your own employee

** if you would like the contractor to perform all future assessment activities at this and/or other UST sites that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above? _____ Yes ✓ No (please initial)

Financial Relationship: A connection or association through a material interest of sources of income which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancée.

3. PAYMENT

The first $25,000.00 in eligible site rehabilitation costs will be applied against the applicable SUPERB deductible, upon submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment.

For eligible costs exceeding the $25,000.00 deductible, you can pay the contractor and, upon the submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment, be compensated from the SUPERB Account, or have payment issued directly from the SUPERB Account to the contractor. (check one)

_____ For eligible costs exceeding the deductible, I request that payment be made to me after I have paid the contractor.

✓ For eligible costs exceeding the deductible, I request that payment be made directly to the contractor.

(Note: all costs must receive prior financial approval from the Department regardless of payment option.)

Underground Storage Tank Owner/Operator Signature [signature]

UST PROGRAM DOCKETING # 331

Date 6 AUG 04

* KEN MORRISON OIL, INC DOES NOT HAVE ENVIRONMENTAL INSURANCE ON THIS SITE.

UNDERGROUND STORAGE TANK (UST) OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

As the UST Owner/Operator of the UST Permit #00505, I would like to use the contractor or person(s)* listed below and request that they represent me for:

☐ Tier II Assessment
☑ All future assessment scopes.**

Name of Contractor/Person(s) Bunnell-Lammons Engineering, Inc.
Address 1200 Woodruff Rd., Suite B-7
Greenville, SC 29607

Telephone Number (864) 288-1265

SCDHEC Certification Number #10
Note: After September 20, 1997, rehabilitation activities must be performed by a SC Certified Site Rehabilitation Contractor.

*indicate if the person listed is your own employee
** if you would like the contractor to perform all future assessment activities at this and/or other UST sites that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above? ____ Yes ___✓ No (please initial)

Financial Relationship: A connection or association through a material interest of sources of income which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancée.

3. PAYMENT

The first $25,000.00 in eligible site rehabilitation costs will be applied against the applicable SUPERB deductible, upon submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment.

For eligible costs exceeding the $25,000.00 deductible, you can pay the contractor and, upon the submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment, be compensated from the SUPERB Account, or have payment issued directly from the SUPERB Account to the contractor. (check one)

____ For eligible costs exceeding the deductible, I request that payment be made to me after I have paid the contractor.

___✓ For eligible costs exceeding the deductible, I request that payment be made directly to the contractor.

(Note: all costs must receive prior financial approval from the Department regardless of payment option.)

Underground Storage Tank Owner/Operator Signature Eunice C Fuller

Date 7/22/04

~~UST PROGRAM~~
DOCKETING # 34T

Jul-19-2004 10:47am From-UST PROGRAM 803 898 4330 T-393 P.002/002 F-695

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

JUL 21 2004

MS EUNICE FULLER
KEN MOOREHEAD OIL INCORPORATED
PO BOX 2587
ANDERSON SC 29622-2587

Re: KMO #119, 1312 Williamston Road, Anderson, SC
UST Permit #00505; CA #22379; MWA #UMW-18494
Release Reported December 20, 1989
Phase II Investigation Report received June 18, 2004
Anderson County

UST PROGRAM DOCKETING # 35 T

Ms. Fuller:

The Underground Storage Tank (UST) Program has reviewed the referenced report submitted by Spero Corporation. The report indicates that indicates that groundwater concentrations of petroleum Chemicals of Concern (CoC) are above risk-based screening levels (RBSLs). Therefore, implementation of the scope of work as outlined in the Tier I Assessment document will be necessary to characterize any possible risk to human health or to sensitive environmental receptors. The Tier I assessment document may be obtained from our website at http://www.scdhec.gov/ust.

Our records indicate that a contractor has not been selected to perform assessment activities at this facility. Please indicate your choice of contractor on the enclosed Owner/Operator Information Sheet. The enclosed forms should be completed and returned to the Program to my attention within **fifteen days** of the date of this letter. Any site rehabilitation activity associated with the UST release must be performed by a SCDHEC-certified site rehabilitation contractor as required by R.61-98.

According to Program records, the release at the facility was reported to SCDHEC on December 20, 1989 and qualified to receive funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account on July 6, 1994. Therefore, in accordance with Section 44-2-40(D) of the SUPERB Act, reasonable costs for the Tier I Assessment may be reimbursed from the SUPERB Account. Cost agreement number 22379 has been approved for $11,105.00 for implementation of the Tier I Assessment. The total includes costs for completion of up to 75 feet of permanent monitoring well footage. Additional monitoring well footage can be billed at the SUPERB allowable rate of $38 per foot provided that the cost is pre-approved by the Program. Please note that in addition to the sample analyses required in the Tier I Guidence Document, all initial assessment activities are now required to include tax map information for this and adjacent properties, and analyses for lead and EDB as directed in the October 10, 2003 SUPERB Allowable Costs Document. Also, if any drinking water wells are located within 500 feet of the UST system, a water sample shall be obtained from the well(s) and analyzed for the appropriate parameters. Upon receipt of a report of findings, and a completed Tier I invoice with all necessary supporting documentation, up to $11,105.00 will be reimbursed to you. **The report and invoice should be submitted to the Program within 90 days of the date of this correspondence**. Please note that applicable South Carolina certification requirements regarding laboratory services, well installation, and report preparation must be satisfied. Also note that only EPA Method 8260B will be accepted for analysis of volatile organic hydrocarbons.

The Program grants pre-approval for transportation of virgin petroleum-contaminated soil and groundwater generated as a result of the Tier I from the referenced facility to a permitted treatment facility. The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage during transport. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report of findings. If laboratory analyses show that the concentrations of chemicals of concern in the soil and/or groundwater are below risk-based screening levels, please contact me for approval to dispose of soil and/or groundwater on-site. The SUPERB Account will not compensate for transportation or treatment of clean soil and/or groundwater.

On all correspondence regarding this site, please reference UST permit 00505. Should you have any questions regarding this correspondence, please feel free to contact me at (803) 896-6669 or (800) 826-5435 (within South Carolina only). I can also be reached by email at shradeaa@dhec.sc.gov. or by fax at (803) 896-6245.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Approved Cost Agreement
Monitoring Well Approval
Owner/Operator Lead Information Sheet
Certified Contractors List

cc: Technical file (w/enc.)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

Monitoring Well Installation Approval Form

Date of Issue: July 12, 2004 Approval No.: UMW-18494

Approval is hereby granted to:	Ken Moorehead Oil Incorporated
UST Permit #:	00505
Address:	1312 Williamston Road, Anderson, SC
County:	Anderson

This approval is for the construction of three monitoring well in accordance with the construction plans and technical specifications outlined in the in the South Carolina Well Standards and Regulations (R.61-71). The well is to be constructed within the surficial aquifer for the intended purpose of monitoring groundwater quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well will be submitted with the technical report.

2. Each well will be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate will provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.

3. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.

4. **A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Arthur Shrader at (803) 896-6669 or shradeaa@dhec.sc.gov. and Eddie Clements (District Contact) at (864) 260-5569 or clemence@dhec.sc.gov.**

5. Please provide groundwater quality analytical data (chemical analysis and/or water level(s)) and associated measurements (i.e., in-situ field measurements) to me with the technical report.

6. Monitoring wells and temporary monitoring wells will be installed by or under the direct supervision of a licensed well driller certified by the State of South Carolina.

7. Monitoring wells and temporary monitoring wells will be abandoned by or under the direct supervision of a licensed well driller certified by the State of South Carolina. Temporary monitoring wells shall not remain in place for longer than 30 days from the date of installation. Monitoring wells may be abandoned only upon concurrence by this Division.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71. Please remember to have a copy of this approval on the site during well installation.

Approved by: Arth Shd

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

Approved Cost Agreement [redacted]2379

Facility: 00505 KMO 119 KEN MOORHEAD OIL INC
SHRADEAA
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
20 TIER I						
			TIER I	1.0000	11,105.00	11,105.00
				Total Amount		11,105.00

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

July 13, 2004

MR ROBERT R SHAW, VICE PRESIDENT
BB&T OF SOUTH CAROLINA
6016 CALHOUN MEMORIAL PARKWAY
EASLEY SC 29640-3812

UST PROGRAM DOCKETING # 36T

Re: KMO #119, 1312 Williamston Road, Anderson, SC
UST Permit #00505
Request for Environmental Clarification received July 12, 2004
Anderson County

Dear Mr. Shaw:

In response to your request, this office provides you with an update on the environmental conditions at the above referenced facility.

We received a report on December 20, 1989 documenting petroleum chemicals of concern in the soil in the subsurface in the vicinity of the former underground storage tanks. Our records revealed that a total of eight underground storage tanks (USTs) owned by Ken Moorehead Oil Incorporated have been registered with the UST Program at the referenced address. Four USTs were removed from the site in November 1991, and four USTs are still in operation. In response to the Phase II assessment by Spero Corporation, we will direct Ken Moorehead Oil Incorporated, as the party responsible for performing this activity under state and federal law, to assess the extent and severity of the contamination. The UST Program will send an assessment directive by the end of this month. A report of findings will be due approximately 90 days after the directive is sent.

You also wanted us to clarify for you the financial and liability issues surrounding the petroleum contamination at this facility. State funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account will be available for Ken Moorehead Oil Incorporated to access for site rehabilitation under the conditions of the SUPERB Act. Ken Moorehead Oil Incorporated is entitled to up to $1,000,000 in coverage from the SUPERB Account for this release.

In 1997, the General Assembly amended Section 80 (B) of the SUPERB Act to clarify that persons who hold "indicia of ownership" primarily to protect a security interest in property impacted by a release from a UST are exempt from the requirements to conduct site rehabilitation activities other than necessary abatement actions to eliminate any imminent threat to human health or the environment. The "indicia of ownership" exemption includes those persons who acquire title to property through foreclosure or other means necessary to protect their security interest, provided that person does not participate in the management of the UST and is not otherwise engaged in petroleum production, marketing, or refining. This applies equally to subsequent lenders who acquire the USTs and property through foreclosure in the future.

Section 80(C) of the SUPERB Act provides that a subsequent purchaser of property from which an UST has been removed is not responsible for site rehabilitation activities other than abatement actions necessary to eliminate any imminent threat to human health or the environment. This exemption applies to the extent that the release is eligible for compensation from the SUPERB Account, provided that the person allows reasonable access to the property for rehabilitation activities, and does not or has not had any familial, financial, or other interest with the person who owned or operated the UST. This applies equally to subsequent lenders or to those who would acquire this property through foreclosure in the future.

The Program is not aware of any laws or regulations that prohibit the use or development of properties where a petroleum release has occurred.

If you have any questions, please contact me at (803) 896-6669 or (800) 826-5435 (within South Carolina only).

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

cc: Ken Moorehead Oil Inc., PO Box 2587, Anderson, SC 29622-2587
Technical File

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

July 13, 2004

MR ROBERT R SHAW, VICE PRESIDENT
BB&T OF SOUTH CAROLINA
6016 CALHOUN MEMORIAL PARKWAY
EASLEY SC 29640-3812

Re: KMO #119, 1312 Williamston Road, Anderson, SC
UST Permit #00505
Request for Environmental Clarification received July 12, 2004
Anderson County

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SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
2600 Bull Street • Columbia, SC 29201 • Phone: (803) 898-3432 • www.scdhec.net

Confirmation Report – Memory Send

Date & Time: Jul-13-2004 11:36am
Tel line : 803 898 4330
Machine ID : UST PROGRAM

Job number : 493
Date & Time : Jul-13 11:35am
To : 918643062039
Number of pages : 002
Start time : Jul-13 11:35am
End time : Jul-13 11:36am
Pages sent : 002
Status : OK

Job number : 493 *** SEND SUCCESSFUL ***

fax message fax message fax message

BRANCH BANKING & TRUST CO.

Robert R. "Randy" Shaw

6016 Calhoun Memorial Highway

Easley, SC 29640

Office 864-306-2030 Fax 864-306-2039

RECEIVED
JUL 12 2004
UNDERGROUND STORAGE TANK PROGRAM

TO: Art Shrader

COMPANY: SC DHEC

PHONE #:

FAX #: 803-896-6245

DATE: July 12, 2004

MESSAGE: Art,
Per our discussion here is a letter requesting a brief letter reply from you in an effort to get a loan closed. For your benefit I have included a copy of Chuck Hightower's initial letter. Please call me to advise if there are any issues with this. Again thanks for your help.

Randy

This is a 3 page document (including cover sheet)

NOTE:
THE INFORMATION CONTAINED IN THIS FACSIMILE MESSAGE IS PRIVILEGED AND CONFIDENTIAL INFORMATION INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY NAMED ABOVE. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION OR COPY OF THIS COMMUNICATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE NOTIFY US IMMEDIATELY BY TELEPHONE AND RETURN THE ORIGINAL MESSAGE TO US. THANK YOU.

fax message fax message fax message

BB&T

Branch Banking & Trust Co.
of South Carolina

6016 Calhoun Memorial Hwy.
Easley, SC 29640
(864) 306-2020
Fax (864) 306-2029

July 10, 2004

South Carolina Department of Health and Environmental Control
Mr. Art Schrader
2600 Bull Street
Columbia, SC 29201

Dear Art:

Per our discussion I am writing to request a brief letter from you in regards to the property located at 1312 Williamston Road, Anderson, SC 29624, which is your permit ID #00505. We received a letter from Chuck Hightower indicating the property's qualification for being honored in the amnesty release and the need for additional assessment and possibly some corrective action. My request is simply a brief letter indicating that while some contamination may exist, this property is low on the priority list due to the perceived limited severity of the problem and that such needed assessment and possible corrective action will be completed only as funds permit at a future date which is currently undetermined. Having such a letter will allow us to complete a loan transaction for this property, which has been pending for some time.

Again thanks to you and Chuck for all of your assistance with this matter and your patience in answering my numerous questions about the whole process.

Sincerely,

Randy

Robert R. "Randy" Shaw
Vice President
864-306-2030

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

Mr. Chris Moorhead
Moorhead Oil Co.
820 S Main St.
Anderson, SC 29624

Re: KMO 119
1312 Williamston Road, Anderson, SC, 29624
Permit ID #00505
Assessment Report received June 18, 2004

Dear Mr. Moorhead:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control has reviewed groundwater assessment data for the facility known as KMO 119. Petroleum constituents were found in groundwater in excess of the Risk Based Screening Levels, therefore additional assessment will be required.

Since it cannot be determined that the contamination documented in the June 2004 assessment report is different from the 1989 amnesty report, the amnesty release will be honored, and no deductible will apply. You will be contacted by personnel from the Assessment and Corrective Action Division in the near future concerning additional assessment needs at this site. If you have any questions, please contact me at (803) 896-6240 or 1-800-826-5435.

Sincerely,

Chuck Highower
Regulatory Assistance Section
Underground Storage Tank Program
Bureau of Land and Waste Management

FROM :KMO INC FAX NO. :8642317049 Jun. 29 2004 08:54AM P2
Jun-28-2004 04:45pm From-UST PROGRAM 803 898 4320 T-168 P.002/002 F-148

Site Name/ID# KMO 119 Ken Moorhead Oil Inc / # 00505
Release #_____ For UST#_____ Release Report Date 6-18-04

Free Product Reported? Yes/No Impacted water supply well reported? Yes/No
Receptor w/in 1000 feet of UST system? (Well, Surface water body, wetland,other)

Triage (Indicate type of submittal)
CR ____
AR ✓
SC ____
RLS-S ___Inspection checklist __
RLS-E ___

TST ____
MWR ___
T of O ___
Other ____

Worst Case Analysis/Sample #	Soil (mg/kg)/# ____	Water (ug/l)/# ____
Benzene		
Toluene		
Ethylbenzene		
Xylenes		
Naphthalene		
Benzo(a)anthracene		
Benzo(b)flouranthene		
Benzo(k)flouranthene		
Chrysene		
Dibenz(a,h)anthracene		
MTBE (water only)		
Other _____		

POTENTIAL SC DENIAL? YES / NO

1. All USTs Registered? (Yes) / No / NA
2. All Applicable Annual Fees Paid? (Yes) / No / NA
3. Financial Responsibility Certification Received? Yes (No) NA Type _____
4. Insurance Statement Received? Yes / No / NA Dated _____ Requested?___
5. UST Status (account for all USTs in database)
   4 USTs Permanently Closed Date Closed _____ Last Used Date _____
   4 USTs CIU & Passed TT Date Tested _____ Date Repaired _____
   __ USTs TOU & Emptied Date Emptied _____ Last Used Date _____
6. RP – Owner signature? Yes / No
7. Site Map Received? (Yes) / No Requested? ___

UST PROGRAM DOCKETING # 37T

Spero Corporation
Professional Environmental and Engineering Services

June 17, 2004

RECEIVED
JUN 18 2004
UNDERGROUND STORAGE
TANK PROGRAM

Chuck Hightower
UST Section
Bureau of Land and Waste Management
SCDHEC
2600 Bull Street
Columbia, SC 29201-1708

Re: Citgo Store – UST Site
12312 Williamston Road, Anderson Road

Dear Chuck,

Please find attached our findings from a Phase II site assessment performed at the above referenced underground storage tank (UST) site. The referenced site was issued an NFA letter previously. However, the findings indicate significant groundwater contamination remains.

Considering the history of the current UST system, it is our opinion that the site contamination is the result of the original release reported. There are also topographically up-gradient properties that may have previously had UST systems where the contaminants originated.

Upon your review, please advise if additional information is needed or we may be of further assistance.

Sincerely Yours,

James Johnson, P.E.
Spero Corporation

UST PROGRAM
DOCKETING # 38T

119 S.E. Main Street • Simpsonville, SC 29681 • 864-963-5500 • 800-955-7634 • Fax 864-228-9100

Spero Corporation
Professional Environmental and Engineering Services

June 8, 2004

Mr. Randy Shaw
BB&T
6016 Calhoun Memorial Highway
Easley, South Carolina 29640

RE: Phase II Environmental Site Assessment
Citgo Store
1312 Williamston Road
Anderson, South Carolina

UST PROGRAM DOCKETING # 39T

Dear Mr. Shaw:

Pursuant to you request, Spero Corporation has completed the planned Phase II Environmental Site Assessment of the above-referenced site. Following is a summary of our activities and findings.

BACKGROUND

The subject site is comprised of a Citgo convenience store with petroleum related fuel storage and dispensing facilities. Underground storage tanks (USTs) are used for fuel storage. The existing USTs reportedly are in compliance with current applicable UST regulations. Routine monitoring equipment and past tank tightness tests do not indicate UST system failure.

Prior to the development of the current Citgo facility, a similar store existed with older USTs and related systems. A previous release was reported for the older UST systems; however, the South Carolina Department of Health and Environmental Control (SCDHEC) issued a "No Further Action" (NFA) letter for the site. According to the SCDHEC, related assessment reports previously on file have been discarded and computer files purged. There were no records available from the current owner regarding the previous assessments of the older UST systems.

FIELD SERVICES

This Phase II assessment was performed primarily to determine the subsurface conditions at the subject site as a result of the previously reported release. The initial scope included soil borings primarily in the area of the former USTs and dispensers. There was no information available regarding the location of the former USTs and related systems,

underground utility lines in the areas of the existing UST systems and the existing tank and piping materials. Therefore, the soil borings were placed outside and topographically down-gradient of the UST systems to avoid damage to existing systems.

The locations of the borings were determined in the field based on surface topography and elevation, and accessibility by the drilling equipment, considering on-site buildings, underground utilities and other in-place systems. The borings were advanced with 6 inch diameter hollow stem augers to allow for sampling. To prevent cross-contamination, the drilling equipment, auger bits and reusable sampling equipment were decontaminated after each boring.

Two borings were placed during this assessment. Soil samples were collected at intervals of 5 feet and screened in the field with a properly calibrated Foxboro Organic Vapor Analyzer (OVA). Soil samples from each boring exhibiting the greatest level of impact based on the OVA readings (SB-1 and SB-2) were submitted for appropriated certified laboratory analyses. Groundwater samples were collected from each boring (GW-1 and GW-2) and submitted for certified laboratory analyses. Samples submitted for laboratory analyses were immediately containerized in appropriate laboratory containers with appropriate preservatives and placed on ice. Chain-of-Custody records were maintained accordingly.

The depth to groundwater in each boring was measured with a standard water gauge. Significantly impacted soil cuttings were containerized and the borings were properly filled. All test borings were installed by a SCDHEC licensed well driller. Boring locations are referenced in the attached boring layout map.

ASSESSMENT FINDINGS

In boring B-1, field screening indicated impacted soils starting at 30 feet below ground surface with increasing OVA readings with depth. B-1 was terminated at a depth of 45 feet. A decontaminated water level gauge was extended into the boring through the hollow core bits. The depth to groundwater was measured at 39.6 feet in B-1. Groundwater samples were collected using standard disposable Teflon bailers. Field screening indicated impacted groundwater in B-1.

B-2 was advanced to refusal at a depth of 41 feet. Similarly the depth to groundwater was determined to be 37.1 feet in B-2. Field screening of B-2 materials did not indicate impact by petroleum related contaminants. Sufficient groundwater was available for sampling in B-1; however, the available groundwater from B-2 was limited.

Laboratory results are summarized in the following table:

Sample ID	*TPH-DRO*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Xylene*	*EDB*	*MTBE*	*Naphthalene*	*Total PAH*
B-1, Soil	-	10.1 mg/kg	90.7 mg/kg	31.1 mg/kg	148 mg/kg	ND	0.311 mg/kg	16.1 mg/kg	-
B-1, Ground Water	10,600 *ug/L*	18,500 *ug/L*	30,000 *ug/L*	3,830 *ug/L*	19,200 *ug/L*	270 *ug/L*	186 *ug/L*	1,520 *ug/L*	810 *ug/L* naphtha
B-2, Soil	ND	-	-	-	-	-	-	-	ND
B-2, Ground Water	-	6 *ug/L*	27.8 *ug/L*	11.4 *ug/L*	57.7 *ug/L*	ND	ND	6.1 *ug/L*	-

ND: Not detected at the report limit

The laboratory report and Chain of Custody documentation are attached.

CONCLUSIONS AND RECOMMENDATIONS

Based on the assessment findings, the groundwater at the subject site has been impacted by petroleum related materials. The concentrations obtained from certified laboratory analyses exceed groundwater regulatory standards. Additional assessment will be required to adequately delineate the site contamination.

Surface topography indicates that groundwater and any related contaminant plume migration is likely to the southeast from the tank area. The test borings were placed topographically down-gradient of the UST systems, along the southeastern property boundary with the Highway 29 By-Pass Right-of-Way. Considering the contaminant concentrations reported for B-1 in the laboratory results, it is likely that contaminated groundwater has migrated off-site. Additional assessment will be required to determine the extents of soil and groundwater contamination at this site.

It is our opinion that groundwater contamination is the result of the previous UST systems. This is based on the confirmed release reported for the original tanks at this site, the past tank tightness test results for the current system and the depth to groundwater, taking into consideration that the current UST systems appear to have been installed in accordance with current UST regulations. There was no evidence of a failure of the current systems resulting in a subsurface release of petroleum related materials.

LIMITATIONS

This assessment is considered preliminary. The information obtained during the assessment was not sufficient to determine the extent of site contamination or the direction of groundwater migration.

This assessment was performed for the sole use of the Client. The scope of services performed in execution of this assessment may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user. Furthermore, Spero is not responsible for the independent conclusions, opinions or recommendations made by others based on an interpretation of the findings of this assessment.

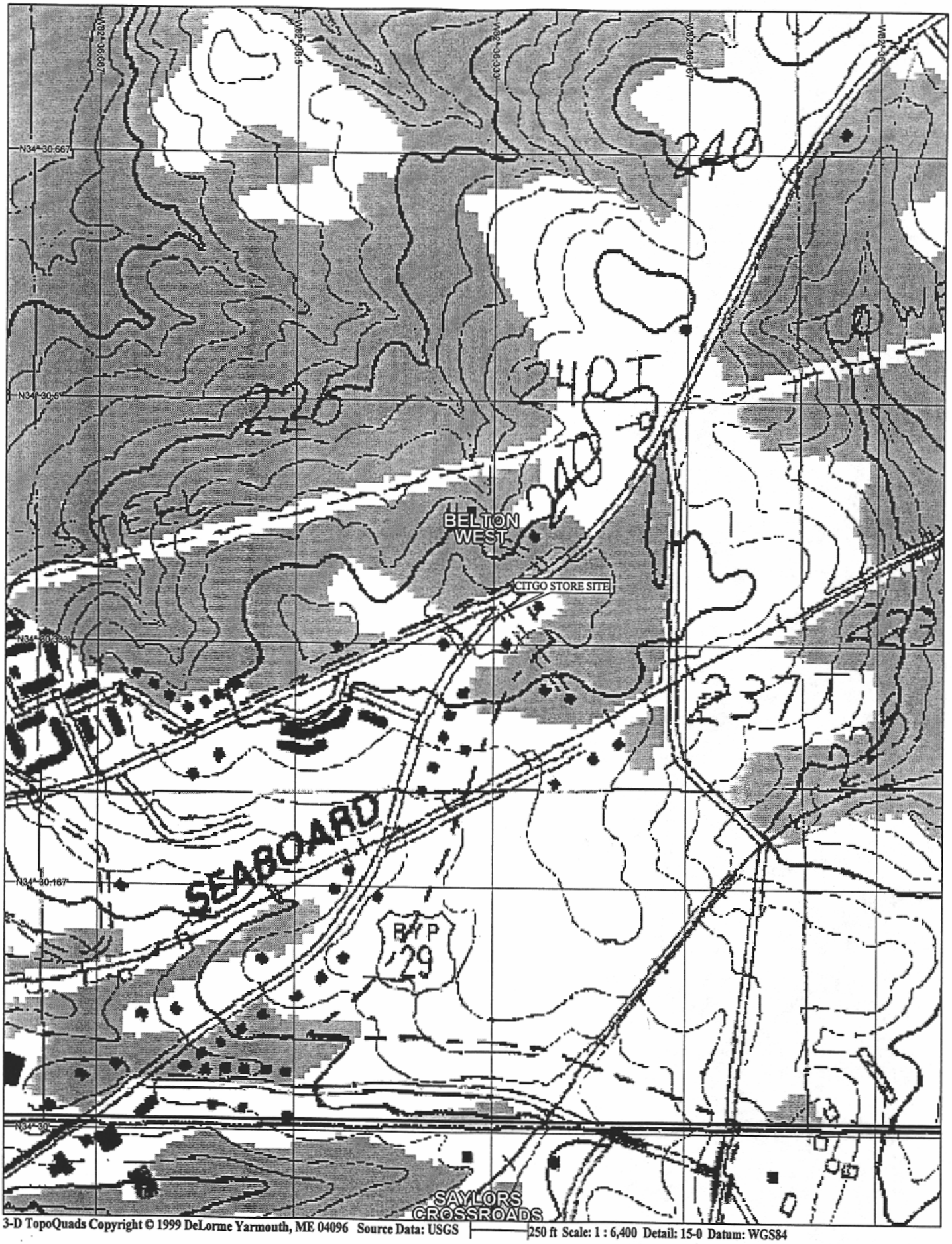
Thank you for the opportunity to be of assistance on this project. If you have any questions regarding this report, please do not hesitate to contact us.

Sincerely,

Stan Johnson, P.E.
Spero Corporation
SC License # 16212

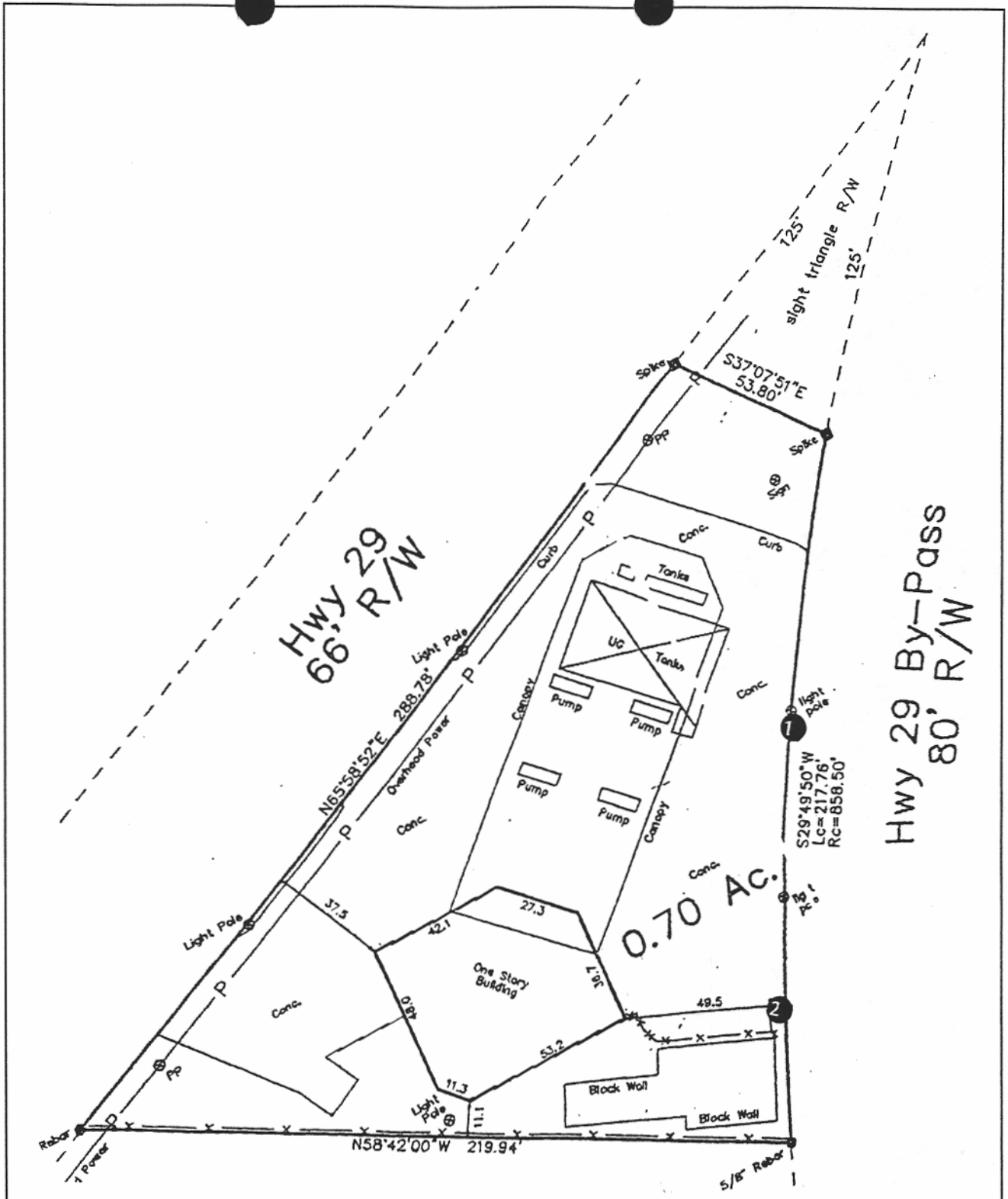
Attachments:

- Site Related Maps
- Laboratory Reports



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS

250 ft Scale: 1 : 6,400 Detail: 15-0 Datum: WGS84



Spero Corporation

119 SE Main Street, Simpsonville, South Carolina 29681
(864)963-5500 1-800-955-7634 fax (864)228-9100

Professional Engineering & Environmental Services

Project: *Citgo Store*
1312 Williamston Road
Anderson, SC

Date: *June 1, 2004* **Reviewed By:** *S. Johnson*

Site & Boring Layout Map

TestAmerica
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ANALYTICAL REPORT

SPERO CORPORATION 2213
STAN JOHNSON
119 SE MAIN
SIMPSONVILLE, SC 29681

Project: 04-05056
Project Name: 1312 HWY 29B CITGO
Sampler: STAN JOHNSON

Lab Number: 04-A78720
Sample ID: SB-1
Sample Type: Soil
Site ID:

Date Collected: 5/21/04
Time Collected: 12:30
Date Received: 5/22/04
Time Received: 8:00

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	78.6	%		1	5/22/04	12:36	Fitzwater	CLP	3664
VOLATILE ORGANICS									
Benzene	10.1	mg/kg	0.107	100	6/ 3/04	13:29	S. Edwards	8260B	6050
1,2-Dibromoethane	ND	mg/kg	0.107	100	6/ 3/04	13:29	S. Edwards	8260B	6050
Ethylbenzene	31.1	mg/kg	1.07	1000	6/ 3/04	14:57	S. Edwards	8260B	6068
Naphthalene	16.1	mg/kg	2.68	1000	6/ 3/04	14:57	S. Edwards	8260B	6068
Toluene	90.7	mg/kg	1.07	1000	6/ 3/04	14:57	S. Edwards	8260B	6068
Xylenes (Total)	148	mg/kg	1.07	1000	6/ 3/04	14:57	S. Edwards	8260B	6068
Methyl-t-butyl ether	0.311	mg/kg	0.107	100	6/ 3/04	13:29	S. Edwards	8260B	6050

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	9.32 g	5.0 ml	5/21/04	12:30	Fitzwater	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	104.	59. - 134.
VOA Surr Toluene-d8	97.	67. - 129.
VOA Surr, 4-BFB	121.	60. - 134.
VOA Surr, DBFM	97.	67. - 126.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A78720
Sample ID: SB-1
Project: 04-05056

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

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ANALYTICAL REPORT

SPERO CORPORATION 2213
STAN JOHNSON
119 SE MAIN
SIMPSONVILLE, SC 29681

Project: 04-05056
Project Name: 1312 HWY 29B CITGO
Sampler: STAN JOHNSON

Lab Number: 04-A78721
Sample ID: GW-1
Sample Type: WATER
Site ID:

Date Collected: 5/21/04
Time Collected: 12:45
Date Received: 5/22/04
Time Received: 8:00

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
TPH (Diesel Range)	10600	ug/L	1110	10.0	5/26/04	13:41	M.Jarrett	8015B/3510	6531
Naphthalene	810.	ug/L	20.0	10.0	5/26/04	17:43	R. Beard	8270C	5613
Acenaphthene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Anthracene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Fluoranthene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Fluorene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Pyrene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Benzo(a)anthracene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Benzo(a)pyrene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Benzo(b)fluoranthene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Benzo(k)fluoranthene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Chrysene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Dibenzo(a,h)anthracene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Indeno(1,2,3-cd)pyrene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Acenaphthylene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Benzo(g,h,i)perylene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
Phenanthrene	ND	ug/L	2.0	1.0	5/25/04	20:49	R. Beard	8270C	5613
VOLATILE ORGANICS									
Benzene	18500	ug/L	500.	500.	5/31/04	8:08	S. Udeze	8260B	2360
Toluene	30000	ug/L	500.	500.	5/31/04	8:08	S. Udeze	8260B	2360
Ethylbenzene	3830	ug/L	50.0	50.0	5/31/04	7:39	S. Udeze	8260B	2342
Xylenes (Total)	19200	ug/L	50.0	50.0	5/31/04	7:39	S. Udeze	8260B	2342
1,2-Dibromoethane	270.	ug/L	50.0	50.0	5/31/04	7:39	S. Udeze	8260B	2342
Methyl-t-butyl ether	186.	ug/L	1.0	1.0	5/31/04	6:24	S. Udeze	8260B	2331
Naphthalene	1520	ug/L	250.	50.0	5/31/04	7:39	S. Udeze	8260B	2342

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A78721
Sample ID: GW-1

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	1000 ml	1.0 ml	5/24/04		M. Ricke	3510/625
EPH	900. ml	1.00 ml	5/25/04		M. Ricke	3510

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	100.	71. - 128.
VOA Surr Toluene-d8	100.	77. - 119.
VOA Surr, 4-BFB	100.	79. - 123.
VOA Surr, DBFM	100.	78. - 124.
BNA Surr-Nitrobenzene-d5	65.	25. - 121.
BNA Surr-2-Fluorobiphenyl	81.	33. - 111.
BNA Surr-Terphenyl-d14	89.	11. - 139.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
The TRPH-Diesel surrogate was diluted out due to sample matrix.

End of Sample Report.

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ANALYTICAL REPORT

SPERO CORPORATION 2213
STAN JOHNSON
119 SE MAIN
SIMPSONVILLE, SC 29681

Project: 04-05056
Project Name: 1312 HWY 29B CITGO
Sampler: STAN JOHNSON

Lab Number: 04-A78722
Sample ID: GW-2
Sample Type: WATER
Site ID:

Date Collected: 5/21/04
Time Collected: 14:40
Date Received: 5/22/04
Time Received: 8:00

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	6.0	ug/L	1.0	1.0	6/ 1/04	13:56	M.Himelick	8260B	3613
Toluene	27.8	ug/L	1.0	1.0	6/ 1/04	13:56	M.Himelick	8260B	3613
Ethylbenzene	11.4	ug/L	1.0	1.0	6/ 1/04	13:56	M.Himelick	8260B	3613
Xylenes (Total)	57.7	ug/L	1.0	1.0	6/ 1/04	13:56	M.Himelick	8260B	3613
1,2-Dibromoethane	ND	ug/L	1.00	1.0	6/ 1/04	13:56	M.Himelick	8260B	3613
Methyl-t-butyl ether	ND	ug/L	1.0	1.0	6/ 1/04	13:56	M.Himelick	8260B	3613
Naphthalene	6.10	ug/L	5.00	1.0	6/ 1/04	13:56	M.Himelick	8260B	3613

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	100.	71. - 128.
VOA Surr Toluene-d8	99.	77. - 119.
VOA Surr, 4-BFB	101.	79. - 123.
VOA Surr, DBFM	99.	78. - 124.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number: 04-05056
Project Name: 1312 HWY 29B CITGO
Page: 1
Laboratory Receipt Date: 5/22/04

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
UST ANALYSIS								
Naphthalene	mg/l	< 0.0007	0.0220	0.0500	44	32. - 101.	5613	BLANK
Naphthalene	mg/l	< 0.0007	0.0220	0.0500	44	32. - 101.	5613	BLANK
Acenaphthene	mg/l	< 0.0008	0.0260	0.0500	52	40. - 113.	5613	BLANK
Anthracene	mg/l	< 0.0009	0.0490	0.0500	98	48. - 122.	5613	BLANK
Fluoranthene	mg/l	< 0.0008	0.0480	0.0500	96	48. - 127.	5613	BLANK
Fluorene	mg/l	< 0.0008	0.0320	0.0500	64	45. - 120.	5613	BLANK
Pyrene	mg/l	< 0.0009	0.0490	0.0500	98	49. - 127.	5613	BLANK
Benzo(a)anthracene	mg/l	< 0.0009	0.0470	0.0500	94	49. - 126.	5613	BLANK
Benzo(a)pyrene	mg/l	< 0.0008	0.0490	0.0500	98	48. - 126.	5613	BLANK
Benzo(b)fluoranthene	mg/l	< 0.0007	0.0460	0.0500	92	45. - 127.	5613	BLANK
Benzo(k)fluoranthene	mg/l	< 0.0009	0.0440	0.0500	88	46. - 134.	5613	BLANK
Chrysene	mg/l	< 0.0010	0.0430	0.0500	86	48. - 126.	5613	BLANK
Dibenzo(a,h)anthracene	mg/l	< 0.0008	0.0500	0.0500	100	31. - 149.	5613	BLANK
Indeno(1,2,3-cd)pyrene	mg/l	< 0.0008	0.0490	0.0500	98	26. - 147.	5613	BLANK
Acenaphthylene	mg/l	< 0.0008	0.0290	0.0500	58	41. - 112.	5613	BLANK
Benzo(g,h,i)perylene	mg/l	< 0.0007	0.0470	0.0500	94	26. - 152.	5613	BLANK
Phenanthrene	mg/l	< 0.0008	0.0420	0.0500	84	47. - 122.	5613	BLANK
TPH (Diesel Range)	mg/l	< 0.100	1.03	1.00	103	10. - 143.	6531	blank
VOA PARAMETERS								
Benzene	mg/l	< 0.0005	0.0566	0.0500	113	73 - 135	3613	blank
Benzene	mg/kg	< 0.0020	0.0498	0.0500	100	33 - 139	6050	81824
Toluene	mg/l	< 0.0006	0.0497	0.0500	99	69 - 139	3613	blank
VOA Surr 1,2-DCA-d4	% Rec				99	71 - 128	3613	
VOA Surr Toluene-d8	% Rec				99	77 - 119	3613	
VOA Surr, 4-BFB	% Rec				102	79 - 123	3613	
VOA Surr, DBFM	% Rec				101	78 - 124	3613	
BNA Surr-Nitrobenzene-d5	% Rec				81	25 - 121	5613	
BNA Surr-2-Fluorobiphenyl	% Rec				86	33 - 111	5613	
BNA Surr-Terphenyl-d14	% Rec				93	11 - 139	5613	

Project QC continued . . .

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ANALYTICAL REPORT

SPERO CORPORATION 2213
STAN JOHNSON
119 SE MAIN
SIMPSONVILLE, SC 29681

Project: 04-05056
Project Name: 1312 HWY 29B CITGO
Sampler: STAN JOHNSON

Lab Number: 04-A79567
Sample ID: GW-2 (SOIL)
Sample Type: Soil
Site ID:

Date Collected: 5/21/04
Time Collected: 14:40
Date Received: 5/22/04
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
TPH (Diesel Range)	ND	mg/kg	10.1	1	5/28/04	2:26	M.Jarrett	8015B	7668
Naphthalene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Acenaphthene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Anthracene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Fluoranthene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Fluorene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Pyrene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Benzo(a)anthracene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Benzo(a)pyrene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Benzo(b)fluoranthene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Benzo(k)fluoranthene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Chrysene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Acenaphthylene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Benzo(g,h,i)perylene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494
Phenanthrene	ND	mg/kg	0.066	1	5/30/04	13:25	J.Shelton	8270C	7494

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 04-A79567
Sample ID: GW-2 (SOIL)
Project: 04-05056

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	30.1 gm	1.0 ml	5/26/04		M. Ricke	3550
EPH/DRO	24.7 gm	1.0 ml	5/26/04		M. Ricke	3550

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	93.	35. - 135.
BNA Surr-Nitrobenzene-d5	50.	10. - 164.
BNA Surr-2-Fluorobiphenyl	53.	51. - 96.
BNA Surr-Terphenyl-d14	57.	52. - 106.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division
2960 Foster Creighton
Nashville, TN 37204

Phone: 615-726-0177
Fax: 615-726-3404

~~376265~~ (376)
376421

Client Name: Spero Corporation Client #: 2213
Address: 119 SE Main St.
State/Zip Code: Simpsonville, SC 29681
Project Manager: Stan Johnson
Telephone Number: 864 963 5500 Fax: 864 228 9100
Sampler Name: (Print Name) Stan Johnson
Sampler Signature: Stan Johnson

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring: yes

Project Name: 1312 Hwy 29 B Citgo
Project #: 04-05056
Site/Location ID: State: SC
Report To: Spero
Invoice To: Spero
Quote #: 88031111799 PO#: 04-050564

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: 5/31/04
Fax Results: (Y) N

QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: ___

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol CH_3OH	None	Other (Specify) Na#S_2O_3	Analyze For: BTEX/Naph/MTBE/EDB	PAH	TPH-DRO							REMARKS
GW-1	5/21/04	12:15P	G		GW		7				1		X	X	X		78	72	1			
GW-2	5/21/04	2:40P	G		GW		7				1		X	X	X		~~78~~	~~72~~	~~0~~ RBC			04-A79567-1
SB-1	5/21/04	12:30P	G		S					1	1	2	X		X		78	72	0			Depth

Special Instructions:
Ship O/N Fedex

	Date:	Time:		Date:	Time:
Relinquished By: Stan Johnson	5/21/04	6:40P	Received By:		
Relinquished By:			Received By:		
Relinquished By:			Received By:	5/22/04	800

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

JAN 3 1 2008

MS EUNICE FULLER
KEN MOORHEAD OIL INCORPORATED
PO BOX 2587
ANDERSON SC 29622-2587

Re: AFVR and Assessment Report Directive
M D Food Mart (Former KMO #119), 1312 Williamston Road, Anderson, SC
UST Permit #00505; CA #31572; MWA #UMW-21452
Release Reported December 20, 1989
Tier II Plan and Associated Cost Agreement received January 15, 2008
Anderson County

Dear Ms. Fuller:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC), has reviewed the referenced plan submitted by Bunnell-Lammons Engineering Incorporated. The UST Program agrees with your site rehabilitation contractor that an Aggressive Fluid and Vapor Recovery (AFVR) event to remove free phase product in monitoring wells MW-10 and MW-11, and additional assessment activities to define the extent of product and dissolved phase petroleum Chemicals of Concern (CoC) will be necessary.

Cost agreement 31572 has been approved in the amount shown on the enclosed cost agreement form for one AFVR event on monitoring well MW-10 and a second event on monitoring well MW-11, installation of fifteen monitoring wells, tax map information, free product recovery test in three wells, groundwater sampling event of the monitoring well network and the private well, and report preparation. Please be aware that the February 1, 2006 SUPERB Allowable Costs sheet states, "If vertical and horizontal extent of chemicals of concern are not fully defined by this tier report, additional mobilizations may not be approved by the Department." Approval for nine shallow and six deep monitoring wells has been provided to your site rehabilitation contractor. A copy is enclosed for your information. The free product recovery tests should be conducted prior to an AFVR event. Groundwater samples from all private wells within 1,000 feet of the facility should be collected and analyzed for BTEX, naphthalene, and MtBE. Groundwater samples from all monitoring wells associated with the release should be collected approximately 30 days after the last AFVR event and analyzed for BTEX, naphthalene, MtBE, lead, PAHs, EDB, 8 oxygenates, nitrates, sulfates, ferrous iron, and 1,2 DCA in accordance with *Analytical Methodology for Groundwater and Soil Assessment Guidelines* dated August 24, 2005. A copy of this publication is available on line at http://www.scdhec.gov/eqc/ admin/html/..%5C..ust% 5Cpubs% 5Canalmet.pdf.

The AFVR/ Assessment Report and invoice are due within 100 days from the date of this letter. The AFVR/Assessment Report submitted at the completion of these activities should include the following:

- A narrative portion documenting the AFVR event noting site conditions, the name of the AFVR, contractor, field personnel, date, time each AFVR event started and ended, ambient air temperature general weather conditions during the AFVR event, and the estimated amount in gallons of the petroleum products removed as a liquid or vapor for the event. AFVR data reported must include product recovery rate, volatile air emission concentration, vacuum radius of influence measurements taken at 30-minute intervals during the event and gauging data from adjacent wells. All wells

UST PROGRAM
DOCKETING #

containing free phase product should be gauged at the beginning and end of each AFVR event. Disposal manifests for the AFVR event should be included as part of the final report.

- A narrative portion documenting current site conditions during the groundwater sampling event noting the names of field personnel, date, time, ambient air temperature, and general weather conditions during the sampling event. The report shall also contain well purging data, pH, specific conductivity, water temperature, PID readings (where applicable) and turbidity comments.
- Geological cross sections that include the new shallow and deep monitoring wells.
- Results of the bail down/ free product recovery tests.
- Boring logs and well logs (DHEC form 1903) signed by a well driller licensed in the state of South Carolina for each new well.
- Groundwater elevations, depth to groundwater, measurable free product thickness (where applicable), total well depth and screened interval for all monitoring wells associated with the site, unless otherwise directed by the Program, shall be presented in tabular form. Groundwater laboratory analytical data for all monitoring wells for this and all previous sampling events shall be presented in tabular format.
- A CoC map based on current groundwater laboratory analytical data. The groundwater data should be adjacent to the relevant monitoring well location.
- A groundwater elevation contour map of the site based on current groundwater potentiometric data.
- Manifests for any contaminated soil and/or groundwater removed from the site for treatment and/or disposal.
- Signature and seal by a professional geologist or engineer registered in the State of South Carolina.

Bunnell-Lammons Engineering Incorporated can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account for approved costs. An interim well drilling invoice may be submitted for well installation. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available. Please be advised if the time frame exceeds 45 days between the date when groundwater samples are collected and the date the report of findings is received, the analytical data will not be considered current and Bunnell-Lammons Engineering Incorporated will not be reimbursed for a personnel mobilization to collect the groundwater samples, laboratory analyses, or associated disposal costs.

Please be advised that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Please note that you and/or your contractor are responsible for obtaining all off-site access agreements and/or encroachment permits necessary for this scope of work.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Program is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Program for the cost to be paid. The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Department grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the COC concentrations, based on laboratory analysis, are below Risk Based Screening Levels (RBSLs), please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence or inquiries regarding this project, please reference UST permit number 00505 and cost agreement 31572. If you have any questions, please contact me at (803) 896-6669, fax me at (803) 896-6245, or e-mail me at shradeaa@dhec.sc.gov if you have questions or need additional information.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Monitoring Well Approval (MWA)
Approved Cost Agreement (ACA)

cc: Bunnell-Lammons Engineering Inc., 6004 Ponders Ct., Greenville, SC 29615 (with enc.)
Technical File (with enc.)

D H E C

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C. Earl Hunter, Commissioner

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

Monitoring Well Approval

Approval is hereby granted to:	Bunnell-Lammons Engineering, Incorporated
(On behalf of:):	Ken Moorhead Oil Company
Facility:	M D Food Mart (Former KMO #119), 1312 Williamston Road, Anderson, SC
UST Permit Number:	00505
County:	Anderson

This approval is for the installation of up to nine shallow and six deep pit cased groundwater monitoring wells. The monitoring wells are to be installed in the approved locations. Monitoring wells are to be installed following the South Carolina Well Standards, R.61-71, and the applicable guidance documents.

Please note that R.61-71 requires the following:

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.
2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.
3. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted to the Department within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f
4. All analytical data and water levels obtained from each monitoring well shall be submitted to the Department within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.
5. If any of the information provided to the Department changes, notification to Arthur Shrader (tel: (803) 896-6669 or e-mail: shradeaa@dhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.
6. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.
7. Monitoring wells shall have Department approval prior to abandonment as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated April 26, 2002. A copy of this approval should be on the site during well installation.

Date of Issuance: **January 17, 2008** **Approval #:** **UMW-21452**

Arthur Shrader, Hydrogeologist
Assessment Section
Division of Assessment and Corrective Action
Bureau of Land and Waste Management

Approved Cost Agreement 31572

Facility: 00505 M D FOOD MART
SHRADEAA
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
01 PLAN						
		A	PLAN PREPARATION	1.0000	100.00	100.00
		B	TAX MAPS	1.0000	50.00	50.00
03 COMPREHENSIVE SURVEY						
			COMPREHENSIVE SURVEY	1.0000	1,000.00	1,000.00
04 MOB/DEMOB						
		A	EQUIPMENT	4.0000	550.00	2,200.00
		B	PERSONNEL	5.0000	275.00	1,375.00
09 WELL INSTALLATION						
		B	WATER TABLE (DRILLED)	100.0000	38.00	3,800.00
		C	TELESCOPING	480.0000	58.00	27,840.00
		D	ROCK DRILLING	450.0000	58.00	26,100.00
10 SAMPLE COLLECTION						
		A	GROUND WATER	20.0000	55.00	1,100.00
		C	WATER SUPPLY	1.0000	25.00	25.00
		D	GROUNDWATER NO-PURGE	26.0000	35.00	910.00
		F	SAMPLE BELOW PRODUCT	3.0000	50.00	150.00
11 ANALYSES						
	GW GROUNDWATER	A	BTEX+NAPTH+MTBE	50.0000	100.00	5,000.00
		BB	1,2-DCA	49.0000	10.75	526.75
		E	LEAD	49.0000	20.00	980.00
		F	EDB	49.0000	55.00	2,695.00
		K	NITRATE	49.0000	20.00	980.00
		L	SULFATE	49.0000	20.00	980.00
		M	FERROUS IRON	49.0000	20.00	980.00
		P	8 OXYGENATES	49.0000	85.00	4,165.00
13 FREE PRODUCT RECVRY RATE TEST						
			FREE PRODUCT RECVRY RATE TEST	3.0000	120.00	360.00
17 DISPOSAL						
		A1	WASTEWATER - PURGING/SAMPLING	3.0000	90.00	270.00
		A2	WASTEWATER - PUMPING TEST	1,000.0000	0.60	600.00
		C	SOIL (TREATMENT/DISPOSAL)	35.0000	50.00	1,750.00
19 RPT/PROJECT MNGT & COORDINATIO						
			PCT PERCENT	0.1500	90,496.75	13,574.51
23 EFR						
		A	8 HOUR EVENT	2.0000	3,000.00	6,000.00
		C	OFF GAS TREATMENT	16.0000	35.00	560.00
					Total Amount	104,071.26

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

CHRIS MOORHEAD
MOORHEAD OIL CO
PO BOX 2587
ANDERSON SC 29622-2587

JUN 16 2014

Re: Corrective Action Options
M D Food Mart, 1312 Williamston Rd., Anderson, SC
UST Permit #00505
Release reported December 20, 1989
Monitoring Report received April 11, 2014
Anderson County

Dear Mr. Moorhead:

The Underground Storage Tank (UST) Management Division (Division) of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced report submitted by Bunnell Lammons Engineering on your behalf. The report indicates that active corrective action is necessary at the site to mitigate petroleum impact and ensure that there is no detrimental exposure to human health or the environment.

Funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account will soon be available for active corrective action. The selected technology must reduce the petroleum chemicals of concern (CoC) concentrations to site-specific target levels (SSTLs) determined by the Division.

The SUPERB Site Rehabilitation and Fund Access Regulations R.61-98 require the UST owner/operator to develop and implement a reasonable, cost-effective corrective action to be performed by an Agency-certified site rehabilitation contractor. As the owner/operator you are the responsible party for the release reported on December 20, 1989. You may choose one of two options as to how to proceed with this requirement: state lead or owner/operator lead.

State Lead Option:

- If you choose the state lead option, the Division will procure a certified site rehabilitation contractor to perform corrective action on your behalf. The Agency will enter into an enforceable contract with the awarded contractor. As long as you do not interfere with or prohibit the work at your site, DHEC will not hold you responsible for the failure of the state selected contractor to meet the terms of the contract. To utilize the state lead option, please sign and return the applicable Permission Form "A" within 15 days of the date of this letter.

Owner/Operator Lead Option:

- If you select the owner/operator lead option, you will be required to select a contractor to perform the corrective action. In order to assist you in determining the clean-up technology, time frame, clean-up levels, and associated costs, the Division will prepare a technical specification package and provide you copies to send to contractors of your choice. In addition, the Division will announce the request for solicitations in the South Carolina Business Opportunities, a bi-weekly state government publication, to ensure that an adequate solicitation response is obtained so that a fair and competitive price can be established. This announcement will clearly indicate that you will select the contractor to implement the corrective action.
- Compensation to the contractor will be from the SUPERB Account, but you may have the obligation to pay your selected contractor for any costs not approved by the Agency.
- The Division strongly suggests that a written contract between you and the selected contractor be developed following the completion of the solicitation process. The parties to this contract would be you and the contractor you choose; the Agency would not be a party to this contract. The Division's function would be to monitor and ensure progress of corrective action activities.
- If the contractor you select does not or cannot complete the required activities, you will be required to find another certified contractor to complete the required activities for the remainder of the existing financial approval amount. No additional funding from the SUPERB Account may be allowed. Under R.61-92, Part 280: Underground Storage Tank Control Regulations, you as the owner/operator are ultimately responsible to the Agency for the actions of your contractor. The Agency will pursue enforcement actions against you if the contractor you select does not make satisfactory progress towards achieving established corrective actions goals. To utilize the owner/operator lead option, please sign and return the enclosed Active Corrective Action Options Form "B" within 15 days of the date of this letter.

On all correspondence or inquiries regarding this project, please reference UST Permit #00505. If you have any questions, please contact me at (803) 898-0608 or minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Permission form "A"
Active Corrective Action Options form "B"

cc: Technical file (w/o enc)

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Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

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DOCKETING

CHRIS MOORHEAD
MOORHEAD OIL CO
PO BOX 2587
ANDERSON SC 29622-2587

OCT 2 1 2014

Re: Corrective Action Options-2nd Request
M D Food Mart, 1312 Williamston Rd., Anderson, SC
UST Permit #00505
Release reported December 20, 1989
Monitoring Report received April 11, 2014
Anderson County

Dear Mr. Moorhead:

The Underground Storage Tank (UST) Management Division (Division) of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced report submitted by Bunnell Lammons Engineering on your behalf. The report indicates that active corrective action is necessary at the site to mitigate petroleum impact and ensure that there is no detrimental exposure to human health or the environment.

Funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account will soon be available for active corrective action. The selected technology must reduce the petroleum chemicals of concern (CoC) concentrations to site-specific target levels (SSTLs) determined by the Division.

The SUPERB Site Rehabilitation and Fund Access Regulations R.61-98 require the UST owner/operator to develop and implement a reasonable, cost-effective corrective action to be performed by an Agency-certified site rehabilitation contractor. As the owner/operator you are the responsible party for the release reported on December 20, 1989. You may choose one of two options as to how to proceed with this requirement: state lead or owner/operator lead.

State Lead Option:

- If you choose the state lead option, the Division will procure a certified site rehabilitation contractor to perform corrective action on your behalf. The Agency will enter into an enforceable contract with the awarded contractor. As long as you do not interfere with or prohibit the work at your site, DHEC will not hold you responsible for the failure of the state selected contractor to meet the terms of the contract. To utilize the state lead option, please sign and return the applicable Permission Form "A" within 15 days of the date of this letter.

Owner/Operator Lead Option:

- If you select the owner/operator lead option, you will be required to select a contractor to perform the corrective action. In order to assist you in determining the clean-up technology, time frame, clean-up levels, and associated costs, the Division will prepare a technical specification package and provide you copies to send to contractors of your choice. In addition, the Division will announce the request for solicitations in the South Carolina Business Opportunities, a bi-weekly state government publication, to ensure that an adequate solicitation response is obtained so that a fair and competitive price can be established. This announcement will clearly indicate that you will select the contractor to implement the corrective action.
- Compensation to the contractor will be from the SUPERB Account, but you may have the obligation to pay your selected contractor for any costs not approved by the Agency.
- The Division strongly suggests that a written contract between you and the selected contractor be developed following the completion of the solicitation process. The parties to this contract would be you and the contractor you choose; the Agency would not be a party to this contract. The Division's function would be to monitor and ensure progress of corrective action activities.
- If the contractor you select does not or cannot complete the required activities, you will be required to find another certified contractor to complete the required activities for the remainder of the existing financial approval amount. No additional funding from the SUPERB Account may be allowed. Under R.61-92, Part 280: Underground Storage Tank Control Regulations, you as the owner/operator are ultimately responsible to the Agency for the actions of your contractor. The Agency will pursue enforcement actions against you if the contractor you select does not make satisfactory progress towards achieving established corrective actions goals. To utilize the owner/operator lead option, please sign and return the enclosed Active Corrective Action Options Form "B" within 15 days of the date of this letter.

On all correspondence or inquiries regarding this project, please reference UST Permit #00505. If you have any questions, please contact me at (803) 898-0608 or minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Permission form "A"
Active Corrective Action Options form "B"

cc: Technical file (w/o enc)

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DOCKETING

State Lead Option

PERMISSION FORM "A"

UNDERGROUND STORAGE TANK OWNER

UST Permit #00505

If you are the owner of the former or existing underground storage tanks for the release reported on December 20, 1989 or are designated as their authorized representative, but do not own the property, please complete this form.

I, Marian Moorhead Oil Inc certify that I am the legal owner of the former underground storage tank(s) located at the facility identified below and for the release reported on December 20, 1989 or serve as the authorized representative for the UST owner. I grant permission to the South Carolina Department of Health and Environmental Control (Agency) to secure on my behalf services of a contractor to conduct assessment and corrective action activities, as required. The contractor will be designated as my contractor for only the required environmental site rehabilitation activities. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that SCDHEC or its contractor will be responsible for obtaining right-of-entry from the property owner and notifying me of all activities that are necessary prior to their initiation and will promptly provide to me a copy of each environmental report. I understand that I may choose to select my own contractor at the completion of any phase of work by notifying the Division of Underground Storage Tank Management in writing.

Name of Facility M D Food Mart Phone # _____
Street Address of Facility 1312 Williamston Rd.
Town, City, District, Suburb Anderson, SC
Name of nearest intersecting street, road, highway, alley Hwy 29 Bypass

NAME of UST owner (Please Print): Marian Moorhead Oil, Inc.

Phone Number (home) 864 226-3082 (work) _____

Signature of UST Owner: Marian Moorhead / agent

Witness: Kris Mooneyham

Date: 10 Month 04 Day 2014 Year

Please return to Read Miner, SCDHEC UST Division, 2600 Bull St., Columbia, SC 29201

D H E C
PROMOTE PROTECT PROSPER
W. Marshall Taylor Jr., Acting Director
Promoting and protecting the health of the public and the environment

UST DOCKETING 43tech

JUN 0 8 2015

CHRIS MOORHEAD
MOORHEAD OIL CO
PO BOX 2587
ANDERSON SC 29622

Re: **Site Specific Work Plan Directive**
M D Food Mart, 1312 Williamston Rd., Anderson, SC
Permit # 00505
Release reported December 20, 1989
Monitoring Report received April 11, 2014
Anderson County

Dear Mr. Moorhead:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced report.

To evaluate the current site conditions, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, please have your contractor develop a Site Specific Work Plan for a groundwater sampling event. Sampling should include all of the monitoring wells trip blanks, field blanks, and field duplicates for BTEX, naphthalene, 1,2-DCA, MTBE, oxygenates, and EDB. The groundwater sampling event should be conducted in accordance with the UST Quality Assurance Program Plan Revision 2.0 and must be conducted in compliance with all applicable regulations. A copy of QAPP Revision 2.0 for the Underground Storage Tank Division is available at http://www.scdhec.gov/environment/docs/QAPP_Rev-2_April2013.pdf.

Please have your contractor submit the Site Specific Work Plan and Cost Agreement within thirty days of the date of this letter. The State Underground Petroleum Environmental Response Bank (SUPERB) Account allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that technical and financial pre-approval from the Agency must be issued before work begins.**

On all correspondence concerning this site, please reference UST Permit #00505. If you have any questions, please contact me at (803) 898-0608 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Technical File
Bunnell Lammons Engineering, 6004 Ponders Ct., Greenville, SC 29615

Document Receipt Information

☐ Hard Copy ☒ CD ☐ Email

Date Received 7/2/15

Permit Number 00505

Project Manager Read Mines

Name of Contractor BLE

UST Certification Number

Docket Number 44 tech

Scanned

SSWP - GW Sampling Event

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

June 29, 2015

South Carolina Department of Health and Environmental Control
Underground Storage Tank Management Division
2600 Bull Street
Columbia, South Carolina 29201-1708

Attention: Mr. Read S. Miner, P.G., Hydrogeologist

Subject: **Site Specific Work Plan –Groundwater Sampling Event**
M D Food Mart (Former KMO 119)
1312 Williamston Road
Anderson, Anderson County, South Carolina
UST Permit #00505
BLE Project No. J15-3661-07

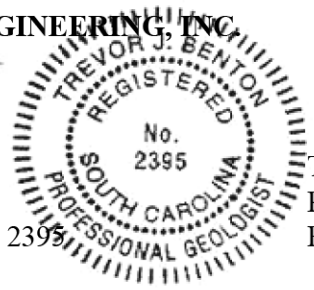
Dear Mr. Miner:

On behalf of Ken Moorhead Oil Company, Bunnell-Lammons Engineering, Inc. (BLE) submits herein the completed Site Specific Work Plan (SSWP) for the subject site. This submittal is in response to the South Carolina Department of Health and Environmental Control's (SCDHEC) SSWP request dated June 8, 2015, for the implementation of a groundwater sampling event at the subject site.

Please do not hesitate to contact us if you have any questions concerning this submittal.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.



Trevor J. Benton, P.G.
Senior Hydrogeologist
Registered, South Carolina No. 2395

Thomas L. Lammons, P.G., CHMM
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Kris Moorhead, Ken Moorhead Oil Company, P.O. Box 2587, Anderson, SC 29622

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

D H E C
PROMOTE PROTECT PROSPER

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Mr. Read S. Miner, P.G. (SCDHEC Project Manager)
From: Trevor J. Benton, P.G. (Contractor Project Manager)
Contractor: Bunnell-Lammons Engineering, Inc. UST Contractor Certification Number: UCC-0010

Facility Name: M D Food Mart (Former KMO 119) UST Permit #: 00505
Facility Address: 1312 Williamston Road, Anderson, South Carolina
Responsible Party: Ken Moorhead Oil Company Phone:
RP Address: P.O. Box 2587, Anderson, South Carolina 29622
Property Owner (if different): DEV Enterprises, LLC
Property Owner Address: 1304 Poinsett Highway, Greenville, South Carolina 29609
Current Use of Property: Active petroleum retail station and convenience store

Scope of Work (Please check all that apply)

☐ IGWA ☐ Tier II ☑ Groundwater Sampling ☐ GAC
☐ Tier I ☐ Monitoring Well Installation ☐ Other

Analyses (Please check all that apply)

Groundwater/Surface Water:

☑ BTEXNMDCA (8260B) ☐ Lead ☐ BOD ☐ Methane
☑ Oxygenates (8260B) ☐ 8 RCRA Metals ☐ Nitrate ☐ Ethanol
☑ EDB (8011) ☐ TPH ☐ Sulfate ☐ Dissolved Iron
☐ PAH (8270D) ☐ pH ☐ Other

Soil:

☐ BTEXN ☐ 8 RCRA Metals ☐ TPH-DRO (3550B/8015B) ☐ Grain Size
☐ PAH ☐ Oil & Grease (9071) ☐ TPH-GRO (5030B/8015B) ☐ TOC

Air:

☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

____ Soil	1 Water Supply Wells	____ Air	3 Field Blank
66 Monitoring Wells	____ Surface Water	4 Duplicate	2 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.

# of shallow points proposed: 0 Estimated Footage: 0 feet per point
# of deep points proposed: 0 Estimated Footage: 0 feet per point
Field Screening Methodology: NA

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.

# of shallow wells: 0 Estimated Footage: 0 feet per point
# of deep wells: 0 Estimated Footage: 0 feet per point
# of recovery wells: 0 Estimated Footage: 0 feet per point
Monitoring Well development method (consistent with SOP): NA
Comments, if warranted:

UST Permit #: 00505 Facility Name: M D Food Mart (Former KMO 119)

Implementation Schedule (Number of calendar days from approval)

Field Work Start-Up: 20 Field Work Completion: 45

Report Submittal: 90 # of Copies Provided to Property Owners: 1

Aquifer Characterization

Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

NA

Investigation Derived Waste Disposal

Soil: 0 Tons Purge Water: 0 Gallons

Drilling Fluids: 0 Gallons Free-Phase Product: 0 Gallons

Additional Details For This Scope of Work

For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.

Sample all existing monitoring wells associated with the facility and one out-of-service water supply well. Since the wells have not been sampled within the past calendar year, purging will be required. Groundwater and puring activities will be conducted in accordance with BLE's approved ACQAP.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)

Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.

Name of Laboratory:

SCDHEC Certification Number:

Name of Laboratory Director:

NA Well Driller as indicated in ACQAO? (Yes/No) If no, indicate driller information below.

Name of Well Driller:

SCLLR Certification Number:

No Other variations from ACQAP. Please describe below.

Attachments

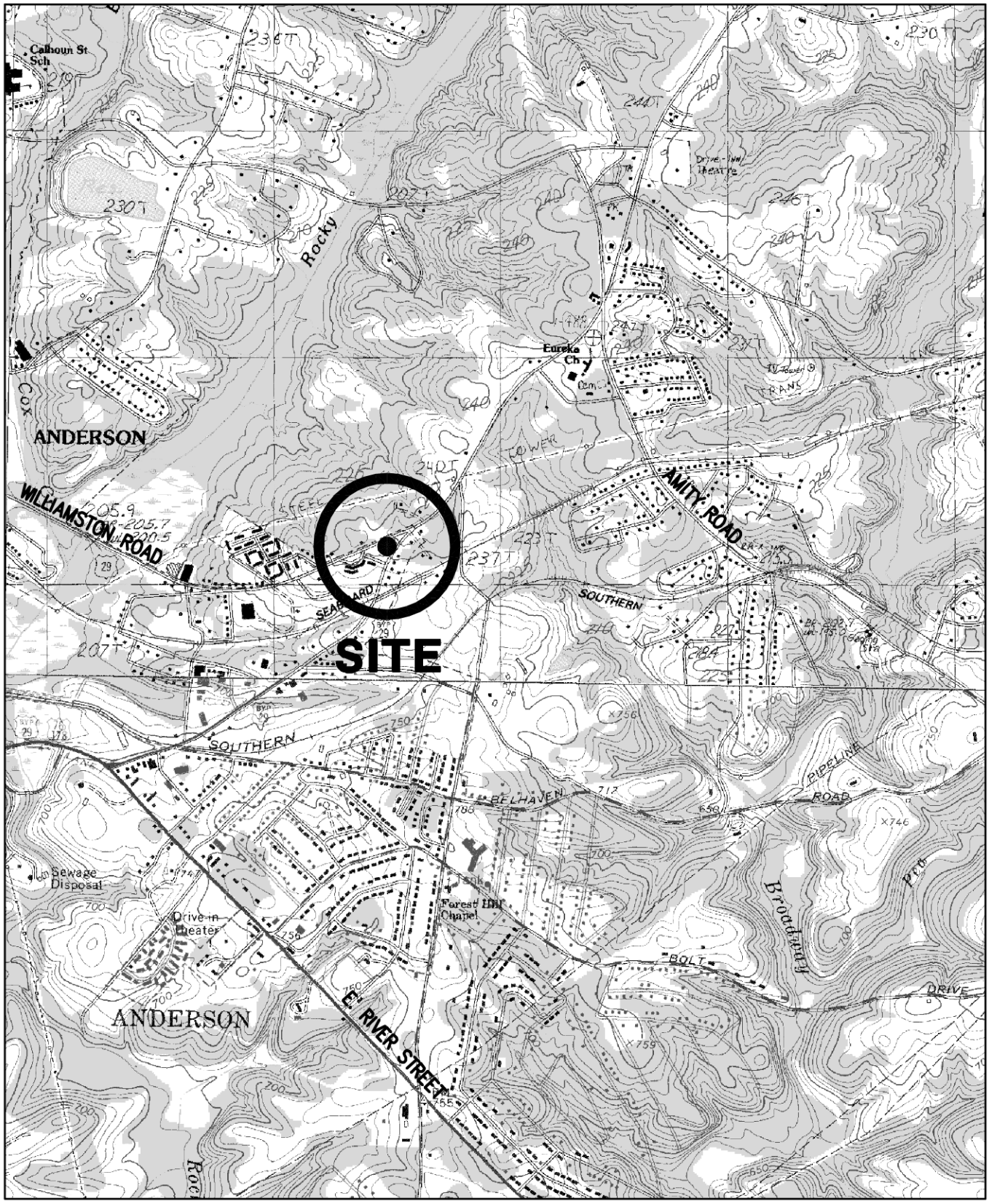
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.

2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:

North Arrow	Proposed monitoring well locations
Location of property lines	Legend with facility name and address, UST permit number, and bar scale
Location of buildings	Streets or highways (indicate names and numbers)
Previous soil sampling locations	Location of all present and former ASTs and USTs
Previous monitoring well locations	Location of all potential receptors
Proposed soil boring locations	

3. Assessment Component Cost Agreement, SCDHEC Form D-3664

FIGURES

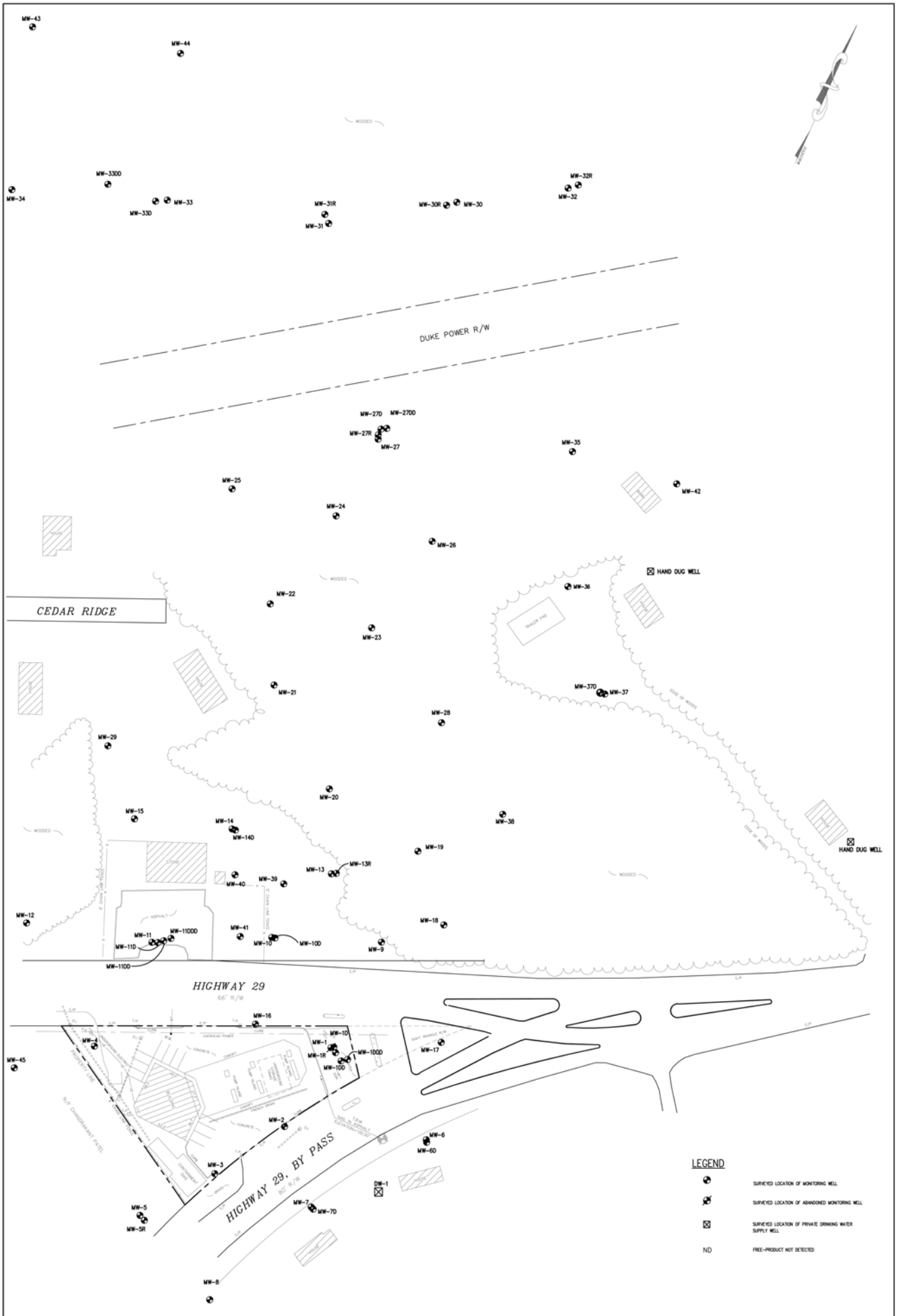


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, BELTON WEST AND SAYLORS CROSSROADS, S.C. QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: ACE	DATE: 06-29-15	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP MD FOOD MART (FORMER KMO #119) UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
CHECKED: TJB	CAD: MOORHEAD-06SLM		FIGURE 1
APPROVED:	JOB NO: J15-3661-07		



REFERENCE:
DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY EAS PROFESSIONALS, INC. DATED 9-14-09.

REVISIONS		
No.	DESCRIPTION	BY
1		
2		

DRAWN	ACE
CHECKED	TJB
APPROVED	
DATE	11-14-13
FILE	KM0119-06SP
JOB NO.	J13-3661-06

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

SITE PLAN
MD FOOD MART (FORMER KMO #119)
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE NO. 2

ASSESSMENT COMPONENT INVOICE

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account

Facility Name: M D Food Mart (Former KMO 119)

UST Permit #: 00505 **Cost Agreement #:** _____

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
1. **Plan Preparation**					
A1. Site-specific Work Plan	1	each	$150.00		$150.00
B1. Tax Map		each	$70.00		$0.00
C1. Tier II or Comp. Plan /QAPP Appendix B		each	$250.00		$0.00
2. A1. **Receptor Survey ***		each	$551.00		$0.00
3. **Survey (500 ft x 500 ft)**					
A1. Comprehensive Survey		each	$1,040.00		$0.00
B. Subsurface Geophysical Survey					
1B. < 10 meters below grade		each	$1,300.00		$0.00
2B. > 10 meters below grade		each	$2,310.00		$0.00
C1. Geophysical UST or Drum Survey		each	$910.00		$0.00
4. **Mob/Demob**					
A1. Equipment		each	$1,020.00		$0.00
B1. Personnel 67 wells	4	each	$423.00		$1,692.00
C1. Adverse Terrain Vehicle		each	$500.00		$0.00
5. A1. **Soil Borings (hand auger)***		foot	$5.00		$0.00
6. **Soil Borings (requiring equipment, push technology, etc)* or Field Screening (including water ssample, soil sample, soil gas sample, etc.)***					
A1. Standard		per foot	$15.00		$0.00
C1. Fractured Rock		per foot	$20.20		$0.00
7. A1. **Soil Leachability Model**		each	$60.00		$0.00
8. **Abandonment (per foot)***					
A1. 2" diameter or less		per foot	$3.10		$0.00
B1. Greater than 2" to 6" diameter		per foot	$4.50		$0.00
C1. Dug/Bored well (up to 6 feet diameter)		per foot	$15.00		$0.00
9. **Well Installation (per foot)***					
A1. Water Table (hand augered)		per foot	$10.60		$0.00
B1. Water Table (drill rig)		per foot	$38.00		$0.00
C1. Telescoping		per foot	$50.00		$0.00
D1. Rock Drilling		per foot	$58.00		$0.00
E1. 2" Rock Coring		per foot	$30.90		$0.00
G1. Rock Multi-sampling ports/screens		per foot	$33.40		$0.00
H1. Recovery Well (4" diameter)		per foot	$45.00		$0.00
II. Pushed Pre-packed screen (1.25" dia)		per foot	$15.00		$0.00
J1. Rotosonic (2" diameter)		per foot	$44.00		$0.00
K. Re-develop Existing Well		per foot	$11.00		$0.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product ***					
A1. Groundwater Purge	66	per well/receptor	$60.00		$3,960.00
B1. Air or Vapors		per receptor	$12.00		$0.00
C1. Water Supply	1	per well/receptor	$22.00		$22.00
D1. Groundwater No Purge or Duplicate	4	per well/receptor	$28.00		$112.00
E1. Gauge Well only		per well	$7.00		$0.00
F1. Sample Below Product		per well	$12.00		$0.00
G1. Passive Diffusion Bag		each	$26.00		$0.00
H1. Field Blank	3	each	$24.60		$73.80

11. Laboratory Analyses-Groundwater					
A2. BTEXNM+Oxyg's+1,2 DCA+Eth(8260B)	76	per sample	$122.00		$9,272.00
AA1. Lead, Filtered		per sample	$13.80		$0.00
B2. Rush EPA Method 8260B (All of item A.)		per sample	$153.60		$0.00
C2. Trimethal, Butyl, and Isopropyl Benzenes		per sample	$36.40		$0.00
D1. PAH's		per sample	$60.60		$0.00
E1. Lead		per sample	$16.00		$0.00
F1. EDB by EPA 8011	74	per sample	$45.20		$3,344.80
FF1. EDB by EPA Method 8011 Rush		per sample	$68.20		$0.00
G1. 8 RCRA Metals		per sample	$63.40		$0.00
H1. TPH (9070)		per sample	$41.00		$0.00
II. pH		per sample	$5.20		$0.00
J1. BOD		per sample	$20.00		$0.00
PP. Ethanol		per sample	$14.80		$0.00
11. **Analyses-Soil**					
Q1. BTEX + Naphth.		per sample	$64.00		$0.00
R1. PAH's		per sample	$64.04		$0.00
S1. 8 RCRA Metals		per sample	$56.40		$0.00
U1. TPH-DRO (3550C/8015C)		per sample	$40.00		$0.00
V1. TPH- GRO (5030B/8015C)		per sample	$35.96		$0.00
W1. Grain size/hydrometer		per sample	$104.00		$0.00
X1. Total Organic Carbon		per sample	$30.60		$0.00
11. **Analyses-Air**					
Y1. BTEX + Naphthalene		per sample	$216.00		$0.00
11. **Analyses-Free Phase Product**					
Z1. Hydrocarbon Fuel Identification		per sample	$357.00		$0.00
12. **Aquifer Characterization**					
A1. Pumping Test*		per hour	$23.00		$0.00
B1. Slug Test*		per test	$191.00		$0.00
C1. Fractured Rock		per test	$100.00		$0.00
13. A1. **Free Product Recovery Rate Test***		each	$38.00		$0.00
14. **Fate/Transport Modeling**					
A1. Mathematical Model		each	$100.00		$0.00
B1. Computer Model		each	$100.00		$0.00
15. **Risk Evaluation**					
A. Tier I Risk Evaluation		each	$300.00		$0.00
B1. Tier II Risk Evaluation		each	$100.00		$0.00
16. A1. **Subsequent Survey***		each	$260.00		$0.00
17. **Disposal (gallons or tons)***					
AA. Wastewater	300	gallon	$0.56		$168.00
BB. Free Product		gallon	$0.50		$0.00
C1. Soil Treatment/Disposal		ton	$60.00		$0.00
D1. Drilling fluids		gallon	$0.42		$0.00
18. **Miscellaneous (attach receipts)**					
		each	$0.00		$0.00
		each	$0.00		$0.00
		each	$0.00		$0.00
20. **Tier I Assessment (Use DHEC 3665 form)**		standard			$0.00
21. **IGWA (Use DHEC 3666 form)**		standard			$0.00
22. **Corrective Action (Use DHEC 3667 form)**		PFP Bid			$0.00

23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A1. 8-hour Event*		each	$1,375.00		$0.00
A2. 24-hour Event*		each	$3,825.00		$0.00
A3. 48-hour Event*		each	$6,265.00		$0.00
A4. 96-hour Event*		each	$12,567.50		$0.00
C1. Off-gas Treatment 8 hour		per event	$122.50		$0.00
C2. Off-gas Treatment 24 hour		per event	$241.50		$0.00
C3. Off-gas Treatment 48 hour		per event	$327.00		$0.00
C4. Off-gas Treatment 96 hour		per event	$780.00		$0.00
D. Site Reconnaissance		each	$203.25		$0.00
E1. Additional Hook-ups		each	$25.75		$0.00
F1. Effluent Disposal		gallon	$0.44		$0.00
G. AFVR Mobilization/Demobilization		each	$391.50		$0.00
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A1. New GAC System Installation*		each	$1,900.00		$0.00
BB. Refurbished GAC Sys. Install*		each	$900.00		$0.00
C1. Filter replacement/removal*		each	$350.00		$0.00
DD. GAC System removal, cleaning, & refurbishment*		each	$275.00		$0.00
E1. GAC System housing*		each	$250.00		$0.00
F. In-line particulate filter		each	$150.00		$0.00
G1. Additional piping & fittings		foot	$1.50		$0.00
25. **Well Repair**					
A1. Additional Copies of the Report Delivered	1	each	$50.00		$50.00
B1. Repair 2x2 MW pad*		each	$50.00		$0.00
C1. Repair 4x4 MW pad*		each	$88.00		$0.00
D1. Repair well vault*		each	$118.00		$0.00
F1. Replace well cover bolts		each	$2.60		$0.00
G. Replace locking well cap & lock		each	$15.00		$0.00
H1. Replace/Repair stick-up*		each	$134.00		$0.00
II. Convert Flush-mount to Stick-up*		each	$150.00		$0.00
J1. Convert Stick-up to Flush-mount*		each	$130.00		$0.00
K1. Replace missing/illegible well ID plate		each	$12.00		$0.00
Report Prep & Project Management	12%	percent	$18,844.60		$2,261.35
TOTAL					$21,105.95

*The appropriate mobilization cost can be added to complete these tasks, as necessary

D H E C

PROMOTE PROTECT PROSPER

Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

CHRIS MOORHEAD
MOORHEAD OIL CO
PO BOX 2587
ANDERSON SC 29622

JUL 17 2015

Re: **Sample Directive**
M D Food Mart, 1312 Williamston Rd., Anderson, SC
UST Permit #00505; CA #50390
Release reported December 20, 1989
Site-Specific Work Plan received July 2, 2015
Anderson County

Dear Mr. Moorhead:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced plan submitted on your behalf by Bunnell-Lammons Engineering. Sampling of the monitoring wells is necessary. All work should be conducted in accordance with the UST Quality Assurance Program Plan (QAPP) and must be conducted in compliance with all applicable regulations. A copy of Agency QAPP Revision 2.0 for the UST Management Division is available at http://www.scdhec.gov/environment/docs/QAPP_Rev-2_April2013.pdf.

Activities at the site should begin immediately upon receipt of this letter. Cost agreement # 50390 has been approved for the amount shown on the enclosed cost agreement form for the sampling of the monitoring wells and analysis for BTEX, naphthalene, MTBE, 1,2-DCA, oxygenates, and EDB. Analyses should be in accordance with Appendix E of the QAPP to include duplicate samples, field and trip blanks.

As soon as the beginning date of the event has been scheduled, please contact Read Miner at minerrs@dhec.sc.gov.

The Monitoring Report and invoice are due within 90 days from the date of this letter. The report submitted at the completion of these activities should include the required information outlined in the QAPP. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Bunnell-Lammons Engineering can submit an invoice for direct payment from the State Underground Petroleum Environmental Response Bank (SUPERB) Account for pre-approved costs. By law, the SUPERB Account cannot compensate any costs that are not pre-approved. Please note that applicable South Carolina certification requirements regarding the services and report preparation must be satisfied. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the Agency. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

Please note, if unnecessary dilutions are completed resulting in reporting limits of individual CoC in excess of Risk-Based Screening Levels (RBSLs), the data cannot be used. In those cases, the Agency may deny payment for any non-detect analysis where the reporting limit exceeds the RBSL. The UST Management Division encourages the use of 'J' values as necessary so the appropriate action can be determined for a release.

The Agency grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. The transport and disposal must be conducted in accordance with the QAPP. If the CoC concentrations based on laboratory analysis are below RBSLs, please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence regarding this site, please reference UST Permit #00505. If you have any questions regarding this correspondence, please contact me by telephone at (803) 898-0608 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Bunnell-Lammons Engineering, 6004 Ponders Ct., Greenville, SC 29615 (with enclosure)
Technical File (with enclosure)

Approved Cost Agreement 50390

Facility: 00505 M D FOOD MART

MINERRS

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
01 PLAN						
		A1	SITE SPECIFIC WORK PLAN	1.0000	150.00	150.00
04 MOB/DEMOB						
		B1	PERSONNEL	4.0000	423.00	1,692.00
10 SAMPLE COLLECTION						
		A1	GROUNDWATER (PURGE)	66.0000	60.00	3,960.00
		C1	WATER SUPPLY	1.0000	22.00	22.00
		D1	GROUNDWATER NO PURGE/DUPLICATE	4.0000	28.00	112.00
		H1	FIELD BLANK	3.0000	24.60	73.80
11 ANALYSES	GW GROUNDWATER					
		A2	BTEXNM+OXYGS+1,2-DCA+ETH-8260B	76.0000	122.00	9,272.00
		F1	EDB BY 8011	74.0000	45.20	3,344.80
17 DISPOSAL						
		AA	WASTEWATER	300.0000	0.56	168.00
19 RPT/PROJECT MNGT & COORDINATIO						
		PRT	REPORT PREPARATION	0.1200	18,844.60	2,261.35
25 WELL REPAIR						
		A1	ADDITIONAL COPIES OF REPORT	1.0000	50.00	50.00
				Total Amount		21,105.95

Document Receipt Information

☐ Hard Copy ☒ CD ☐ Email

Date Received 1-25-16

Permit Number 00505

Project Manager Read Meyer

Name of Contractor BLE

UST Certification Number _____

Docket Number 46Tech

Scanned _____

CWS Event - NOV 2015

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF COMPREHENSIVE GROUNDWATER SAMPLING EVENT - NOVEMBER 2015

M D FOOD MART (FORMER KMO #119)
1312 WILLIAMSTON ROAD
ANDERSON, ANDERSON COUNTY, SOUTH CAROLINA
UST PERMIT #00505; COST AGREEMENT #50390

Prepared For

Mr. Kris Moorhead
Moorhead Oil Co.
P.O. Box 2587
Anderson, South Carolina 29622

Prepared By

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, South Carolina 29615
SCDHEC Certified Contractor No. UCC-0010

January 20, 2016

BLE Project Number J14-3661-07

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

January 20, 2016

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
Underground Storage Tank Division
2600 Bull Street
Columbia, South Carolina 29201-1708

Attention: Mr. Read S. Miner, P.G., Hydrogeologist

Subject: **Report of Comprehensive Groundwater Sampling Event – November 2015**
M D Food Mart (Former KMO #119)
1312 Williamston Rd.
Anderson, Anderson County, South Carolina
UST Permit #00505; CA #50390
BLE Project No. J15-3661-07

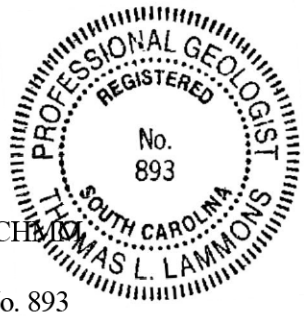
Dear Mr. Miner:

On behalf of Moorhead Oil Co. (Moorhead), Bunnell-Lammons Engineering, Inc. (BLE) has completed a comprehensive groundwater sampling event at the subject site. This scope of work was performed in response to a South Carolina Department of Health and Environmental Control (SCDHEC) directive dated July 17, 2015 and in accordance with BLE's Site Specific Work Plan dated June 29, 2015. This report describes the work performed and presents the results obtained, along with our comments and recommendations. Please do not hesitate to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, P.G.
Senior Hydrogeologist
Registered, South Carolina No. 2395



Thomas L. Lammons, P.G., CHMM
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Kris Moorhead, Moorhead Oil Co., P.O. Box 2587, Anderson, SC 29622-2587.

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

BACKGROUND INFORMATION

The subject property is located at 1312 Williamston Road in Anderson, South Carolina (Figure 1). Prior to 2004, the site was owned by Ken Moorhead Oil Company and operated as a Citgo fueling station. Currently, the site is owned and operated by DEV Enterprises, LLC and is utilized as a convenience store where gasoline and kerosene fuels are sold (MD Food Mart).

In response to a release reported at the facility on December 20, 1989, various environmental assessments have been conducted at the site, including the installation of 66 groundwater monitoring wells (MW-01R, MW-01D, MW-01DD, MW-01DDD, MW-02 through MW-05, MW-05R, MW-06, MW-06D, MW-07, MW-07D, MW-08, MW-09, MW-10, MW-10D, MW-11, MW-11D, MW-11DD, MW-11DDD, MW-12, MW-13, MW-13R, MW-14, MW-14D, MW-15 through MW-27, MW-27R, MW-27D, MW-27DD, MW-28, MW-29, MW-30, MW-30R, MW-31, MW-31R, MW-32, MW-32R, MW-33, MW-33D, MW-33DD, MW-34 through MW-37, MW-37D, and MW-38 through MW-45) to assess the horizontal and vertical extent of the release. Additionally, multiple Aggressive Fluid Vapor Recovery (AFVR) events have been performed to remove free-phase and dissolved-phase petroleum contaminants from the subsurface at the site.

In an effort to determine what risk the petroleum release may pose to human health and the environment, the SCDHEC directed an updated comprehensive groundwater sampling event be conducted at the subject site. Details of the groundwater sampling event and our findings are provided herein.

GROUNDWATER SAMPLING

Date Sampled:	November 4-6, 2015	
Total Number of Wells Associated with Site:	66	MW-01R, MW-01D, MW-01DD, MW-01DDD, MW-02 through MW-05, MW-05R, MW-06, MW-06D, MW-07, MW-07D, MW-08, MW-09, MW-10, MW-10D,

		MW-11, MW-11D, MW-11DD, MW-11DDD, MW-12, MW-13, MW-13R, MW-14, MW-14D, MW-15 through MW-27, MW-27R, MW-27D, MW-27DD, MW-28, MW-29, MW-30, MW-30R, MW-31, MW-31R, MW-32, MW-32R, MW-33, MW-33D, MW-33DD, MW-34 through MW-37, MW-37D, and MW-38 through MW-45
Total Number of Wells Sampled:	59	MW-01R, MW-01D, MW-01DD, MW-01DDD, MW-02, MW-03, MW-04, MW-05R, MW-06, MW-06D, MW-07, MW-07D, MW-08, MW-09, MW-10D, MW-11, MW-11D, MW-11DD, MW-11DDD, MW-13R, MW-14D, MW-15, MW-17 through MW-27R, MW-27D, MW-27DD, MW-28, MW-30, MW-30R, MW-31, MW-31R, MW-32, MW-32R, MW-33, MW-33D, MW-33DD, MW-34 through MW-37, MW-37D, and MW-38 through MW-45
Total Number of Wells NOT Sampled:	7	MW-05 (Dry), MW-10 (0.35-Feet FP), MW-12 (Not Located), MW-14 (0.20-Feet FP), MW-16 (0.11-Feet FP), MW-27 (Dry), MW-29 (Not Located)
Water Supply Wells or Other Receptors Sampled	1	DW-01 (see Figure 2). Note: Two hand dug wells are located on the property to the north. These wells were dry during this scope of work.
QA / QC Samples	9	4 Duplicate Samples (MW-01R DUP, MW-15 DUP, MW-40 DUP, MW-41 DUP), 3 Field Blanks, and 2 Trip Blanks

Groundwater Level Measurements	See Table 1 (November 3, 2015)	
Groundwater Sampling Logs and Procedures	See Appendix A	
Total Purge Volume (Gallons)	376	Disposal Manifest Included in Appendix B
Free-Phase Petroleum Product	MW-10 (0.35-Feet FP), MW-14 (0.20-Feet FP), MW-16 (0.11-Feet FP)	
Analytical Laboratory	Shealy Environmental Services, Inc. – SCDHEC No. 32010	
Analytical Methods	EPA Method 8260B and EPA Method 8011	
Contaminants Exceeding Risk Based Screening Levels	Benzene, Toluene, Ethylbenzene, Xylenes, Methyl-Tert-Butyl-Ether (MTBE), Naphthalene, 1,2-Dibromoethane (EDB), 1,2-Dichloroethane (1,2-DCA), Tert-Amyl Alcohol (TAA), Tert-Butyl Alcohol (TBA), and Di-isopropyl Ether (IPE)	
Monitoring Well Repairs	None	
Historical Laboratory Analytical Summary	See Table 2A and Table 2B	
Current Laboratory Analytical Results	See Appendix C	
Potentiometric Map	See Figure 2	
Chemical of Concern (COC) Map	See Figure 3	

CONCLUSIONS AND RECOMMENDATIONS

- Groundwater flow and contaminant transport is to the north from the UST system release. The depth to groundwater in the unconfined aquifer ranges from 26.61 (MW-8) feet bgs to 85.17 (MW-11DDD) feet bgs across the study area;

- With the exception of MTBE (65 µg/L) in MW-44, the horizontal extent of groundwater contamination has been substantially defined by "non detect" monitoring wells located at the

plume perimeter. Petroleum contaminants are present in groundwater off-site beneath adjacent properties to the north;

- Free-phase petroleum product was present in monitoring wells MW-10 (0.35 feet), MW-14 (0.20 feet), and MW-16 (0.11 feet) at the time of sampling;

- COCs were not detected in water supply well DW-01;

- Two hand dug wells are present on the northeast adjoining property, and were dry during the current sampling event;

- Vertical pathways of COC migration have been identified at well clusters: **1)** MW-01R/MW-1D/MW-1DD/MW-1DDD, **2)** MW-10/MW-10D, **3)** MW-11/MW-11D/MW-11DD/MW-11DDD, **4)** MW-27R/MW-27D/MW-27DD, and **5)** MW-33/MW-33D/MW-33DD. Based on the hydrogeologic data obtained during the current scope of work, a downward vertical gradient ranging from 0.077 ft/ft to 0.307 ft/ft exists in these well clusters.

Since free-product conditions exist in monitoring wells MW-10, MW-14, and MW-16, we recommend performing multiple long-term (96-hour) Aggressive Fluid Vapor Recovery (AFVR) events on these wells to: 1) remove residual free-phase petroleum product from the area around the extraction point, 2) remove petroleum hydrocarbon vapors from the unsaturated zone, and 3) remove petroleum impacted groundwater from the subsurface. Additionally, extended duration AFVR events would greatly benefit site remediation efforts, shorten eventual restoration timelines, and augment the natural attenuation processes. The removal of the residual free-product and high dissolved-phase contaminants should also have a direct correlation with reduction in COCs in the deeper monitoring wells.

Approximately thirty days after completion of the final AFVR event, BLE recommends a comprehensive groundwater sampling event be performed to evaluate the effectiveness of the AFVR events, obtain current COC concentration data, and to establish COC concentration trends.

QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Moorhead Oil Co. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

TABLES

TABLE 1

Monitoring Well and Groundwater Surface Elevation Data
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #50390
BLE Project Number J13-3661-07

Monitoring Well	Date	TOC Elev.	Ground Elev.	Free-Product Thickness	GW Depth BTOC	GW Depth BGS	GW Elevation	Bedrock Depth BGS	Well Depth BGS	Screened Interval Depth BGS	Screened Interval Elevation BGS
00505-MW01	7/27/2004	101.31	101.50	None	39.96	40.15	61.35	NA	45.53	35.53 - 45.53	65.78 - 55.78
	1/20/2014	Abandoned									
00505-MW01R**	4/18/2007	100.89	101.32	None	39.22	39.65	61.67	NA	44.0	33.80 - 43.80	67.09 - 57.09
	9/9/2008			**0.84**	42.88	43.31	58.01				
	9/9/2009			**1.92**	42.08	42.51	58.81				
	1/20/2014			**0.04**	39.64	40.07	61.25				
	11/3/2015			None	38.73	39.16	62.16				
00505-MW01D	4/18/2007	101.50	101.63	None	54.20	54.33	47.30	51.0	106.6	101.40 - 106.40	0.10 - -4.90
	9/9/2008			None	47.41	47.41	54.09				
	9/9/2009			None	45.70	45.70	55.80				
	1/20/2014			None	43.59	43.59	57.91				
	11/3/2015			None	43.19	43.19	58.31				
MW-1DD	9/9/2008	101.13	101.13	None	49.53	49.53	51.60	56.0	142.0	136.80 - 141.80	-35.67 - -40.67
	9/9/2009			None	48.33	48.33	52.80				
	1/20/2014			None	46.61	46.61	54.52				
	11/3/2015			None	46.50	46.50	54.63				
MW-1DDD	9/9/2009	101.56	101.56	None	84.54	84.54	17.02	56.0	241.8	236.60 - 241.60	-135.04 - -140.04
	1/20/2014			None	44.75	44.75	56.81				
	11/3/2015			None	44.15	44.15	57.41				
MW-2**	7/27/2004	97.00	97.16	None	35.99	36.15	61.01	NA	42.5	32.52 - 42.52	64.48 - 54.48
	4/18/2007			None	34.61	34.77	62.39				
	9/9/2008			**1.84**	40.32	40.48	56.68				
	9/9/2009			**0.02**	37.63	37.79	59.37				
	1/20/2014			**0.09**	34.95	35.11	62.05				
	11/3/2015			None	35.32	35.48	61.68				
MW-3	7/27/2004	94.72	94.80	None	34.16	34.24	60.56	NA	40.4	30.40 - 40.40	64.32 - 54.32
	4/18/2007			None	32.39	32.47	62.33				
	9/9/2008			None	38.38	38.46	56.34				
	9/9/2009			None	35.66	35.74	59.06				
	1/20/2014			None	32.52	32.60	62.20				
	11/3/2015			None	33.43	33.51	61.29				
MW-4	4/18/2007	97.61	97.80	None	39.86	40.05	57.75	NA	47.1	36.90 - 46.90	60.71 - 50.71
	9/9/2008			None	44.08	44.27	53.53				
	9/9/2009			None	41.83	42.02	55.78				
	1/20/2014			None	40.15	40.34	57.46				
	11/3/2015			None	40.82	41.01	56.79				
MW-5	4/18/2007	89.23	89.48	None	27.15	27.40	62.08	NA	32.3	22.10 - 32.10	67.13 - 57.13
	9/9/2008			None	DRY						
	9/9/2009			None	30.75	31.00	58.48				
	1/20/2014			None	DRY						
	11/3/2015			None	DRY						
MW-5R	9/9/2009	89.38	89.57	None	30.90	31.09	58.48	NA	36.4	26.20 - 36.20	63.18 - 53.18
	1/20/2014			None	27.38	27.57	62.00				
	11/3/2015			None	28.55	28.74	60.83				
MW-6	4/18/2007	101.74	101.99	None	39.52	39.77	62.22	NA	43.3	33.10 - 43.10	68.64 - 58.64
	9/9/2008			None	DRY						
	9/9/2009			None	41.60	41.85	60.14				
	1/20/2014			None	40.45	40.70	61.29				
	11/3/2015			None	39.42	39.67	62.32				
MW-6D	9/9/2008	101.43	101.84	None	44.32	44.73	57.11	54.6	54.6	49.40 - 54.40	52.03 - 47.03
	9/9/2009			None	42.24	42.65	59.19				
	1/20/2014			None	40.10	40.51	61.33				
	11/3/2015			None	39.08	39.49	62.35				
MW-7	4/18/2007	96.50	96.88	None	34.09	34.47	62.41	NA	39.5	29.30 - 39.30	67.20 - 57.20
	9/9/2008			None	DRY						
	9/9/2009			None	37.25	37.63	59.25				
	1/20/2014			None	34.38	34.76	62.12				
	11/3/2015			None	34.90	35.28	61.60				
MW-7D	9/9/2008	96.56	96.88	None	39.84	40.16	56.72	59.1	59.1	53.90 - 58.90	42.66 - 37.66
	9/9/2009			None	37.48	37.80	59.08				
	1/20/2014			None	34.61	34.93	61.95				
	11/3/2015			None	34.76	35.08	61.80				
MW-8	4/18/2007	87.94	88.16	None	25.41	25.63	62.53	NA	30.6	20.40 - 30.40	67.54 - 57.54
	9/9/2008			None	DRY						
	9/9/2009			None	29.20	29.42	58.74				
	1/20/2014			None	25.52	25.74	62.42				
	11/3/2015			None	26.61	26.83	61.33				
MW-9	4/18/2007	102.33	102.54	None	45.13	45.34	57.20	44.0	52.7	42.50 - 52.50	59.83 - 49.83
	9/9/2008			None	47.09	47.30	55.24				
	9/9/2009			None	46.50	46.71	55.83				
	1/20/2014			None	45.65	45.86	56.68				
	11/3/2015			None	44.13	44.34	58.20				
MW-10**	4/18/2007	99.78	100.02	**0.24**	44.73	44.97	55.05	42.0	50.9	40.70 - 50.70	59.08 - 49.08
	9/9/2008			**0.38**	43.69	43.93	56.09				
	9/9/2009			**0.06**	43.05	43.29	56.73				
	1/20/2014			**0.45**	43.65	43.89	56.13				
	11/3/2015			**0.35**	42.71	42.95	57.07				

Prepared By: DRM/RAD
Checked By: RAD

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BLE Project Number J13-3661-07

Monitoring Well	Date	TOC Elev.	Ground Elev.	Free-Product Thickness	GW Depth BTOC	GW Depth BGS	GW Elevation	Bedrock Depth BGS	Well Depth BGS	Screened Interval Depth BGS	Screened Interval Elevation BGS
MW-10D	9/9/2008	100.03	100.07	None	50.10	50.14	49.93	42.0	94.8	89.60 - 94.60	10.43 - 5.43
	9/9/2009			None	48.69	48.73	51.34				
	1/20/2014			None	48.20	48.24	51.83				
	11/3/2015			None	48.08	48.12	51.95				
MW-11**	4/18/2007	98.46	98.74	**0.33**	45.10	45.38	53.36	47.0	51.5	41.30 - 51.30	57.16 - 47.16
	9/9/2008			**0.75**	46.70	46.98	51.76				
	9/9/2009			**0.21**	45.67	45.95	52.79				
	1/20/2014			None	46.61	46.89	51.85				
	11/3/2015			None	45.40	45.68	53.06				
MW-11D	4/18/2007	98.49	98.67	None	46.27	46.45	52.22	44.5	90.4	85.20 - 90.20	13.29 - 8.29
	9/9/2008			None	48.28	48.46	50.21				
	9/9/2009			None	47.02	47.20	51.47				
	1/20/2014			None	45.05	45.23	53.44				
	11/3/2015			None	46.56	46.74	51.93				
MW-11DD	9/9/2008	98.48	98.63	None	57.49	57.64	40.99	47.0	161.5	156.30 - 161.30	-57.82 - -62.82
	9/9/2009			None	57.58	57.73	40.90				
	1/20/2014			None	55.91	56.06	42.57				
	11/3/2015			None	55.84	55.99	42.64				
MW-11DDD	9/9/2009	98.38	98.38	None	84.54	84.54	13.84	47.0	230.4	225.20 - 230.20	-126.82 - -131.82
	1/20/2014			None	83.50	83.50	14.88				
	11/3/2015			None	85.17	85.17	13.21				
MW-12	4/18/2007	97.25	97.53	None	44.33	44.61	52.92	NA	53.0	42.80 - 52.80	54.45 - 44.45
	9/9/2008			None	46.80	47.08	50.45				
	9/9/2009			None	45.27	45.55	51.98				
	1/20/2014			None	Not Located						
	11/3/2015			None	Not Located						
MW-13	4/18/2007	99.08	99.25	None	45.06	45.23	54.02	47.0	48.3	38.10 - 48.10	60.98 - 50.98
	9/9/2008			None	47.62	47.79	51.46				
	9/9/2009			None	DRY						
	1/20/2014			None	DRY						
	11/3/2015			None	43.95	44.12	55.13				
MW-13R	9/9/2009	99.10	99.47	None	46.64	47.01	52.46	47.0	56.4	46.20 - 56.20	52.90 - 42.90
	1/20/2014			None	47.10	47.47	52.00				
	11/3/2015			None	44.22	44.59	54.88				
MW-14**	4/18/2007	94.99	95.22	**0.38**	42.92	43.15	52.07	46.0	50.6	40.40 - 50.40	54.59 - 44.59
	9/9/2008			**0.28**	44.44	44.67	50.55				
	9/9/2009			**0.09**	43.18	43.41	51.81				
	1/20/2014			None	43.00	43.23	51.99				
	11/3/2015			**0.20**	43.06	43.29	51.93				
MW-14D	9/9/2008	95.17	95.20	None	45.19	45.22	49.98	46.0	81.7	76.50 - 81.50	18.67 - 13.67
	9/9/2009			None	43.78	43.81	51.39				
	1/20/2014			None	43.25	43.28	51.92				
	11/3/2015			None	43.10	43.13	52.07				
MW-15	4/18/2007	96.64	96.88	None	44.74	44.98	51.90	47.0	51.3	41.10 - 51.10	55.54 - 45.54
	9/9/2008			None	46.26	46.50	50.38				
	9/9/2009			None	45.09	45.33	51.55				
	1/20/2014			None	44.91	45.15	51.73				
	11/3/2015			None	45.11	45.35	51.53				
MW-16**	4/18/2007	99.91	100.08	None	39.83	40.00	56.81	38.0	49.0	38.80 - 48.80	61.11 - 51.11
	9/9/2008			**0.12**	42.79	42.96	53.85				
	9/9/2009			**0.02**	41.32	41.49	55.32				
	1/20/2014			**0.02**	39.96	40.13	59.95				
	11/3/2015			**0.11**	39.85	40.02	60.06				
MW-17	4/18/2007	103.40	103.90	None	42.08	42.58	61.32	NA	48.7	38.50 - 48.50	64.90 - 54.90
	9/9/2008			None	46.25	46.75	57.15				
	9/9/2009			None	44.58	45.08	58.82				
	1/20/2014			None	42.71	43.21	60.69				
	11/3/2015			None	41.40	41.90	62.00				
MW-18	4/18/2007	108.17	105.09	None	50.73	47.65	57.44	53.0	55.9	45.70 - 55.70	62.47 - 52.47
	9/9/2008			None	53.47	50.39	54.70				
	9/9/2009			None	53.04	49.96	55.13				
	1/20/2014			None	51.82	48.74	56.35				
	11/3/2015			None	49.62	46.54	58.55				
MW-19	4/18/2007	104.15	101.06	None	50.26	47.17	53.89	NA	55.1	44.90 - 54.90	59.25 - 49.25
	9/9/2008			None	52.92	49.83	51.23				
	9/9/2009			None	53.13	50.04	51.02				
	1/20/2014			None	52.23	49.14	51.92				
	11/3/2015			None	49.30	46.21	54.85				
MW-20	4/18/2007	97.96	94.73	None	45.92	42.69	52.04	40.0	82.0	61.80 - 81.80	36.16 - 16.16
	9/9/2008			None	47.93	44.70	50.03				
	9/9/2009			None	46.96	43.73	51.00				
	1/20/2014			None	46.49	43.26	51.47				
	11/3/2015			None	45.89	42.66	52.07				
MW-21	4/18/2007	87.23	83.56	None	36.76	33.09	50.47	37.0	43.9	33.70 - 43.70	53.53 - 43.53
	9/9/2008			None	38.12	34.45	49.11				
	9/9/2009			None	40.36	36.69	46.87				
	1/20/2014			None	36.83	33.16	50.40				
	11/3/2015			None	37.44	33.77	49.79				

Prepared By: DRM/RAD
Checked By: RAD

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Monitoring Well	Date	TOC Elev.	Ground Elev.	Free-Product Thickness	GW Depth BTOC	GW Depth BGS	GW Elevation	Bedrock Depth BGS	Well Depth BGS	Screened Interval Depth BGS	Screened Interval Elevation BGS
MW-22	4/18/2007	84.09	80.46	None	39.89	36.26	44.20	37.0	45.2	35.00 - 45.00	49.09 - 39.09
	9/9/2008			None	41.00	37.37	43.09				
	9/9/2009			None	40.36	36.73	43.73				
	1/20/2014			None	40.00	36.37	44.09				
	11/3/2015			None	40.40	36.77	43.69				
MW-23	4/18/2007	88.00	84.72	None	38.43	35.15	49.57	38.0	45.5	35.30 - 45.30	52.70 - 42.70
	9/9/2008			None	41.23	37.95	46.77				
	9/9/2009			None	39.85	36.57	48.15				
	1/20/2014			None	39.49	36.21	48.51				
	11/3/2015			None	40.08	36.80	47.92				
MW-24	4/18/2007	81.89	78.51	None	49.81	46.43	32.08	42.0	77.1	56.90 - 76.90	24.99 - 4.99
	9/9/2008			None	54.40	51.02	27.49				
	9/9/2009			None	52.97	49.59	28.92				
	1/20/2014			None	51.17	47.79	30.72				
	11/3/2015			None	49.64	46.26	32.25				
MW-25	4/18/2007	87.36	83.86	None	52.17	48.67	35.19	NA	57.8	47.60 - 57.60	39.76 - 29.76
	9/9/2008			None	57.87	54.37	29.49				
	9/9/2009			None	55.56	52.06	31.80				
	1/20/2014			None	54.24	50.74	33.12				
	11/3/2015			None	53.72	50.22	33.64				
MW-26	4/18/2007	85.06	81.65	None	48.20	44.79	36.86	43.0	77.3	57.10 - 77.10	27.96 - 7.96
	9/9/2008			None	52.66	49.25	32.40				
	9/9/2009			None	48.33	44.92	36.73				
	1/20/2014			None	48.24	44.83	36.82				
	11/3/2015			None	48.36	44.95	36.70				
MW-27	4/18/2007	76.31	72.91	None	41.25	37.85	35.06	NA	44.7	34.50 - 44.50	41.81 - 31.81
	9/9/2008			None	DRY						
	9/9/2009			None	DRY						
	1/20/2014			None	44.73	41.33	31.58				
	11/3/2015			None	DRY						
MW-27R	9/9/2009	74.93	72.09	None	46.89	44.05	28.04	52.0	53.1	42.90 - 52.90	32.03 - 22.03
	1/20/2014			None	43.84	41.00	31.09				
	11/3/2015			None	42.53	39.69	32.40				
MW-27D	9/9/2009	74.79	72.32	None	47.87	45.40	26.92	52.0	69.6	64.40 - 69.40	10.39 - 5.39
	1/20/2014			None	43.28	40.81	31.51				
	11/3/2015			None	41.97	39.50	32.82				
MW-27DD	9/9/2009	75.51	72.84	None	64.84	62.17	10.67	52.0	134.9	129.70 - 134.70	-54.19 - -59.19
	1/20/2014			None	63.20	60.53	12.31				
	11/3/2015			None	61.55	58.88	13.96				
MW-28	4/18/2007	98.33	95.07	None	46.76	43.50	51.57	NA	51.7	41.50 - 51.50	56.83 - 46.83
	9/9/2008			None	49.33	46.07	49.00				
	9/9/2009			None	49.08	45.82	49.25				
	1/20/2014			None	48.50	45.24	49.83				
	11/3/2015			None	46.45	43.19	51.88				
MW-29	4/18/2007	95.60	95.77	None	45.52	45.69	50.08	46.0	55.1	44.90 - 54.90	50.70 - 40.70
	9/9/2008			None	46.77	46.94	48.83				
	9/9/2009			None	45.97	46.14	49.63				
	1/20/2014			None	Not Located						
	11/3/2015			None	Not Located						
MW-30	4/18/2007	61.37	58.42	None	27.57	24.62	33.80	NA	33.2	23.00 - 33.00	38.37 - 28.37
	9/9/2008			None	DRY						
	9/9/2009			None	DRY						
	1/20/2014			None	30.74	27.79	30.63				
	11/3/2015			None	29.78	26.83	31.59				
MW-30R	9/9/2009	60.80	58.23	None	33.87	31.30	26.93	NA	40.0	29.80 - 39.80	31.00 - 21.00
	1/20/2014			None	30.19	27.62	30.61				
	11/3/2015			None	29.20	26.63	31.60				
MW-31	4/18/2007	67.41	64.10	None	34.09	30.78	33.32	NA	40.0	29.80 - 39.80	37.61 - 27.61
	9/9/2008			None	DRY						
	9/9/2009			None	DRY						
	1/20/2014			None	37.37	34.06	30.04				
	11/3/2015			None	36.16	32.85	31.25				
MW-31R	9/9/2009	66.29	63.36	None	39.69	36.76	26.60	NA	46.3	36.10 - 46.10	30.19 - 20.19
	1/20/2014			None	36.27	33.34	30.02				
	11/3/2015			None	35.08	32.15	31.21				
MW-32	4/18/2007	61.57	58.61	None	27.86	24.90	33.71	NA	32.4	22.20 - 32.20	39.37 - 29.37
	9/9/2008			None	DRY						
	9/9/2009			None	DRY						
	1/20/2014			None	30.98	28.02	30.59				
	11/3/2015			None	29.95	26.99	31.62				
MW-32R	9/9/2009	61.23	58.22	None	34.25	31.24	26.98	NA	40.1	29.90 - 39.90	31.33 - 21.33
	1/20/2014			None	30.37	27.36	30.86				
	11/3/2015			None	29.38	26.37	31.85				
MW-33	9/9/2008	71.29	68.17	None	48.13	45.01	23.16	NA	48.8	38.60 - 48.60	32.69 - 22.69
	9/9/2009			None	47.20	44.08	24.09				
	1/20/2014			None	44.45	41.33	26.84				
	11/3/2015			None	42.39	39.27	28.90				

Prepared By: DRM/RAD
Checked By: RAD

TABLE 1

Monitoring Well and Groundwater Surface Elevation Data
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #50390
BLE Project Number J13-3661-07

Monitoring Well	Date	TOC Elev.	Ground Elev.	Free-Product Thickness	GW Depth BTOC	GW Depth BGS	GW Elevation	Bedrock Depth BGS	Well Depth BGS	Screened Interval Depth BGS	Screened Interval Elevation BGS
MW-33D	9/9/2009	72.27	68.85	None	48.24	44.82	24.03	NA	65.6	60.40 - 65.40	11.87 - 6.87
	1/20/2014			None	45.38	41.96	26.89				
	11/3/2015			None	43.42	40.00	28.85				
MW-33DD	9/9/2009	71.65	68.84	None	50.35	47.54	21.30	92.0	131.1	125.90 - 130.90	-54.25 - -59.25
	1/20/2014			None	53.30	50.49	18.35				
	11/3/2015			None	52.36	49.55	19.29				
MW-34	9/9/2008	71.40	68.02	None	49.13	45.75	22.27	43.8	50.6	40.40 - 50.40	31.00 - 21.00
	9/9/2009			None	48.17	44.79	23.23				
	1/20/2014			None	45.39	42.01	26.01				
	11/3/2015			None	43.42	40.04	27.98				
MW-35	9/9/2008	81.22	78.11	None	53.07	49.96	28.15	48.5	56.4	46.20 - 56.20	35.02 - 25.02
	9/9/2009			None	51.56	48.45	29.66				
	1/20/2014			None	48.70	45.59	32.52				
	11/3/2015			None	47.31	44.20	33.91				
MW-36	9/9/2008	89.46	89.77	None	47.79	48.10	41.67	40.0	61.0	50.80 - 60.80	38.66 - 28.66
	9/9/2009			None	47.18	47.49	42.28				
	1/20/2014			None	45.75	46.06	43.71				
	11/3/2015			None	43.70	44.01	45.76				
MW-37	9/9/2008	94.07	94.10	None	45.50	45.53	48.57	42.0	101.8	91.60 - 101.60	2.47 - -7.53
	9/9/2009			None	45.38	45.41	48.69				
	1/20/2014			None	45.24	45.27	48.83				
	11/3/2015			None	41.89	41.92	52.18				
MW-37D	9/9/2009	94.25	94.49	None	46.83	47.07	47.42	42.0	134.6	129.40 - 134.40	-35.15 - -40.15
	1/20/2014			None	46.10	46.34	48.15				
	11/3/2015			None	44.35	44.59	49.90				
MW-38	9/9/2008	104.98	101.99	None	54.97	51.98	50.01	43.5	57.4	47.20 - 57.20	57.78 - 47.78
	9/9/2009			None	54.85	51.86	50.13				
	1/20/2014			None	54.00	51.01	50.98				
	11/3/2015			None	51.18	48.19	53.80				
MW-39	9/9/2008	98.77	98.91	None	46.96	47.10	51.81	42.0	56.2	36.00 - 56.00	62.77 - 42.77
	9/9/2009			None	45.92	46.06	52.85				
	1/20/2014			None	45.26	45.40	53.51				
	11/3/2015			None	44.70	44.84	54.07				
MW-40	9/9/2008	97.75	97.95	None	46.35	46.55	51.40	41.0	55.9	35.70 - 55.70	62.05 - 42.05
	9/9/2009			None	45.55	45.75	52.20				
	1/20/2014			None	45.25	45.45	52.50				
	11/3/2015			None	45.59	45.79	52.16				
MW-41	9/9/2008	98.97	99.03	None	41.36	41.42	57.61	44.0	55.5	35.30 - 55.30	63.67 - 43.67
	9/9/2009			None	43.13	43.19	55.84				
	1/20/2014			None	41.25	41.31	57.72				
	11/3/2015			None	41.96	42.02	57.01				
MW-42	9/9/2008	83.75	80.58	None	45.22	42.05	38.53	42.0	55.8	45.60 - 55.60	38.15 - 28.15
	9/9/2009			None	44.44	41.27	39.31				
	1/20/2014			None	42.81	39.64	40.94				
	11/3/2015			None	41.40	38.23	42.35				
MW-43	9/9/2008	52.51	49.56	None	35.99	33.04	16.52	NA	39.6	29.40 - 39.40	23.11 - 13.11
	9/9/2009			None	35.19	32.24	17.32				
	1/20/2014			None	31.30	28.35	21.21				
	11/3/2015			None	30.43	27.48	22.08				
MW-44	9/9/2008	56.80	53.77	None	36.08	33.05	20.72	NA	39.5	29.30 - 39.30	27.50 - 17.50
	9/9/2009			None	35.28	32.25	21.52				
	1/20/2014			None	31.30	28.27	25.50				
	11/3/2015			None	30.94	27.91	25.86				
MW-45	9/9/2009	92.03	92.62	None	35.51	36.10	56.52	NA	41.5	31.30 - 41.30	60.73 - 50.73
	1/20/2014			None	32.70	33.29	59.33				
	11/3/2015			None	34.13	34.72	57.90				

NOTES:
Measurements are in feet; elevations are relative to an arbitrary site datum
BTOC - below top of casing
BGS - below ground surface
NA - Not Applicable
**Groundwater elevation data for monitoring well has been corrected for free-product thickness using a density of 0.70 g/cc.

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2A

Historical Groundwater Analytical Data
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #50390
BLE Project Number J13-3661-07

Well ID	Date Sampled	FP Thickness (Feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
SC DHEC RBSL		NE	5	1,000	700	10,000	40	25	0.05	5
00505-MW01R	04/18/07	---	15,000	22,000	2,400	14,000	3,600	1,200	360	520
	09/09/08	0.84	NT	NT	NT	NT	NT	NT	NT	NT
	09/10/09	1.92	25,100	37,500	3,320	18,780	4,340	1,550	429	813 J
	01/23/14	0.04	Well not sampled due to 0.04' of free-product							
	11/04/15	---	540	3,100	680	6,200	36 J	380 J	3.1	<23
00505-MW01R DUP	11/04/15	---	510	3,100	680	6,200	36 J	390 J	2.9	<23
00505-MW01D	04/18/07	---	11,000	2,500	740	2,300	4,300	210	0.012	300
	09/10/08	---	8,310	2,770	677	1,310	4,540	307	ND	345
	09/10/09	---	11,300	4,950	587	2,123	4,950	136	<0.019	221
	01/23/14	---	1,400	29 J	<17	33 J	3,800	<17	<0.019	170
	11/04/15	---	11,000	310	1,800	4,800	1,800	420	<0.0049	<12
00505-MW01DD	09/10/08	---	149	26.8	14.1	21.6	115	5.22	ND	8.69
	09/10/09	---	182	339	36.0	151	72.6	15.4	0.41	7.3
	01/23/14	---	47	38	9.4	41	51	3.8 J	<0.019	2.6 J
	11/04/15	---	24	14	3.6 J	6.4	6.9	0.92 J	<0.0048	<0.23
00505-MW01DDD	09/10/09	---	1,580	1,110	132	613	970	42.8	0.19	57.7
	01/23/14	---	3,900	670	160 J	640	2,000	<85	<0.020	220 J
	11/04/15	---	4,800	2,700	310	1,500	2,700	65 J	<0.0048	<12
00505-MW02	07/27/04	---	13,100	23,600	3,580	16,300	1,510	2,800	NT	NT
	04/18/07	---	2,400	580	220	1,800	440	ND	1.6	44.0
	09/09/08	1.84	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/09	0.02	9,460	26,000	3,390	14,230	167	1,030	82.9	48.7J
	01/23/14	0.09	Well not sampled due to 0.09' of free-product							
	11/04/15	---	50	460	480	2,700	3.4 J	180	0.012 J	<1.2
00505-MW03	07/27/04	---	4.7	ND	ND	2.1	3.5	ND	ND	ND
	04/18/07	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/08	---	9.30	ND	ND	2.70	ND	ND	ND	ND
	09/09/09	---	1.9 J	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	01/21/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.020	<0.30
	11/04/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0049	<0.23
00505-MW04	04/18/07	---	4.2	ND	ND	ND	4.9	ND	ND	ND
	09/10/08	---	42.3	ND	ND	ND	37.6	ND	ND	10.4
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	01/21/14	---	<0.20	<1.7	<1.7	<1.7	2.9 J	<1.7	<0.019	<0.30
	11/04/15	---	<0.21	<0.24	<0.21	<0.32	1.4 J	<0.14	<0.0050	<0.23
00505-MW05	04/18/07	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	NA	Well dry at time of sampling event							
	09/08/09	NA	Well dry at time of sampling event							
	01/21/14	NA	Well dry at time of sampling event							
	11/04/15	NA	Well dry at time of sampling event							
00505-MW05R	09/10/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	01/21/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
	11/04/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0049	<0.23
00505-MW06	04/18/07	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	NA	Well dry at time of sampling event							
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	01/21/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.020	<0.30
	11/04/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0048	<0.23
00505-MW06D	09/10/08	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	01/23/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
	11/04/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0048	<0.23
00505-MW07	04/18/07	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	NA	Well dry at time of sampling event							
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	01/21/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.020	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0049	<0.23
00505-MW07D	09/10/08	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	01/23/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0048	<0.23
00505-MW08	04/18/07	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	NA	Well dry at time of sampling event							
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	01/21/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0049	<0.23
00505-MW09	04/20/07	---	4,900	38.0	17.0	37.0	98.0	110	0.045	210
	09/10/08	---	1,850	14.1	ND	ND	405	21.3	0.028	167
	09/09/09	---	1,240	<100	<100	<200	404	<100	<0.019	168
	01/21/14	---	710	<85	<85	<85	2,500	<85	<0.020	430
	11/05/15	---	7,900	33 J	80 J	54 J	2,700	140 J	<0.0049	670
00505-MW10	04/20/07	0.24	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/08	0.38	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/09	0.06	7,080	30,500	4,400	23,990	252	1,450	9.30	37.9 J
	01/21/14	0.45	Well not sampled due to 0.45' of free-product							
	11/03/15	0.35	Well not sampled due to 0.35' of free-product							
00505-MW10D	09/11/08	---	68.4	7.54	5.09	17.30	818	3.16	ND	29.0
	09/10/09	---	107	12.0	8.4	12.2 J	987	4.1 J	<0.019	30.9
	01/23/14	---	2,220	200 J	270	440	1,700	<85	<0.019	120 J
	11/06/15	---	<1.1	<1.2	<1.1	<1.6	750	<0.70	<0.0049	<1.2

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2A

Historical Groundwater Analytical Data
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #50390
BLE Project Number J13-3661-07

Well ID	Date Sampled	FP Thickness (Feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
SC DHEC RBSL		NE	5	1,000	700	10,000	40	25	0.05	5
00505-MW11	04/20/07	0.33	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/08	0.75	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/09	0.21	817	4,500	2,540	14,780	43.5 J	1,690	1.7	<50.0
	01/21/14	---	950 J	3,700	3,000	17,000	<200	1,800 J	0.10	<150
	11/04/15	---	590	3,000	2,600	15,000	77 J	1,200	<0.0050	<12
00505-MW11D	04/20/07	---	350	20.0	17.0	44.0	260	13.0	ND	22.0
	09/11/08	---	415	72.5	35.5	94.3	282	22.0	ND	17.7
	09/10/09	---	749	385	116	466	493	58.2	<0.019	37.1
	01/23/14	---	340	320	76	290	260	23 J	<0.019	19 J
	11/04/15	---	6.4	0.48 J	0.93 J	0.73 J	180	<0.14	<0.0049	8.1
00505-MW11DD	09/11/08	---	8,430	4,990	712	3,030	4,050	182	ND	186
	09/10/09	---	11,000	6,470	748	3,600	5,310	266	<0.019	486
	01/23/14	---	11,000	8,600	960	4,100	3,700	180 J	<0.019	580
	11/04/15	---	10,000	6,300	400	3,600	4,000	210 J	<0.0048	500
00505-MW11DDD	09/10/09	---	987	381	61.4	261.1	615	16.2	<0.019	56.9
	01/23/14	---	1,800	720	100	420	1,600	<34	<0.019	85 J
	11/04/15	---	4,200	1,400	200 J	880	3,100	29 J	<0.0049	150 J
00505-MW12	04/20/07	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/08	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	01/21/14	NA	Well Not Located							
	11/04/15	NA	Well Not Located							
00505-MW13	04/20/07	---	8,600	8,400	2,800	13,000	2,200	1,800	7.9	290
	09/10/08	---	Dry	Dry	Dry	Dry	Dry	Dry	1.32	Dry
	09/09/09	NA	Well dry at time of sampling event							
	01/21/14	NA	Well dry at time of sampling event							
	11/05/15	---	6,100	790	3,200	18,000	620	960	0.089	220 J
00505-MW13R	09/09/09	---	1,280	612	489	2,150	241	<50.0	1.2	51.9
	01/21/14	---	4,100	1,200	2,100	12,000	150 J	1,800	0.61	<30
	11/05/15	---	5,300	790	2,500	14,000	560	1,200	0.25	<12
00505-MW14	04/20/07	0.38	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/08	0.28	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/09	0.09	50.1J	475	1,760	8,860	<100	1,300	<0.019	<100
	01/21/14	---	<4.0	85 J	3,300	5,700	<8.0	3,600	<0.019	<6.0
	11/05/15	0.20	Well not sampled due to 0.20' of free-product							
00505-MW14D	09/11/08	---	511	24.9	7.82	88.7	241	115	ND	21.7
	09/10/09	---	484	8.4	<5.0	40.4	186	108	<0.019	25.3
	01/23/14	---	56	<8.5	<8.5	11 J	180	25	<0.019	17 J
	11/06/15	---	<0.21	<0.24	<0.21	<0.32	180	<0.14	<0.0048	<0.23
00505-MW15	04/20/07	---	730	5.2	5.1	7.9	170	210	0.02	32.0
	09/10/08	---	436	15.9	52.6	51.2	165	324	0.014	ND
	09/09/09	---	224	89.5	171	358	49.5	346	<0.020	9.4J
	01/21/14	---	3.7 J	<1.7	<1.7	<1.7	6.2	4.9 J	<0.019	1.2 J
	11/05/15	---	30	11	6.5	11	18	18	<0.0048	3.5 J
00505-MW15 DUP	11/05/15	---	32	12	7.0	12	18	20	<0.0048	3.6 J
00505-MW16	04/18/07	---	5,700	4,300	2,200	9,900	3,900	3,200	1.4	290
	09/09/08	0.12	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/09	0.02	6,630	3,950	1,890	14,250	1,250	2,480	4.1	117J
	01/21/14	0.02	Well not sampled due to 0.02' of free-product							
	11/05/15	0.11	Well not sampled due to 0.11' of free-product							
00505-MW17	04/18/07	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/08	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	01/21/14	---	16	<1.7	<1.7	19	0.77 J	<1.7	<0.020	4.5 J
	11/04/15	---	140	1.2 J	12	73	2.7 J	4.8 J	0.34	8.8
00505-MW18	04/20/07	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/08	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	01/21/14	---	84	<8.5	<8.5	<8.5	150	<8.5	<0.019	34
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0050	<0.23
00505-MW19	04/20/07	---	12.0	ND	ND	ND	ND	ND	ND	34.0
	09/11/08	---	149	12.0	3.58	ND	84.6	104	ND	57.4
	09/09/09	---	167	8.6	6.9	7.8 J	74.3	80.0	<0.019	61.2
	01/21/14	---	1,200	<170	<170	<170	820	390 J	<0.019	140 J
	11/05/15	---	200	5.0 J	<4.2	23 J	1,300	100	<0.0048	<4.6
00505-MW20	04/20/07	---	ND	ND	ND	ND	2.1	ND	ND	ND
	09/12/08	---	ND	ND	ND	ND	1.85	ND	ND	ND
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	01/22/14	---	<0.20	<1.7	<1.7	<1.7	1.7 J	<1.7	<0.019	<0.30
	11/06/15	---	<0.21	<0.24	<0.21	<0.32	1.4 J	<0.14	<0.0048	<0.23
00505-MW21	04/20/07	---	1,100	690	470	1,700	220	260	0.078	33.0
	09/11/08	---	741	928	1,080	3,960	109	773	0.030	ND
	09/09/09	---	392	695	699	3,099	64.5	458	<0.019	11.1
	01/21/14	---	120	130	340	1,100	16 J	260	<0.019	<3.0
	11/06/15	---	330	26	180	520	55	140	<0.0048	15 J
00505-MW22	04/20/07	---	880	170	630	1,900	200	430	0.034	29.0
	09/11/08	---	589	88.5	730	1,680	79.7	582	ND	ND
	09/09/09	---	222	68.0	373	772	32.7	277	<0.019	5.7
	01/21/14	---	49	32	100	240	9.3 J	140	<0.019	<1.5
	11/06/15	---	180	2.4 J	25	24	69	69	<0.0049	13

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2A

Historical Groundwater Analytical Data
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #50390
BLE Project Number J13-3661-07

Well ID	Date Sampled	FP Thickness (Feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
SC DHEC RBSL		NE	5	1,000	700	10,000	40	25	0.05	5
00505-MW23	04/20/07	---	**1,300**	**890**	**960**	**3,400**	**220**	**610**	**0.280**	**33.0**
	09/11/08	---	**1,220**	**65.1**	**845**	**655**	**264**	**513**	ND	**27.6**
	09/09/09	---	**434**	**81.4**	**442**	**462**	**95.4**	**281**	<0.019	**13.2**
	01/21/14	---	**350**	**69**	**230**	**420**	**110**	**220**	<0.019	**19 J**
	11/06/15	---	**290**	**52**	**75**	**210**	**59**	**160**	<0.0048	<1.2
00505-MW24	04/20/07	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/12/08	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	01/22/14	---	**0.36 J**	<1.7	<1.7	<1.7	<0.40	**1.7 J**	<0.020	<0.30
	11/06/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	**0.43 J**	<0.0048	<0.23
00505-MW25	04/20/07	---	**6.0**	ND	ND	**4.1**	**56.0**	ND	ND	**6.8**
	09/11/08	---	ND	ND	ND	**1.39**	**2.82**	**1.33**	ND	**1.15**
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	**5.0**	<5.0	<0.019	<5.0
	01/21/14	---	<0.20	<1.7	<1.7	<1.7	**2.3 J**	<1.7	<0.019	<0.30
	11/06/15	---	<0.21	<0.24	<0.21	<0.32	**1.5 J**	<0.14	<0.0048	<0.23
00505-MW26	04/20/07	---	**130**	**50.0**	**42.0**	**150**	**150**	**28.0**	ND	**17.0**
	09/12/08	---	**68.4**	ND	ND	ND	**139**	**11.6**	ND	**15.8**
	09/09/09	---	**2.7 J**	<5.0	**1.4 J**	**2.2 J**	**35.1**	**3.3 J**	<0.019	**3.6 J**
	01/22/14	---	**6.4**	<1.7	**5.3**	**6.2**	**28**	**5.7**	<0.019	**3.8 J**
	11/05/15	---	**18**	**14**	**2.2 J**	**110**	**21**	**2.1 J**	<0.0049	**3.0 J**
00505-MW27	04/20/07	---	**9.70**	ND	**1.0**	ND	**88.0**	**57.0**	ND	**12.0**
	09/09/08	NA	Well dry at time of sampling event							
	09/09/09	NA	Well dry at time of sampling event							
	01/21/14	---	<0.20	<1.7	<1.7	<1.7	**0.97 J**	<1.7	<0.019	<0.30
	11/03/15	---	Well dry at time of sampling event							
00505-MW27R	09/08/09	---	<5.0	<5.0	<5.0	<10.0	**5.7**	<5.0	<0.020	<5.0
	01/21/14	---	**0.34 J**	<1.7	<1.7	<1.7	**1.5 J**	<1.7	<0.019	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0048	<0.23
00505-MW27D	09/08/09	---	**1.2 J**	<5.0	<5.0	<10.0	**62.6**	<5.0	<0.019	**6.6**
	01/21/14	---	<0.20	<1.7	<1.7	<1.7	**14**	<1.7	<0.020	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**9.0**	<0.14	<0.0049	<0.23
00505-MW27DD	09/08/09	---	<5.0	<5.0	<5.0	<10.0	**18.7**	<5.0	<0.020	**2.7J**
	01/22/14	---	<10	<85	<85	<85	<20	<85	<0.034	<15
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**14**	<0.14	<0.0049	**0.98 J**
00505-MW28	04/20/07	---	**77.0**	ND	ND	**4.0**	**36.0**	**12.0**	ND	**6.0**
	09/11/08	---	**274**	ND	ND	**11.7**	**110**	**86.6**	ND	**16.0**
	09/09/09	---	**429**	<5.0	<5.0	**11.1 J**	**207**	**83.8**	<0.020	**39.9**
	01/21/14	---	**420**	<34	<34	<34	**340**	**81 J**	<0.020	**86 J**
	11/06/15	---	**360**	<1.2	**2.0 J**	**14 J**	**260**	**72**	<0.0048	**64**
00505-MW29	04/20/07	---	**1.8**	ND	ND	ND	**12.0**	N/D	ND	**1.9**
	09/11/08	---	**6.09**	**2.69**	ND	**5.23**	**85.0**	**25.4**	ND	**8.94**
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	**9.3**	<5.0	<0.020	**4.6 J**
	01/21/14	NA	Well Not Located							
	11/04/15	NA	Well Not Located							
00505-MW30	04/20/07	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	NA	Well dry at time of sampling event							
	09/08/09	NA	Well dry at time of sampling event							
	01/20/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0049	<0.23
00505-MW30R	09/08/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	01/20/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0048	<0.23
00505-MW31	04/20/07	---	ND	ND	ND	ND	**12.0**	ND	ND	**1.6**
	09/09/08	NA	Well dry at time of sampling event							
	09/08/09	NA	Well dry at time of sampling event							
	01/20/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**1.2 J**	<0.14	<0.0049	<0.23
00505-MW31R	09/08/09	---	<5.0	<5.0	<5.0	<10.0	**9.1**	<5.0	<0.020	**2.0 J**
	01/20/14	---	<0.20	<1.7	<1.7	<1.7	**2.6 J**	<1.7	<0.020	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**1.9 J**	<0.14	<0.0048	<0.23
00505-MW32	04/20/07	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	NA	Well dry at time of sampling event							
	09/08/09	NA	Well dry at time of sampling event							
	01/20/14	---	<0.20	<1.7	<1.7	<1.7	**0.50 J**	<1.7	<0.019	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**1.0 J**	<0.14	<0.0048	<0.23
00505-MW32R	09/08/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	01/20/14	---	<0.20	<1.7	<1.7	<1.7	**1.5 J**	<1.7	<0.020	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**1.1 J**	<0.14	<0.0049	<0.23
00505-MW33	09/11/08	---	ND	ND	ND	**1.39**	**92.9**	**2.36**	ND	**6.64**
	09/08/09	---	<5.0	<5.0	<5.0	<10.0	**99.9**	<5.0	<0.020	**8.8**
	01/20/14	---	<0.20	<1.7	<1.7	<1.7	**55**	<1.7	<0.019	**5.3**
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**12**	<0.14	<0.0048	<0.23
00505-MW33D	09/08/09	---	**173**	<5.0	<5.0	**38.8**	**232**	**13.1**	<0.019	**28.8**
	01/20/14	---	**31**	<8.5	<8.5	**8.7 J**	**170**	<8.5	<0.019	**19 J**
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**60**	<0.14	<0.0048	<0.23
00505-MW33DD	09/08/09	---	**7.6**	<5.0	<5.0	<10.0	**38.9**	<5.0	<0.019	**4.6 J**
	01/22/14	---	**67**	<1.7	<1.7	**3.7 J**	**63**	**11**	<0.019	**8.6**
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**45**	<0.14	<0.0048	<0.23
00505-MW34	09/11/08	---	ND	ND	ND	ND	**2.76**	ND	ND	ND
	09/08/09	---	<5.0	<5.0	<5.0	<10.0	**3.4J**	<5.0	<0.020	<5.0
	01/20/14	---	<0.20	<1.7	<1.7	<1.7	**3.4 J**	<1.7	<0.020	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**2.6 J**	<0.14	<0.0048	<0.23

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2A

Historical Groundwater Analytical Data
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #50390
BLE Project Number J13-3661-07

Well ID	Date Sampled	FP Thickness (Feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)
SC DHEC RBSL		NE	5	1,000	700	10,000	40	25	0.05	5
00505-MW35	09/12/08	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/08/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	01/20/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0050	<0.23
00505-MW36	09/12/08	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/08/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	01/20/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
	11/05/15	---	<0.21	**0.33 J**	<0.21	<0.32	<0.23	<0.14	<0.0049	<0.23
00505-MW37	09/12/08	---	**50.6**	ND	ND	ND	**53.2**	**2.83**	ND	**1.10**
	09/10/09	---	**25.1**	<5.0	<5.0	<10.0	**60.8**	**9.8**	<0.019	**2.3 J**
	01/23/14	---	**5.7**	<1.7	<1.7	<1.7	**110**	<1.7	<0.019	**7.3**
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0049	<0.23
00505-MW37D	09/10/09	---	**21.3**	<5.0	<5.0	<10.0	**51.6**	<5.0	<0.020	**2.8 J**
	01/22/14	---	**11**	<1.7	<1.7	**5.1**	**13**	<1.7	<0.019	<0.30
	11/06/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0048	<0.23
00505-MW38	09/12/08	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	01/21/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
	11/06/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0048	<0.23
00505-MW39	09/11/08	---	**10.1**	**1.31**	ND	**7.21**	**15.3**	**1.36**	ND	ND
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	**17.7**	<5.0	<0.020	<5.0
	01/21/14	---	**0.32 J**	<1.7	<1.7	<1.7	**8.4**	<1.7	<0.019	<0.30
	11/05/15	---	**0.35 J**	<0.24	<0.21	<0.32	**6.4**	<0.14	<0.0048	<0.23
00505-MW40	09/11/08	---	**45.1**	ND	**4.63**	**6.69**	**5.41**	**5.04**	ND	ND
	09/09/09	---	**4.3 J**	<5.0	<5.0	<10.0	**4.2 J**	<5.0	<0.020	<5.0
	01/21/14	---	**0.80 J**	<1.7	<1.7	<1.7	**1.9 J**	<1.7	<0.019	**0.41 J**
	11/05/15	---	**0.72 J**	<0.24	<0.21	**0.57 J**	**0.30 J**	**0.20 J**	<0.0048	<0.23
00505-MW40 DUP	11/05/15	---	**0.76 J**	<0.24	<0.21	**0.60 J**	**0.30 J**	**0.25 J**	<0.0048	<0.23
00505-MW41	09/11/08	---	**106**	**7.28**	**8.07**	**87.5**	**132**	**11.9**	**0.160**	**8.45**
	09/09/09	---	**7.7**	**7.3**	<5.0	**31.6**	**126**	<5.0	<0.019	**9.7**
	01/21/14	---	**11**	<1.7	<1.7	**3.2 J**	**110**	<1.7	<0.019	**6.6**
	11/05/15	---	**42**	**2.2 J**	**2.1 J**	**11**	**120**	**0.42 J**	<0.0048	**5.6**
00505-MW41 DUP	11/05/15	---	**56**	**2.6 J**	**2.5 J**	**14**	**130**	**0.30 J**	<0.0048	**6.5**
00505-MW42	09/12/08	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/08/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020	<5.0
	01/20/14	---	**0.49 J**	<1.7	<1.7	<1.7	**8.6**	<1.7	<0.019	**0.53 J**
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**25**	<0.14	<0.0047	<0.23
00505-MW43	09/11/08	---	ND	ND	ND	ND	**14.5**	ND	ND	**1.59**
	09/08/09	---	<5.0	<5.0	<5.0	<10.0	**9.1**	<5.0	<0.019	**1.6 J**
	01/20/14	---	<0.20	<1.7	<1.7	<1.7	**6.5**	<1.7	<0.019	**0.79 J**
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**8.7**	<0.14	<0.0048	**1.3 J**
00505-MW44	09/12/08	---	ND	ND	ND	ND	**34.6**	ND	ND	**3.00**
	09/08/09	---	<5.0	<5.0	<5.0	<10.0	**29.5**	<5.0	<0.019	**2.7 J**
	01/20/14	---	<0.20	<1.7	<1.7	<1.7	**60**	<1.7	<0.019	**5.4**
	11/05/15	---	<0.21	<0.24	<0.21	<0.32	**65**	<0.14	<0.0048	**6.0**
00505-MW45	09/10/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	01/21/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.019	<0.30
	11/04/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0049	<0.23
00505-DW01	04/05/05	---	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	NA	Well dry at time of sampling event							
	09/09/09	---	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.019	<5.0
	01/23/14	---	<0.20	<1.7	<1.7	<1.7	<0.40	<1.7	<0.020	<0.30
	11/04/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0049	<0.23
Field Blank 1	11/04/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0048	<0.23
Field Blank 2	11/05/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0048	<0.23
Field Blank 3	11/06/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	<0.0048	<0.23
Trip Blank 1	11/04/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	NT	<0.23
Trip Blank 2	11/04/15	---	<0.21	<0.24	<0.21	<0.32	<0.23	<0.14	NT	<0.23

Notes:
RBSL = Risk-Based Screening Level
Bold cells indicate detections above the laboratory method detection limits
Shaded cells indicate COC concentrations that exceed RBSLs
µg/L - micrograms per liter - parts per billion
NA = Not Applicable
ND = Not Detected (at the laboratory detection limit)
NT = Not Tested
MTBE = Methyl tertiary butyl ether
EDB = 1,2-Dibromoethane
1,2-DCA = 1,2-Dichloroethane

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2B

Historical Groundwater Analytical Data - 8-Oxygenates
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #50390
BLE Project Number J13-3661-07

Well ID	Date Sampled	Tert-amyl Methyl Ether (TAME) (µg/L)	Tert-amyl Alcohol (TAA) (µg/L)	Tert-butyl Alcohol (TBA) (µg/L)	Tert-butyl Formate (TBF) (µg/L)	Di-isopropyl Ether (DIPE) (µg/L)	Ethanol (µg/L)	Ethyl Tert-butyl Ether (ETBE) (µg/L)	Ethyl Tert-butyl Alcohol (ETBA) (µg/L)
SC DHEC RBSL		128	240	1,400	N/E	150	10,000	47	1,400
00505-MW01R	04/18/07	ND	**1,000**	ND	ND	**1,300**	ND	**7,300**	ND
	09/09/08	NT	NT	NT	NT	NT	NT	NT	NT
	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	**Well not sampled due to 0.04' of free-product**							
	11/04/15	<25	<150	<230	<66	<26	<1,900	<13	<150
00505-MW01R DUP	11/04/15	<25	<150	<230	<66	<26	<1,900	<13	<150
00505-MW01D	04/18/07	ND	ND	ND	ND	**1,600**	ND	**7,600**	ND
	09/10/08	**110**	**9,400**	**2,200**	ND	**1,300**	ND	ND	ND
	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	**72 J**	**5,700**	**1,200**	<10	**900**	<330	<2.0	<10
	11/04/15	**40 J**	**3,300**	**600 J**	<33	**640**	<960	<6.5	<75
00505-MW01DD	09/10/08	**2.4**	**69.0**	ND	ND	**30.0**	ND	ND	ND
	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	**1.2 J**	**68**	**24**	<1.0	**24**	<33	<0.20	<1.0
	11/04/15	<0.25	**11 J**	<2.3	<0.66	**2.7 J**	<19	<0.13	<1.5
00505-MW01DDD	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	**35 J**	**2,800**	**690 J**	<50	**620**	<1,700	<10	<50
	11/04/15	**34 J**	**4,200**	**890 J**	<33	**690**	<960	<6.5	<75
00505-MW02	07/27/04	NT	NT	NT	NT	NT	NT	NT	NT
	04/18/07	ND	ND	ND	ND	**210**	ND	**880**	ND
	09/09/08	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	**Well not sampled due to 0.09' of free-product**							
	11/04/15	<1.3	**34 J**	<11	<3.3	<1.3	<96	<0.65	<7.5
00505-MW03	07/27/04	NT	NT	NT	NT	NT	NT	NT	NT
	04/18/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/08	ND	ND	ND	ND	**1.60**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW04	04/18/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/08	**2.0**	**120**	**29.0**	ND	**51.0**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	<6.7	<6.7	<1.0	**2.5 J**	<33	<0.20	<1.0
	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW05	04/18/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	Well dry at time of sampling event							
	09/08/09	Well dry at time of sampling event							
	01/21/14	Well dry at time of sampling event							
	11/04/15	Well dry at time of sampling event							
00505-MW05R	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW06	04/18/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	Well dry at time of sampling event							
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW06D	09/10/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW07	04/18/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	Well dry at time of sampling event							
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW07D	09/10/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW08	04/18/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	Well dry at time of sampling event							
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW09	04/20/07	ND	ND	ND	ND	**660**	ND	**5,200**	ND
	09/10/08	**30**	**6,700**	**990**	ND	**620**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	**73 J**	**12,000**	**2,100**	<50	**1,600**	<1,700	<10	<50
	11/05/15	**77 J**	**19,000**	**3,000**	<33	**1,700**	<960	<6.5	<75
00505-MW10	04/20/07	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/08	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	**Well not sampled due to 0.45' of free-product**							
	11/03/15	**Well not sampled due to 0.35' of free-product**							

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2B

Historical Groundwater Analytical Data - 8-Oxygenates
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #50390
BLE Project Number J13-3661-07

Well ID	Date Sampled	Tert-amyl Methyl Ether (TAME) (µg/L)	Tert-amyl Alcohol (TAA) (µg/L)	Tert-butyl Alcohol (TBA) (µg/L)	Tert-butyl Formate (TBF) (µg/L)	Di-isopropyl Ether (DIPE) (µg/L)	Ethanol (µg/L)	Ethyl Tert-butyl Ether (ETBE) (µg/L)	Ethyl Tert-butyl Alcohol (ETBA) (µg/L)
SC DHEC RBSL		128	240	1,400	N/E	150	10,000	47	1,400
00505-MW10D	09/11/08	**15**	**990**	**240**	ND	**240**	ND	ND	ND
	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	**29 J**	**2,400**	**570 J**	<50	**620**	<1,700	<10	<50
	11/06/15	<1.3	<7.3	<11	<3.3	**20 J**	<96	<0.65	<7.5
00505-MW11	04/20/07	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/08	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<100	<3,400	<3,400	<500	<200	<17,000	<100	<500
	11/04/15	<13	<73	**420 J**	<33	**65 J**	<960	<6.5	<75
00505-MW11D	04/20/07	ND	ND	ND	ND	**90.0**	ND	**500**	ND
	09/11/08	**5.50**	**270**	**64**	ND	**100**	ND	ND	ND
	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	**4.0 J**	**260**	**60 J**	<5.0	**88**	<170	<1.0	<5.0
	11/04/15	**3.2 J**	**310**	**66**	<0.66	**55**	**53 J**	**2.8**	**12 J**
00505-MW11DD	09/11/08	**92**	**7,600**	**1,700**	ND	**1,300**	ND	ND	ND
	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	**67 J**	**4,800**	**1,200 J**	<100	**1,200**	<3,300	<20	<100
	11/04/15	**81 J**	**6,500**	**1,400**	<33	**1,100**	<960	<6.5	<75
00505-MW11DDD	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	**27 J**	**2,800**	**680**	<20	**490**	<660	<4.0	<20
	11/04/15	**43 J**	**4,900**	**1,100**	<33	**810**	<960	<6.5	<75
00505-MW12	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/09	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
	01/21/14	Well Not Located							
	11/03/15	Well Not Located							
00505-MW13	04/20/07	**77.0**	ND	ND	ND	**1,100**	ND	**5,600**	ND
	09/10/08	Well dry at time of sampling event							
	09/09/09	Well dry at time of sampling event							
	01/21/14	Well dry at time of sampling event							
	11/05/15	**21 J**	**2,600**	**820 J**	<33	**440**	<960	<6.5	<75
00505-MW13R	09/09/09	Well dry at time of sampling event							
	01/21/14	<20	**1,400 J**	**1,000 J**	<100	**230 J**	<3,300	<20	<100
	11/05/15	**21 J**	**2,400**	**940 J**	<33	**400**	<960	<6.5	<75
00505-MW14	04/20/07	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/08	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<4.0	<130	<130	<20	<8.0	<660	<4.0	<20
	11/03/15	**Well not sampled due to 0.20' of free-product**							
00505-MW14D	09/11/08	**5.4**	**490**	**120**	ND	**110**	ND	ND	ND
	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	**4.2 J**	**420**	**150**	<5.0	**91**	<170	<1.0	<5.0
	11/06/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW15	04/20/07	ND	ND	ND	ND	**120**	ND	**660**	ND
	09/10/08	**5.8**	**420**	**130**	ND	**110**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	**24**	**20**	<1.0	**5.4**	<33	<0.20	<1.0
	11/05/15	**0.67 J**	**74**	**21**	<0.66	**12**	<19	<0.13	<1.5
00505-MW15 DUP	11/05/15	**0.72 J**	**77**	**21**	<0.66	**12**	<19	<0.13	<1.5
00505-MW16	04/18/07	ND	ND	ND	ND	**670**	ND	**3,700**	ND
	09/09/08	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	**Well not sampled due to 0.02' of free-product**							
	11/03/15	**Well not sampled due to 0.11' of free-product**							
00505-MW17	04/18/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	**170**	**72**	<1.0	**33**	<33	<0.20	<1.0
	11/04/15	<0.25	**480**	**130**	<0.66	**34**	<19	<0.13	<1.5
00505-MW18	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	**4.8 J**	**1,600**	**280**	<5.0	**150**	<170	<1.0	<5.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW19	04/20/07	ND	ND	ND	ND	**110**	ND	**750**	ND
	09/11/08	**11**	**1,700**	**310**	ND	**290**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<20	**5,400**	**940 J**	<100	**580**	<3300	<20	<100
	11/05/15	**27 J**	**5,500**	**1,100**	<13	**640**	<390	<2.6	<30
00505-MW20	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/22/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/06/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW21	04/20/07	ND	ND	ND	ND	**130**	ND	**660**	ND
	09/11/08	**4.0**	**320**	**110**	ND	**71**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<2.0	<67	<67	<10	**12 J**	<330	<2.0	<10
	11/06/15	<1.3	**220**	**69 J**	<3.3	**35**	<96	<0.65	<7.5

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2B

Historical Groundwater Analytical Data - 8-Oxygenates
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #50390
BLE Project Number J13-3661-07

Well ID	Date Sampled	Tert-amyl Methyl Ether (TAME) (µg/L)	Tert-amyl Alcohol (TAA) (µg/L)	Tert-butyl Alcohol (TBA) (µg/L)	Tert-butyl Formate (TBF) (µg/L)	Di-isopropyl Ether (DIPE) (µg/L)	Ethanol (µg/L)	Ethyl Tert-butyl Ether (ETBE) (µg/L)	Ethyl Tert-butyl Alcohol (ETBA) (µg/L)
SC DHEC RBSL		128	240	1,400	N/E	150	10,000	47	1,400
00505-MW22	04/20/07	ND	ND	ND	ND	**96.0**	ND	**660**	ND
	09/11/08	**2.6**	**120**	**46**	ND	**45**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<1.0	<34	**36 J**	<5.0	**7.3 J**	<170	<1.0	<5.0
	11/06/15	**2.1 J**	**230**	**66**	<0.66	**41**	<19	<0.13	<1.5
00505-MW23	04/20/07	ND	ND	ND	ND	**140**	ND	**930**	ND
	09/11/08	**5.5**	**440**	**110**	ND	**86**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	**3.4 J**	**400**	**130**	<5.0	**68**	<170	<1.0	<5.0
	11/06/15	<1.3	**220**	**88 J**	<3.3	**36**	<96	<0.65	<7.5
00505-MW24	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/22/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/06/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW25	04/20/07	ND	ND	ND	ND	**16.0**	ND	ND	ND
	09/11/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	<6.7	<6.7	<1.0	**0.95 J**	<33	<0.20	<1.0
	11/06/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW26	04/20/07	ND	ND	ND	ND	**63.0**	ND	**480**	ND
	09/12/08	**6.30**	**380**	**100**	ND	**79.0**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/22/14	**0.89 J**	**63**	**49**	<1.0	**20**	<33	<0.20	<1.0
	11/05/15	**0.58 J**	**86**	**73**	<0.66	**14**	<19	<0.13	<1.5
00505-MW27	04/20/07	ND	ND	ND	ND	**48.0**	ND	**230**	ND
	09/09/08	Well dry at time of sampling event							
	09/09/09	Well dry at time of sampling event							
	01/21/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/03/15	Well dry at time of sampling event							
00505-MW27R	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW27D	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW27DD	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/22/14	<10	<340	<340	<50	<20	<1,700	<10	<50
	11/05/15	<0.25	**12 J**	**4.5 J**	<0.66	**5.5**	<19	<0.13	<1.5
00505-MW28	04/20/07	ND	ND	ND	ND	**28.0**	ND	**180**	ND
	09/11/08	**4.00**	**380**	**98.0**	ND	**93.0**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	**12 J**	**1,500**	**270 J**	<20	**320**	<660	<4.0	<20
	11/06/15	**11 J**	**1,300**	**260**	<3.3	**230**	<96	<0.65	<7.5
00505-MW29	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/11/08	**170**	ND	ND	**48.0**	ND	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	Well Not Located							
	11/04/15	Well Not Located							
00505-MW30	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	Well dry at time of sampling event							
	09/08/09	Well dry at time of sampling event							
	01/20/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW30R	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/20/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW31	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	Well dry at time of sampling event							
	09/08/09	Well dry at time of sampling event							
	01/20/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW31R	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/20/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW32	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/08	Well dry at time of sampling event							
	09/08/09	Well dry at time of sampling event							
	01/20/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW32R	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/20/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW33	09/11/08	ND	ND	ND	ND	**7.8**	ND	ND	ND
	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/20/14	<0.20	<6.7	<6.7	<1.0	**5.7**	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5

Prepared By: DRM/RAD
Checked By: RAD

TABLE 2B

Historical Groundwater Analytical Data - 8-Oxygenates

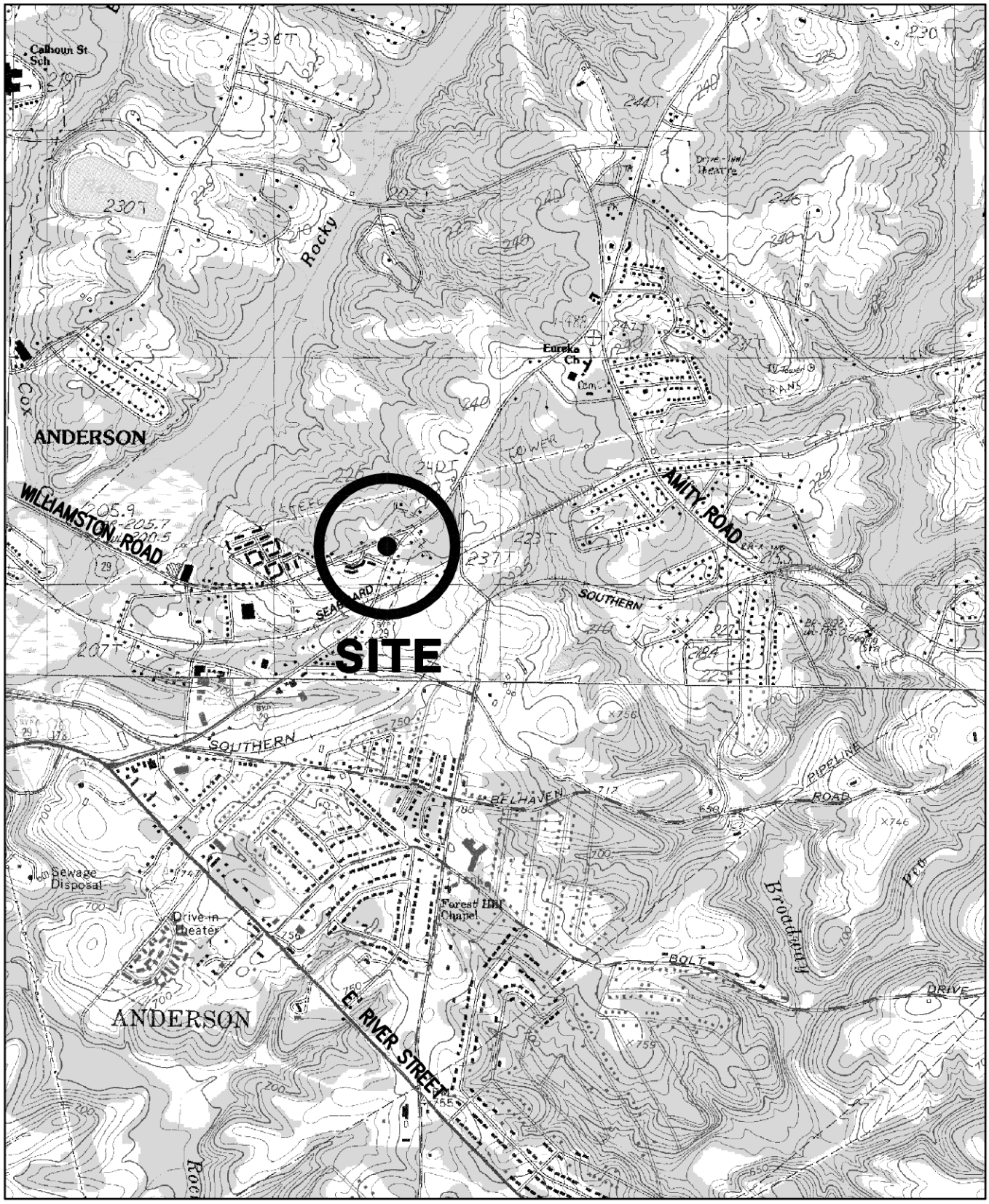
MD Food Mart (Former KMO #119)
Anderson, Anderson County, South Carolina
SCDHEC UST Permit #00505; C.A. #50390
BLE Project Number J13-3661-07

Well ID	Date Sampled	Tert-amyl Methyl Ether (TAME) (µg/L)	Tert-amyl Alcohol (TAA) (µg/L)	Tert-butyl Alcohol (TBA) (µg/L)	Tert-butyl Formate (TBF) (µg/L)	Di-isopropyl Ether (DIPE) (µg/L)	Ethanol (µg/L)	Ethyl Tert-butyl Ether (ETBE) (µg/L)	Ethyl Tert-butyl Alcohol (ETBA) (µg/L)
SC DHEC RBSL		128	240	1,400	N/E	150	10,000	47	1,400
00505-MW33D	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/20/14	<1.0	**46 J**	<34	<5.0	**59**	<170	<1.0	<5.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW33DD	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/22/14	**1.2 J**	**120**	**27**	<1.0	**27**	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW34	09/11/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/20/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW35	09/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/20/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW36	09/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/20/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW37	09/12/08	**1.50**	**110**	**30**	ND	**22**	ND	ND	ND
	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	**2.7 J**	**290**	**57**	<1.0	**60**	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW37D	09/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/22/14	<0.20	**25**	<6.7	<1.0	**5.5**	<33	<0.20	<1.0
	11/06/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW38	09/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/06/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW39	09/11/08	ND	**35.0**	**130**	ND	**8.60**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	**8.4 J**	**13 J**	<1.0	**4.4 J**	<33	<0.20	<1.0
	11/05/15	<0.25	**7.1 J**	**6.8 J**	<0.66	**4.0 J**	<19	<0.13	<1.5
00505-MW40	09/11/08	ND	**61.0**	**200**	ND	**10**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	**31**	**310**	<1.0	**4.6 J**	<33	<0.20	<1.0
	11/05/15	<0.25	**2.7 J**	**24**	<0.66	<0.26	<19	<0.13	<1.5
00505-MW40 DUP	11/05/15	<0.25	**3.9 J**	**30**	<0.66	<0.26	<19	<0.13	<1.5
00505-MW41	09/11/08	**4.30**	**250**	**73.0**	ND	**95**	ND	ND	ND
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	**3.1 J**	**810**	**280**	<1.0	**72**	<33	<0.20	<1.0
	11/05/15	**2.6 J**	**570**	**310**	<0.66	**54**	<19	<0.13	<1.5
00505-MW41 DUP	11/05/15	**3.0 J**	**230**	**130**	<0.66	**58**	<19	<0.13	<1.5
00505-MW42	09/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/20/14	<0.20	**14 J**	<6.7	<1.0	**4.0 J**	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	**9.2**	<19	<0.13	<1.5
00505-MW43	09/11/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/20/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW44	09/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	09/08/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/20/14	<0.20	<6.7	<6.7	<1.0	**4.0 J**	<33	<0.20	<1.0
	11/05/15	<0.25	<1.5	<2.3	<0.66	**2.7 J**	<19	<0.13	<1.5
00505-MW45	09/10/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/21/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-DW01	04/05/05	NT	NT	NT	NT	NT	NT	NT	NT
	09/09/08	Well Well dry at time of sampling event at time of sampling event							
	09/09/09	NT	NT	NT	NT	NT	NT	NT	NT
	01/23/14	<0.20	<6.7	<6.7	<1.0	<0.40	<33	<0.20	<1.0
	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
Field Blank 1	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
Field Blank 2	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
Field Blank 3	11/06/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
Trip Blank 1	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
Trip Blank 2	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5

Notes:
RBSL = Risk-Based Screening Level
Bold cells indicate detections above the laboratory method detection limits
Shaded cells indicate COC concentrations that exceed RBSLs
µg/L - micrograms per liter - parts per billion
ND = Not Detected (at the laboratory detection limit)
NT = Not Tested
NE = A RBSL has not been established for this constituent

Prepared By: DRM/RAD
Checked By: RAD

FIGURES

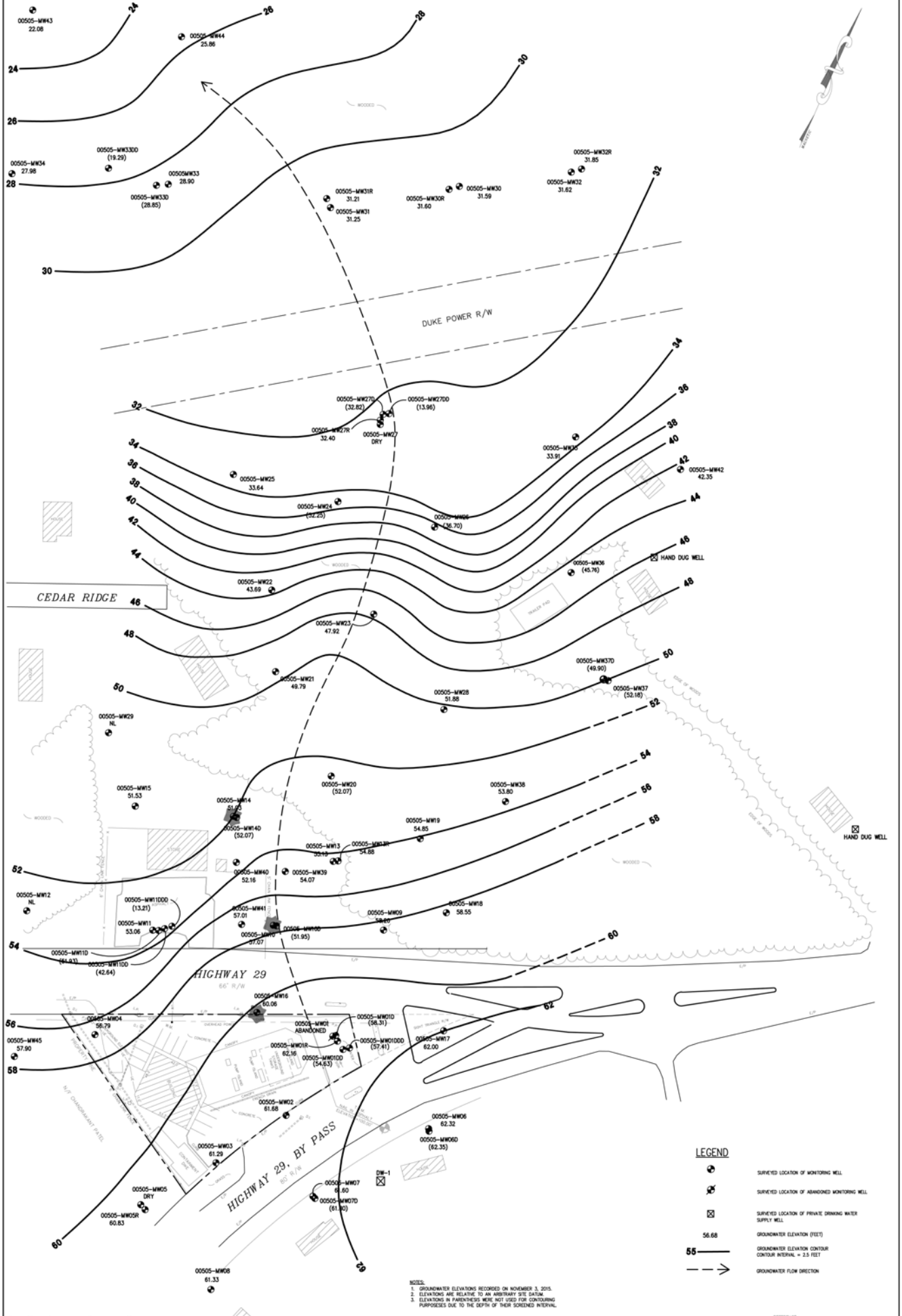


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, BELTON WEST AND SAYLORS CROSSROADS, S.C. QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: ACE	DATE: 06-29-15	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP MD FOOD MART (FORMER KMO #119) UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
CHECKED: TJB	CAD: MOORHEAD-06SLM		FIGURE 1
APPROVED:	JOB NO: J15-3661-07		



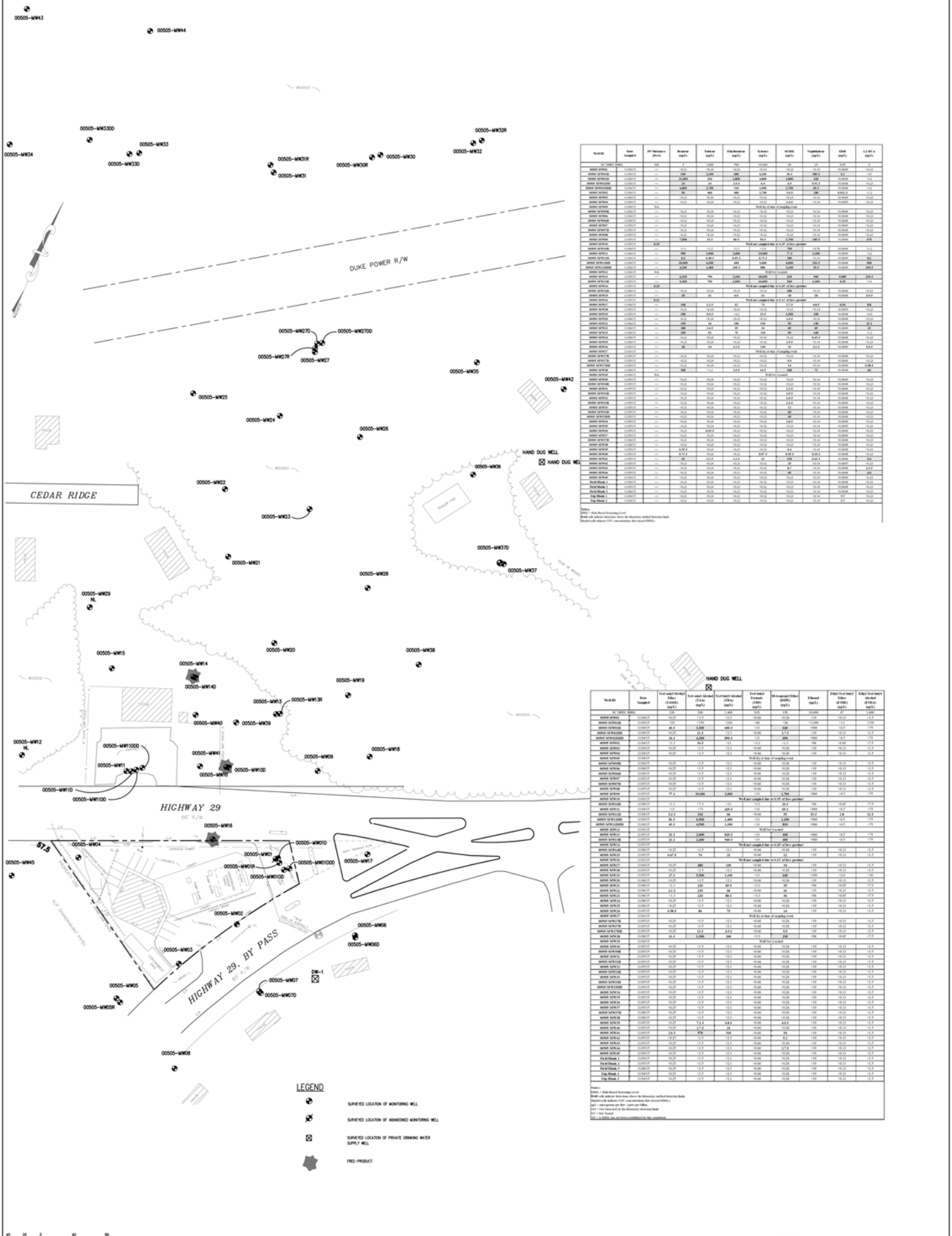
REVISIONS		
No.	DESCRIPTION	BY
1		
2		

DRAWN	ACE
CHECKED	TJB
APPROVED	
DATE	12-21-15
FILE	KMO119-07WTM
JOB NO.	J15-3661-07

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

GROUNDWATER ELEVATION CONTOUR MAP – NOVEMBER 3, 2015
MD FOOD MART (FORMER KMO #119)
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE NO. 2



Well ID	Date Sampled	FP Thickness (ft+/-)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Naphthalene (ug/L)	EDB (ug/L)	1,2-DCA (ug/L)
SC CRDC RBSL		NE	5	1,500	700	10,000	40	17	0.07	5
00505-DPW01	11/04/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW01D	11/04/15	---	740	3,200	280	4,200	50.1	780 J	0.1	<0.23
00505-MW01R	11/04/15	---	11,000	310	3,800	4,600	1,800	420	<0.0049	<0.23
00505-MW01DD	11/04/15	---	21	1.1	2.3 J	4.5	1.5	0.51 J	<0.0049	<0.23
00505-MW01DDD	11/04/15	---	4,800	1,700	310	1,900	1,700	107 J	<0.0049	<0.23
00505-MW02	11/04/15	---	82	460	490	2,700	5.4 J	180	0.027 J	<0.23
00505-MW02D	11/04/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW06	11/04/15	---	<0.25	<0.28	<0.23	<0.50	0.41 J	<0.19	<0.0070	<0.23
00505-MW06D	11/04/15	N/A	Well dry at time of sampling event							
00505-MW06DD	11/04/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW07	11/04/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW07D	11/04/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW08	11/04/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW09	11/04/15	---	7,000	11 J	80 J	5 J	2,700	140 J	<0.0049	670
00505-MW10	11/04/15	0.33	Well not sampled due to 0.33' of free product							
00505-MW10D	11/04/15	---	<13	<14	<11	<25	780	<9.70	<0.0049	<12
00505-MW11	11/04/15	---	950	2,000	2,600	15,000	77 J	1,200	<0.0070	58 J
00505-MW11D	11/04/15	---	0.4	0.46 J	0.93 J	0.73 J	280	<0.19	<0.0049	0.1
00505-MW11DD	11/04/15	---	35,000	6,700	490	3,400	6,000	220 J	<0.0049	990
00505-MW11DDD	11/04/15	---	6,200	1,400	250 J	880	3,200	29 J	<0.0049	150 J
00505-MW12	11/04/15	N/A	Well Not Located							
00505-MW13	11/05/15	---	6,100	790	3,200	18,000	620	940	0.089	220 J
00505-MW13R	11/05/15	---	8,900	790	3,900	24,000	760	1,200	0.23	170 J
00505-MW14	11/05/15	0.20	Well not sampled due to 0.20' of free product							
00505-MW14D	11/05/15	---	<9.25	<10	<8.5	<19	280	<7.0	<0.0049	<8.5
00505-MW15	11/04/15	---	20	0.5	6.5	33	18	18	<0.0049	0.8 J
00505-MW19	11/05/15	0.03	Well not sampled due to 0.03' of free product							
00505-MW20	11/04/15	---	140	1.2 J	12	74	2.7 J	6.8 J	0.31	0.8
00505-MW21	11/04/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0070	<0.23
00505-MW22	11/05/15	---	200	0.6 J	14 J	23 J	3,200	100	<0.0049	4.6
00505-MW23	11/04/15	---	<0.25	<0.28	<0.23	<0.50	0.4 J	<0.19	<0.0049	<0.23
00505-MW24	11/04/15	---	530	26	180	920	55	140	<0.0049	22 J
00505-MW25	11/04/15	---	150	0.4 J	25	24	69	45	<0.0049	3.5
00505-MW26	11/04/15	---	200	61	78	310	59	160	<0.0049	12 J
00505-MW27	11/04/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	0.43 J	<0.0049	<0.23
00505-MW27D	11/05/15	---	<0.25	<0.28	<0.23	<0.50	0.9 J	<0.19	<0.0049	<0.23
00505-MW27R	11/05/15	---	18	0.6	2.3 J	2.5 J	180	2.1 J	<0.0049	0.39 J
00505-MW27	11/05/15	---	Well dry at time of sampling event							
00505-MW27R	11/05/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW27S	11/05/15	---	<0.25	<0.28	<0.23	<0.50	0.9	<0.19	<0.0049	<0.23
00505-MW27SD	11/05/15	---	<0.25	<0.28	<0.23	<0.50	0.8 J	<0.19	<0.0049	<0.23
00505-MW28	11/04/15	---	340	1.2 J	14 J	140 J	240	72	<0.0049	88
00505-MW29	11/04/15	N/A	Well Not Located							
00505-MW30	11/05/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW30D	11/05/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW31	11/05/15	---	<0.25	<0.28	<0.23	<0.50	0.3 J	<0.19	<0.0049	<0.23
00505-MW31D	11/05/15	---	<0.25	<0.28	<0.23	<0.50	0.3 J	<0.19	<0.0049	<0.23
00505-MW32	11/05/15	---	<0.25	<0.28	<0.23	<0.50	0.4 J	<0.19	<0.0049	<0.23
00505-MW32D	11/05/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW32R	11/05/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW33	11/05/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW33D	11/05/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW34	11/05/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW35	11/05/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
00505-MW36	11/05/15	---	<0.25	<0.28	<0.23	<0.50	0.47 J	0.39 J	0.16 J	<0.23
00505-MW37	11/05/15	---	82	2.2 J	2.1 J	11	220	0.42 J	<0.0049	0.6
00505-MW37D	11/05/15	---	<0.25	<0.28	<0.23	<0.50	0.3 J	<0.19	<0.0049	<0.23
00505-MW38	11/05/15	---	<0.25	<0.28	<0.23	<0.50	0.7	<0.19	<0.0049	0.3 J
00505-MW42	11/05/15	---	<0.25	<0.28	<0.23	<0.50	0.8	<0.19	<0.0049	0.8
Field Blank 1	11/04/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
Field Blank 2	11/05/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
Field Blank 3	11/06/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	<0.0049	<0.23
Trip Blank 1	11/04/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	NT	<0.23
Trip Blank 2	11/04/15	---	<0.25	<0.28	<0.23	<0.50	<0.23	<0.19	NT	<0.23

Notes:
RBSL = Risk-Based Screening Level
Bold cells indicate detections above the laboratory method detection limit.
Shaded cells indicate COC concentrations that exceed RBSLs.

Well ID	Date Sampled	Tert-amyl Methyl Ether (TAME) (ug/L)	Tert-amyl Alcohol (TAA) (ug/L)	Tert-butyl Alcohol (TBA) (ug/L)	Tert-butyl Formate (TBF) (ug/L)	Di-isopropyl Ether (DIPE) (ug/L)	Ethanol (ug/L)	Ethyl Tert-butyl Ether (ETBE) (ug/L)	Ethyl Tert-butyl Alcohol (ETBA) (ug/L)
SC CRDC RBSL		170	240	1,400	N/E	150	10,000	27	1,400
00505-DPW01	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW01D	11/04/15	<25	<150	<230	<66	<26	<1,900	<13	<150
00505-MW01R	11/04/15	40 J	3,300	600 J	<33	540	<960	<6.5	<75
00505-MW01DD	11/04/15	34 J	6,200	890 J	<33	690	<960	<6.5	<75
00505-MW01DDD	11/04/15	31 J	6,200	890 J	<33	690	<960	<6.5	<75
00505-MW02	11/04/15	<1.3	34 J	<2.3	<3.3	<1.3	<96	<0.65	<7.5
00505-MW02D	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW06	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW06D	11/04/15	Well dry at time of sampling event							
00505-MW06DD	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW07	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW07D	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW08	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW09	11/05/15	97 J	10,000	3,000	<33	3,700	<960	<6.5	<75
00505-MW10	11/05/15	Well not sampled due to 0.33' of free product							
00505-MW10D	11/04/15	<1.3	<7.5	<11	<3.3	<1.3	<96	<0.65	<7.5
00505-MW11	11/04/15	<13	<75	420 J	<33	67 J	<960	<6.5	<75
00505-MW11D	11/04/15	5.2 J	710	66	<0.66	67	51 J	2.8	12 J
00505-MW11DD	11/04/15	81 J	6,500	1,400	<33	1,200	<960	<6.5	<75
00505-MW11DDD	11/04/15	67 J	6,900	1,200	<33	920	<960	<6.5	<75
00505-MW12	11/05/15	Well Not Located							
00505-MW13	11/05/15	23 J	2,400	920 J	<33	480	<960	<6.5	<75
00505-MW13R	11/05/15	23 J	2,400	940 J	<33	480	<960	<6.5	<75
00505-MW14	11/05/15	Well not sampled due to 0.20' of free product							
00505-MW14D	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW15	11/05/15	0.47 J	74	21	<0.66	4.9	<19	<0.13	<1.5
00505-MW19	11/05/15	Well not sampled due to 0.03' of free product							
00505-MW20	11/04/15	<0.25	480	150	<0.66	54	<19	<0.13	<1.5
00505-MW21	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW22	11/05/15	27 J	5,500	1,100	<33	640	<960	<6.5	<75
00505-MW23	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW24	11/04/15	<1.3	220	69 J	<3.3	35	<96	<0.65	<7.5
00505-MW25	11/04/15	2.1 J	270	68	<0.66	65	<19	<0.13	<1.5
00505-MW26	11/04/15	<1.3	230	89 J	<3.3	76	<96	<0.65	<7.5
00505-MW27	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW27D	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW27R	11/05/15	0.58 J	84	73	<0.66	14	<19	<0.13	<1.5
00505-MW27S	11/05/15	Well dry at time of sampling event							
00505-MW27SD	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW28	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW29	11/04/15	0.72 J	9.1	4.5 J	<0.66	0.8	<19	<0.13	<1.5
00505-MW30	11/04/15	11 J	1,900	240	<3.3	230	<96	<0.65	<7.5
00505-MW30D	11/04/15	Well Not Located							
00505-MW31	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW31D	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW32	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW32D	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW32R	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW33	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW33D	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW34	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW35	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW36	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW37	11/06/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW37D	11/06/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW38	11/06/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW42	11/05/15	<0.25	1.1 J	0.8 J	<0.66	0.8 J	<19	<0.13	<1.5
00505-MW-01	11/05/15	<0.25	2.7 J	24	<0.66	<0.26	<19	<0.13	<1.5
00505-MW-02	11/05/15	2.4 J	870	230	<0.66	54	<19	<0.13	<1.5
00505-MW-03	11/05/15	<0.25	<1.5	<2.3	<0.66	0.3 J	<19	<0.13	<1.5
00505-MW-04	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
00505-MW-05	11/05/15	<0.25	<1.5	<2.3	<0.66	2.7 J	<19	<0.13	<1.5
00505-MW-06	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
Field Blank 1	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
Field Blank 2	11/05/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
Field Blank 3	11/06/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
Trip Blank 1	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5
Trip Blank 2	11/04/15	<0.25	<1.5	<2.3	<0.66	<0.26	<19	<0.13	<1.5

Notes:
RBSL = Risk-Based Screening Level
Bold cells indicate detections above the laboratory method detection limit.
Shaded cells indicate COC concentrations that exceed RBSLs.
µg/L = micrograms per liter = parts per billion
ND = Not Detected at the laboratory detection limit.
NT = Not Tested
NE = A RBSL has not been established for this constituent.

REFERENCE:
DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY EAS PROFESSIONALS, INC. DATED 9-14-06

REVISIONS			
No.	DESCRIPTION		BY
1			
2			

DRAWN: ACE
CHECKED: TJB
APPROVED:

DATE: 12-22-15
FILE: KMO119-070WCOC
JOB NO: J15-3661-07

IBLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
600A PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

GROUNDWATER COC MAP – NOVEMBER 2015
MD FOOD MART (FORMER KMO #119)
UST PERMIT #22505
ANDERSON, SOUTH CAROLINA

FIGURE NO.
3

APPENDICES

APPENDIX A

MONITORING WELL PURGING AND SAMPLING FIELD PROCEDURES AND MONITORING WELL PURGING AND SAMPLING LOGS

BLE

APPENDIX A

MONITORING WELL PURGING AND SAMPLING PROCEDURES

The monitoring wells were purged prior to sample collection to remove any stagnant water from the well so that the samples collected were representative of the groundwater quality in the vicinity of each well. For wells that recovered quickly, a minimum of three volumes of water were evacuated. Specific conductance, pH, water temperature, and turbidity were measured periodically during well evacuation using instruments which were calibrated daily. Wells that were evacuated to dryness with less than three well volumes being removed were sampled as soon as the well had recovered enough to yield sufficient volume for a sample.

The monitoring wells were purged using a 3-foot long by 1.6-inch diameter disposable polyethylene bailer attached to an unused polypropylene cord. The wells were also sampled using a bailer as described above. To minimize the potential for cross-contamination between wells, a new clean bailer was used at each well.

Samples were placed in the appropriate laboratory supplied containers and marked with identifying numbers. Samples were maintained at 4°Celsius in a refrigerated sample cooler and shipped to Shealy Environmental Services, Inc. in Columbia, South Carolina via courier service for analysis.

INSTRUMENT CALIBRATION AND FREQUENCY QUALITY ASSURANCE / QUALITY CONTROL (QA/QC)

All Instrument Calibration and frequency methods are consistent with the procedures as outlined in BLE's Annual Contractor Quality Assurance Plan. The following calibration standards were used for calibration purposes on November 4-6, 2015.

Quality Assurance			
pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
DO Meter	YSI 60	Standard	84
Standard	0% cal	**Turbidity:**	1.0-10.0 NTU
Chain of Custody			
Michael W. Parks	11/09/15: 1155	Shealy Env. Services	11/09/15: 1155

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/15
Field Personnel MVP
General weather Conditions cloudy
Ambient Air Temperature (°F) 176

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-1R

Well Diameter (D) 2 inch of 44.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 43.57 ft btoc
Depth to Groundwater (DGW) 38.73 ft btoc
Length of Water Colum (LWC = TWD-DGW) 5.07 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = .86 gals
3 Casing Volumes = 3 X 0.00 = 2.58 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 1.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	—	1.0	~~2.0~~	~~3.0~~				
Time (military)	850	853						
pH (s.u)	7.58	7.24						
Specific Conductivity (µS)	188.6	92.6						
Water Temperature (°C)	20.2	20.0						
Turbidity (subjective: clear, slightly cloudy, cloudy)	75.6	129						
Dissolved Oxygen (mg/l)	1.4	1.1						

well purged dry @ 1.0 gals.

Remarks:
well sampled @ 855 on 11/4/15. PUP ran @ 856 on 11/4/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/3/15
Field Personnel NWI, IAI, TMF
General weather Conditions Cloudy
Ambient Air Temperature (°F) 15°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-1D

Well Diameter (D) 2 inch of 106.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				106.47	ft btoc
Depth to Groundwater (DGW)				43.19	ft btoc
Length of Water Colum (LWC = TWD-DGW)				63.28	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 10.76	gals
3 Casing Volumes = 3 X	0.00		=	32.28	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling ____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	11.00	20.00	33.00				11/4/15
Time (military)	1418	1422	1425					838
pH (s.u)	8.71	8.22	7.92					8.19
Specific Conductivity (µS)	463	513	529					539
Water Temperature (°C)	19.7	19.9	20.0					19.2
Turbidity (subjective: clear, slightly cloudy, cloudy)	32.7	21.8	45.9					12.6
Dissolved Oxygen (mg/l)	2.4	2.8	2.9					8.5

Remarks: Purged DRY @ 20 GAL well Sampled @ 838 on 11/4/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/3/15
Field Personnel MW, JAF, TMF
General weather Conditions cloudy
Ambient Air Temperature (°F) 15°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-1DD

Well Diameter (D) 2 inch of 142.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				142.00	ft btoc
Depth to Groundwater (DGW)				46.50	ft btoc
Length of Water Colum (LWC = TWD-DGW)				95.5	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 16.24	gals
3 Casing Volumes = 3 X	0.00		=	48.72	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling _____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	17.00	33.00	49.00				11/4/15
Time (military)	1346	1352	1402	1411				828
pH (s.u)	11.24	11.28	10.15	10.01				9.34
Specific Conductivity (µS)	712	560	215	214				191
Water Temperature (°C)	19.5	19.7	19.5	19.3				20.0
Turbidity (subjective: clear, slightly cloudy, cloudy)	23.8	22.1	12.7	9.3				8.71
Dissolved Oxygen (mg/l)	1.8	2.1	2.2	2.1				1.2

Remarks: well sampled @ 828 on 11/4/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/3/15
Field Personnel IAI, MWP, TMF
General weather Conditions Cloudy
Ambient Air Temperature (°F) 15.9

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-1DDD

Well Diameter (D) 2 inch of 241.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				ft
Total Well Depth (TWD)			241.80	ft btoc
Depth to Groundwater (DGW)			44.15	ft btoc
Length of Water Colum (LWC = TWD-DGW)			197.65	ft
1 Casing Volume (LWC*C) =	0.00	X .17 =	33.6	gals
3 Casing Volumes = 3 X	0.00	=	100.8	gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling _____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	34.0	~~78.0~~	101.0				11/4/15
Time (military)	1705	1331						815
pH (s.u)	8.89	9.44						8.34
Specific Conductivity (µS)	596	631						656
Water Temperature (°C)	19.2	19.4						17.2
Turbidity (subjective: clear, slightly cloudy, cloudy)	54.6	64.4						23.1
Dissolved Oxygen (mg/l)	1.8	1.8						8.3

Remarks: Purged Dry @ 34 Gall well Sampled @ 815 on 11/4/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/15
Field Personnel MWP
General weather Conditions Cloudy
Ambient Air Temperature (°F) 170

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-2

Well Diameter (D) 2 inch of 42.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	42.36	ft btoc
Depth to Groundwater (DGW)	35.32	ft btoc
Length of Water Colum (LWC = TWD-DGW)	7.2	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.22	gals
3 Casing Volumes = 3 X 0.00 = (Standard Purge Volume)	3.660	gals

Total Volume of Water Purged Before Sampling 1.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.0				
Time (military)	920	923						
pH (s.u)	6.43	6.44						
Specific Conductivity (µS)	85.9	91.7						
Water Temperature (°C)	20.7	20.8						
Turbidity (subjective: clear, slightly cloudy, cloudy)	97.3	184						
Dissolved Oxygen (mg/l)	1.8	1.7						

well purged dry @ 1.5 gals.

Remarks:

well sampled @ 925 on 11/4/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/18
Field Personnel MW
General weather Conditions Cloudy
Ambient Air Temperature (°F) 57°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-3

Well Diameter (D) 2 inch of 40.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				40.32	ft btoc
Depth to Groundwater (DGW)				33.43	ft btoc
Length of Water Colum (LWC = TWD-DGW)				6.97	ft
1 Casing Volume (LWC*C) =	0.00	X .17	=	1.18	gals
3 Casing Volumes = 3 X	0.00		=	3.54	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 4.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.0				
Time (military)	935	939	944	950				
pH (s.u)	5.84	5.15	4.98	4.94				
Specific Conductivity (µS)	52.4	51.8	59.3	61.0				
Water Temperature (°C)	20.2	20.3	20.3	20.3				
Turbidity (subjective: clear, slightly cloudy, cloudy)	21.1	9.19	5.97	3.81				
Dissolved Oxygen (mg/l)	0.4	0.5	0.5	0.5				

Remarks:
well sampled @ 950 on 11/4/18.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/15
Field Personnel mwp
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-4

Well Diameter (D) 2 inch of 47.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 46.91 ft btoc
Depth to Groundwater (DGW) 40.82 ft btoc
Length of Water Colum (LWC = TWD-DGW) 6.08 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 1.03 gals
3 Casing Volumes = 3 X 0.00 = 3.09 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 1.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	~~2.5~~	~~3.5~~				
Time (military)	1138	1142						
pH (s.u)	5.06	4.80						
Specific Conductivity (µS)	36.1	38.5						
Water Temperature (°C)	19.3	19.4						
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.8	21.106						
Dissolved Oxygen (mg/l)	0.1	2.4						

well purged dry @ 1.5 gals.

Remarks:
well sampled @ 1144 on 11/4/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/3/15
Field Personnel mwp
General weather Conditions
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-5

Well Diameter (D) 2 inch of 32.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 32.05 ft btoc
Depth to Groundwater (DGW) Dry ft btoc
Length of Water Colum (LWC = TWD-DGW) ft
1 Casing Volume (LWC*C) = 0.00 X .17 = gals
3 Casing Volumes = 3 X 0.00 = gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---							
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Well Dry

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/4/18
Field Personnel MWP
General weather Conditions cloudy / rain
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-5R

Well Diameter (D) 2 inch of 36.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				36.21	ft btoc
Depth to Groundwater (DGW)				28.55	ft btoc
Length of Water Colum (LWC = TWD-DGW)				7.65	ft
1 Casing Volume (LWC*C) =	0.00	X	.17 =	1.30	gals
3 Casing Volumes = 3 X	0.00		=	3.90	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 4.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	—	1.0	3.0	4.0				
Time (military)	1217	1221	1224	1228				
pH (s.u)	4.90	4.58	4.64	4.64				
Specific Conductivity (µS)	35.3	37.7	36.5	35.8				
Water Temperature (°C)	19.3	19.7	19.7	19.2				
Turbidity (subjective: clear, slightly cloudy, cloudy)	54.3	7 1/1 20	3.94	8.27				
Dissolved Oxygen (mg/l)	0.1	1.1	1.1	1.1				

Remarks: well sampled @ 1228 on 1/4/18.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/15
Field Personnel MWP
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-6

Well Diameter (D) 2 inch of 43.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	43.05	ft btoc
Depth to Groundwater (DGW)	39.42	ft btoc
Length of Water Colum (LWC = TWD-DGW)	3.68	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	0.63	gals
3 Casing Volumes = 3 X 0.00 = (Standard Purge Volume)	1.89	gals

Total Volume of Water Purged Before Sampling 1.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.0						
Time (military)	1520	1523						
pH (s.u)	5.21	5.17						
Specific Conductivity (µS)	74.7	35.6						
Water Temperature (°C)	19.9	19.6						
Turbidity (subjective: clear, slightly cloudy, cloudy)	27.8	189						
Dissolved Oxygen (mg/l)	1.8	1.7						

well Purged dry @ 1.0 gals.

Remarks:

well Sampled @ 1125 on 11/4/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/15
Field Personnel MWP
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-6D

Well Diameter (D) 2 inch of 54.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	54.19	ft btoc
Depth to Groundwater (DGW)	39.08	ft btoc
Length of Water Colum (LWC = TWD-DGW)	15.32	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	2.60	gals
3 Casing Volumes = 3 X 0.00 =	7.80	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 7.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	7.0						
Time (military)	1539	1545						
pH (s.u)	5.03	4.98						
Specific Conductivity (µS)	28.2	29.1						
Water Temperature (°C)	19.9	19.3						
Turbidity (subjective: clear, slightly cloudy, cloudy)	Cloudy	Cloudy						
Dissolved Oxygen (mg/l)	1.1	1.3						

well purged dry @ 7.5 gals

Remarks:

well sampled @ 1549 on 11/4/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/18
Field Personnel mvp, JAT, TMF
General weather Conditions Cloudy
Ambient Air Temperature (°F) 170

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-7

Well Diameter (D) 2 inch of 39.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	39.12	ft btoc
Depth to Groundwater (DGW)	34.90	ft btoc
Length of Water Colum (LWC = TWD-DGW)	4.22	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	0.72	gals
3 Casing Volumes = 3 X 0.00 =	2.16	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.0	2.0	2.5				
Time (military)	1258	1300	1302	1304				
pH (s.u)	4.80	4.49	4.29	4.46				
Specific Conductivity (µS)	56.7	49.1	48.5	50.2				
Water Temperature (°C)	19.3	19.3	19.3	19.7				
Turbidity (subjective: clear, slightly cloudy, cloudy)	71,100	289	98.6	9.1				
Dissolved Oxygen (mg/l)	0.9	1.2	1.6	0.0				

Remarks:

well sampled @ 1304 on 11/5/18.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MW, IAI, TAF
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-7D

Well Diameter (D) 2 inch of 59.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	58.78	ft btoc
Depth to Groundwater (DGW)	34.76	ft btoc
Length of Water Colum (LWC = TWD-DGW)	24.02	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	4.08	gals
3 Casing Volumes = 3 X 0.00 =	12.24	gals
(Standard Purge Volume)		

Total Volume of Water Purged Before Sampling 5.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	4.5						
Time (military)	1309	1314						
pH (s.u)	4.23	5.19						
Specific Conductivity (µS)	82.2	84.1						
Water Temperature (°C)	19.3	19.5						
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.7	275						
Dissolved Oxygen (mg/l)	0.3	0.2						

well purged dry @ 5.0 gals

Remarks:

well sampled @ 1316 on 11/5/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/15
Field Personnel MW
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-8

Well Diameter (D) 2 inch of 30.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	30.38	ft btoc
Depth to Groundwater (DGW)	26.61	ft btoc
Length of Water Colum (LWC = TWD-DGW)	3.79	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	0.64	gals
3 Casing Volumes = 3 X 0.00 =	1.92	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 1.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.0	~~1.5~~	~~2.0~~				
Time (military)	1242	1244						
pH (s.u)	4.94	4.95						
Specific Conductivity (µS)	25.9	25.5						
Water Temperature (°C)	14.4	14.4						
Turbidity (subjective: clear, slightly cloudy, cloudy)	343	300						
Dissolved Oxygen (mg/l)	1.5	1.6						

Remarks: well purged dry @ 1.6 gals.
well sampled @ 1246 on 11/4/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel JAI, mwp
General weather Conditions Rainy
Ambient Air Temperature (°F) 20.0

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-9

Well Diameter (D) 2 inch of 52.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 52.49 ft btoc
Depth to Groundwater (DGW) 44.13 ft btoc
Length of Water Colum (LWC = TWD-DGW) 8.37 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 1.42 gals
3 Casing Volumes = 3 X 0.00 = 4.26 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0					
Time (military)	1133	1140	1146					
pH (s.u)	6.17	6.04	6.21					
Specific Conductivity (µS)	588.7	608.3	607.2					
Water Temperature (°C)	18.7	18.7	18.7					
Turbidity (subjective: clear, slightly cloudy, cloudy)	16.6	13.3	11.1					
Dissolved Oxygen (mg/l)	0.3	0.7	0.8					

Dry @ 3.5 gallons

Remarks: sampled @ 1149 on 11/5/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/3/15
Field Personnel MWP
General weather Conditions
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-10

Well Diameter (D) 2 inch of 50.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	0.35	ft
Total Well Depth (TWD)	50.66	ft btoc
Depth to Groundwater (DGW)	46.96	ft btoc
Length of Water Colum (LWC = TWD-DGW)	3.74	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	0.64	gals
3 Casing Volumes = 3 X 0.00 = (Standard Purge Volume)	1.92	gals

Total Volume of Water Purged Before Sampling _____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---							
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks:

WELL NOT SAMPLED DUE TO FPT > 0.01

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/6/15
Field Personnel MWP
General weather Conditions cloudy
Ambient Air Temperature (°F) 47° rain

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-10D

Well Diameter (D) 2 inch of 94.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft	
Total Well Depth (TWD)	94.76	ft btoc	
Depth to Groundwater (DGW)	48.08	ft btoc	
Length of Water Colum (LWC = TWD-DGW)			46.52 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =		7.91 gals
3 Casing Volumes = 3 X	0.00 =		23.73 gals
	(Standard Purge Volume)		

Total Volume of Water Purged Before Sampling 9.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	8.0						
Time (military)	1205	1209						
pH (s.u)	6.44	6.89						
Specific Conductivity (µS)	263	262						
Water Temperature (°C)	20.0	19.4						
Turbidity (subjective: clear, slightly cloudy, cloudy)	18.9	29.7						
Dissolved Oxygen (mg/l)	1.4	1.3						

well purged dry @ 9.5 gals

Remarks:

well sampled @ 1213 on 11/6/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/15
Field Personnel MVP
General weather Conditions cloudy
Ambient Air Temperature (°F) 170

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-11

Well Diameter (D) 2 inch of 51.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	51.22	ft btoc
Depth to Groundwater (DGW)	45.4	ft btoc
Length of Water Colum (LWC = TWD-DGW)	5.90	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.00	gals
3 Casing Volumes = 3 X 0.00 =	3.00	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 1.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	—	1.0						
Time (military)	1508	1510						
pH (s.u)	5.90	5.87						
Specific Conductivity (µS)	295	283						
Water Temperature (°C)	21.1	20.4						
Turbidity (subjective: clear, slightly cloudy, cloudy)	23.4	38.7						
Dissolved Oxygen (mg/l)	0.7	0.4						

well Purged dry @ 1.0 gal 17 H. odor

Remarks:
well Sampled @ 1512 on 11/4/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/15
Field Personnel mvp
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-11D

Well Diameter (D) 2 inch of 90.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 90.22 ft btoc
Depth to Groundwater (DGW) 46.56 ft btoc
Length of Water Colum (LWC = TWD-DGW) 46.64 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 7.42 gals
3 Casing Volumes = 3 X 0.00 = 22.26 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling E. 8 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	7.5						
Time (military)	1448	1454						
pH (s.u)	7.44	7.28						
Specific Conductivity (µS)	81.4	78.3						
Water Temperature (°C)	21.2	20.9						
Turbidity (subjective: clear, slightly cloudy, cloudy)	32.7	39.4						
Dissolved Oxygen (mg/l)	1.3	1.2						

well sampled @ 1458 on 11/4/15.

Remarks:

well purged dry @ 8.0 gals.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/9/18
Field Personnel MVP
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-11DD

Well Diameter (D) 2 inch of 161.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 161.35 ft btoc
Depth to Groundwater (DGW) 55.84 ft btoc
Length of Water Colum (LWC = TWD-DGW) 105.46 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 17.93 gals
3 Casing Volumes = 3 X 0.00 = 53.79 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 21.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	15.0	~~36.0~~	~~54.0~~				
Time (military)	1356	1437						
pH (s.u)	10.82	9.19						
Specific Conductivity (µS)	625	498						
Water Temperature (°C)	19.7	20.0						
Turbidity (subjective: clear, slightly cloudy, cloudy)	3.48	62.5						
Dissolved Oxygen (mg/l)	0.5	1.2						

well sampled @ 1437 on 11/9/18.

Remarks: well purged dry @ ~~21~~ 21.5 gals.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/15
Field Personnel mwp
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-11DDD

Well Diameter (D) 2 inch of 230.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 230.40 ft btoc
Depth to Groundwater (DGW) 85.17 ft btoc
Length of Water Colum (LWC = TWD-DGW) 145.03 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 24.66 gals
3 Casing Volumes = 3 X 0.00 = 73.98 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 25 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	25.0						
Time (military)	1318	1338						
pH (s.u)	12.62	12.77						
Specific Conductivity (µS) mS	6.54	6.01						
Water Temperature (°C)	19.0	20.0						
Turbidity (subjective: clear, slightly cloudy, cloudy)	10.5	30.7						
Dissolved Oxygen (mg/l)	1.3	1.4						

Remarks: well sampled @ 1341 on 11/4/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 10/3/15
Field Personnel MWP
General weather Conditions
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-12

Well Diameter (D) 2 inch of 53.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 52.72 ft btoc
Depth to Groundwater (DGW) CNL ft btoc
Length of Water Colum (LWC = TWD-DGW) ft
1 Casing Volume (LWC*C) = 0.00 X .17 = gals
3 Casing Volumes = 3 X 0.00 = gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---							
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: COULD NOT LOCATE

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel IHI, mwp
General weather Conditions Rainy
Ambient Air Temperature (°F) 70's

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-13

Well Diameter (D) 2 inch of 48.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	48.13	ft btoc
Depth to Groundwater (DGW)	43.95	ft btoc
Length of Water Colum (LWC = TWD-DGW)		4.15 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	0.71 gals
3 Casing Volumes = 3 X	0.00 =	2.13 gals
	(Standard Purge Volume)	

Total Volume of Water Purged Before Sampling _____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.0	2.0					
Time (military)	1220	1229	1235					
pH (s.u)	6.01	5.86	6.08					
Specific Conductivity (µS)	5148	567.3	567.6					
Water Temperature (°C)	18.4	18.4	18.1					
Turbidity (subjective: clear, slightly cloudy, cloudy)	13.5	14.8	10.9					
Dissolved Oxygen (mg/l)	0.3	0.4						

Dry @ 2.5 gallons

Remarks: Sampled @ 1241 on 11/5/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel IDI, MWP
General weather Conditions Rainy
Ambient Air Temperature (°F) 20.0

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-13R

Well Diameter (D) 2 inch of 56.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 56.03 ft btoc
Depth to Groundwater (DGW) 44.22 ft btoc
Length of Water Colum (LWC = TWD-DGW) 11.81 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 2.00 gals
3 Casing Volumes = 3 X 0.00 = 6.00 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	4.0	6.0				
Time (military)	1250	1256	1305	1309				
pH (s.u)	5.89	6.00	5.77	5.76				
Specific Conductivity (µS)	514.0	526.3	554.4	553.6				
Water Temperature (°C)	18.1	18.1	18.0	18.1				
Turbidity (subjective: clear, slightly cloudy, cloudy)	18.4	8.33	9.33	9.35				
Dissolved Oxygen (mg/l)	0.5	0.8	0.7	0.8				

Remarks: Sample @ 1309 on 11/5/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/3/15
Field Personnel MWP
General weather Conditions
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-14

Well Diameter (D) 2 inch of 50.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	.70	ft
Total Well Depth (TWD)	50.37	ft btoc
Depth to Groundwater (DGW)	43.20	ft btoc
Length of Water Colum (LWC = TWD-DGW)	7.20	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.22	gals
3 Casing Volumes = 3 X 0.00 = (Standard Purge Volume)	3.66	gals

Total Volume of Water Purged Before Sampling _____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---							
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks:

WELL NOT SAMPLED DUE TO FPT > .01

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/6/15
Field Personnel mwp
General weather Conditions cloudy & rain
Ambient Air Temperature (°F) 170

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-14D

Well Diameter (D) 2 inch of 81.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				81.67	ft btoc
Depth to Groundwater (DGW)				43.1	ft btoc
Length of Water Colum (LWC = TWD-DGW)				38.4	ft
1 Casing Volume (LWC*C) =	0.00	X	.17 =	6.53	gals
3 Casing Volumes = 3 X	0.00		=	19.59	gals
	(Standard Purge Volume)				

Total Volume of Water Purged Before Sampling 7.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	—	7.0						
Time (military)	1225	1231						
pH (s.u)	7.01	7.13						
Specific Conductivity (µS)	494	503						
Water Temperature (°C)	19.4	18.7						
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.6	23.4						
Dissolved Oxygen (mg/l)	1.2	1.1						

well purged dry @ 7.5

Remarks:

well sampled @ 1233 on 11/6/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel FWI mwp
General weather Conditions Rainy
Ambient Air Temperature (°F) 2a.0

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-15

Well Diameter (D) 2 inch of 51.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				ft
Total Well Depth (TWD)			51.06	ft btoc
Depth to Groundwater (DGW)			45.11	ft btoc
Length of Water Colum (LWC = TWD-DGW)			5.95	ft
1 Casing Volume (LWC*C) =	0.00	X .17 =	1.01	gals
3 Casing Volumes = 3 X	0.00	=	3.03	gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling _____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	3.0	4.5				
Time (military)	843	852	857	903				
pH (s.u)	5.58	5.67	5.62	5.53				
Specific Conductivity (µS)	387.1	151.5	152.7	159.0				
Water Temperature (°C)	18.2	18.0	17.8	18.0				
Turbidity (subjective: clear, slightly cloudy, cloudy)	11.6	11.3	10.9	10.3				
Dissolved Oxygen (mg/l)	0.9	1.3	1.2	0.4				

Remarks: Sample @ 903 OW 11/5/15
Dup @ 904 OW 11/5/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/9
Field Personnel mm
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-16

Well Diameter (D) 2 inch of 49.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness	.11	ft
Total Well Depth (TWD)	48.83	ft btoc
Depth to Groundwater (DGW)	39.93	ft btoc
Length of Water Colum (LWC = TWD-DGW)	8.87	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.51	gals
3 Casing Volumes = 3 X 0.00 = (Standard Purge Volume)	4.53	gals

Total Volume of Water Purged Before Sampling _____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	4.0	5.0				
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: well not sampled due to FPT > 0.01'

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/13
Field Personnel MWP
General weather Conditions Cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-17

Well Diameter (D) 2 inch of 48.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	48.20	ft btoc
Depth to Groundwater (DGW)	41.4	ft btoc
Length of Water Colum (LWC = TWD-DGW)	7.1	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.21	gals
3 Casing Volumes = 3 X 0.00 =	3.63	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 4.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	--	1.5	3.0	4.0				
Time (military)	1004	1008	1012	1016				
pH (s.u)	5.07	4.94	5.14	5.15				
Specific Conductivity (µS)	66.4	74.2	77.0	79.4				
Water Temperature (°C)	20.0	20.1	20.0	20.1				
Turbidity (subjective: clear, slightly cloudy, cloudy)	125	74.00	7.84	9.81				
Dissolved Oxygen (mg/l)	1.4	1.4	1.4	1.4				

Remarks: well sampled @ 1016 on 11/4/13.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel IAI, MWP
General weather Conditions Rainy
Ambient Air Temperature (°F) 20.0

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-18

Well Diameter (D) 2 inch of 55.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness					ft
Total Well Depth (TWD)				58.98	ft btoc
Depth to Groundwater (DGW)				49.62	ft btoc
Length of Water Colum (LWC = TWD-DGW)				9.36	ft
1 Casing Volume (LWC*C) =	0.00	X	.17	= 1.60	gals
3 Casing Volumes = 3 X	0.00		=	4.80	gals
	(Standard Purge Volume)				

Note: Well has 3.08 feet of stick-up.

Total Volume of Water Purged Before Sampling 4.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	—	2.0	4.0					
Time (military)	1416	1424	1430					
pH (s.u)	5.55	5.54	5.63					
Specific Conductivity (µS)	85.8	112.4	122.9					
Water Temperature (°C)	18.1	18.0	18.1					
Turbidity (subjective: clear, slightly cloudy, cloudy)	10.3	5.16	15.9					
Dissolved Oxygen (mg/l)	3.9	3.3	3.1					

Remarks: PW @ 4.0 gallons
Sampled @ 1433 on 11/5/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel IAF, MWD
General weather Conditions Rainy
Ambient Air Temperature (°F) 20.0

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-19

Well Diameter (D) 2 inch of 55.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 58.19 ft btoc
Depth to Groundwater (DGW) 49.30 ft btoc
Length of Water Colum (LWC = TWD-DGW) 9.06 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 1.54 gals
3 Casing Volumes = 3 X 0.00 = 4.62 gals
(Standard Purge Volume)

Note: Well has 3.09 feet of stick-up.

Total Volume of Water Purged Before Sampling gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	4.0					
Time (military)	1346	1348	1358					
pH (s.u)	5.93	5.84	5.89					
Specific Conductivity (µS)	374.9	342.8	318.1					
Water Temperature (°C)	17.5	17.2	17.3					
Turbidity (subjective: clear, slightly cloudy, cloudy)	8.87	9.96	9.75					
Dissolved Oxygen (mg/l)	1.6	1.4	1.3					

Dry @ 5.0 gallons

Remarks: Sampled @ 1401 DW 11/5/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/6/15
Field Personnel MVP
General weather Conditions cloudy, rain
Ambient Air Temperature (°F) 12°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-20

Well Diameter (D) 2 inch of 82.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 85.23 ft btoc
Depth to Groundwater (DGW) 45.89 ft btoc
Length of Water Colum (LWC = TWD-DGW) 39.34 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 6.70 gals
3 Casing Volumes = 3 X 0.00 = 20.10 gals
(Standard Purge Volume)

Note: Well has 3.23 feet of stick-up.

Total Volume of Water Purged Before Sampling 7.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	7.5						
Time (military)	955	1010						
pH (s.u)	6.62	5.98						
Specific Conductivity (µS)	238	219						
Water Temperature (°C)	17.6	17.4						
Turbidity (subjective: clear, slightly cloudy, cloudy)	187	24.6						
Dissolved Oxygen (mg/l)	1.9	1.8						

well purged dry @ 7.5 gals.

Remarks: well Sampled @ 1012 on 11/6/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/6/15
Field Personnel MW
General weather Conditions cloudy cold
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-21

Well Diameter (D) 2 inch of 43.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	47.57	ft btoc
Depth to Groundwater (DGW)	37.94	ft btoc
Length of Water Colum (LWC = TWD-DGW)	9.63	ft
1 Casing Volume (LWC*C) =	0.00 X .17 = 1.60	gals
3 Casing Volumes = 3 X	0.00 = 4.80	gals

(Standard Purge Volume)

Note: Well has 3.67 feet of stick-up.

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0						
Time (military)	1034	1035						
pH (s.u)	5.54	5.63						
Specific Conductivity (µS)	153	181						
Water Temperature (°C)	18.3	17.8						
Turbidity (subjective: clear, slightly cloudy, cloudy)	18.9	294						
Dissolved Oxygen (mg/l)	1.3	1.3						

well purged dry @ 2.5 gals.

Remarks:

well sampled @ 1077 on 11/6/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/6/15
Field Personnel MW
General weather Conditions Cloudy + rain
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-22

Well Diameter (D) 2 inch of 45.20 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	48.83	ft btoc
Depth to Groundwater (DGW)	40.40	ft btoc
Length of Water Colum (LWC = TWD-DGW)		8.43 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	1.43 gals
3 Casing Volumes = 3 X	0.00 =	4.30 gals
	(Standard Purge Volume)	

Note: Well has 3.63 feet of stick-up.

Total Volume of Water Purged Before Sampling 1.50 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5						
Time (military)	1053	1055						
pH (s.u)	6.72	6.51						
Specific Conductivity (µS)	237	219						
Water Temperature (°C)	18.1	17.7						
Turbidity (subjective: clear, slightly cloudy, cloudy)	29.4	78.7						
Dissolved Oxygen (mg/l)	0.9	0.9						

well purged dry @ 1.5 gals

Remarks:

well sampled @ 1057 on 11/6/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/6/15
Field Personnel mwp
General weather Conditions cloudy & rainy
Ambient Air Temperature (°F) 170

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-23

Well Diameter (D) 2 inch of 45.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	48.78	ft btoc
Depth to Groundwater (DGW)	40.08	ft btoc
Length of Water Colum (LWC = TWD-DGW)	8.70	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.48	gals
3 Casing Volumes = 3 X 0.00 =	4.44	gals

(Standard Purge Volume)

Note: Well has 3.28 feet of stick-up.

Total Volume of Water Purged Before Sampling 1.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5						
Time (military)	1042	1045						
pH (s.u)	6.14	6.09						
Specific Conductivity (µS)	443	448						
Water Temperature (°C)	15.2	17.9						
Turbidity (subjective: clear, slightly cloudy, cloudy)	23.7	286						
Dissolved Oxygen (mg/l)	1.1	1.0						

well purged dry @ 1.5 gals.

Remarks:

well sampled @ 1046 on 11/6/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/6/15
Field Personnel mwp
General weather Conditions cloudy, rain
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-24

Well Diameter (D) 2 inch of 77.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 80.48 ft btoc
Depth to Groundwater (DGW) 49.64 ft btoc
Length of Water Colum (LWC = TWD-DGW) 30.84 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 5.24 gals
3 Casing Volumes = 3 X 0.00 = 15.72 gals
(Standard Purge Volume)

Note: Well has 3.38 feet of stick-up.

Total Volume of Water Purged Before Sampling 5.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	5.5						
Time (military)	1105	1112						
pH (s.u)	7.15	6.98						
Specific Conductivity (µS)	234	221						
Water Temperature (°C)	16.4	17.9						
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.4	2.69						
Dissolved Oxygen (mg/l)	1.4	1.2						

well purged dry @ 5.5 gals

Remarks:

well sampled @ 1114 on 11/6/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/6/15
Field Personnel mwf
General weather Conditions cloudy, rain
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-25

Well Diameter (D) 2 inch of 57.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	61.30	ft btoc
Depth to Groundwater (DGW)	53.72	ft btoc
Length of Water Colum (LWC = TWD-DGW)	7.58	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.30	gals
3 Casing Volumes = 3 X 0.00 =	3.90	gals

(Standard Purge Volume)

Note: Well has 3.50 feet of stick-up.

Total Volume of Water Purged Before Sampling 1.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5						
Time (military)	1125	1127						
pH (s.u)	7.23	7.19						
Specific Conductivity (µS)	115.7	119.9						
Water Temperature (°C)	19.6	18.2						
Turbidity (subjective: clear, slightly cloudy, cloudy)	8.71	129						
Dissolved Oxygen (mg/l)	1.4	1.3						

well purged dry @ 1.5 gals.

Remarks:

well Sampled @ 1128 on 11/6/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 1/15/13
Field Personnel MW, TAT, TMF
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-26

Well Diameter (D) 2 inch of 77.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 80.71 ft btoc
Depth to Groundwater (DGW) 48.36 ft btoc
Length of Water Colum (LWC = TWD-DGW) 32.53 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 5.49 gals
3 Casing Volumes = 3 X 0.00 = 16.47 gals
(Standard Purge Volume)
Note: Well has 3.41 feet of stick-up.

Total Volume of Water Purged Before Sampling 5.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	5.5						
Time (military)	1336	1344						
pH (s.u)	6.23	6.53						
Specific Conductivity (µS)	216	382						
Water Temperature (°C)	17.5	17.5						
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.7	284						
Dissolved Oxygen (mg/l)	2.1	.8						

well sampled @ 1346 on 1/15/13

Remarks:
well purged dry @ 5.5 gals

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/3/15
Field Personnel MWD
General weather Conditions
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-27

Well Diameter (D) 2 inch of 44.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness DRY ft
Total Well Depth (TWD) 48.10 ft btoc
Depth to Groundwater (DGW) ft btoc
Length of Water Colum (LWC = TWD-DGW) ft
1 Casing Volume (LWC*C) = 0.00 X .17 = gals
3 Casing Volumes = 3 X 0.00 = gals
(Standard Purge Volume)

Note: Well has 3.40 feet of stick-up.

Total Volume of Water Purged Before Sampling gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---							
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: Well DRY

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MW, IAI, TMF
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-27R

Well Diameter (D) 2 inch of 53.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	55.94	ft btoc
Depth to Groundwater (DGW)	42.53	ft btoc
Length of Water Colum (LWC = TWD-DGW)	13.41	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	2.27	gals
3 Casing Volumes = 3 X 0.00 =	6.81	gals

(Standard Purge Volume)

Note: Well has 2.84 feet of stick-up.

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5						
Time (military)	1400	1404						
pH (s.u)	6.32	6.12						
Specific Conductivity (µS)	58.6	57.4						
Water Temperature (°C)	16.7	16.7						
Turbidity (subjective: clear, slightly cloudy, cloudy)	7.61	83.7						
Dissolved Oxygen (mg/l)	1.0	1.6						

well purged dry @ 2.5 gallons

Remarks:

well sampled @ 1406 on 11/5/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel mwp, TAI, TAF
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-27D

Well Diameter (D) 2 inch of 69.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 72.07 ft btoc
Depth to Groundwater (DGW) 41.97 ft btoc
Length of Water Colum (LWC = TWD-DGW) 30.10 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 5.11 gals
3 Casing Volumes = 3 X 0.00 = 15.38 gals
(Standard Purge Volume)
Note: Well has 2.47 feet of stick-up.

Total Volume of Water Purged Before Sampling 6.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	6.0						
Time (military)	1410	1415						
pH (s.u)	6.76	6.89						
Specific Conductivity (µS)	343	327						
Water Temperature (°C)	16.4	16.3						
Turbidity (subjective: clear, slightly cloudy, cloudy)	1.89	29.7						
Dissolved Oxygen (mg/l)	0.5	0.6						

well Sampled @ 1416 on 11/5/15.

Remarks:

well Purged dry @ 6.0 gals.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/14
Field Personnel MVP, JAI, TAF
General weather Conditions Cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-27DD

Well Diameter (D) 2 inch of 134.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	137.57	ft btoc
Depth to Groundwater (DGW)	61.55	ft btoc
Length of Water Colum (LWC = TWD-DGW)	76.02	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	12.92	gals
3 Casing Volumes = 3 X 0.00 =	38.76	gals
(Standard Purge Volume)		

Note: Well has 2.67 feet of stick-up.

Total Volume of Water Purged Before Sampling 13.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	13.5						
Time (military)	1402	1418						
pH (s.u)	8.00	8.14						
Specific Conductivity (µS)	550	546						
Water Temperature (°C)	16.6	16.4						
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.7	32.1						
Dissolved Oxygen (mg/l)	0.3	0.3						

well sampled @ 1420 on 11/5/14

Remarks:

well purged dry @ 13.5 gals

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/6/15
Field Personnel mwp
General weather Conditions cloudy, rain
Ambient Air Temperature (°F) 70°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-28

Well Diameter (D) 2 inch of 51.70 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	54.96	ft btoc
Depth to Groundwater (DGW)	46.45	ft btoc
Length of Water Colum (LWC = TWD-DGW)	8.51	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.45	gals
3 Casing Volumes = 3 X 0.00 =	4.35	gals

(Standard Purge Volume)

Note: Well has 3.26 feet of stick-up.

Total Volume of Water Purged Before Sampling 2.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5						
Time (military)	1020	1023						
pH (s.u)	6.16	5.99						
Specific Conductivity (µS)	59.4	61.2						
Water Temperature (°C)	17.4	17.2						
Turbidity (subjective: clear, slightly cloudy, cloudy)	28.9	183						
Dissolved Oxygen (mg/l)	1.4	1.3						

well purged dry @ 2.0 gals.

Remarks:

well sampled @ 1025 on 11/6/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/3/15
Field Personnel MWP
General weather Conditions
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-29

Well Diameter (D) 2 inch of 55.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness CNL ft
Total Well Depth (TWD) 54.93 ft btoc
Depth to Groundwater (DGW) ft btoc
Length of Water Colum (LWC = TWD-DGW) ft
1 Casing Volume (LWC*C) = 0.00 X .17 = gals
3 Casing Volumes = 3 X 0.00 = gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---							
Time (military)								
pH (s.u)								
Specific Conductivity (µS)								
Water Temperature (°C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								

Remarks: CANNOT LOCATE

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel mwf
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-30

Well Diameter (D) 2 inch of 33.20 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	36.15	ft btoc
Depth to Groundwater (DGW)	29.78	ft btoc
Length of Water Colum (LWC = TWD-DGW)	6.37	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.08	gals
3 Casing Volumes = 3 X 0.00 =	3.24	gals

(Standard Purge Volume)

Note: Well has 2.95 feet of stick-up.

Total Volume of Water Purged Before Sampling 1.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5						
Time (military)	1017	1020						
pH (s.u)	5.02	5.13						
Specific Conductivity (µS)	~~4.02~~ 40	31.4						
Water Temperature (°C)	17.2	17.1						
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.1	38.9						
Dissolved Oxygen (mg/l)	1.3	1.2						

well sampled @ 1022 on 11/5/15.

Remarks:

well purged dry @ 1.5 gals.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/13
Field Personnel MVP
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-30R

Well Diameter (D) 2 inch of 40.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	42.57	ft btoc
Depth to Groundwater (DGW)	29.20	ft btoc
Length of Water Colum (LWC = TWD-DGW)		13.37 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	2.27 gals
3 Casing Volumes = 3 X	0.00 =	6.81 gals
	(Standard Purge Volume)	

Note: Well has 2.57 feet of stick-up.

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5						
Time (military)	1025	1027						
pH (s.u)	5.33	5.41						
Specific Conductivity (µS)	67.9	71.2						
Water Temperature (°C)	17.2	17.1						
Turbidity (subjective: clear, slightly cloudy, cloudy)	9.71	24.6						
Dissolved Oxygen (mg/l)	0.6	0.8						

well sampled @ 1028 on 11/5/13.

Remarks:

well purged dry @ 2.5 gals.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MWP, JAZ
General weather Conditions cloudy
Ambient Air Temperature (°F) 47°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-31

Well Diameter (D) 2 inch of 40.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 43.31 ft btoc
Depth to Groundwater (DGW) 36.16 ft btoc
Length of Water Colum (LWC = TWD-DGW) 7.15 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 1.22 gals
3 Casing Volumes = 3 X 0.00 = 3.66 gals
(Standard Purge Volume)
Note: Well has 3.31 feet of stick-up.

Total Volume of Water Purged Before Sampling 2.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0						
Time (military)	1040	1042						
pH (s.u)	5.67	5.69						
Specific Conductivity (µS)	67.3	61.9						
Water Temperature (°C)	16.8	16.6						
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.1	18.7						
Dissolved Oxygen (mg/l)	2.0	0.6						

Remarks:

well purged dry @ 2.0 gals.

well Sampled @ 1042 on 11/5/15.

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BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MW - JAZ
General weather Conditions Cloudy
Ambient Air Temperature (°F) 42°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-31R

Well Diameter (D) 2 inch of 46.30 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 49.23 ft btoc
Depth to Groundwater (DGW) 35.08 ft btoc
Length of Water Colum (LWC = TWD-DGW) 14.15 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 2.41 gals
3 Casing Volumes = 3 X 0.00 = 7.23 gals
(Standard Purge Volume)
Note: Well has 2.93 feet of stick-up.

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5						
Time (military)	1046	1050						
pH (s.u)	5.46	5.51						
Specific Conductivity (µS)	63.9	64.1						
Water Temperature (°C)	17.1	16.9						
Turbidity (subjective: clear, slightly cloudy, cloudy)	8.71	79.6						
Dissolved Oxygen (mg/l)	1.2	1.2						

Well purged dry @ 2.5 gals.

Remarks:
Well sampled @ 1052 on 11/5/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MP, IAI
General weather Conditions Cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:		Conductivity Sensor:	
serial no.		serial no.	
pH =4.0		Standard	
pH = 7.0		Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-32

Well Diameter (D) 2 inch of 32.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				ft
Total Well Depth (TWD)			35.36	ft btoc
Depth to Groundwater (DGW)			29.95	ft btoc
Length of Water Colum (LWC = TWD-DGW)			5.41	ft
1 Casing Volume (LWC*C) =	0.00	X .17 =	0.92	gals
3 Casing Volumes = 3 X	0.00	=	2.76	gals
	(Standard Purge Volume)			

Note: Well has 2.96 feet of stick-up.

Total Volume of Water Purged Before Sampling 1.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	0.5						
Time (military)	1000	1002						
pH (s.u)	5.89	5.71						
Specific Conductivity (µS)	80.4	79.6						
Water Temperature (°C)	16.6	16.5						
Turbidity (subjective: clear, slightly cloudy, cloudy)	124	193						
Dissolved Oxygen (mg/l)	1.2	1.2						

Remarks: well purged dry @ 1.5 gals.
well sampled @ 1004 on 11/5/15

BLE INC
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Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MW IAF
General weather Conditions cloudy
Ambient Air Temperature (°F) 70

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-32R

Well Diameter (D) 2 inch of 40.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	43.11	ft btoc
Depth to Groundwater (DGW)	29.38	ft btoc
Length of Water Colum (LWC = TWD-DGW)		13.73 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	233 gals
3 Casing Volumes = 3 X	0.00 =	699 gals
	(Standard Purge Volume)	

Note: Well has 3.01 feet of stick-up.

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5						
Time (military)	1007	1011						
pH (s.u)	5.51	5.43						
Specific Conductivity (µS)	89.0	88.1						
Water Temperature (°C)	16.8	16.8						
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.7	82.4						
Dissolved Oxygen (mg/l)	0.5	0.6						

well sampled @ 1012 on 11/5/15.

Remarks:

well purged dry @ 2.5 gals.

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BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MW, TAT
General weather Conditions Cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-33

Well Diameter (D) 2 inch of 48.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	51.92	ft btoc
Depth to Groundwater (DGW)	42.39	ft btoc
Length of Water Colum (LWC = TWD-DGW)	9.53	ft
1 Casing Volume (LWC*C) =	0.00 X .17 = 1.62	gals
3 Casing Volumes = 3 X	0.00 = 4.86	gals
	(Standard Purge Volume)	

Note: Well has 3.12 feet of stick-up.

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5						
Time (military)	1100	1101						
pH (s.u)	7.50	7.47						
Specific Conductivity (µS)	52.0	51.9						
Water Temperature (°C)	17.7	17.1						
Turbidity (subjective: clear, slightly cloudy, cloudy)	1.47	1.81						
Dissolved Oxygen (mg/l)	2.8	2.7						

well purged dry @ 2.5 gals

Remarks:

well sampled @ 1104 on 11/5/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel mm, TAT
General weather Conditions Cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-33D

Well Diameter (D) 2 inch of 65.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	69.02	ft btoc
Depth to Groundwater (DGW)	43.42	ft btoc
Length of Water Colum (LWC = TWD-DGW)	25.60	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	4.35	gals
3 Casing Volumes = 3 X 0.00 =	13.05	gals

(Standard Purge Volume)

Note: Well has 3.42 feet of stick-up.

Total Volume of Water Purged Before Sampling 4.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	4.5						
Time (military)	1103	1109						
pH (s.u)	5.46	5.31						
Specific Conductivity (µS)	90.1	89.7						
Water Temperature (°C)	17.2	17.1						
Turbidity (subjective: clear, slightly cloudy, cloudy)	8.71	296						
Dissolved Oxygen (mg/l)	0.6	0.5						

Remarks:

well purged dry @ 4.5 gals.

well sampled @ 1110 on 11/5/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MW, JAT
General weather Conditions clear
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-33DD

Well Diameter (D) 2 inch of 131.10 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	133.91	ft btoc
Depth to Groundwater (DGW)	57.36	ft btoc
Length of Water Colum (LWC = TWD-DGW)		81.55 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	13.86 gals
3 Casing Volumes = 3 X	0.00 =	41.50 gals
	(Standard Purge Volume)	

Note: Well has 2.81 feet of stick-up.

Total Volume of Water Purged Before Sampling 14.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	14.5						
Time (military)	1110	1118						
pH (s.u)	6.06	6.13						
Specific Conductivity (µS)	193	187						
Water Temperature (°C)	17.6	17.5						
Turbidity (subjective: clear, slightly cloudy, cloudy)	21.4	32.9						
Dissolved Oxygen (mg/l)	0.5	0.4						

well sampled @ 1120 on 11/5/15.

Remarks:

well purged dry @ 14.5 gals.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MW, IAI, TMF
General weather Conditions Cloudy
Ambient Air Temperature (°F) 70's

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-34

Well Diameter (D) 2 inch of 50.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	53.98	ft btoc
Depth to Groundwater (DGW)	43.42	ft btoc
Length of Water Colum (LWC = TWD-DGW)		10.56 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	1.80 gals
3 Casing Volumes = 3 X	0.00 =	5.4 @ gals

(Standard Purge Volume)

Note: Well has 3.38 feet of stick-up.

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5						
Time (military)	1112	1115						
pH (s.u)	6.87	6.91						
Specific Conductivity (µS)	94.9	99.2						
Water Temperature (°C)	19.0	17.6						
Turbidity (subjective: clear, slightly cloudy, cloudy)	~~8.50~~ 8.21	~~7.96~~ 7.39						
Dissolved Oxygen (mg/l)	2.6	1.9						

Well Sampled @ 1116 on 11/5/15.

Remarks:

Well Purged dry @ 2.5 gals.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MW, FAF
General weather Conditions Cloudy
Ambient Air Temperature (°F) 17

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-35

Well Diameter (D) 2 inch of 56.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	59.51	ft btoc
Depth to Groundwater (DGW)	47.31	ft btoc
Length of Water Colum (LWC = TWD-DGW)		12.20 ft
1 Casing Volume (LWC*C) =	0.00 X .17 =	2.0 gals
3 Casing Volumes = 3 X	0.00 =	6.00 gals
	(Standard Purge Volume)	

Note: Well has 3.11 feet of stick-up.

2.5

Total Volume of Water Purged Before Sampling _____ gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	~~4.0~~	5.0				
Time (military)	940	945						
pH (s.u)	7.20	5.85						
Specific Conductivity (µS)	89.6	90.5						
Water Temperature (°C)	16.7	16.7						
Turbidity (subjective: clear, slightly cloudy, cloudy)	5.3	18.1						
Dissolved Oxygen (mg/l)	1.3	1.1						

well purged dry @ 2.5 gals

Remarks:

well sampled @ 948 on 11/5/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MW, ZAI
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-36

Well Diameter (D) 2 inch of 61.00 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 60.69 ft btoc
Depth to Groundwater (DGW) 43.7 ft btoc
Length of Water Colum (LWC = TWD-DGW) 16.99 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 2.88 gals
3 Casing Volumes = 3 X 0.00 = 8.64 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 3.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	3.0						
Time (military)	900	905						
pH (s.u)	7.39	6.67						
Specific Conductivity (µS)	99.1	99.5						
Water Temperature (°C)	16.7	16.7						
Turbidity (subjective: clear, slightly cloudy, cloudy)	15.5	250						
Dissolved Oxygen (mg/l)	0.3	0.5						

Remarks: well purged dry @ 3.0 gals

well sampled @ 908 on 11/5/15

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BLE INC
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Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MWP
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-37

Well Diameter (D) 2 inch of 101.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness				ft
Total Well Depth (TWD)			101.77	ft btoc
Depth to Groundwater (DGW)			91.89	ft btoc
Length of Water Colum (LWC = TWD-DGW)				9.88 ft
1 Casing Volume (LWC*C) =	0.00	X .17 =		0.88 gals
3 Casing Volumes = 3 X	0.00	=		36.54 gals
	(Standard Purge Volume)			

Total Volume of Water Purged Before Sampling 13.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	12.0						
Time (military)	808	814						
pH (s.u)	8.35	8.27						
Specific Conductivity (µS)	178.1	157.3						
Water Temperature (°C)	16.7	12.7						
Turbidity (subjective: clear, slightly cloudy, cloudy)	99.3	191						
Dissolved Oxygen (mg/l)	0.8	0.8						

well purged dry @ 13.0 gals

Remarks: well sampled @ 816 on 11/5/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/6/15
Field Personnel MVP
General weather Conditions cloudy / rain
Ambient Air Temperature (°F) 170

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-37D

Well Diameter (D) 2 inch of 134.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 134.36 ft btoc
Depth to Groundwater (DGW) 44.35 ft btoc
Length of Water Colum (LWC = TWD-DGW) 90.01 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 15.30 gals
3 Casing Volumes = 3 X 0.00 = 45.90 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 15.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	15.5						
Time (military)	1145	1155						
pH (s.u)	6.28	6.99						
Specific Conductivity (µS)	144.3	150.9						
Water Temperature (°C)	18.3	17.7						
Turbidity (subjective: clear, slightly cloudy, cloudy)	>1,000	28.7						
Dissolved Oxygen (mg/l)	1.4	1.5						

well purged dry @ 15.5 gals.

Remarks:
well sampled @ 1158 on 11/6/15.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/6/18
Field Personnel MMP
General weather Conditions Cloudy, rain
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-38

Well Diameter (D) 2 inch of 57.40 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	60.39	ft btoc
Depth to Groundwater (DGW)	51.18	ft btoc
Length of Water Colum (LWC = TWD-DGW)	9.21	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.56	gals
3 Casing Volumes = 3 X 0.00 =	4.68	gals

(Standard Purge Volume)

Note: Well has 2.99 feet of stick-up.

Total Volume of Water Purged Before Sampling 1.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5						
Time (military)	940	944						
pH (s.u)	7.31	7.20						
Specific Conductivity (µS)	95.6	96.7						
Water Temperature (°C)	18.4	18.2						
Turbidity (subjective: clear, slightly cloudy, cloudy)	24.7	183						
Dissolved Oxygen (mg/l)	2.1	2.0						

well sampled @ 945 on 11/6/18.

Remarks:

well purged dry @ 1.5 gals

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/3/15
Field Personnel IA1, MWP
General weather Conditions Rainy
Ambient Air Temperature (°F) 20.0

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-39

Well Diameter (D) 2 inch of 56.20 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 56.06 ft btoc
Depth to Groundwater (DGW) 44.70 ft btoc
Length of Water Colum (LWC = TWD-DGW) 11.36 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 1.93 gals
3 Casing Volumes = 3 X 0.00 = 5.79 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 3.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0						
Time (military)	958	1003						
pH (s.u)	6.21	6.33						
Specific Conductivity (µS)	743.1	823.2						
Water Temperature (°C)	18.2	18.1						
Turbidity (subjective: clear, slightly cloudy, cloudy)	15.9	12.3						
Dissolved Oxygen (mg/l)	0.6	1.2						

Dry @ 3.5 gallons

Remarks: Sampled @ 1011 on 11/3/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel FAT, MWP
General weather Conditions Rainy
Ambient Air Temperature (°F) 20.0

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-40

Well Diameter (D) 2 inch of 55.90 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	55.70	ft btoc
Depth to Groundwater (DGW)	45.59	ft btoc
Length of Water Colum (LWC = TWD-DGW)	10.11	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	1.72	gals
3 Casing Volumes = 3 X 0.00 =	5.16	gals

(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 5.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.0	4.0					
Time (military)	927	932	943					
pH (s.u)	6.07	6.21	6.24					
Specific Conductivity (µS)	524.1	450.9	513.4					
Water Temperature (°C)	18.4	18.3	18.3					
Turbidity (subjective: clear, slightly cloudy, cloudy)	10.5	11.3	8.27					
Dissolved Oxygen (mg/l)	0.6	1.0	0.7					

Dup @ 5.5 gallons

Remarks: Sampled @ 943 on 11/5/15
Dup @ 944 on 11/5/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/3/15
Field Personnel IdI, mwp
General weather Conditions
Ambient Air Temperature (°F)

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-41

Well Diameter (D) 2 inch of 55.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	55.44	ft btoc
Depth to Groundwater (DGW)	41.96	ft btoc
Length of Water Colum (LWC = TWD-DGW)		13.48 ft
1 Casing Volume (LWC*C) =	0.00 X .17	= 2.29 gals
3 Casing Volumes = 3 X	0.00	= 6.87 gals
	(Standard Purge Volume)	

Total Volume of Water Purged Before Sampling 4.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	2.5	5.0					
Time (military)	1054	1102						
pH (s.u)	6.21	6.19						
Specific Conductivity (µS)	767.6	771.9						
Water Temperature (°C)	19.3	19.2						
Turbidity (subjective: clear, slightly cloudy, cloudy)	19.6	12.0						
Dissolved Oxygen (mg/l)	0.1	0.9						

Dry @ 4.0 gallons

Remarks: Sampled @ 1111
Dup @ 1112

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MW JAT
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-42

Well Diameter (D) 2 inch of 55.80 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 58.97 ft btoc
Depth to Groundwater (DGW) 41.40 ft btoc
Length of Water Colum (LWC = TWD-DGW) 17.57 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 2.99 gals
3 Casing Volumes = 3 X 0.00 = 8.97 gals
(Standard Purge Volume)

Note: Well has 3.17 feet of stick-up.

Total Volume of Water Purged Before Sampling 3.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	—	3.0						
Time (military)	924	930						
pH (s.u)	7.04	6.82						
Specific Conductivity (µS)	194	192						
Water Temperature (°C)	16.7	16.7						
Turbidity (subjective: clear, slightly cloudy, cloudy)	18.8	19.4						
Dissolved Oxygen (mg/l)	1.3	1.3						

well sampled @ 932 on 11/5/15

Remarks:

well purged dry @ 3.0 gals.

1

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/15/19
Field Personnel MW, IAI, TAF
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-43

Well Diameter (D) 2 inch of 39.60 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

*Free Product Thickness		ft
Total Well Depth (TWD)	42.55	ft btoc
Depth to Groundwater (DGW)	30.77	ft btoc
Length of Water Colum (LWC = TWD-DGW)	12.12	ft
1 Casing Volume (LWC*C) = 0.00 X .17 =	2.06	gals
3 Casing Volumes = 3 X 0.00 =	6.18	gals
(Standard Purge Volume)		

Note: Well has 2.95 feet of stick-up.

Total Volume of Water Purged Before Sampling 2.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	—	2.5						
Time (military)	1140	1143						
pH (s.u)	5.66	5.65						
Specific Conductivity (µS)	81.3	80.9						
Water Temperature (°C)	17.8	17.4						
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.5	12.1						
Dissolved Oxygen (mg/l)	1.2	1.1						

Remarks:
well purged dry @ 2.5 gals.
well sampled @ 1149 on 11/15/19.

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/5/15
Field Personnel MW, JAJ, TMF
General weather Conditions cloudy
Ambient Air Temperature (°F) 47°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-44

Well Diameter (D) 2 inch of 39.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 42.53 ft btoc
Depth to Groundwater (DGW) 30.54 ft btoc
Length of Water Colum (LWC = TWD-DGW) 11.99 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 2.03 gals
3 Casing Volumes = 3 X 0.00 = 6.09 gals
(Standard Purge Volume)

Note: Well has 3.03 feet of stick-up.

Total Volume of Water Purged Before Sampling 2.0 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	—	2.0						
Time (military)	1130	1134						
pH (s.u)	5.71	5.68						
Specific Conductivity (µS)	78.0	77.4						
Water Temperature (°C)	17.6	17.9						
Turbidity (subjective: clear, slightly cloudy, cloudy)	2.87	3.46						
Dissolved Oxygen (mg/l)	0.6	0.5						

well purged dry @ 2.0 gals.

Remarks:

well sampled @ 1136 on 11/5/15

BLE INC
BUNNELL-LAMMONS ENGINEERING, INC

Field Data Information Sheet for Ground Water Sampling
Division of Underground Storage Tank Management

Date 11/4/15
Field Personnel MWF
General weather Conditions cloudy
Ambient Air Temperature (°F) 17°

Facility Name: KMO #119 Site ID# 00505

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no.	324976
pH =4.0	4.0	Standard	
pH = 7.0	7.0	Standard	
pH = 7.0		Standard	
pH = 10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-45

Well Diameter (D) 2 inch of 41.50 feet(ft) bgs
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well C = 0.163
for a 4 inch well C = 0.652
*Free Product Thickness ft
Total Well Depth (TWD) 40.91 ft btoc
Depth to Groundwater (DGW) 34.13 ft btoc
Length of Water Colum (LWC = TWD-DGW) 6.78 ft
1 Casing Volume (LWC*C) = 0.00 X .17 = 1.15 gals
3 Casing Volumes = 3 X 0.00 = 3.45 gals
(Standard Purge Volume)

Total Volume of Water Purged Before Sampling 3.5 gals

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sample
Volume Purged (gallons)	---	1.5	2.1	3.1				
Time (military)	1155	1158	1201	1205				
pH (s.u)	5.23	4.53	4.54	4.74				
Specific Conductivity (µS)	25.1	21.5	22.8	24.1				
Water Temperature (°C)	18.8	18.8	18.7	18.8				
Turbidity (subjective: clear, slightly cloudy, cloudy)	>1,100	>1,100	293	9.71				
Dissolved Oxygen (mg/l)	1.7	1.5	1.5	1.5				

Remarks:
well sampled @ 1209 on 11/4/15

APPENDIX B

DISPOSAL MANIFESTS

VLS recovery services, llc

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
			11-19-15-BKW-B

GENERATOR

5. Generator's Name and Mailing Address

BUNNELL-LAMMON ENG, INC
6004 PONDERS COURT
GREENVILLE, SC 29615

Generator's Site Address (if different than mailing address)

Generator's Phone: 864-288-1265

6. Transporter 1 Company Name: BLE — U.S. EPA ID Number:

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address

VLS RECOVERY SERVICES, LLC
305 S. MAIN STREET
MAULDIN, SC 29662

U.S. EPA ID Number: SCR000762466

Facility's Phone: 864-962-9953

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON HAZ NON REG WELL WATER #11312 — Ayers + Son Landfill UST # 10915			665	G	
2.	I-26 Station No Dr 1 SC UST # 06593			41	G	
3.	KMC 119 Anderson UST # 00505			376	G	
4.	(Development) 3852 Dr UST # 01213			56	G	

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Brian K White	Brian K White	11	19	15

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
Brian K White	Brian K White	11	19	15
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)	Month	Day	Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name	Signature	Month	Day	Year
Steven Lukeman	Steven Lukeman	11	9	15

APPENDIX C

LABORATORY DATA SHEETS

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615
Attention: Trevor Benton

Project Name: **KMO #119**

Project Number: **3661-07**

Lot Number: **QK09036**

Date Completed: **11/16/2015**

Lucas Odom
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

Case Narrative
Bunnell-Lammons Engineering, Inc.
Lot Number: QK09036

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

VOCs by GC/MS

The LCS associated with batch 89508 recovered ETBE marginally above method criteria. No corrective action is required as all associated samples are non-detect for this compound.

Sample Summary
Bunnell-Lammons Engineering, Inc.
Lot Number: QK09036

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	UST#00505 MW-1R	Aqueous	11/04/2015 0855	11/09/2015
002	UST#00505 MW-1R DUP	Aqueous	11/04/2015 0856	11/09/2015
003	UST#00505 MW-1D	Aqueous	11/04/2015 0838	11/09/2015
004	UST#00505 MW-1DD	Aqueous	11/04/2015 0828	11/09/2015
005	UST#00505 MW-1DDD	Aqueous	11/04/2015 0815	11/09/2015
006	UST#00505 MW-2	Aqueous	11/04/2015 0925	11/09/2015
007	UST#00505 MW-3	Aqueous	11/04/2015 0950	11/09/2015
008	UST#00505 MW-4	Aqueous	11/04/2015 1144	11/09/2015
009	UST#00505 MW-5R	Aqueous	11/04/2015 1228	11/09/2015
010	UST#00505 MW-6	Aqueous	11/04/2015 1525	11/09/2015
011	UST#00505 MW-6D	Aqueous	11/04/2015 1549	11/09/2015
012	UST#00505 MW-7	Aqueous	11/05/2015 1304	11/09/2015
013	UST#00505 MW-7D	Aqueous	11/05/2015 1316	11/09/2015
014	UST#00505 MW-8	Aqueous	11/05/2015 1246	11/09/2015
015	UST#00505 MW-9	Aqueous	11/05/2015 1149	11/09/2015
016	UST#00505 MW-10D	Aqueous	11/06/2015 1213	11/09/2015
017	UST#00505 MW-11	Aqueous	11/04/2015 1512	11/09/2015
018	UST#00505 MW-11D	Aqueous	11/04/2015 1458	11/09/2015
019	UST#00505 MW-11DD	Aqueous	11/04/2015 1437	11/09/2015
020	UST#00505 MW-11DDD	Aqueous	11/04/2015 1341	11/09/2015
021	UST#00505 MW-13	Aqueous	11/05/2015 1241	11/09/2015
022	UST#00505 MW-13R	Aqueous	11/05/2015 1309	11/09/2015
023	UST#00505 MW-14D	Aqueous	11/06/2015 1233	11/09/2015
024	UST#00505 MW-15	Aqueous	11/05/2015 0903	11/09/2015
025	UST#00505 MW-15 DUP	Aqueous	11/05/2015 0904	11/09/2015
026	UST#00505 MW-17	Aqueous	11/04/2015 1016	11/09/2015
027	UST#00505 MW-18	Aqueous	11/05/2015 1433	11/09/2015
028	UST#00505 MW-19	Aqueous	11/05/2015 1401	11/09/2015
029	UST#00505 MW-20	Aqueous	11/06/2015 1012	11/09/2015
030	UST#00505 MW-21	Aqueous	11/06/2015 1037	11/09/2015
031	UST#00505 MW-22	Aqueous	11/06/2015 1057	11/09/2015
032	UST#00505 MW-23	Aqueous	11/06/2015 1046	11/09/2015
033	UST#00505 MW-24	Aqueous	11/06/2015 1114	11/09/2015
034	UST#00505 MW-25	Aqueous	11/06/2015 1128	11/09/2015
035	UST#00505 MW-26	Aqueous	11/05/2015 1346	11/09/2015
036	UST#00505 MW-27R	Aqueous	11/05/2015 1406	11/09/2015
037	UST#00505 MW-27D	Aqueous	11/05/2015 1416	11/09/2015
038	UST#00505 MW-27DD	Aqueous	11/05/2015 1420	11/09/2015
039	UST#00505 MW-28	Aqueous	11/06/2015 1029	11/09/2015
040	UST#00505 MW-30	Aqueous	11/05/2015 1022	11/09/2015
041	UST#00505 MW-30R	Aqueous	11/05/2015 1028	11/09/2015
042	UST#00505 MW-31	Aqueous	11/05/2015 1042	11/09/2015
043	UST#00505 MW-31R	Aqueous	11/05/2015 1052	11/09/2015
044	UST#00505 MW-32	Aqueous	11/05/2015 1004	11/09/2015
045	UST#00505 MW-32R	Aqueous	11/05/2015 1012	11/09/2015

Sample Summary (Continued)

Lot Number: QK09036

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
046	UST#00505 MW-33	Aqueous	11/05/2015 1104	11/09/2015
047	UST#00505 MW-33D	Aqueous	11/05/2015 1110	11/09/2015
048	UST#00505 MW-33DD	Aqueous	11/05/2015 1120	11/09/2015
049	UST#00505 MW-34	Aqueous	11/05/2015 1116	11/09/2015
050	UST#00505 MW-35	Aqueous	11/05/2015 0948	11/09/2015
051	UST#00505 MW-36	Aqueous	11/05/2015 0908	11/09/2015
052	UST#00505 MW-37	Aqueous	11/05/2015 0816	11/09/2015
053	UST#00505 MW-37D	Aqueous	11/06/2015 1158	11/09/2015
054	UST#00505 MW-38	Aqueous	11/06/2015 0945	11/09/2015
055	UST#00505 MW-39	Aqueous	11/05/2015 1011	11/09/2015
056	UST#00505 MW-40	Aqueous	11/05/2015 0943	11/09/2015
057	UST#00505 MW-40 DUP	Aqueous	11/05/2015 0944	11/09/2015
058	UST#00505 MW-41	Aqueous	11/05/2015 1111	11/09/2015
059	UST#00505 MW-41 DUP	Aqueous	11/05/2015 1112	11/09/2015
060	UST#00505 MW-42	Aqueous	11/05/2015 0932	11/09/2015
061	UST#00505 MW-43	Aqueous	11/05/2015 1144	11/09/2015
062	UST#00505 MW-44	Aqueous	11/05/2015 1136	11/09/2015
063	UST#00505 MW-45	Aqueous	11/04/2015 1205	11/09/2015
064	UST#00505 FB-1	Aqueous	11/04/2015 1710	11/09/2015
065	UST#00505 FB-2	Aqueous	11/05/2015 1700	11/09/2015
066	UST#00505 FB-3	Aqueous	11/06/2015 1500	11/09/2015
067	UST#00505 DW-1	Aqueous	11/04/2015 1700	11/09/2015
068	TRIP BLANK(SH2254)	Aqueous	11/04/2015	11/09/2015
069	TRIP BLANK(SH2208)	Aqueous	11/04/2015	11/09/2015

(69 samples)

Executive Summary
Bunnell-Lammons Engineering, Inc.
Lot Number: QK09036

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	UST#00505 MW-1R	Aqueous	Benzene	8260B	540		ug/L	12
001	UST#00505 MW-1R	Aqueous	Ethylbenzene	8260B	680		ug/L	12
001	UST#00505 MW-1R	Aqueous	Methyl tertiary butyl ether	8260B	36	J	ug/L	12
001	UST#00505 MW-1R	Aqueous	Naphthalene	8260B	380	J	ug/L	12
001	UST#00505 MW-1R	Aqueous	Toluene	8260B	3100		ug/L	12
001	UST#00505 MW-1R	Aqueous	Xylenes (total)	8260B	6200		ug/L	12
001	UST#00505 MW-1R	Aqueous	1,2-Dibromoethane (EDB)	8011	3.1		ug/L	12
002	UST#00505 MW-1R DUP	Aqueous	Benzene	8260B	510		ug/L	13
002	UST#00505 MW-1R DUP	Aqueous	Ethylbenzene	8260B	680		ug/L	13
002	UST#00505 MW-1R DUP	Aqueous	Methyl tertiary butyl ether	8260B	36	J	ug/L	13
002	UST#00505 MW-1R DUP	Aqueous	Naphthalene	8260B	390	J	ug/L	13
002	UST#00505 MW-1R DUP	Aqueous	Toluene	8260B	3100		ug/L	13
002	UST#00505 MW-1R DUP	Aqueous	Xylenes (total)	8260B	6200		ug/L	13
002	UST#00505 MW-1R DUP	Aqueous	1,2-Dibromoethane (EDB)	8011	2.9		ug/L	13
003	UST#00505 MW-1D	Aqueous	tert-Amyl alcohol (TAA)	8260B	3300		ug/L	14
003	UST#00505 MW-1D	Aqueous	tert-Amyl methyl ether	8260B	40	J	ug/L	14
003	UST#00505 MW-1D	Aqueous	Benzene	8260B	11000		ug/L	14
003	UST#00505 MW-1D	Aqueous	Diisopropyl ether (IPE)	8260B	640		ug/L	14
003	UST#00505 MW-1D	Aqueous	Ethylbenzene	8260B	1800		ug/L	14
003	UST#00505 MW-1D	Aqueous	Methyl tertiary butyl ether	8260B	1800		ug/L	14
003	UST#00505 MW-1D	Aqueous	Naphthalene	8260B	420		ug/L	14
003	UST#00505 MW-1D	Aqueous	tert-butyl alcohol (TBA)	8260B	600	J	ug/L	14
003	UST#00505 MW-1D	Aqueous	Toluene	8260B	310		ug/L	14
003	UST#00505 MW-1D	Aqueous	Xylenes (total)	8260B	4800		ug/L	14
004	UST#00505 MW-1DD	Aqueous	tert-Amyl alcohol (TAA)	8260B	11	J	ug/L	15
004	UST#00505 MW-1DD	Aqueous	Benzene	8260B	24		ug/L	15
004	UST#00505 MW-1DD	Aqueous	Diisopropyl ether (IPE)	8260B	2.7	J	ug/L	15
004	UST#00505 MW-1DD	Aqueous	Ethylbenzene	8260B	3.6	J	ug/L	15
004	UST#00505 MW-1DD	Aqueous	Methyl tertiary butyl ether	8260B	6.9		ug/L	15
004	UST#00505 MW-1DD	Aqueous	Naphthalene	8260B	0.92	J	ug/L	15
004	UST#00505 MW-1DD	Aqueous	Toluene	8260B	14		ug/L	15
004	UST#00505 MW-1DD	Aqueous	Xylenes (total)	8260B	6.4		ug/L	15
005	UST#00505 MW-1DDD	Aqueous	tert-Amyl alcohol (TAA)	8260B	4200		ug/L	16
005	UST#00505 MW-1DDD	Aqueous	tert-Amyl methyl ether	8260B	34	J	ug/L	16
005	UST#00505 MW-1DDD	Aqueous	Benzene	8260B	4800		ug/L	16
005	UST#00505 MW-1DDD	Aqueous	Diisopropyl ether (IPE)	8260B	690		ug/L	16
005	UST#00505 MW-1DDD	Aqueous	Ethylbenzene	8260B	310		ug/L	16
005	UST#00505 MW-1DDD	Aqueous	Methyl tertiary butyl ether	8260B	2700		ug/L	16
005	UST#00505 MW-1DDD	Aqueous	Naphthalene	8260B	65	J	ug/L	16
005	UST#00505 MW-1DDD	Aqueous	tert-butyl alcohol (TBA)	8260B	890	J	ug/L	16
005	UST#00505 MW-1DDD	Aqueous	Toluene	8260B	2700		ug/L	16
005	UST#00505 MW-1DDD	Aqueous	Xylenes (total)	8260B	1500		ug/L	16
006	UST#00505 MW-2	Aqueous	tert-Amyl alcohol (TAA)	8260B	34	J	ug/L	17
006	UST#00505 MW-2	Aqueous	Benzene	8260B	50		ug/L	17
006	UST#00505 MW-2	Aqueous	Ethylbenzene	8260B	480		ug/L	17

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
006	UST#00505 MW-2	Aqueous	Methyl tertiary butyl ether	8260B	3.4	J	ug/L	17
006	UST#00505 MW-2	Aqueous	Naphthalene	8260B	180		ug/L	17
006	UST#00505 MW-2	Aqueous	Toluene	8260B	460		ug/L	17
006	UST#00505 MW-2	Aqueous	Xylenes (total)	8260B	2700		ug/L	17
006	UST#00505 MW-2	Aqueous	1,2-Dibromoethane (EDB)	8011	0.012	J	ug/L	17
008	UST#00505 MW-4	Aqueous	Methyl tertiary butyl ether	8260B	1.4	J	ug/L	19
015	UST#00505 MW-9	Aqueous	tert-Amyl alcohol (TAA)	8260B	19000		ug/L	26
015	UST#00505 MW-9	Aqueous	tert-Amyl methyl ether	8260B	77	J	ug/L	26
015	UST#00505 MW-9	Aqueous	Benzene	8260B	7900		ug/L	26
015	UST#00505 MW-9	Aqueous	1,2-Dichloroethane	8260B	670		ug/L	26
015	UST#00505 MW-9	Aqueous	Diisopropyl ether (IPE)	8260B	1700		ug/L	26
015	UST#00505 MW-9	Aqueous	Ethylbenzene	8260B	80	J	ug/L	26
015	UST#00505 MW-9	Aqueous	Methyl tertiary butyl ether	8260B	2700		ug/L	26
015	UST#00505 MW-9	Aqueous	Naphthalene	8260B	140	J	ug/L	26
015	UST#00505 MW-9	Aqueous	tert-butyl alcohol (TBA)	8260B	3000		ug/L	26
015	UST#00505 MW-9	Aqueous	Toluene	8260B	33	J	ug/L	26
015	UST#00505 MW-9	Aqueous	Xylenes (total)	8260B	54	J	ug/L	26
016	UST#00505 MW-10D	Aqueous	Diisopropyl ether (IPE)	8260B	20	J	ug/L	27
016	UST#00505 MW-10D	Aqueous	Methyl tertiary butyl ether	8260B	750		ug/L	27
017	UST#00505 MW-11	Aqueous	Benzene	8260B	590		ug/L	28
017	UST#00505 MW-11	Aqueous	Diisopropyl ether (IPE)	8260B	65	J	ug/L	28
017	UST#00505 MW-11	Aqueous	Ethylbenzene	8260B	2600		ug/L	28
017	UST#00505 MW-11	Aqueous	Methyl tertiary butyl ether	8260B	77	J	ug/L	28
017	UST#00505 MW-11	Aqueous	Naphthalene	8260B	1200		ug/L	28
017	UST#00505 MW-11	Aqueous	tert-butyl alcohol (TBA)	8260B	420	J	ug/L	28
017	UST#00505 MW-11	Aqueous	Toluene	8260B	3000		ug/L	28
017	UST#00505 MW-11	Aqueous	Xylenes (total)	8260B	15000		ug/L	28
018	UST#00505 MW-11D	Aqueous	tert-Amyl alcohol (TAA)	8260B	310		ug/L	29
018	UST#00505 MW-11D	Aqueous	tert-Amyl methyl ether	8260B	3.2	J	ug/L	29
018	UST#00505 MW-11D	Aqueous	Benzene	8260B	6.4		ug/L	29
018	UST#00505 MW-11D	Aqueous	1,2-Dichloroethane	8260B	8.1		ug/L	29
018	UST#00505 MW-11D	Aqueous	Diisopropyl ether (IPE)	8260B	55		ug/L	29
018	UST#00505 MW-11D	Aqueous	3,3-Dimethyl-1-butanol	8260B	12	J	ug/L	29
018	UST#00505 MW-11D	Aqueous	Ethanol	8260B	53	J	ug/L	29
018	UST#00505 MW-11D	Aqueous	Ethylbenzene	8260B	0.93	J	ug/L	29
018	UST#00505 MW-11D	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	2.8		ug/L	29
018	UST#00505 MW-11D	Aqueous	Methyl tertiary butyl ether	8260B	180		ug/L	29
018	UST#00505 MW-11D	Aqueous	tert-butyl alcohol (TBA)	8260B	66		ug/L	29
018	UST#00505 MW-11D	Aqueous	Toluene	8260B	0.48	J	ug/L	29
018	UST#00505 MW-11D	Aqueous	Xylenes (total)	8260B	0.73	J	ug/L	29
019	UST#00505 MW-11DD	Aqueous	tert-Amyl alcohol (TAA)	8260B	6500		ug/L	30
019	UST#00505 MW-11DD	Aqueous	tert-Amyl methyl ether	8260B	81	J	ug/L	30
019	UST#00505 MW-11DD	Aqueous	Benzene	8260B	10000		ug/L	30
019	UST#00505 MW-11DD	Aqueous	1,2-Dichloroethane	8260B	500		ug/L	30
019	UST#00505 MW-11DD	Aqueous	Diisopropyl ether (IPE)	8260B	1100		ug/L	30
019	UST#00505 MW-11DD	Aqueous	Ethylbenzene	8260B	400		ug/L	30
019	UST#00505 MW-11DD	Aqueous	Methyl tertiary butyl ether	8260B	4000		ug/L	30
019	UST#00505 MW-11DD	Aqueous	Naphthalene	8260B	210	J	ug/L	30

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
019	UST#00505 MW-11DD	Aqueous	tert-butyl alcohol (TBA)	8260B	1400		ug/L	30
019	UST#00505 MW-11DD	Aqueous	Toluene	8260B	6300		ug/L	30
019	UST#00505 MW-11DD	Aqueous	Xylenes (total)	8260B	3600		ug/L	30
020	UST#00505 MW-11DDD	Aqueous	tert-Amyl alcohol (TAA)	8260B	4900		ug/L	31
020	UST#00505 MW-11DDD	Aqueous	tert-Amyl methyl ether	8260B	43	J	ug/L	31
020	UST#00505 MW-11DDD	Aqueous	Benzene	8260B	4200		ug/L	31
020	UST#00505 MW-11DDD	Aqueous	1,2-Dichloroethane	8260B	150	J	ug/L	31
020	UST#00505 MW-11DDD	Aqueous	Diisopropyl ether (IPE)	8260B	810		ug/L	31
020	UST#00505 MW-11DDD	Aqueous	Ethylbenzene	8260B	200	J	ug/L	31
020	UST#00505 MW-11DDD	Aqueous	Methyl tertiary butyl ether	8260B	3100		ug/L	31
020	UST#00505 MW-11DDD	Aqueous	Naphthalene	8260B	29	J	ug/L	31
020	UST#00505 MW-11DDD	Aqueous	tert-butyl alcohol (TBA)	8260B	1100		ug/L	31
020	UST#00505 MW-11DDD	Aqueous	Toluene	8260B	1400		ug/L	31
020	UST#00505 MW-11DDD	Aqueous	Xylenes (total)	8260B	880		ug/L	31
021	UST#00505 MW-13	Aqueous	tert-Amyl alcohol (TAA)	8260B	2600		ug/L	32
021	UST#00505 MW-13	Aqueous	tert-Amyl methyl ether	8260B	21	J	ug/L	32
021	UST#00505 MW-13	Aqueous	Benzene	8260B	6100		ug/L	32
021	UST#00505 MW-13	Aqueous	1,2-Dichloroethane	8260B	220	J	ug/L	32
021	UST#00505 MW-13	Aqueous	Diisopropyl ether (IPE)	8260B	440		ug/L	32
021	UST#00505 MW-13	Aqueous	Ethylbenzene	8260B	3200		ug/L	32
021	UST#00505 MW-13	Aqueous	Methyl tertiary butyl ether	8260B	620		ug/L	32
021	UST#00505 MW-13	Aqueous	Naphthalene	8260B	960		ug/L	32
021	UST#00505 MW-13	Aqueous	tert-butyl alcohol (TBA)	8260B	820	J	ug/L	32
021	UST#00505 MW-13	Aqueous	Toluene	8260B	790		ug/L	32
021	UST#00505 MW-13	Aqueous	Xylenes (total)	8260B	18000		ug/L	32
021	UST#00505 MW-13	Aqueous	1,2-Dibromoethane (EDB)	8011	0.089		ug/L	32
022	UST#00505 MW-13R	Aqueous	tert-Amyl alcohol (TAA)	8260B	2400		ug/L	33
022	UST#00505 MW-13R	Aqueous	tert-Amyl methyl ether	8260B	21	J	ug/L	33
022	UST#00505 MW-13R	Aqueous	Benzene	8260B	5300		ug/L	33
022	UST#00505 MW-13R	Aqueous	Diisopropyl ether (IPE)	8260B	400		ug/L	33
022	UST#00505 MW-13R	Aqueous	Ethylbenzene	8260B	2500		ug/L	33
022	UST#00505 MW-13R	Aqueous	Methyl tertiary butyl ether	8260B	560		ug/L	33
022	UST#00505 MW-13R	Aqueous	Naphthalene	8260B	1200		ug/L	33
022	UST#00505 MW-13R	Aqueous	tert-butyl alcohol (TBA)	8260B	940	J	ug/L	33
022	UST#00505 MW-13R	Aqueous	Toluene	8260B	790		ug/L	33
022	UST#00505 MW-13R	Aqueous	Xylenes (total)	8260B	14000		ug/L	33
022	UST#00505 MW-13R	Aqueous	1,2-Dibromoethane (EDB)	8011	0.25		ug/L	33
023	UST#00505 MW-14D	Aqueous	Methyl tertiary butyl ether	8260B	180		ug/L	34
024	UST#00505 MW-15	Aqueous	tert-Amyl alcohol (TAA)	8260B	74		ug/L	35
024	UST#00505 MW-15	Aqueous	tert-Amyl methyl ether	8260B	0.67	J	ug/L	35
024	UST#00505 MW-15	Aqueous	Benzene	8260B	30		ug/L	35
024	UST#00505 MW-15	Aqueous	1,2-Dichloroethane	8260B	3.5	J	ug/L	35
024	UST#00505 MW-15	Aqueous	Diisopropyl ether (IPE)	8260B	12		ug/L	35
024	UST#00505 MW-15	Aqueous	Ethylbenzene	8260B	6.5		ug/L	35
024	UST#00505 MW-15	Aqueous	Methyl tertiary butyl ether	8260B	18		ug/L	35
024	UST#00505 MW-15	Aqueous	Naphthalene	8260B	18		ug/L	35
024	UST#00505 MW-15	Aqueous	tert-butyl alcohol (TBA)	8260B	21		ug/L	35
024	UST#00505 MW-15	Aqueous	Toluene	8260B	11		ug/L	35

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
024	UST#00505 MW-15	Aqueous	Xylenes (total)	8260B	11		ug/L	35
025	UST#00505 MW-15 DUP	Aqueous	tert-Amyl alcohol (TAA)	8260B	77		ug/L	36
025	UST#00505 MW-15 DUP	Aqueous	tert-Amyl methyl ether	8260B	0.72	J	ug/L	36
025	UST#00505 MW-15 DUP	Aqueous	Benzene	8260B	32		ug/L	36
025	UST#00505 MW-15 DUP	Aqueous	1,2-Dichloroethane	8260B	3.6	J	ug/L	36
025	UST#00505 MW-15 DUP	Aqueous	Diisopropyl ether (IPE)	8260B	12		ug/L	36
025	UST#00505 MW-15 DUP	Aqueous	Ethylbenzene	8260B	7.0		ug/L	36
025	UST#00505 MW-15 DUP	Aqueous	Methyl tertiary butyl ether	8260B	18		ug/L	36
025	UST#00505 MW-15 DUP	Aqueous	Naphthalene	8260B	20		ug/L	36
025	UST#00505 MW-15 DUP	Aqueous	tert-butyl alcohol (TBA)	8260B	21		ug/L	36
025	UST#00505 MW-15 DUP	Aqueous	Toluene	8260B	12		ug/L	36
025	UST#00505 MW-15 DUP	Aqueous	Xylenes (total)	8260B	12		ug/L	36
026	UST#00505 MW-17	Aqueous	tert-Amyl alcohol (TAA)	8260B	480		ug/L	37
026	UST#00505 MW-17	Aqueous	Benzene	8260B	140		ug/L	37
026	UST#00505 MW-17	Aqueous	1,2-Dichloroethane	8260B	8.8		ug/L	37
026	UST#00505 MW-17	Aqueous	Diisopropyl ether (IPE)	8260B	34		ug/L	37
026	UST#00505 MW-17	Aqueous	Ethylbenzene	8260B	12		ug/L	37
026	UST#00505 MW-17	Aqueous	Methyl tertiary butyl ether	8260B	2.7	J	ug/L	37
026	UST#00505 MW-17	Aqueous	Naphthalene	8260B	4.8	J	ug/L	37
026	UST#00505 MW-17	Aqueous	tert-butyl alcohol (TBA)	8260B	130		ug/L	37
026	UST#00505 MW-17	Aqueous	Toluene	8260B	1.2	J	ug/L	37
026	UST#00505 MW-17	Aqueous	Xylenes (total)	8260B	73		ug/L	37
026	UST#00505 MW-17	Aqueous	1,2-Dibromoethane (EDB)	8011	0.34		ug/L	37
028	UST#00505 MW-19	Aqueous	tert-Amyl alcohol (TAA)	8260B	5500		ug/L	39
028	UST#00505 MW-19	Aqueous	tert-Amyl methyl ether	8260B	27	J	ug/L	39
028	UST#00505 MW-19	Aqueous	Benzene	8260B	200		ug/L	39
028	UST#00505 MW-19	Aqueous	Diisopropyl ether (IPE)	8260B	640		ug/L	39
028	UST#00505 MW-19	Aqueous	Methyl tertiary butyl ether	8260B	1300		ug/L	39
028	UST#00505 MW-19	Aqueous	Naphthalene	8260B	100		ug/L	39
028	UST#00505 MW-19	Aqueous	tert-butyl alcohol (TBA)	8260B	1100		ug/L	39
028	UST#00505 MW-19	Aqueous	Toluene	8260B	5.0	J	ug/L	39
028	UST#00505 MW-19	Aqueous	Xylenes (total)	8260B	23	J	ug/L	39
029	UST#00505 MW-20	Aqueous	Methyl tertiary butyl ether	8260B	1.4	J	ug/L	40
030	UST#00505 MW-21	Aqueous	tert-Amyl alcohol (TAA)	8260B	220		ug/L	41
030	UST#00505 MW-21	Aqueous	Benzene	8260B	330		ug/L	41
030	UST#00505 MW-21	Aqueous	1,2-Dichloroethane	8260B	15	J	ug/L	41
030	UST#00505 MW-21	Aqueous	Diisopropyl ether (IPE)	8260B	35		ug/L	41
030	UST#00505 MW-21	Aqueous	Ethylbenzene	8260B	180		ug/L	41
030	UST#00505 MW-21	Aqueous	Methyl tertiary butyl ether	8260B	55		ug/L	41
030	UST#00505 MW-21	Aqueous	Naphthalene	8260B	140		ug/L	41
030	UST#00505 MW-21	Aqueous	tert-butyl alcohol (TBA)	8260B	69	J	ug/L	41
030	UST#00505 MW-21	Aqueous	Toluene	8260B	26		ug/L	41
030	UST#00505 MW-21	Aqueous	Xylenes (total)	8260B	520		ug/L	41
031	UST#00505 MW-22	Aqueous	tert-Amyl alcohol (TAA)	8260B	230		ug/L	42
031	UST#00505 MW-22	Aqueous	tert-Amyl methyl ether	8260B	2.1	J	ug/L	42
031	UST#00505 MW-22	Aqueous	Benzene	8260B	180		ug/L	42
031	UST#00505 MW-22	Aqueous	1,2-Dichloroethane	8260B	13		ug/L	42
031	UST#00505 MW-22	Aqueous	Diisopropyl ether (IPE)	8260B	41		ug/L	42

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
031	UST#00505 MW-22	Aqueous	Ethylbenzene	8260B	25		ug/L	42
031	UST#00505 MW-22	Aqueous	Methyl tertiary butyl ether	8260B	69		ug/L	42
031	UST#00505 MW-22	Aqueous	Naphthalene	8260B	69		ug/L	42
031	UST#00505 MW-22	Aqueous	tert-butyl alcohol (TBA)	8260B	66		ug/L	42
031	UST#00505 MW-22	Aqueous	Toluene	8260B	2.4	J	ug/L	42
031	UST#00505 MW-22	Aqueous	Xylenes (total)	8260B	24		ug/L	42
032	UST#00505 MW-23	Aqueous	tert-Amyl alcohol (TAA)	8260B	220		ug/L	43
032	UST#00505 MW-23	Aqueous	Benzene	8260B	290		ug/L	43
032	UST#00505 MW-23	Aqueous	Diisopropyl ether (IPE)	8260B	36		ug/L	43
032	UST#00505 MW-23	Aqueous	Ethylbenzene	8260B	75		ug/L	43
032	UST#00505 MW-23	Aqueous	Methyl tertiary butyl ether	8260B	59		ug/L	43
032	UST#00505 MW-23	Aqueous	Naphthalene	8260B	160		ug/L	43
032	UST#00505 MW-23	Aqueous	tert-butyl alcohol (TBA)	8260B	88	J	ug/L	43
032	UST#00505 MW-23	Aqueous	Toluene	8260B	52		ug/L	43
032	UST#00505 MW-23	Aqueous	Xylenes (total)	8260B	210		ug/L	43
033	UST#00505 MW-24	Aqueous	Naphthalene	8260B	0.43	J	ug/L	44
034	UST#00505 MW-25	Aqueous	Methyl tertiary butyl ether	8260B	1.5	J	ug/L	45
035	UST#00505 MW-26	Aqueous	tert-Amyl alcohol (TAA)	8260B	86		ug/L	46
035	UST#00505 MW-26	Aqueous	tert-Amyl methyl ether	8260B	0.58	J	ug/L	46
035	UST#00505 MW-26	Aqueous	Benzene	8260B	18		ug/L	46
035	UST#00505 MW-26	Aqueous	1,2-Dichloroethane	8260B	3.0	J	ug/L	46
035	UST#00505 MW-26	Aqueous	Diisopropyl ether (IPE)	8260B	14		ug/L	46
035	UST#00505 MW-26	Aqueous	Ethylbenzene	8260B	2.2	J	ug/L	46
035	UST#00505 MW-26	Aqueous	Methyl tertiary butyl ether	8260B	21		ug/L	46
035	UST#00505 MW-26	Aqueous	Naphthalene	8260B	2.1	J	ug/L	46
035	UST#00505 MW-26	Aqueous	tert-butyl alcohol (TBA)	8260B	73		ug/L	46
035	UST#00505 MW-26	Aqueous	Toluene	8260B	14		ug/L	46
035	UST#00505 MW-26	Aqueous	Xylenes (total)	8260B	110		ug/L	46
037	UST#00505 MW-27D	Aqueous	Methyl tertiary butyl ether	8260B	9.0		ug/L	48
038	UST#00505 MW-27DD	Aqueous	tert-Amyl alcohol (TAA)	8260B	12	J	ug/L	49
038	UST#00505 MW-27DD	Aqueous	1,2-Dichloroethane	8260B	0.98	J	ug/L	49
038	UST#00505 MW-27DD	Aqueous	Diisopropyl ether (IPE)	8260B	5.5		ug/L	49
038	UST#00505 MW-27DD	Aqueous	Methyl tertiary butyl ether	8260B	14		ug/L	49
038	UST#00505 MW-27DD	Aqueous	tert-butyl alcohol (TBA)	8260B	4.5	J	ug/L	49
039	UST#00505 MW-28	Aqueous	tert-Amyl alcohol (TAA)	8260B	1300		ug/L	50
039	UST#00505 MW-28	Aqueous	tert-Amyl methyl ether	8260B	11	J	ug/L	50
039	UST#00505 MW-28	Aqueous	Benzene	8260B	360		ug/L	50
039	UST#00505 MW-28	Aqueous	1,2-Dichloroethane	8260B	64		ug/L	50
039	UST#00505 MW-28	Aqueous	Diisopropyl ether (IPE)	8260B	230		ug/L	50
039	UST#00505 MW-28	Aqueous	Ethylbenzene	8260B	2.0	J	ug/L	50
039	UST#00505 MW-28	Aqueous	Methyl tertiary butyl ether	8260B	260		ug/L	50
039	UST#00505 MW-28	Aqueous	Naphthalene	8260B	72		ug/L	50
039	UST#00505 MW-28	Aqueous	tert-butyl alcohol (TBA)	8260B	260		ug/L	50
039	UST#00505 MW-28	Aqueous	Xylenes (total)	8260B	14	J	ug/L	50
042	UST#00505 MW-31	Aqueous	Methyl tertiary butyl ether	8260B	1.2	J	ug/L	53
043	UST#00505 MW-31R	Aqueous	Methyl tertiary butyl ether	8260B	1.9	J	ug/L	54
044	UST#00505 MW-32	Aqueous	Methyl tertiary butyl ether	8260B	1.0	J	ug/L	55
045	UST#00505 MW-32R	Aqueous	Methyl tertiary butyl ether	8260B	1.1	J	ug/L	56

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
046	UST#00505 MW-33	Aqueous	Methyl tertiary butyl ether	8260B	12		ug/L	57
047	UST#00505 MW-33D	Aqueous	Methyl tertiary butyl ether	8260B	60		ug/L	58
048	UST#00505 MW-33DD	Aqueous	Methyl tertiary butyl ether	8260B	45		ug/L	59
049	UST#00505 MW-34	Aqueous	Methyl tertiary butyl ether	8260B	2.6	J	ug/L	60
051	UST#00505 MW-36	Aqueous	Toluene	8260B	0.33	J	ug/L	62
055	UST#00505 MW-39	Aqueous	tert-Amyl alcohol (TAA)	8260B	7.1	J	ug/L	66
055	UST#00505 MW-39	Aqueous	Benzene	8260B	0.35	J	ug/L	66
055	UST#00505 MW-39	Aqueous	Diisopropyl ether (IPE)	8260B	4.0	J	ug/L	66
055	UST#00505 MW-39	Aqueous	Methyl tertiary butyl ether	8260B	6.4		ug/L	66
055	UST#00505 MW-39	Aqueous	tert-butyl alcohol (TBA)	8260B	6.8	J	ug/L	66
056	UST#00505 MW-40	Aqueous	tert-Amyl alcohol (TAA)	8260B	2.7	J	ug/L	67
056	UST#00505 MW-40	Aqueous	Benzene	8260B	0.72	J	ug/L	67
056	UST#00505 MW-40	Aqueous	Methyl tertiary butyl ether	8260B	0.30	J	ug/L	67
056	UST#00505 MW-40	Aqueous	Naphthalene	8260B	0.20	J	ug/L	67
056	UST#00505 MW-40	Aqueous	tert-butyl alcohol (TBA)	8260B	24		ug/L	67
056	UST#00505 MW-40	Aqueous	Xylenes (total)	8260B	0.57	J	ug/L	67
057	UST#00505 MW-40 DUP	Aqueous	tert-Amyl alcohol (TAA)	8260B	3.9	J	ug/L	68
057	UST#00505 MW-40 DUP	Aqueous	Benzene	8260B	0.76	J	ug/L	68
057	UST#00505 MW-40 DUP	Aqueous	Methyl tertiary butyl ether	8260B	0.30	J	ug/L	68
057	UST#00505 MW-40 DUP	Aqueous	Naphthalene	8260B	0.25	J	ug/L	68
057	UST#00505 MW-40 DUP	Aqueous	tert-butyl alcohol (TBA)	8260B	30		ug/L	68
057	UST#00505 MW-40 DUP	Aqueous	Xylenes (total)	8260B	0.60	J	ug/L	68
058	UST#00505 MW-41	Aqueous	tert-Amyl alcohol (TAA)	8260B	570		ug/L	69
058	UST#00505 MW-41	Aqueous	tert-Amyl methyl ether	8260B	2.6	J	ug/L	69
058	UST#00505 MW-41	Aqueous	Benzene	8260B	42		ug/L	69
058	UST#00505 MW-41	Aqueous	1,2-Dichloroethane	8260B	5.6		ug/L	69
058	UST#00505 MW-41	Aqueous	Diisopropyl ether (IPE)	8260B	54		ug/L	69
058	UST#00505 MW-41	Aqueous	Ethylbenzene	8260B	2.1	J	ug/L	69
058	UST#00505 MW-41	Aqueous	Methyl tertiary butyl ether	8260B	120		ug/L	69
058	UST#00505 MW-41	Aqueous	Naphthalene	8260B	0.42	J	ug/L	69
058	UST#00505 MW-41	Aqueous	tert-butyl alcohol (TBA)	8260B	310		ug/L	69
058	UST#00505 MW-41	Aqueous	Toluene	8260B	2.2	J	ug/L	69
058	UST#00505 MW-41	Aqueous	Xylenes (total)	8260B	11		ug/L	69
059	UST#00505 MW-41 DUP	Aqueous	tert-Amyl alcohol (TAA)	8260B	230		ug/L	70
059	UST#00505 MW-41 DUP	Aqueous	tert-Amyl methyl ether	8260B	3.0	J	ug/L	70
059	UST#00505 MW-41 DUP	Aqueous	Benzene	8260B	56		ug/L	70
059	UST#00505 MW-41 DUP	Aqueous	1,2-Dichloroethane	8260B	6.5		ug/L	70
059	UST#00505 MW-41 DUP	Aqueous	Diisopropyl ether (IPE)	8260B	58		ug/L	70
059	UST#00505 MW-41 DUP	Aqueous	Ethylbenzene	8260B	2.5	J	ug/L	70
059	UST#00505 MW-41 DUP	Aqueous	Methyl tertiary butyl ether	8260B	130		ug/L	70
059	UST#00505 MW-41 DUP	Aqueous	Naphthalene	8260B	0.30	J	ug/L	70
059	UST#00505 MW-41 DUP	Aqueous	tert-butyl alcohol (TBA)	8260B	130		ug/L	70
059	UST#00505 MW-41 DUP	Aqueous	Toluene	8260B	2.6	J	ug/L	70
059	UST#00505 MW-41 DUP	Aqueous	Xylenes (total)	8260B	14		ug/L	70
060	UST#00505 MW-42	Aqueous	Diisopropyl ether (IPE)	8260B	9.2		ug/L	71
060	UST#00505 MW-42	Aqueous	Methyl tertiary butyl ether	8260B	25		ug/L	71
061	UST#00505 MW-43	Aqueous	1,2-Dichloroethane	8260B	1.3	J	ug/L	72
061	UST#00505 MW-43	Aqueous	Methyl tertiary butyl ether	8260B	8.7		ug/L	72

Executive Summary (Continued)

Lot Number: QK09036

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
062	UST#00505 MW-44	Aqueous	1,2-Dichloroethane	8260B	6.0		ug/L	73
062	UST#00505 MW-44	Aqueous	Diisopropyl ether (IPE)	8260B	2.7	J	ug/L	73
062	UST#00505 MW-44	Aqueous	Methyl tertiary butyl ether	8260B	65		ug/L	73

(288 detections)

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **UST#00505 MW-1R**
Date Sampled: **11/04/2015 0855**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-001**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	11/12/2015 0610	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		2000	150	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	25	ug/L	1
Benzene	**71-43-2**	**8260B**	**540**		**500**	**21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	150	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	1900	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**680**		**500**	**21**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**36**	**J**	**500**	**23**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**380**	**J**	**500**	**14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		2000	230	ug/L	1
Toluene	**108-88-3**	**8260B**	**3100**		**500**	**24**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**6200**		**500**	**32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	5	11/11/2015 1228	MEM	11/10/2015 0909	89188

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**3.1**		**0.099**	**0.025**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		126	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-002**

Description: **UST#00505 MW-1R DUP** Matrix: **Aqueous**

Date Sampled: **11/04/2015 0856**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	11/12/2015 0634	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		2000	150	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	25	ug/L	1
Benzene	**71-43-2**	**8260B**	**510**		**500**	**21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	150	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	1900	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**680**		**500**	**21**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**36**	**J**	**500**	**23**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**390**	**J**	**500**	**14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		2000	230	ug/L	1
Toluene	**108-88-3**	**8260B**	**3100**		**500**	**24**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**6200**		**500**	**32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	5	11/11/2015 1251	MEM	11/10/2015 0909	89188

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**2.9**		**0.099**	**0.025**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		114	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-003**

Description: **UST#00505 MW-1D** Matrix: **Aqueous**

Date Sampled: **11/04/2015 0838**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	11/12/2015 0406	ECP		89401
2	5030B	8260B	200	11/13/2015 0601	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**3300**		**1000**	**73**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**40**	**J**	**500**	**13**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**11000**		**1000**	**42**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	33	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	12	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**640**		**250**	**13**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	75	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	960	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**1800**		**250**	**11**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	6.5	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1800**		**250**	**12**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**420**		**250**	**7.0**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**600**	**J**	**1000**	**110**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**310**		**250**	**12**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**4800**		**250**	**16**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130		99	70-130
Bromofluorobenzene		94	70-130		98	70-130
Toluene-d8		100	70-130		103	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/10/2015 2120	MEM	11/10/2015 0909	89188

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-004**

Description: **UST#00505 MW-1DD** Matrix: **Aqueous**

Date Sampled: **11/04/2015 0828**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/11/2015 2311	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**11**	**J**	**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	**71-43-2**	**8260B**	**24**		**5.0**	**0.21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**2.7**	**J**	**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3.6**	**J**	**5.0**	**0.21**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**6.9**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**0.92**	**J**	**5.0**	**0.14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	**108-88-3**	**8260B**	**14**		**5.0**	**0.24**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**6.4**		**5.0**	**0.32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/10/2015 2130	MEM	11/10/2015 0909	89188

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		110	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-005**

Description: **UST#00505 MW-1DDD** Matrix: **Aqueous**

Date Sampled: **11/04/2015 0815**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	11/12/2015 0431	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**4200**		**1000**	**73**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**34**	**J**	**500**	**13**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**4800**		**250**	**11**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	33	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	12	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**690**		**250**	**13**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	75	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	960	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**310**		**250**	**11**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	6.5	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2700**		**250**	**12**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**65**	**J**	**250**	**7.0**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**890**	**J**	**1000**	**110**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**2700**		**250**	**12**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**1500**		**250**	**16**	**ug/L**	**1**

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

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1007	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		113	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-006**

Description: **UST#00505 MW-2** Matrix: **Aqueous**

Date Sampled: **11/04/2015 0925**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	11/12/2015 0456	ECP		89401
2	5030B	8260B	5	11/13/2015 0537	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**34**	**J**	**100**	**7.3**	**ug/L**	**2**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.3	ug/L	2
Benzene	**71-43-2**	**8260B**	**50**		**25**	**1.1**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	3.3	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.2	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	1.3	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	7.5	ug/L	2
Ethanol	64-17-5	8260B	ND		500	96	ug/L	2
Ethylbenzene	**100-41-4**	**8260B**	**480**		**25**	**1.1**	**ug/L**	**2**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	0.65	ug/L	2
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**3.4**	**J**	**25**	**1.2**	**ug/L**	**2**
Naphthalene	**91-20-3**	**8260B**	**180**		**25**	**0.70**	**ug/L**	**2**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	11	ug/L	2
Toluene	**108-88-3**	**8260B**	**460**		**25**	**1.2**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**2700**		**250**	**16**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130		98	70-130
Bromofluorobenzene		94	70-130		99	70-130
Toluene-d8		100	70-130		102	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1017	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.012**	**J**	**0.020**	**0.0049**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **UST#00505 MW-3**
Date Sampled: **11/04/2015 0950**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-007**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/11/2015 2336	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1027	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-008**

Description: **UST#00505 MW-4** Matrix: **Aqueous**

Date Sampled: **11/04/2015 1144**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 0001	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.4**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		97	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1038	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0050	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-009**

Description: **UST#00505 MW-5R** Matrix: **Aqueous**

Date Sampled: **11/04/2015 1228**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 0025	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		97	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1048	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-010**

Description: **UST#00505 MW-6** Matrix: **Aqueous**

Date Sampled: **11/04/2015 1525**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 0050	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1058	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-011**

Description: **UST#00505 MW-6D** Matrix: **Aqueous**

Date Sampled: **11/04/2015 1549**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 0114	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1108	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		97	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-012**

Description: **UST#00505 MW-7** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1304**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 0138	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1139	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		109	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-013**

Description: **UST#00505 MW-7D** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1316**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 0204	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1149	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-014**

Description: **UST#00505 MW-8** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1246**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 0228	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1200	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		106	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-015**

Description: **UST#00505 MW-9** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1149**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	11/12/2015 0520	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**19000**		**1000**	**73**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**77**	**J**	**500**	**13**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**7900**		**250**	**11**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	33	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**670**		**250**	**12**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**1700**		**250**	**13**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	75	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	960	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**80**	**J**	**250**	**11**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	6.5	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2700**		**250**	**12**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**140**	**J**	**250**	**7.0**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**3000**		**1000**	**110**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**33**	**J**	**250**	**12**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**54**	**J**	**250**	**16**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1424	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		116	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-016**

Description: **UST#00505 MW-10D** Matrix: **Aqueous**

Date Sampled: **11/06/2015 1213**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	11/12/2015 0341	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	7.3	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.3	ug/L	1
Benzene	71-43-2	8260B	ND		25	1.1	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	3.3	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.2	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**20**	**J**	**25**	**1.3**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	7.5	ug/L	1
Ethanol	64-17-5	8260B	ND		500	96	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	1.1	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	0.65	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**750**		**25**	**1.2**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		25	0.70	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	11	ug/L	1
Toluene	108-88-3	8260B	ND		25	1.2	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	1.6	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1221	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		107	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-017**

Description: **UST#00505 MW-11** Matrix: **Aqueous**

Date Sampled: **11/04/2015 1512**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	11/12/2015 0545	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		1000	73	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		500	13	ug/L	1
Benzene	**71-43-2**	**8260B**	**590**		**250**	**11**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	33	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	12	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**65**	**J**	**250**	**13**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	75	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	960	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2600**		**250**	**11**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	6.5	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**77**	**J**	**250**	**12**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**1200**		**250**	**7.0**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**420**	**J**	**1000**	**110**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**3000**		**250**	**12**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**15000**		**250**	**16**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1231	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0050	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		111	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-018**

Description: **UST#00505 MW-11D** Matrix: **Aqueous**

Date Sampled: **11/04/2015 1458**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 0253	ECP		89401

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**310**		**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**3.2**	**J**	**10**	**0.25**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**6.4**		**5.0**	**0.21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**8.1**		**5.0**	**0.23**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**55**		**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	**624-95-3**	**8260B**	**12**	**J**	**20**	**1.5**	**ug/L**	**1**
Ethanol	**64-17-5**	**8260B**	**53**	**J**	**100**	**19**	**ug/L**	**1**
Ethylbenzene	**100-41-4**	**8260B**	**0.93**	**J**	**5.0**	**0.21**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**2.8**		**1.0**	**0.13**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**180**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**66**		**20**	**2.3**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**0.48**	**J**	**5.0**	**0.24**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**0.73**	**J**	**5.0**	**0.32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1241	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		82	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-019**

Description: **UST#00505 MW-11DD** Matrix: **Aqueous**

Date Sampled: **11/04/2015 1437**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	11/12/2015 1616	JM1		89440
2	5030B	8260B	200	11/13/2015 1725	ALL		89546

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**6500**		**1000**	**73**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**81**	**J**	**500**	**13**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**10000**		**1000**	**42**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	33	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**500**		**250**	**12**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**1100**		**250**	**13**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	75	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	960	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**400**		**250**	**11**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	6.5	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**4000**		**250**	**12**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**210**	**J**	**250**	**7.0**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1400**		**1000**	**110**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**6300**		**250**	**12**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**3600**		**250**	**16**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130		98	70-130
Bromofluorobenzene		95	70-130		97	70-130
Toluene-d8		98	70-130		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1251	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-020**

Description: **UST#00505 MW-11DDD** Matrix: **Aqueous**

Date Sampled: **11/04/2015 1341**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	11/12/2015 1640	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**4900**		**1000**	**73**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**43**	**J**	**500**	**13**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**4200**		**250**	**11**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	33	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**150**	**J**	**250**	**12**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**810**		**250**	**13**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	75	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	960	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**200**	**J**	**250**	**11**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	6.5	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**3100**		**250**	**12**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**29**	**J**	**250**	**7.0**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1100**		**1000**	**110**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**1400**		**250**	**12**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**880**		**250**	**16**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1301	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		129	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-021**

Description: **UST#00505 MW-13** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1241**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	11/12/2015 1705	JM1		89440
2	5030B	8260B	200	11/13/2015 1750	ALL		89546

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2600**		**1000**	**73**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**21**	**J**	**500**	**13**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**6100**		**250**	**11**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	33	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**220**	**J**	**250**	**12**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**440**		**250**	**13**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	75	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	960	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3200**		**250**	**11**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	6.5	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**620**		**250**	**12**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**960**		**250**	**7.0**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**820**	**J**	**1000**	**110**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**790**		**250**	**12**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**18000**		**1000**	**64**	**ug/L**	**2**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130		98	70-130
Bromofluorobenzene		95	70-130		99	70-130
Toluene-d8		99	70-130		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1312	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.089**		**0.019**	**0.0049**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		111	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-022**

Description: **UST#00505 MW-13R** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1309**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	11/12/2015 1729	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2400**		**1000**	**73**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**21**	**J**	**500**	**13**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**5300**		**250**	**11**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		250	33	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	12	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**400**		**250**	**13**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	75	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	960	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2500**		**250**	**11**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		50	6.5	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**560**		**250**	**12**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**1200**		**250**	**7.0**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**940**	**J**	**1000**	**110**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**790**		**250**	**12**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**14000**		**250**	**16**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1322	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.25**		**0.019**	**0.0049**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		114	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-023**

Description: **UST#00505 MW-14D** Matrix: **Aqueous**

Date Sampled: **11/06/2015 1233**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1056	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**180**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1332	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **UST#00505 MW-15**
Date Sampled: **11/05/2015 0903**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-024**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1120	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**74**		**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**0.67**	**J**	**10**	**0.25**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**30**		**5.0**	**0.21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**3.5**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**12**		**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**6.5**		**5.0**	**0.21**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**18**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**18**		**5.0**	**0.14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**21**		**20**	**2.3**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**11**		**5.0**	**0.24**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**11**		**5.0**	**0.32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1343	MEM	11/10/2015 1356	89204

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		90	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-025**

Description: **UST#00505 MW-15 DUP** Matrix: **Aqueous**

Date Sampled: **11/05/2015 0904**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1145	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**77**		**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**0.72**	**J**	**10**	**0.25**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**32**		**5.0**	**0.21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**3.6**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**12**		**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**7.0**		**5.0**	**0.21**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**18**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**20**		**5.0**	**0.14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**21**		**20**	**2.3**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**12**		**5.0**	**0.24**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**12**		**5.0**	**0.32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		97	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1448	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-026**

Description: **UST#00505 MW-17** Matrix: **Aqueous**

Date Sampled: **11/04/2015 1016**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1210	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**480**		**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	**71-43-2**	**8260B**	**140**		**5.0**	**0.21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**8.8**		**5.0**	**0.23**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**34**		**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**12**		**5.0**	**0.21**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2.7**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**4.8**	**J**	**5.0**	**0.14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**130**		**20**	**2.3**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**1.2**	**J**	**5.0**	**0.24**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**73**		**5.0**	**0.32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1459	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.34**		**0.020**	**0.0050**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-027**

Description: **UST#00505 MW-18** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1433**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1235	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		95	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1509	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0050	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		85	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-028**

Description: **UST#00505 MW-19** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1401**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	11/12/2015 1754	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**5500**		**400**	**29**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**27**	**J**	**200**	**5.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**200**		**100**	**4.2**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	4.6	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**640**		**100**	**5.2**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	30	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	390	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	4.2	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	2.6	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1300**		**100**	**4.6**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**100**		**100**	**2.8**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1100**		**400**	**46**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**5.0**	**J**	**100**	**4.8**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**23**	**J**	**100**	**6.4**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1519	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **UST#00505 MW-20**
Date Sampled: **11/06/2015 1012**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-029**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1259	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.4**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1530	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-030**

Description: **UST#00505 MW-21** Matrix: **Aqueous**

Date Sampled: **11/06/2015 1037**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	11/12/2015 1818	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**220**		**100**	**7.3**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.3	ug/L	1
Benzene	**71-43-2**	**8260B**	**330**		**25**	**1.1**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	3.3	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**15**	**J**	**25**	**1.2**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**35**		**25**	**1.3**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	7.5	ug/L	1
Ethanol	64-17-5	8260B	ND		500	96	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**180**		**25**	**1.1**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	0.65	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**55**		**25**	**1.2**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**140**		**25**	**0.70**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**69**	**J**	**100**	**11**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**26**		**25**	**1.2**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**520**		**25**	**1.6**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1601	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		116	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-031**

Description: **UST#00505 MW-22** Matrix: **Aqueous**

Date Sampled: **11/06/2015 1057**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1324	JM1		89440
2	5030B	8260B	5	11/13/2015 1636	ALL		89546

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**230**		**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**2.1**	**J**	**10**	**0.25**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**180**		**25**	**1.1**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**13**		**5.0**	**0.23**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**41**		**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**25**		**5.0**	**0.21**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**69**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**69**		**5.0**	**0.14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**66**		**20**	**2.3**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**2.4**	**J**	**5.0**	**0.24**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**24**		**5.0**	**0.32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130		99	70-130
Bromofluorobenzene		93	70-130		99	70-130
Toluene-d8		100	70-130		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1611	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-032**

Description: **UST#00505 MW-23** Matrix: **Aqueous**

Date Sampled: **11/06/2015 1046**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	11/12/2015 1843	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**220**		**100**	**7.3**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.3	ug/L	1
Benzene	**71-43-2**	**8260B**	**290**		**25**	**1.1**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	3.3	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.2	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**36**		**25**	**1.3**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	7.5	ug/L	1
Ethanol	64-17-5	8260B	ND		500	96	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**75**		**25**	**1.1**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	0.65	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**59**		**25**	**1.2**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**160**		**25**	**0.70**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**88**	**J**	**100**	**11**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**52**		**25**	**1.2**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**210**		**25**	**1.6**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1621	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		111	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-033**

Description: **UST#00505 MW-24** Matrix: **Aqueous**

Date Sampled: **11/06/2015 1114**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1349	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**0.43**	**J**	**5.0**	**0.14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1631	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-034**

Description: **UST#00505 MW-25** Matrix: **Aqueous**

Date Sampled: **11/06/2015 1128**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1414	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.5**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1642	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-035**

Description: **UST#00505 MW-26** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1346**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1438	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**86**		**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**0.58**	**J**	**10**	**0.25**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**18**		**5.0**	**0.21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**3.0**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**14**		**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2.2**	**J**	**5.0**	**0.21**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**21**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**2.1**	**J**	**5.0**	**0.14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**73**		**20**	**2.3**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**14**		**5.0**	**0.24**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**110**		**5.0**	**0.32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1652	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-036**

Description: **UST#00505 MW-27R** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1406**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1503	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1702	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-037**

Description: **UST#00505 MW-27D** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1416**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1528	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**9.0**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1712	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-038**

Description: **UST#00505 MW-27DD** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1420**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1552	JM1		89440

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**12**	**J**	**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**0.98**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**5.5**		**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**14**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**4.5**	**J**	**20**	**2.3**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		97	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1723	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-039**

Description: **UST#00505 MW-28** Matrix: **Aqueous**

Date Sampled: **11/06/2015 1029**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	11/13/2015 1701	ALL		89546

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1300**		**100**	**7.3**	**ug/L**	**2**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**11**	**J**	**50**	**1.3**	**ug/L**	**2**
Benzene	**71-43-2**	**8260B**	**360**		**25**	**1.1**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	3.3	ug/L	2
1,2-Dichloroethane	**107-06-2**	**8260B**	**64**		**25**	**1.2**	**ug/L**	**2**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**230**		**25**	**1.3**	**ug/L**	**2**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	7.5	ug/L	2
Ethanol	64-17-5	8260B	ND		500	96	ug/L	2
Ethylbenzene	**100-41-4**	**8260B**	**2.0**	**J**	**25**	**1.1**	**ug/L**	**2**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	0.65	ug/L	2
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**260**		**25**	**1.2**	**ug/L**	**2**
Naphthalene	**91-20-3**	**8260B**	**72**		**25**	**0.70**	**ug/L**	**2**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**260**		**100**	**11**	**ug/L**	**2**
Toluene	108-88-3	8260B	ND		25	1.2	ug/L	2
Xylenes (total)	**1330-20-7**	**8260B**	**14**	**J**	**25**	**1.6**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1733	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-040**

Description: **UST#00505 MW-30** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1022**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1106	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		93	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1743	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		112	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-041**

Description: **UST#00505 MW-30R** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1028**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1128	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		86	70-130
Toluene-d8		90	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1753	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		128	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **UST#00505 MW-31**
Date Sampled: **11/05/2015 1042**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-042**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1150	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.2**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		111	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1804	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		96	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-043**

Description: **UST#00505 MW-31R** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1052**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1212	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.9**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1814	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		96	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **UST#00505 MW-32**
Date Sampled: **11/05/2015 1004**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-044**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1234	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.0**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1824	MEM	11/10/2015 1404	89206

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-045**

Description: **UST#00505 MW-32R** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1012**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1257	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.1**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1905	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **UST#00505 MW-33**
Date Sampled: **11/05/2015 1104**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-046**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1319	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**12**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1936	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-047**

Description: **UST#00505 MW-33D** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1110**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1346	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**60**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1947	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		97	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-048**

Description: **UST#00505 MW-33DD** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1120**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1408	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**45**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 1957	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **UST#00505 MW-34**
Date Sampled: **11/05/2015 1116**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-049**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1430	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2.6**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2007	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-050**

Description: **UST#00505 MW-35** Matrix: **Aqueous**

Date Sampled: **11/05/2015 0948**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1457	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2018	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0050	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-051**

Description: **UST#00505 MW-36** Matrix: **Aqueous**

Date Sampled: **11/05/2015 0908**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1531	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	**108-88-3**	**8260B**	**0.33**	**J**	**5.0**	**0.24**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2028	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-052**

Description: **UST#00505 MW-37** Matrix: **Aqueous**

Date Sampled: **11/05/2015 0816**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1606	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		85	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2038	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		96	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-053**

Description: **UST#00505 MW-37D** Matrix: **Aqueous**

Date Sampled: **11/06/2015 1158**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1629	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		92	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2048	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **UST#00505 MW-38**
Date Sampled: **11/06/2015 0945**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-054**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/13/2015 1116	ALL		89546

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2058	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-055**

Description: **UST#00505 MW-39** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1011**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/13/2015 0043	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**7.1**	**J**	**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.35**	**J**	**5.0**	**0.21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**4.0**	**J**	**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**6.4**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**6.8**	**J**	**20**	**2.3**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		96	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2108	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		96	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-056**

Description: **UST#00505 MW-40** Matrix: **Aqueous**

Date Sampled: **11/05/2015 0943**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1651	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2.7**	**J**	**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.72**	**J**	**5.0**	**0.21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.30**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**0.20**	**J**	**5.0**	**0.14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**24**		**20**	**2.3**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**0.57**	**J**	**5.0**	**0.32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2119	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-057**

Description: **UST#00505 MW-40 DUP** Matrix: **Aqueous**

Date Sampled: **11/05/2015 0944**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1713	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**3.9**	**J**	**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.76**	**J**	**5.0**	**0.21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.30**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**0.25**	**J**	**5.0**	**0.14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**30**		**20**	**2.3**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**0.60**	**J**	**5.0**	**0.32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		90	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2129	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-058**

Description: **UST#00505 MW-41** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1111**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1735	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**570**		**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**2.6**	**J**	**10**	**0.25**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**42**		**5.0**	**0.21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**5.6**		**5.0**	**0.23**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**54**		**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2.1**	**J**	**5.0**	**0.21**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**120**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**0.42**	**J**	**5.0**	**0.14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**310**		**20**	**2.3**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**2.2**	**J**	**5.0**	**0.24**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**11**		**5.0**	**0.32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2139	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		107	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-059**

Description: **UST#00505 MW-41 DUP** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1112**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 1802	JM1		89441

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**230**		**20**	**1.5**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**3.0**	**J**	**10**	**0.25**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**56**		**5.0**	**0.21**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**6.5**		**5.0**	**0.23**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**58**		**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2.5**	**J**	**5.0**	**0.21**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**130**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**0.30**	**J**	**5.0**	**0.14**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**130**		**20**	**2.3**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**2.6**	**J**	**5.0**	**0.24**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**14**		**5.0**	**0.32**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		85	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2149	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Laboratory ID: **QK09036-060**
Description: **UST#00505 MW-42**
Matrix: **Aqueous**
Date Sampled: **11/05/2015 0932**
Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/13/2015 0107	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**9.2**		**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**25**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		97	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2200	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0047	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		96	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **UST#00505 MW-43**
Date Sampled: **11/05/2015 1144**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-061**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/13/2015 0132	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**1.3**	**J**	**5.0**	**0.23**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**8.7**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		103	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2210	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-062**

Description: **UST#00505 MW-44** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1136**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/13/2015 0156	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**6.0**		**5.0**	**0.23**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**2.7**	**J**	**5.0**	**0.26**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**65**		**5.0**	**0.23**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2220	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **UST#00505 MW-45**
Date Sampled: **11/04/2015 1205**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-063**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/13/2015 0221	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2230	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-064**

Description: **UST#00505 FB-1** Matrix: **Aqueous**

Date Sampled: **11/04/2015 1710**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 2239	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2240	MEM	11/10/2015 1420	89226

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		96	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-065**

Description: **UST#00505 FB-2** Matrix: **Aqueous**

Date Sampled: **11/05/2015 1700**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 2304	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		97	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2321	MEM	11/10/2015 1429	89228

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-066**

Description: **UST#00505 FB-3** Matrix: **Aqueous**

Date Sampled: **11/06/2015 1500**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 2329	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2332	MEM	11/10/2015 1429	89228

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.0048	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.** Laboratory ID: **QK09036-067**

Description: **UST#00505 DW-1** Matrix: **Aqueous**

Date Sampled: **11/04/2015 1700**

Date Received: **11/09/2015**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/13/2015 0245	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	11/11/2015 2342	MEM	11/10/2015 1429	89228

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0049	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **TRIP BLANK(SH2254)**
Date Sampled: **11/04/2015**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-068**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/12/2015 2353	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **TRIP BLANK(SH2208)**
Date Sampled: **11/04/2015**
Date Received: **11/09/2015**

Laboratory ID: **QK09036-069**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/13/2015 0018	JJG		89508

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	1.5	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.25	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.21	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	0.66	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.23	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.26	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.5	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.21	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.13	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.23	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.14	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	2.3	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: QQ89401-001
Batch: 89401
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	1.5	ug/L	11/11/2015 2151
tert-Amyl methyl ether (TAME)	ND		1	10	0.25	ug/L	11/11/2015 2151
Benzene	ND		1	5.0	0.21	ug/L	11/11/2015 2151
tert-Butyl formate (TBF)	ND		1	5.0	0.66	ug/L	11/11/2015 2151
1,2-Dichloroethane	ND		1	5.0	0.23	ug/L	11/11/2015 2151
Diisopropyl ether (IPE)	ND		1	5.0	0.26	ug/L	11/11/2015 2151
3,3-Dimethyl-1-butanol	ND		1	20	1.5	ug/L	11/11/2015 2151
Ethanol	ND		1	100	19	ug/L	11/11/2015 2151
Ethylbenzene	ND		1	5.0	0.21	ug/L	11/11/2015 2151
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.13	ug/L	11/11/2015 2151
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.23	ug/L	11/11/2015 2151
Naphthalene	ND		1	5.0	0.14	ug/L	11/11/2015 2151
tert-butyl alcohol (TBA)	ND		1	20	2.3	ug/L	11/11/2015 2151
Toluene	ND		1	5.0	0.24	ug/L	11/11/2015 2151
Xylenes (total)	ND		1	5.0	0.32	ug/L	11/11/2015 2151

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: QQ89401-002
Batch: 89401
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	108	70-130	11/11/2015 2102
tert-Amyl methyl ether (TAME)	50	54		1	108	70-130	11/11/2015 2102
Benzene	50	53		1	107	70-130	11/11/2015 2102
tert-Butyl formate (TBF)	250	270		1	108	70-130	11/11/2015 2102
1,2-Dichloroethane	50	54		1	108	70-130	11/11/2015 2102
Diisopropyl ether (IPE)	50	49		1	97	70-130	11/11/2015 2102
3,3-Dimethyl-1-butanol	1000	930		1	93	70-130	11/11/2015 2102
Ethanol	5000	4900		1	99	60-140	11/11/2015 2102
Ethylbenzene	50	48		1	95	70-130	11/11/2015 2102
Ethyl-tert-butyl ether (ETBE)	50	56		1	113	70-130	11/11/2015 2102
Methyl tertiary butyl ether (MTBE)	50	53		1	107	70-130	11/11/2015 2102
Naphthalene	50	48		1	96	70-130	11/11/2015 2102
tert-butyl alcohol (TBA)	1000	1100		1	108	70-130	11/11/2015 2102
Toluene	50	47		1	94	70-130	11/11/2015 2102
Xylenes (total)	100	96		1	96	70-130	11/11/2015 2102

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: QK09036-017MS
Batch: 89401
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	ND	50000	55000		50	110	70-130	11/12/2015 0659
tert-Amyl methyl ether (TAME)	ND	2500	2800		50	112	70-130	11/12/2015 0659
Benzene	590	2500	3300		50	110	70-130	11/12/2015 0659
tert-Butyl formate (TBF)	ND	13000	12000		50	94	70-130	11/12/2015 0659
1,2-Dichloroethane	ND	2500	2800		50	113	70-130	11/12/2015 0659
Diisopropyl ether (IPE)	65	2500	2600		50	102	70-130	11/12/2015 0659
3,3-Dimethyl-1-butanol	ND	50000	45000		50	91	70-130	11/12/2015 0659
Ethanol	ND	250000	250000		50	99	70-130	11/12/2015 0659
Ethylbenzene	2600	2500	4900		50	89	70-130	11/12/2015 0659
Ethyl-tert-butyl ether (ETBE)	ND	2500	2900		50	117	70-130	11/12/2015 0659
Methyl tertiary butyl ether (MTBE)	77	2500	2900		50	114	70-130	11/12/2015 0659
Naphthalene	1200	2500	3200		50	81	70-130	11/12/2015 0659
tert-butyl alcohol (TBA)	420	50000	56000		50	112	70-130	11/12/2015 0659
Toluene	3000	2500	5300		50	91	70-130	11/12/2015 0659
Xylenes (total)	15000	5000	19000		50	75	70-130	11/12/2015 0659

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: QK09036-017MD
Batch: 89401
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	ND	50000	55000		50	110	0.52	70-130	20	11/12/2015 0724
tert-Amyl methyl ether (TAME)	ND	2500	2800		50	112	0.36	70-130	20	11/12/2015 0724
Benzene	590	2500	3300		50	110	0.15	70-130	20	11/12/2015 0724
tert-Butyl formate (TBF)	ND	13000	12000		50	95	1.1	70-130	20	11/12/2015 0724
1,2-Dichloroethane	ND	2500	2800		50	111	1.3	70-130	20	11/12/2015 0724
Diisopropyl ether (IPE)	65	2500	2600		50	102	0.24	70-130	20	11/12/2015 0724
3,3-Dimethyl-1-butanol	ND	50000	46000		50	91	0.47	70-130	20	11/12/2015 0724
Ethanol	ND	250000	250000		50	99	0.047	70-130	20	11/12/2015 0724
Ethylbenzene	2600	2500	4900		50	92	1.3	70-130	20	11/12/2015 0724
Ethyl-tert-butyl ether (ETBE)	ND	2500	3000		50	118	1.3	70-130	20	11/12/2015 0724
Methyl tertiary butyl ether (MTBE)	77	2500	3000		50	117	2.4	70-130	20	11/12/2015 0724
Naphthalene	1200	2500	3400		50	87	5.1	70-130	20	11/12/2015 0724
tert-butyl alcohol (TBA)	420	50000	57000		50	113	1.5	70-130	20	11/12/2015 0724
Toluene	3000	2500	5300		50	92	0.40	70-130	20	11/12/2015 0724
Xylenes (total)	15000	5000	19000		50	84	2.2	70-130	20	11/12/2015 0724

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: QQ89440-001
Batch: 89440
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	1.5	ug/L	11/12/2015 1021
tert-Amyl methyl ether (TAME)	ND		1	10	0.25	ug/L	11/12/2015 1021
Benzene	ND		1	5.0	0.21	ug/L	11/12/2015 1021
tert-Butyl formate (TBF)	ND		1	5.0	0.66	ug/L	11/12/2015 1021
1,2-Dichloroethane	ND		1	5.0	0.23	ug/L	11/12/2015 1021
Diisopropyl ether (IPE)	ND		1	5.0	0.26	ug/L	11/12/2015 1021
3,3-Dimethyl-1-butanol	ND		1	20	1.5	ug/L	11/12/2015 1021
Ethanol	ND		1	100	19	ug/L	11/12/2015 1021
Ethylbenzene	ND		1	5.0	0.21	ug/L	11/12/2015 1021
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.13	ug/L	11/12/2015 1021
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.23	ug/L	11/12/2015 1021
Naphthalene	ND		1	5.0	0.14	ug/L	11/12/2015 1021
tert-butyl alcohol (TBA)	ND		1	20	2.3	ug/L	11/12/2015 1021
Toluene	ND		1	5.0	0.24	ug/L	11/12/2015 1021
Xylenes (total)	ND		1	5.0	0.32	ug/L	11/12/2015 1021

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: QQ89440-002
Batch: 89440
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	111	70-130	11/12/2015 0920
tert-Amyl methyl ether (TAME)	50	56		1	111	70-130	11/12/2015 0920
Benzene	50	53		1	107	70-130	11/12/2015 0920
tert-Butyl formate (TBF)	250	280		1	113	70-130	11/12/2015 0920
1,2-Dichloroethane	50	55		1	110	70-130	11/12/2015 0920
Diisopropyl ether (IPE)	50	50		1	101	70-130	11/12/2015 0920
3,3-Dimethyl-1-butanol	1000	930		1	93	70-130	11/12/2015 0920
Ethanol	5000	5200		1	103	60-140	11/12/2015 0920
Ethylbenzene	50	48		1	96	70-130	11/12/2015 0920
Ethyl-tert-butyl ether (ETBE)	50	58		1	117	70-130	11/12/2015 0920
Methyl tertiary butyl ether (MTBE)	50	57		1	114	70-130	11/12/2015 0920
Naphthalene	50	46		1	91	70-130	11/12/2015 0920
tert-butyl alcohol (TBA)	1000	1100		1	112	70-130	11/12/2015 0920
Toluene	50	47		1	95	70-130	11/12/2015 0920
Xylenes (total)	100	97		1	97	70-130	11/12/2015 0920

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: QK09036-032MS
Batch: 89440
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	220	5000	4900		5	94	70-130	11/12/2015 1908
tert-Amyl methyl ether (TAME)	ND	250	230		5	94	70-130	11/12/2015 1908
Benzene	290	250	510		5	88	70-130	11/12/2015 1908
tert-Butyl formate (TBF)	ND	1300	130	N	5	10	70-130	11/12/2015 1908
1,2-Dichloroethane	ND	250	250		5	99	70-130	11/12/2015 1908
Diisopropyl ether (IPE)	36	250	260		5	88	70-130	11/12/2015 1908
3,3-Dimethyl-1-butanol	ND	5000	3800		5	75	70-130	11/12/2015 1908
Ethanol	ND	25000	22000		5	88	70-130	11/12/2015 1908
Ethylbenzene	75	250	280		5	83	70-130	11/12/2015 1908
Ethyl-tert-butyl ether (ETBE)	ND	250	250		5	100	70-130	11/12/2015 1908
Methyl tertiary butyl ether (MTBE)	59	250	300		5	96	70-130	11/12/2015 1908
Naphthalene	160	250	350		5	76	70-130	11/12/2015 1908
tert-butyl alcohol (TBA)	88	5000	5600		5	110	70-130	11/12/2015 1908
Toluene	52	250	250		5	81	70-130	11/12/2015 1908
Xylenes (total)	210	500	620		5	82	70-130	11/12/2015 1908

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: QK09036-032MD
Batch: 89440
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	220	5000	5600		5	108	13	70-130	20	11/12/2015 1932
tert-Amyl methyl ether (TAME)	ND	250	270		5	108	14	70-130	20	11/12/2015 1932
Benzene	290	250	530		5	97	3.9	70-130	20	11/12/2015 1932
tert-Butyl formate (TBF)	ND	1300	140	N	5	11	8.0	70-130	20	11/12/2015 1932
1,2-Dichloroethane	ND	250	280		5	111	11	70-130	20	11/12/2015 1932
Diisopropyl ether (IPE)	36	250	290		5	100	12	70-130	20	11/12/2015 1932
3,3-Dimethyl-1-butanol	ND	5000	4300		5	85	13	70-130	20	11/12/2015 1932
Ethanol	ND	25000	24000		5	96	9.0	70-130	20	11/12/2015 1932
Ethylbenzene	75	250	300		5	88	4.5	70-130	20	11/12/2015 1932
Ethyl-tert-butyl ether (ETBE)	ND	250	290		5	116	14	70-130	20	11/12/2015 1932
Methyl tertiary butyl ether (MTBE)	59	250	340		5	111	12	70-130	20	11/12/2015 1932
Naphthalene	160	250	350		5	79	2.1	70-130	20	11/12/2015 1932
tert-butyl alcohol (TBA)	88	5000	6300		5	124	13	70-130	20	11/12/2015 1932
Toluene	52	250	270		5	89	7.3	70-130	20	11/12/2015 1932
Xylenes (total)	210	500	660		5	89	5.5	70-130	20	11/12/2015 1932

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: QQ89441-001
Batch: 89441
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	1.5	ug/L	11/12/2015 1029
tert-Amyl methyl ether (TAME)	ND		1	10	0.25	ug/L	11/12/2015 1029
Benzene	ND		1	5.0	0.21	ug/L	11/12/2015 1029
tert-Butyl formate (TBF)	ND		1	5.0	0.66	ug/L	11/12/2015 1029
1,2-Dichloroethane	ND		1	5.0	0.23	ug/L	11/12/2015 1029
Diisopropyl ether (IPE)	ND		1	5.0	0.26	ug/L	11/12/2015 1029
3,3-Dimethyl-1-butanol	ND		1	20	1.5	ug/L	11/12/2015 1029
Ethanol	ND		1	100	19	ug/L	11/12/2015 1029
Ethylbenzene	ND		1	5.0	0.21	ug/L	11/12/2015 1029
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.13	ug/L	11/12/2015 1029
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.23	ug/L	11/12/2015 1029
Naphthalene	ND		1	5.0	0.14	ug/L	11/12/2015 1029
tert-butyl alcohol (TBA)	ND		1	20	2.3	ug/L	11/12/2015 1029
Toluene	ND		1	5.0	0.24	ug/L	11/12/2015 1029
Xylenes (total)	ND		1	5.0	0.32	ug/L	11/12/2015 1029

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		86	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		89	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: QQ89441-002
Batch: 89441
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	950		1	95	70-130	11/12/2015 0930
tert-Amyl methyl ether (TAME)	50	48		1	97	70-130	11/12/2015 0930
Benzene	50	47		1	95	70-130	11/12/2015 0930
tert-Butyl formate (TBF)	250	240		1	95	70-130	11/12/2015 0930
1,2-Dichloroethane	50	49		1	98	70-130	11/12/2015 0930
Diisopropyl ether (IPE)	50	46		1	91	70-130	11/12/2015 0930
3,3-Dimethyl-1-butanol	1000	990		1	99	70-130	11/12/2015 0930
Ethanol	5000	4400		1	87	60-140	11/12/2015 0930
Ethylbenzene	50	46		1	92	70-130	11/12/2015 0930
Ethyl-tert-butyl ether (ETBE)	50	49		1	98	70-130	11/12/2015 0930
Methyl tertiary butyl ether (MTBE)	50	44		1	87	70-130	11/12/2015 0930
Naphthalene	50	49		1	98	70-130	11/12/2015 0930
tert-butyl alcohol (TBA)	1000	920		1	92	70-130	11/12/2015 0930
Toluene	50	46		1	93	70-130	11/12/2015 0930
Xylenes (total)	100	95		1	95	70-130	11/12/2015 0930

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		89	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: QK09036-039MS
Batch: 89441
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1300	20000	20000		20	94	70-130	11/12/2015 1913
tert-Amyl methyl ether (TAME)	11	1000	1100		20	109	70-130	11/12/2015 1913
Benzene	360	1000	1400		20	98	70-130	11/12/2015 1913
tert-Butyl formate (TBF)	ND	5000	2900	N	20	59	70-130	11/12/2015 1913
1,2-Dichloroethane	64	1000	1100		20	103	70-130	11/12/2015 1913
Diisopropyl ether (IPE)	230	1000	1200		20	94	70-130	11/12/2015 1913
3,3-Dimethyl-1-butanol	ND	20000	20000		20	102	70-130	11/12/2015 1913
Ethanol	ND	100000	77000		20	77	70-130	11/12/2015 1913
Ethylbenzene	2.0	1000	980		20	98	70-130	11/12/2015 1913
Ethyl-tert-butyl ether (ETBE)	ND	1000	1000		20	101	70-130	11/12/2015 1913
Methyl tertiary butyl ether (MTBE)	260	1000	1300		20	102	70-130	11/12/2015 1913
Naphthalene	72	1000	1200		20	106	70-130	11/12/2015 1913
tert-butyl alcohol (TBA)	260	20000	19000		20	95	70-130	11/12/2015 1913
Toluene	ND	1000	1000		20	101	70-130	11/12/2015 1913
Xylenes (total)	14	2000	2000		20	98	70-130	11/12/2015 1913

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: QK09036-039MD
Batch: 89441
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1300	20000	20000		20	91	3.4	70-130	20	11/12/2015 1935
tert-Amyl methyl ether (TAME)	11	1000	1200		20	118	8.2	70-130	20	11/12/2015 1935
Benzene	360	1000	1400		20	94	2.9	70-130	20	11/12/2015 1935
tert-Butyl formate (TBF)	ND	5000	3500		20	71	19	70-130	20	11/12/2015 1935
1,2-Dichloroethane	64	1000	1200		20	109	4.7	70-130	20	11/12/2015 1935
Diisopropyl ether (IPE)	230	1000	1300		20	99	4.0	70-130	20	11/12/2015 1935
3,3-Dimethyl-1-butanol	ND	20000	20000		20	98	3.3	70-130	20	11/12/2015 1935
Ethanol	ND	100000	47000	N,+	20	47	48	70-130	20	11/12/2015 1935
Ethylbenzene	2.0	1000	1000		20	102	4.4	70-130	20	11/12/2015 1935
Ethyl-tert-butyl ether (ETBE)	ND	1000	1100		20	112	9.9	70-130	20	11/12/2015 1935
Methyl tertiary butyl ether (MTBE)	260	1000	1300		20	103	0.33	70-130	20	11/12/2015 1935
Naphthalene	72	1000	800	+	20	70	36	70-130	20	11/12/2015 1935
tert-butyl alcohol (TBA)	260	20000	19000		20	92	3.3	70-130	20	11/12/2015 1935
Toluene	ND	1000	1100		20	106	4.5	70-130	20	11/12/2015 1935
Xylenes (total)	14	2000	2000		20	100	2.2	70-130	20	11/12/2015 1935

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		93	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: QQ89508-001
Batch: 89508
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	1.5	ug/L	11/12/2015 2152
tert-Amyl methyl ether (TAME)	ND		1	10	0.25	ug/L	11/12/2015 2152
Benzene	ND		1	5.0	0.21	ug/L	11/12/2015 2152
tert-Butyl formate (TBF)	ND		1	5.0	0.66	ug/L	11/12/2015 2152
1,2-Dichloroethane	ND		1	5.0	0.23	ug/L	11/12/2015 2152
Diisopropyl ether (IPE)	ND		1	5.0	0.26	ug/L	11/12/2015 2152
3,3-Dimethyl-1-butanol	ND		1	20	1.5	ug/L	11/12/2015 2152
Ethanol	ND		1	100	19	ug/L	11/12/2015 2152
Ethylbenzene	ND		1	5.0	0.21	ug/L	11/12/2015 2152
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.13	ug/L	11/12/2015 2152
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.23	ug/L	11/12/2015 2152
Naphthalene	ND		1	5.0	0.14	ug/L	11/12/2015 2152
tert-butyl alcohol (TBA)	ND		1	20	2.3	ug/L	11/12/2015 2152
Toluene	ND		1	5.0	0.24	ug/L	11/12/2015 2152
Xylenes (total)	ND		1	5.0	0.32	ug/L	11/12/2015 2152

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		94	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: QQ89508-002
Batch: 89508
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1200		1	119	70-130	11/12/2015 2103
tert-Amyl methyl ether (TAME)	50	60		1	120	70-130	11/12/2015 2103
Benzene	50	57		1	114	70-130	11/12/2015 2103
tert-Butyl formate (TBF)	250	310		1	126	70-130	11/12/2015 2103
1,2-Dichloroethane	50	58		1	116	70-130	11/12/2015 2103
Diisopropyl ether (IPE)	50	55		1	110	70-130	11/12/2015 2103
3,3-Dimethyl-1-butanol	1000	930		1	93	70-130	11/12/2015 2103
Ethanol	5000	5600		1	113	60-140	11/12/2015 2103
Ethylbenzene	50	50		1	101	70-130	11/12/2015 2103
Ethyl-tert-butyl ether (ETBE)	50	66	N	1	131	70-130	11/12/2015 2103
Methyl tertiary butyl ether (MTBE)	50	62		1	123	70-130	11/12/2015 2103
Naphthalene	50	46		1	92	70-130	11/12/2015 2103
tert-butyl alcohol (TBA)	1000	1200		1	122	70-130	11/12/2015 2103
Toluene	50	50		1	100	70-130	11/12/2015 2103
Xylenes (total)	100	100		1	101	70-130	11/12/2015 2103

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		94	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: QQ89546-001
Batch: 89546
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	20	1.5	ug/L	11/13/2015 1017
tert-Amyl methyl ether (TAME)	ND		1	10	0.25	ug/L	11/13/2015 1017
Benzene	ND		1	5.0	0.21	ug/L	11/13/2015 1017
tert-Butyl formate (TBF)	ND		1	5.0	0.66	ug/L	11/13/2015 1017
1,2-Dichloroethane	ND		1	5.0	0.23	ug/L	11/13/2015 1017
Diisopropyl ether (IPE)	ND		1	5.0	0.26	ug/L	11/13/2015 1017
3,3-Dimethyl-1-butanol	ND		1	20	1.5	ug/L	11/13/2015 1017
Ethanol	ND		1	100	19	ug/L	11/13/2015 1017
Ethylbenzene	ND		1	5.0	0.21	ug/L	11/13/2015 1017
Ethyl-tert-butyl ether (ETBE)	ND		1	1.0	0.13	ug/L	11/13/2015 1017
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.23	ug/L	11/13/2015 1017
Naphthalene	ND		1	5.0	0.14	ug/L	11/13/2015 1017
tert-butyl alcohol (TBA)	ND		1	20	2.3	ug/L	11/13/2015 1017
Toluene	ND		1	5.0	0.24	ug/L	11/13/2015 1017
Xylenes (total)	ND		1	5.0	0.32	ug/L	11/13/2015 1017

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: QQ89546-002
Batch: 89546
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	103	70-130	11/13/2015 0915
tert-Amyl methyl ether (TAME)	50	56		1	113	70-130	11/13/2015 0915
Benzene	50	53		1	107	70-130	11/13/2015 0915
tert-Butyl formate (TBF)	250	270		1	109	70-130	11/13/2015 0915
1,2-Dichloroethane	50	55		1	110	70-130	11/13/2015 0915
Diisopropyl ether (IPE)	50	48		1	96	70-130	11/13/2015 0915
3,3-Dimethyl-1-butanol	1000	940		1	94	70-130	11/13/2015 0915
Ethanol	5000	5000		1	100	60-140	11/13/2015 0915
Ethylbenzene	50	51		1	102	70-130	11/13/2015 0915
Ethyl-tert-butyl ether (ETBE)	50	57		1	114	70-130	11/13/2015 0915
Methyl tertiary butyl ether (MTBE)	50	54		1	109	70-130	11/13/2015 0915
Naphthalene	50	50		1	101	70-130	11/13/2015 0915
tert-butyl alcohol (TBA)	1000	1100		1	105	70-130	11/13/2015 0915
Toluene	50	51		1	101	70-130	11/13/2015 0915
Xylenes (total)	100	100		1	103	70-130	11/13/2015 0915

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: QQ89188-001
Batch: 89188
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 909

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.0050	ug/L	11/10/2015 1734

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: QQ89188-002
Batch: 89188
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 909

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.25		1	100	60-140	11/10/2015 1744

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: QQ89204-001
Batch: 89204
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1356

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.0050	ug/L	11/11/2015 0946

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		106	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: QQ89204-002
Batch: 89204
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1356

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.25		1	99	60-140	11/11/2015 0957

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: QK09036-011MS
Batch: 89204
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1356

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.24		1	98	60-140	11/11/2015 1118

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		97	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: QK09036-011MD
Batch: 89204
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1356

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.24		1	98	0.17	60-140	20	11/11/2015 1129

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		97	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: QQ89206-001
Batch: 89206
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1404

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.0050	ug/L	11/11/2015 1428

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		96	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: QQ89206-002
Batch: 89206
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1404

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.23		1	93	60-140	11/11/2015 1438

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		90	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: QK09036-029MS
Batch: 89206
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1404

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.25	0.25		1	99	60-140	11/11/2015 1540

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		103	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: QK09036-029MD
Batch: 89206
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1404

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.25		1	103	3.0	60-140	20	11/11/2015 1550

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: QQ89226-001
Batch: 89226
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1420

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.0050	ug/L	11/11/2015 1845

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: QQ89226-002
Batch: 89226
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1420

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.24		1	95	60-140	11/11/2015 1855

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: QK09036-045MS
Batch: 89226
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1420

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.24		1	100	60-140	11/11/2015 1916

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: QK09036-045MD
Batch: 89226
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1420

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.23		1	95	4.1	60-140	20	11/11/2015 1926

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: QQ89228-001
Batch: 89228
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1429

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.0050	ug/L	11/11/2015 2301

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: QQ89228-002
Batch: 89228
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 11/10/2015 1429

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.24		1	97	60-140	11/11/2015 2311

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 52298

Client: BLE	Report to Contact: Trevor Bleam	Telephone No. / E-mail: Trevor Bleam.com	Quote No.
Address: 6004 Padgett Court	Sampler's Signature:	Analysis (Attach list if more space is needed)	Page 1 of 2
City: Greenville	State: SC	Zip Code: 29615	
Project Name: Kmart # 119	Printed Name: Michael Burke		
Project No.: 3661-07	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab / Composite	Matrix: Aqueous	Matrix: Solid / non-aqueous	No of Containers by Preservative Type: Unpres	HNO3	HCl	NaOH	ZnAc	SSS Kit	Analysis: 8260 (Full)	Analysis: 8260 (Short)	Remarks / Cooler I.D.
USFW 00507 MW-1R	11/9/15	835	G	✓						6			✓	✓	
#00507 MW-1R Dup		856													
#00508 MW-1D		838													
#00505 MW-1DD		828													
#00505 MW-1DDD		815													
#00505 MW-2		925													
#00505 MW-3		950													
#00505 MW-4		1144													
#00505 MW-5R		1128													
#00505 MW-6		1525													

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

Sample Disposal ☐ Return to Client ☑ Disposal by Lab

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

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	11/9/15	1155	1. Received by	11/9/15	1155
2. Relinquished by	11/9/15	1600	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	11/9/15	1600

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

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack

Receipt Temp. 5.6 °C 2254
1.7 2708

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

Document Number: F-AD-133 Effective Date: 08-01-2014

QK09036

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY ENVIRONMENTAL SERVICES, INC.

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106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 50937

Client: BLE	Report to Contact: Trevor Blanton	Telephone No. / E-mail: Trevor@Blanton.com	Quote No.
Address: 6004 Ponders Court	Sampler's Signature: x	Analysis (Attach list if more space is needed)	Page 2 of 7
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Michael Hicks		QK09036
Project Name: Kmo # 119			
Project No.: 3661-07	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	# of Containers	Matrix: Groundwater	Matrix: Soil	Matrix: Other Solids	No. of Containers by Preservative Type: Unpres.	HNO3	H2SO4	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs (8260)	Analysis: EDB (504.1)	Remarks / Cooler I.D.
#00507 mw-6D	11/4/15	1549	6	✓						6			1	1	
#00507 mw-7	11/5/15	1304													
#00507 mw-7D		1316													
#00507 mw-8		1246													
#00507 mw-9	↓	1149													
#00507 mw-10D	11/6/15	1213													
#00507 mw-11	11/4/15	1512													
#00507 mw-11D		1458													
#00507 mw-11DD		1417													
#00507 mw-11DDD	↓	1341	↓							↓			↓	↓	

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

Sample Disposal ☐ Return to Client ☐ ~~Disposal by Lab~~

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

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	11/9/15	1655	1. Received by	11/9/15	1655
2. Relinquished by	11/9/15	1800	2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by	11/9/15	1800

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

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack

Receipt Temp. 5.4 / 1.7 °C

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

Document Number: F-AD-133 Effective Date: 09-01-2014

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Chain of Custody Record

Number 50936

Client: BLE	Report to Contact: Trevor Allgood	Telephone No. / E-mail: Trevor@blewa.com	Quote No.
Address: 6004 Pavilion Court	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 3 of 7
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Michael Parker		QK09036
Project Name: Kmc #119			
Project No.: 3661-07	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous, Solid/Non-Aqueous	No of Containers by Preservative Type: Unpres, H2SO4, HNO3, HCl, NaOH, S2O3 (Na)	# Containers (1 VOA (8260))	EDD (Full)	Remarks / Cooler I.D.
#00503 MW-13	11/5/15	1241	G	/	6	1	1	
#00508 MW-13R	↓	1309						
#00505 MW-14D	11/6/15	1233						
#00501 MW-15	11/5/15	903						
#00502 MW-15 DUP	↓	904						
#00507 MW-17	11/4/15	1016						
#00504 MW-18	11/5/15	1433						
#00506 MW-19	↓	1401						
#00509 MW-20	11/6/15	1012						
#00510 MW-21	↓	1037						

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

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

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

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	11/9/15	1155	1. Received by	11/9/15	1155
2. Relinquished by	11/9/15	1600	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	11/9/15	1600

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

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack
Receipt Temp. 1.7 °C

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

Document Number: F-AD-133 Effective Date: 08-01-2014

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Chain of Custody Record

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Number 53758

Client: BLE	Report to Contact: Trevor Keaton	Telephone No. / E-mail: Trevor@Alcnc.com	Quote No.
Address: 6004 Pendant Court	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 4 of 7
City: Greenville; State: SC; Zip Code: 29615	Printed Name: Michael Marks		QK09036
Project Name: Kmc #119			
Project No.: 7661-07	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Soil	Other (Specify)	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methane, Ethane, Ethene (RSK)	EDB (Soil)	Remarks / Cooler I.D.
451 #00505 MW-22	11/6/15	1037	G	✓						6			—	—	
# 00505 MW-23	↓	1046	↓	↓						↓			↓	↓	
# 00505 MW-24		1114													
# 00505 MW-25		1128													
# 00505 MW-26	11/5/15	1346													
# 00501 MW-27R		0906													
# 00505 MW-27D		1416													
# 00505 MW-27DD		1420													
# 00505 MW-28	11/6/15	1023													
# 00505 MW-30	11/5/15	1094	↓	↓						↓			↓	↓	

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

Sample Disposal ☐ Return to Client ☑ Disposal by Lab

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

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	11/9/15	1155	1. Received by	11/9/15	1155
2. Relinquished by	11/9/15	1600	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	11/9/15	1600

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

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack

Receipt Temp. 1.7 °C
5.6

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

Document Number: F-AD-133 Effective Date: 08-01-2014

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Chain of Custody Record

Number 50040

Client: BLE	Report to Contact: Trevor Beaton	Telephone No. / E-mail: Trevor@blasd.com	Quote No.
Address: 6004 Parkers Court	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 5 of 7
City: Lakeenville / State: SC / Zip Code: 29615	Printed Name: Michael Parks		QK09036
Project Name: KMI #119			
Project No.: 3661-07	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab / Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Wipe / Oil	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	SAS/ZN	Analysis: BTEX, MTBE, 8-OXY, 1,2 DCA (8260)	Analysis: EDB (8011)	Remarks / Cooler I.D.
KMI # 00508 MW-30R	11/5/15	1028	G	✓						6			1	1	
# 00505 MW-31		1042													
# 00505 MW-31R		1052													
# 00505 MW-32		1004													
# 00505 MW-32R		1012													
# 00505 MW-33		1104													
# 00505 MW-33D		1110													
# 00505 MW-33DD		1120													
# 00505 MW-34		1116													
# 00505 MW-35	✓	948	✓	✓						✓			✓	✓	

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

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

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

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	11/9/15	1155	1. Received by	11/9/15	1155
2. Relinquished by	11/9/15	1600	2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by	11/9/15	1600

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

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack
Receipt Temp 1.7 °C
5.6

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

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Chain of Custody Record

Number 52284

Client: BLE	Report to Contact: Trevor Blanton	Telephone No. / E-mail: Trevor @ Blecorp.com	Quote No.
Address: 6004 Pinelakes Court	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 6 of 7
City: Greenville	State: SC	Zip Code: 29615	Printed Name: Michael Parks
Project Name: Kmart #119			QK09036
Project No.: 9661-07	P.O. No.		Remarks / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Matrix: Groundwater	Matrix: Aqueous	Matrix: Soil	Matrix: Non-Aqueous	No of Containers by Preservative Type: Unpres	H2SO4	HNO3	HCl	NaOH	Other	BTEX, MNaphthalene, 1,2 DCA (EDB)	EPH (8011)
KM # 00505 mw-36	11/5/15	908	✓				✓			6			✓	✓
# 00505 mw-37	↓	816												
# 00505 mw-37D	11/6/15	1158												
# 00505 mw-38	↓	945												
# 00505 mw-39	11/5/15	1011												
# 00505 mw-40		947												
# 00505 mw-40 DUP		944												
# 00505 mw-41		1111												
# 00505 mw-41 DUP		1112												
# 00505 mw-42	↓	972	↓				↓			↓			↓	↓

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

Sample Disposal ☐ Return to Client ☑ Disposal by Lab

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

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	11/9/15	1155	1. Received by	11/9/15	1155
2. Relinquished by	11/9/15	1600	2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by	11/9/15	1600

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

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack
Receipt Temp. 5.6 °C
1.7

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

Document Number: F-AD-133 Effective Date: 09-01-2014

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Chain of Custody Record

Number 52285

Client: BLE	Report to Contact: Trav Denton	Telephone No. / E-mail: Trav @ Blewt. com	Quote No.
Address: 6004 Pendan Court	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 7 of 7
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Michael Banks		QK09036
Project Name: Kmc #119			
Project No.: 7661-07	P.O. No.		Remarks / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous / Other / Air	No. of Containers by Preservative Type: Unpres. / H2SO4 / HNO3 / HCl / NaOH / ZnAc/NaOH	Analysis: Btex, naphthalene (8260) / EDB (8011)
MW #00505 MW-43	11/3/15	1149	G	✓	6	✓ / ✓
# 00505 MW-44	↓	1176	↓	↓	↓	↓ / ↓
#00505 MW-45	11/4/15	1005				
# 00505 FB-1	↓	1710				
#00505 FB-2	11/5/15	1700				
#00505 FB-3	11/6/15	1500				
#00505 DW-1	11/4/15	1700	↓	↓	↓	
Trip Blank					2	↓

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

Sample Disposal
☐ Return to Client ☒ ~~Disposal by Lab~~

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	11/9/15	1155	1. Received by	11/9/15	1155
2. Relinquished by	11/9/15	1600	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	11/9/15	1600

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

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack
Receipt Temp 5.6 °C
1.7

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

Shealy Environmental Services, Inc.
Document Number: ME0018C-02

Page 1 of 1
Replaces Date: 09/23/15
Effective Date: 10/23/15

Sample Receipt Checklist (SRC)

Client: BLE Cooler Inspected by/date: [illegible]/11/09/15 Lot #: QLC0903b

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other			
Yes ☐	No ☑		1. Were custody seals present on the cooler?
Yes ☐	No ☐	NA ☑	2. If custody seals were present, were they intact and unbroken?
pH strip ID: _____ Cl strip ID: _____			
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt:			
1.5.4 / 5.6 / 5.6 °C 2.5.8 / 1.7 / 1.7 °C ____ / ____ / ____ °C ____ / ____ / ____ °C			
Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0.0°C			
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None			
Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____. (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed on the COC?
Yes ☑	No ☐		7. Were sample IDs listed on all sample containers?
Yes ☑	No ☐		8. Was collection date & time listed on the COC?
Yes ☑	No ☐		9. Was collection date & time listed on all sample containers?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with the COC?
Yes ☑	No ☐		11. Were tests to be performed listed on the COC?
Yes ☑	No ☐		12. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		14. Was adequate sample volume available?
Yes ☐	No ☑		15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		16. Were any samples containers missing?
Yes ☐	No ☑		17. Were there any excess samples not listed on COC?
Yes ☑	No ☐	NA ☐	18. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	22. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
Yes ☐	No ☑		24. Was the quote number used taken from the container label?
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, HNO3, HCl, NaOH) using SR # _____.			
Sample(s) 01 2 11 5 + 05 5 11 were received with bubbles >6 mm in diameter.			
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)			
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____ Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____			
Sample labels applied by: YMCM Verified by: _____ Date: 11/9/15			

Comments:

APPENDIX D

CONTRACTOR CHECKLIST

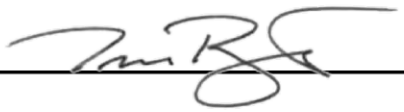
Contractor Checklist

For each report submitted to the UST Management Division, the contractor will be required to verify that all data elements for the required scope of work have been provided. For items not required for the scope of work, the N/A box should be checked. For items required and not completed or provided, the No box should be checked and a thorough description of the reason must be provided.

Item #	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	✓		
2	Is UST Owner/Operator name, address, & phone number provided?	✓		
3	Is name, address, & phone number of current property owner provided?	✓		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	✓		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			✓
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	✓		
7	Has the facility history been summarized?	✓		
8	Has the regional geology and hydrogeology been described?			✓
9	Are the receptor survey results provided as required?			✓
10	Has current use of the site and adjacent land been described?	✓		
11	Has the site-specific geology and hydrogeology been described?			✓
12	Has the primary soil type been described?			✓
13	Have field screening results been described?			✓
14	Has a description of the soil sample collection and preservation been detailed?			✓
15	Has the field screening methodology and procedure been detailed?			✓
16	Has the monitoring well installation and development dates been provided?			✓
17	Has the method of well development been detailed?			✓
18	Has justification been provided for the locations of the monitoring wells?			✓
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			✓
20	Has the groundwater sampling methodology been detailed?	✓		
21	Have the groundwater sampling dates and groundwater measurements been provided?	✓		
22	Has the purging methodology been detailed?	✓		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete?	✓		
24	If free-product is present, has the thickness been provided?	✓		
25	Does the report include a brief discussion of the assessment done and the results?	✓		
26	Does the report include a brief discussion of the aquifer evaluation and results?	✓		
27	Does the report include a brief discussion of the fate & transport models used?			✓

Item #	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			✓
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			✓
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			✓
31	Have recommendations for further action been provided and explained?	✓		
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			✓
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)	✓		
34	Has the current and historical laboratory data been provided in tabular format?	✓		
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			✓
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			✓
37	Has the topographic map been provided with all required elements? (Figure 1)	✓		
38	Has the site base map been provided with all required elements? (Figure 2)	✓		
39	Have the CoC site maps been provided? (Figure 3 & Figure 4)	✓		
40	Has the site potentiometric map been provided? (Figure 5)	✓		
41	Have the geologic cross-sections been provided? (Figure 6)			✓
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			✓
43	Has the site survey been provided and include all necessary elements? (Appendix A)	✓		
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	✓		
45	Is the laboratory performing the analyses properly certified?	✓		
46	Has the tax map been included with all necessary elements? (Appendix C)			✓
47	Have the soil boring/field screening logs been provided? (Appendix D)			✓
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			✓
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			✓
50	Have the disposal manifests been provided? (Appendix G)	✓		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			✓
52	Has all fate and transport modeling been provided? (Appendix I)			✓
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			✓
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided?	✓		

Explanation for missing and incomplete information?

Project Verifier (signature) 

(print name) Trevor J. Benton, P.G.

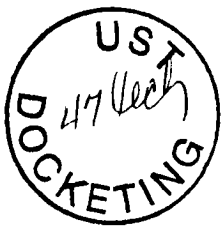
Date 01-20-2016

D H E C

PROMOTE PROTECT PROSPER

Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment



FEB 0 5 20[illegible]

NICK PATEL
1312 WILLIAMSTON RD
ANDERSON SC 29624

Re: **Letter of Concern**
M D Food Mart, 1312 Williamston Rd., Anderson, SC
UST Permit #00505
Release reported December 20, 1989
E-mail request received February 3, 2016
Anderson County

Dear Mr. Patel:

You requested that this office provide you with an update on the environmental conditions at the above referenced facility.

We received a report on December 20, 1989 documenting petroleum chemicals of concern in the subsurface in the vicinity of the underground storage tanks. Our records revealed that four underground storage tank (USTs) owned by Ken Moorhead Oil Company were removed on November 14, 1991. Four new USTs were installed and placed in operation January 21, 1992. The new USTs are currently owned by Dev Enterprises, LLC. In response to the initial report of petroleum chemicals of concern, Ken Moorhead Oil Company, as the party responsible for performing this activity under state and federal law, assessed the extent and severity of the contamination. A bid solicitation is currently being prepared for clean-up activities.

The UST Division would also like to clarify for you the financial and liability issues surrounding the petroleum chemicals of concern at this facility. The release of petroleum products from the UST is qualified to receive funding from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. This means that reasonable costs up to $1,000,000 can be paid by the SUPERB Account for site rehabilitation actions associated with this release.

In 1997, the General Assembly amended Section 80 (B) of the SUPERB Act to clarify that persons who hold "indicia of ownership" primarily to protect a security interest in property impacted by a release from a UST are exempt from the requirements to conduct site rehabilitation activities other than necessary abatement actions to eliminate any imminent threat to human health or the environment. The "indicia of ownership" exemption includes those persons who acquire title to the property through foreclosure or other means necessary to protect their security interest, provided that person does not participate in the management of the UST and is not otherwise engaged in petroleum production, marketing, or refining. This applies equally to subsequent lenders who acquire the USTs and property through foreclosure in the future.

The Division is not aware of any laws or regulations that prohibit the use or development of properties where a petroleum release has occurred. Any future work required by the Agency should not cause any damage to the building, disrupt deliveries, prevent access to customers, or block main access routes. To further assure you, any required activities associated with the petroleum release would be performed by a SC Certified Site Rehabilitation Contractor who maintains specific levels of insurance coverage for General and Professional Liability and Pollution/Property Damage. Such coverage is required by Section IV of the SUPERB Site Rehabilitation and Fund Access Regulations R. 61-98.

If you have any questions, please contact me at (803) 898-0608. I can also be reached by email at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Kris Moorhead, Moorhead Oil Co., Inc., PO Box 2587, Anderson, SC 29622
Technical File

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

ADDENDUM TO TIER II ASSESSMENT

FORMER KMO #119
1312 WILLIAMSTON ROAD
ANDERSON, SOUTH CAROLINA
UST PERMIT # 00505; COST AGREEMENT # 31572

Prepared For

Moorhead Oil Company
P.O. Box 2587
Anderson, South Carolina 29662

Prepared By

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, South Carolina 29615

October 24, 2008

BLE Project Number J08-3661-03

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

October 24, 2008

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
Underground Storage Tank Program
2600 Bull Street
Columbia, S.C. 29201-1708

Attention: Mr. Arthur Shrader, Hydrogeologist

Subject: **Addendum to Tier II Assessment**
Former KMO #119
1312 Williamston Road
Anderson, South Carolina
UST Permit # 00505; Cost Agreement # 31572
BLE Project No. J08-3661-03

Dear Mr. Shrader:

As authorized, Bunnell-Lammons Engineering, Inc. (BLE) has completed an Addendum to the Tier II Assessment at the subject site. This report describes the work performed and presents the results obtained, along with our comments and recommendations.

We appreciate the opportunity to be of service on behalf of Moorhead Oil Company regarding these environmental issues. Please do not hesitate to contact us if you have any questions concerning this report.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.

TREVOR J. BENTON REGISTERED No. 2395 SOUTH CAROLINA PROFESSIONAL GEOLOGIST

PROFESSIONAL GEOLOGIST REGISTERED No. 893 SOUTH CAROLINA THOMAS L. LAMMONS

Trevor J. Benton, P.G.
Project Hydrogeologist
Registered, South Carolina No. 2395

Thomas L. Lammons, P.G.
Principal Hydrogeologist
Registered, South Carolina No. 893

cc: Mr. Kris Moorhead, P.O. Box 2587, Anderson, South Carolina 29662

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

BACKGROUND INFORMATION

The subject property is located at 1312 Williamston Road in Anderson, South Carolina (Figure 1). Prior to 2004, the site was owned by the Ken Moorhead Oil Company and operated as a Citgo fueling station. Currently, the site is owned and operated by DEV Enterprises, LLC and is utilized as a convenience store where gasoline and kerosene fuels are sold (Citgo).

Four gasoline underground storage tanks (USTs) were located on the northeastern portion of the site. A soil assessment performed in December 1989 discovered minor petroleum contamination in the area around the USTs. The South Carolina Department of Health and Environmental Control (SCDHEC) issued a No Further Action status to the site in June 1990. In December 1991, the USTs and associated equipment were removed. Please note, the current UST system has been relocated and updated with required leak detection devices.

In June 2004 a Phase II property transaction was conducted on the site. Results from the Phase II report indicated concentrations of petroleum hydrocarbons in groundwater. Pursuant to these results, the SCDHEC required a Tier I Assessment be performed with regard to the former UST system. The Tier I Assessment was completed by BLE in August 2004. Results from the Tier I Assessment indicated significant petroleum hydrocarbon impact to the groundwater along the eastern and northeastern portion of the site. Based on the Tier I results, a Tier II Assessment was required and completed by BLE in 2007 to evaluate the horizontal and vertical extent of the groundwater contamination associated with the former UST system. To further define the horizontal and vertical extent of groundwater contamination, an addendum to the Tier II Assessment was required by SCDHEC (letter: Mr. Arthur Shrader, dated January 31, 2008). This report describes the additional groundwater assessment activities.

COMPLETED SCOPE OF SERVICE

Specific tasks completed and reported herein are as follows:

- Installation of 14 shallow and deep (top of rock and bedrock) Type II monitoring wells and four deep, pit cased (telescoping - Type III) monitoring wells.
- Performance of three free-product recovery rate tests (MW-1R, MW-10, and MW-14)
- Performance of two eight-hour AFVR events (Event #1 - MW-1R, MW-16 and Event #2 – MW-10 and MW-41).
- Sampling of the on-site/off-site monitoring wells and one off-site drinking water well to obtain concurrent groundwater chemistry data.

MONITORING WELL INSTALLATION

As approved by SCDHEC, eighteen new groundwater monitoring wells (MW-1DD, MW-6D, MW-7D, MW-10D, MW-11DD, MW-14D, and MW-33 through MW-44) were installed to further evaluate the horizontal and vertical extent of the petroleum contaminant plume. Monitoring well locations are shown on Figure 2. Justification for the new wells is shown below:

MW-1DD	Type III bedrock monitoring well installed adjacent to MW-1R and MW-1D to monitor the vertical migration of groundwater contaminants in the source area.
MW-6D and MW-7D	Type II intermediate monitoring wells installed adjacent to their shallow well counterparts. These wells were installed to the top of the bedrock to evaluate the potential for contaminants to migrate along the bedrock surface in this area.
MW-10D and MW-14D	Type III bedrock monitoring wells installed downgradient of the source area to monitor the vertical migration of contaminants.

MW-11DD	Type III bedrock monitoring well installed adjacent to MW-11 and MW-11D to monitor the vertical migration of contaminants downgradient of the source area.
MW-33, MW-34, MW-43, and MW-44	Type II downgradient monitoring wells installed to define the northwest extent of petroleum contamination. Monitoring wells MW-43 and MW-44 were installed in residual soils. MW-33 was installed in PWR and MW-34 was installed in bedrock.
MW-35 through MW-38 and MW-42	Type II downgradient monitoring wells installed in partially weathered rock (PWR) or bedrock to evaluate the horizontal extent of groundwater contamination north of the source area.
MW-39 through MW-41	Type II bedrock monitoring wells installed as free-product monitoring/extraction wells downgradient of the source area.

Monitoring wells MW-6D, MW-7D, MW-43, and MW-44 were installed utilizing 4 ¼-inch inner diameter (ID), hollow stem augers, advanced by a Geoprobe 6620DT track-mounted drilling rig. Monitoring wells MW-33 through MW-35, MW-38, and MW-42 were installed using a CME 750X ATV drill rig utilizing a 6-inch air rotary bit and/or 6-inch air hammer (when necessary). Monitoring wells MW-1DD, MW-10D, MW-11DD, MW-14, and MW-39 through MW-41 were installed using a Schramm drilling rig utilizing 10-inch and 6-inch air hammer bits.

Monitoring wells MW-6D, MW-7D, MW-43, and MW-44 were installed in residual soils, monitoring wells MW-33 through MW-35 and MW-39 through MW-41 were installed in the PWR/bedrock transition zone, and monitoring wells MW-1DD, MW-10D, MW-11DD, and MW-14D were installed in bedrock. Wells MW-1D, MW-10D, MW-11DD, and MW-14D were installed as Type III monitoring wells and the remaining wells were installed as Type II monitoring wells.

The Type II monitoring wells consisted of 2-inch inner diameter (ID), schedule 40 PVC casing with flush-threaded joints. The bottom section of each respective well was a manufactured well screen with 0.010-inch wide machined slots. The well screen was ten feet in length for MW-33 through MW-38 and MW-42 through MW-44. The well screen was twenty feet in length for MW-39 through MW-41, and the well screen was five feet in length for MW-6D and MW-7D. The well screens were installed to the depth of the boring. Unlike the other bedrock wells, monitoring well MW-37 encountered massive bedrock without the presence of water bearing fractures in the upper reaches of the rock. Therefore, the well was drilled and set to monitor the first water bearing fracture in the rock. Standard sand filter pack, bentonite seal and grout was installed to the ground surface in each well. Drilling procedures for Type II wells are described in Appendix A.

Since Geoprobe field screening was not applicable in the areas where groundwater is present below the PWR/bedrock interface, samples were collected for field screening purposes after installation of the wells. Groundwater samples were collected from monitoring wells MW-33, MW-34, MW-36, and MW-37, scanned in the field with a PID, and submitted for laboratory analysis of benzene, toluene, ethylbenzene, xylenes (BTEX), naphthalene, methyl-tert-butyl-ether (MTBE), and 1,2-dichloroethane (1,2-DCA) by EPA Method 8260B. Additionally, samples from MW-36 and MW-37 were also analyzed for 1,2-dibromoethane (EDB) by EPA Method 8011. Laboratory analytical results of the PWR/bedrock screening samples are provided in Table 1. Laboratory data sheets are in Appendix B. The laboratory analytical data from these borings was used to determine placement of additional monitoring wells or to define the extent of the contaminant plume in the areas with no shallow groundwater above bedrock interface.

The Type III, telescoping monitoring wells were installed with a Schramm drilling rig utilizing 10-inch OD and 6-inch OD air hammer drilling techniques. The telescoping wells were constructed with a 6-inch inner diameter (ID) schedule 40 PVC outer casing installed in a 10-inch nominal diameter borehole. The outer casing for MW-1DD was installed to a total depth of 118 feet below ground surface (bgs), the outer casing for MW-10D was installed to a total depth of 58 feet bgs, the outer casing for MW-11DD was installed to 100 feet bgs, and the outer casing for MW-14D was installed to 60 feet bgs. The casings were then pressure grouted to the ground surface and allowed to cure for at least 24 hours. After curing, a 6-inch OD air hammer bit was utilized to advance the borehole

through the outer casing to a termination depth of 142 feet bgs in MW-1DD, 94.8 feet bgs in MW-10D, 161.5 feet bgs in MW-11DD, and 81.7 feet bgs in MW-14D. A 2-inch ID schedule 40 PVC casing with flush-threaded joints was installed in each borehole. The bottom 5-foot section of each well was a manufactured well screen with 0.010-inch machine slots. Standard filter sand pack, bentonite seal and grout was installed to the ground surface. Due to the presence of massive bedrock without apparent water bearing fractures in MW-11DD, the filter pack sand was extended approximately 16 feet above the top of the well screen to capture potential groundwater in this zone which may be seeping through microfractures in the rock. Drilling procedures for Type III wells are described in Appendix A.

At assigned intervals, drill cuttings were collected for soil classification. Representative portions of the test samples were visually examined and classified in the field. To help prevent cross-contamination, downhole drilling equipment was steam cleaned between borings. Surveyed monitoring well locations are shown on Figure 3. Monitoring well boring logs are included in Appendix A and monitoring well construction data is provided on Table 2.

Drill cuttings generated during the installation of the monitoring wells were contained in 55-gallon drums, on-site. These wastes were transported off site for disposal. Waste transportation and disposal records are in Appendix C.

Figure 4 provides hydrogeologic cross-sections through select existing monitoring wells and the newly installed monitoring wells. The cross-sections depict the surveyed ground surface elevation, subsurface lithologies, monitoring wells and their respective screened intervals, and the static groundwater potentiometric elevation contours.

FREE PRODUCT RECOVERY RATE TEST

On June 3, 2008, free-phase petroleum product was measured in monitoring wells MW-1R (1.84 feet), MW-10 (0.65 feet), MW-11 (0.37 feet), MW-14 (0.40 feet), and MW-16 (0.22 feet). As required, three recovery rate tests were performed on the wells exhibiting the greatest thicknesses

of free-product (MW-1R, MW-10, and MW-14). Test procedures are described in Appendix D and the results are as follows:

MW-1R		**MW-10**		**MW-14**	
Initial FP Thickness: 1.84'		**Initial FP Thickness: 0.65'**		**Initial FP Thickness: 0.40'**	
Elapsed Time (min)	Free Product Recovery (ft)	Elapsed Time (min)	Free Product Recovery (ft)	Elapsed Time (min)	Free Product Recovery (ft)
1	0.27	1	0.23	1	0.05
2	0.31	2	0.29	2	0.07
3	0.37	3	0.3	3	0.07
4	0.4	4	0.31	4	0.09
5	0.52	5	0.32	5	0.09
10	0.58	10	0.35	10	0.09
15	0.66	15	0.37	15	0.09
20	0.72	20	0.39	20	0.09
25	0.79	25	0.39	25	0.09
30	0.83	30	0.39	30	0.09
45	0.89	45	0.4	45	0.09
60	0.99	60	0.43	60	0.09
90	1.1	90	0.45	90	0.09
120	1.1	120	0.47	120	0.09

Recovery rate test data graphs are shown in Appendix D. A significant recovery of free-product was observed in MW-1R and MW-10 throughout the test, while MW-14 was slow to recover. Free-product and petroleum impacted groundwater recovered during this test (approximately 2 ½ gallons) was contained in a plastic five-gallon bucket. The liquids were incorporated with the recovered liquids during the AFVR event, as described in the next section.

AGGRESSIVE FLUID VAPOR RECOVERY EVENTS

On June 12th and 13th, 2008, two separate 8-hour AFVR events were conducted in wells MW-1R and MW-16 (June 12th) and MW-10, MW-14, and MW-39 (June 13th). The AFVRs were performed in conjunction with well installations. A hydrogeologist from BLE, Trevor J. Benton, P.G., was on site for observation and monitoring. The AFVR events were performed by Excalibur Environmental Services, Inc. (Excalibur) of Simpsonville, South Carolina. Prior to the AFVR events, BLE personnel gauged free-phase petroleum product in MW-1R (0.81 feet), MW-10 (0.70 feet), MW-14 (0.46 feet), and MW-16 (0.22 feet). No free-product was measured in MW-39, but a

strong petroleum odor was detected. Free-product measurements were made using a Solinst® Interface Meter Model 122. Depths and measurements are shown as feet below the top of PVC casing (btoc), unless noted otherwise. A site and well location plan is shown as Figure 2.

JUNE 12th, 2008 AFVR EVENT – MW-1R & MW-16

The AFVR event initiated at 10:30 and concluded at 18:30. The general weather conditions observed during this period of time were partly cloudy skies with intermittent rain showers; winds varied between 5 to 10 miles per hour (mph) with an ambient temperature between 80° and 90° Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 19.5 to 22 inches of mercury was applied to MW-1R and MW-16. The depth to water was measured every 30 minutes in wells MW-1D, MW-1DD, and MW-2 to evaluate drawdown in the affected area of the AFVR event. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable Photo-Ionization Detector (PID) (Model PGM 7600). Gauging data observed during the event is shown in Table 3.

At the completion of the AFVR event, a total volume of 60 gallons of petroleum impacted groundwater was determined to have been recovered from MW-1R and MW-16. A sheen of free-phase product was observed in the liquid collection containers following the completion of the AFVR event. Petroleum product losses occur from emulsification with the groundwater and volatilization during the AFVR event. This volume of free-product should be considered approximate, since the liquids may not have had sufficient time to separate. No discernible drawdown was observed in monitoring wells MW-1D, MW-1DD or MW-2. Waste transportation and disposal records for the AFVR event are provided in Appendix C.

June 13th, 2008, monitoring wells MW-1R and MW-16 were gauged to determine if free-phase petroleum product was present after the AFVR event. Approximately 1.21 feet and 0.05 feet of free-product was detected in wells MW-1R and MW-16, respectively.

JUNE 13th, 2008 AFVR EVENT – MW-10, MW-14, & MW-39

The AFVR event initiated at 10:15 and concluded at 18:15. The general weather conditions observed during this period of time were mostly cloudy skies with scattered light rain showers; winds varied between 0 to 10 mph with an ambient temperature between 75° and 90° Fahrenheit. Throughout the duration of the AFVR event, a continuous vacuum of 12 to 14 inches of mercury was applied to MW-10, MW-14, and MW-39. The depth to groundwater was also measured every 30 minutes in wells MW-10D, MW-14D, MW-40 and MW-41. Off-gas vapor concentrations were measured every 30 minutes using a MiniRAE® 2000 portable PID (Model PGM 7600). Gauging data observed during the event is shown in Table 4.

At the completion of the AFVR event, a total volume of 80 gallons of petroleum impacted groundwater was determined to have been recovered from MW-10, MW-14, and MW-39. Approximately six gallons of free-phase product was observed in the liquid collection containers following the completion of the AFVR event. Petroleum product losses occur from emulsification with the groundwater and volatilization during the AFVR event. This volume of free-product should be considered approximate, since the liquids may not have had sufficient time to separate. Waste transportation and disposal records for the petroleum impacted ground water recovered during the AFVR events are provided on Appendix C.

On June 18, 2008, petroleum free-product and/or groundwater was gauged in monitoring wells MW-1R, MW-10, MW-14, MW-16, and MW-39. BLE personnel detected 1.78 feet of free-product in MW-1R, 0.05 feet of free-product in MW-14, and 0.06 feet of free-product in MW-16. No free-product was detected in MW-10 or MW-39.

GROUNDWATER SAMPLING

Fifty-two groundwater monitoring wells are currently associated with the site: seven on-site (MW-1R, MW-1D, MW-1DD, MW-2 through MW-4, and MW-16) and forty-five off-site (MW-5 through MW-11, MW-6D, MW-7D, MW-10D, MW-11D, MW-11DD, MW-12 through MW-15, MW-14D, and MW-17 through MW-44). Additionally, one drinking water well (DW-1) is located

approximately 110 feet southeast of the site and two hand dug wells are located 580 feet north and 560 feet northeast of the site. Monitoring well locations and the drinking water well locations are shown on Figure 2.

Water levels and/or free-product measurements were collected from the site on September 9, 2008 (Table 2). Well locations and a groundwater elevation contour map, which shows the occurrence and direction of groundwater flow in the uppermost aquifer, is shown as Figure 5.

The new monitoring wells were developed by purging until it was determined that groundwater flow through the well screen was not inhibited by silt or fine sand. Pursuant to SCDHEC's directive, purging was not required for existing monitoring wells where the well screen was bracketing the water table during the time of sampling. Therefore, only existing monitoring wells MW-1D, MW-11D, MW-20, MW-24, and MW-26) were purged prior to sampling. Monitoring wells MW-5, MW-6, MW-7, MW-8, MW-27, MW-30, MW-31, MW-32, DW-1, and the hand dug wells were dry at the time of sampling. Monitoring well purging and sampling field procedures and logs are in Appendix A.

The monitoring wells were sampled on September 10th through 12th, 2008. Free-phase petroleum product was detected in MW-1R (0.84 feet), MW-2 (1.84 feet), MW-10 (0.38 feet), MW-11 (0.75 feet), MW-14 (0.28 feet), and MW-16 (0.12 feet) at the time of sampling, therefore no groundwater samples were collected from these locations. Sample containers for the remaining wells were marked in the field with identifying numbers, properly preserved, placed into sample coolers, secured, and maintained at less than 4 degrees Celsius. The samples and chain-of-custody records were delivered to Genapure Analytical Services, Inc. in Boca Raton, Florida for analysis. Each monitoring well was analyzed for BTEX, naphthalene, MTBE, 1,2-DCA and eight oxygenates by EPA Method 8260B, EDB by EPA Method 8011, total lead by EPA Method 6010B, nitrate and sulfate by EPA Method 9056, and ferrous iron by SM4500Fe-B. Groundwater analytical results are summarized in Table 5 and are shown on Figure 6. Laboratory data sheets are provided in Appendix B.

Purge water generated during monitoring well sampling was contained in sealed 55-gallon drums on-site. This waste will be transported off site for disposal. Waste transportation and disposal records will be provided under separate cover once the wastes have been disposed.

RESULTS OF LABORATORY ANALYSES

Of the 38 groundwater samples collected for laboratory analysis, 23 wells (MW-1D, MW-1DD, MW-3, MW-4, MW-9, MW-10D, MW-11D, MW-11DD, MW-13, MW-14D, MW-15, MW-19, MW-21, MW-22, MW-23, MW-26, MW-28, MW-29, MW-33, MW-37, MW-39, MW-40, and MW-41) detected petroleum hydrocarbons above South Carolina Risk-Based Screening Levels[1] (RBSLs). Also, free-phase petroleum product was measured in monitoring wells MW-1R, MW-2, MW-10, MW-11, MW-14, and MW-16. Additionally, total lead was detected above RBSLs in 21 monitoring wells (MW-3, MW-9, MW-12, MW-15, MW-18, MW-19, MW-20, MW-25, MW-26, MW-28, MW-33 through MW-36, and MW-38 though MW-44). The results of the groundwater samples are summarized in Table 5 and are shown on Figure 6. Laboratory data sheets are in Appendix B.

CONCLUSIONS

- Releases of gasoline from the former UST system have significantly impacted the underlying soil and groundwater with petroleum hydrocarbons at concentrations above RBSLs;

- Free-phase petroleum product was present in monitoring wells MW-1R (0.84 feet), MW-2 (1.84 feet), MW-10 (0.38 feet), MW-11 (0.75 feet), MW-14 (0.28 feet), and MW-16 (0.12 feet) at the time of sampling. This area spans approximately 305 by 140 feet.

- Laboratory analyses from the monitoring well samples detected petroleum CoC on-site and off-site. CoC consist of free-phase petroleum product, BTEX, naphthalene, MTBE, EDB,

[1] South Carolina Risk-Based Corrective Action for Petroleum Releases, May 15, 2001.

1,2-DCA, total lead, diisopropyl ether, t-amyl alcohol, tert-butyl alcohol, and tert-amyl methyl ether.

- Constituents that exceed RBSLs in the monitoring wells are:
  - benzene in MW-1D, MW-1D, MW-3, MW-4, MW-9, MW-10D, MW-11D, MW-11DD, MW-14D, MW-15, MW-19, MW-21, MW-22, MW-23, MW-26, MW-28, MW-29, MW-37, MW-39, MW-40, and MW-41,
  - toluene in MW-1D and MW-11DD,
  - ethylbenzene in MW-11DD, MW-21, MW-22, and MW-23,
  - naphthalene in MW-1D, MW-11DD, MW-14D, MW-15, MW-19, MW-21, MW-22, MW-23, MW-28, and MW-29,
  - MTBE in MW-1D, MW-1DD, MW-9,MW-10D, MW-11D, MW-11DD, MW-14D, MW-15, MW-19, MW-21, MW-22, MW-23, MW-26, MW-28, MW-29, MW-33, MW-37, and MW-41,
  - EDB in MW-13 and MW-41,
  - 1,2-DCA in MW-1D, MW-1DD, MW-4, MW-9, MW-10D, MW-11D, MW-11DD, MW-14D, MW-19, MW-23, MW-26, MW-28, MW-29, MW-33 and MW-41,
  - total lead in MW-3, MW-9, MW-12, MW-15, MW-18, MW-19, MW-20, MW-25, MW-26, MW-28, MW-33 through MW-36, and MW-38 though MW-44.
  - Monitoring wells MW-5, MW-6, MW-7, MW-8, MW-27, MW-30, MW-31, MW-32, DW-1, and the hand dug wells were dry at the time of sampling.

RECOMMENDATIONS

Since significant concentrations of petroleum related CoCs have been detected in the vertical extent monitoring wells and appear to increase in concentration in MW-11DD (compared to MW-11D), we recommend further evaluation of the deep bedrock aquifer to define the vertical and horizontal extent of contaminants. Since groundwater flow in bedrock aquifers is primarily restricted to fractures, we recommend performing a fracture trace and lineament analysis to aid in the siting of additional deep monitoring wells to intercept contaminants at the site. The fracture trace analysis would consist of evaluating exposed rock outcrops, topographic fracture traces, and lineaments as discussed below.

Exposed Rock Outcrops: Using a Brunton compass, the orientations of exposed bedrock fractures (open joints, open foliation, open bedding planes) will be measured in the vicinity of the site. The field measurements will be plotted on a Schmidt lower hemisphere equal-area stereonet and Rose diagrams.

Topographic Fracture Traces and Lineaments: Regionally, pronounced depressions typically develop along zones of weakness in the bedrock where fractures induce preferential weathering. This preferential weathering along the bedrock fractures is ultimately expressed topographically as linear ravines. Fracture traces are defined as linear features 300-feet to 1-mile in length. Lineaments are defined as linear features greater than 1-mile in length. The trend of fracture traces and lineaments within a 2-mile radius of the site will be measured from United States Geological Survey (USGS) topographic maps and plotted as data on Rose diagrams.

Due to extended drought conditions in this area, several key monitoring wells (MW-5 and MW-30 through MW-32) have become dry. We recommend the reinstallation of these wells to maintain the current well network. Additionally, we recommend the installation of one monitoring well to the southwest of MW-4 to define the extent of contamination in this area.

In conjunction with the fracture trace and lineament analysis and/or installation of additional monitoring wells, we recommend a series of additional 8-hour AFVR events be conducted on MW-1R, MW-2, MW-10, MW-11, MW-14, and MW-16. The AFVR events will remove free-phase petroleum product, high levels of dissolved petroleum contaminants, and vapor phase petroleum hydrocarbons. Additionally, the AFVR events can help stimulate aerobic activity by improving oxygen flow through the subsurface.

After completion of the additional monitoring well installations and at least one month after completion of the final AFVR event we recommend a comprehensive groundwater sampling event of all wells be performed at the site.

8.0 QUALIFICATION OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessments of this type. Our evaluation of site conditions has been based on our understanding of the site and project information and the data obtained in our exploration.

This report has been prepared on behalf of and exclusively for the use of Moorhead Oil Company. This report and the findings contained herein shall not, in whole or in part, be used or relied upon by any other party without BLE's prior written consent. Any unauthorized use or distribution of BLE's work shall be at third parties risk and without liability to BLE.

9.0 ASSESSMENT COMPONENT INVOICE

The Assessment Component Invoice will be sent under separate cover to Ms. Robertha Dorsey of the SCDHEC accounting department.

TABLES

TABLE 1

Summary of Groundwater Screening Field Data & Analytical Results
Moorhead Oil Company - KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #31572
BLE Project Number J08-3661-03

CoC	RBSL (µg/L)	MW-33 Sampled 6/2/2008	MW-34 Sampled 6/2/2008	MW-36 Sampled 4/7/2008	MW-37 Sampled 4/7/2008
PID Reading (ppm)	--	17.6	0.7	0.8	29.9
Benzene (µg/L)	5	ND	ND	ND	68.7
Toluene (µg/L)	1,000	ND	ND	ND	68.7
Ethylbenzene (µg/L)	700	ND	ND	ND	ND
Total Xylenes (µg/L)	10,000	ND	ND	ND	ND
MTBE (µg/L)	40	86.1	3.41	ND	59.1
Naphthalene (µg/L)	25	ND	ND	ND	1.98
1,2-DCA (µg/L)	5	7.21	ND	NT	NT
EDB (µg/L)	0.05	NT	NT	ND	ND

Notes:

CoC - Chemical of Concern

RBSL - Risk Based Screening Level

µg/L - micrograms per liter (ppb)

PID - MiniRae 2000 Photoionization Detector

Shaded cells indicate concentrations above RBSL's

ND - Not Detected

TABLE 2

Monitoring Well and Groundwater Surface Elevation Data
Moorhead Oil Company - KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #31572
BLE Project Number J08-3661-03

Monitoring Well	TOC Elev.	Ground Elev.	GW Depth BTOC	Free-Product Thickness	GW Elevation	Well Depth	Screened Interval Depth	Screened Interval Elevation
MW-1	101.31	101.50	Abandoned				NA - NA	NA - NA
MW-1R**	100.89	101.32	42.88	**0.84**	58.01	44.0	33.80 - 43.80	67.09 - 57.09
MW-1D	101.50	101.63	47.41	None	54.09	106.6	101.40 - 106.40	0.10 - -4.90
MW-1DD	101.13	101.13	49.53	None	51.60	142.0	136.80 - 141.80	-35.67 - -40.67
MW-2**	97.00	97.16	40.32	**1.84**	56.68	42.5	32.52 - 42.52	64.48 - 54.48
MW-3	94.72	94.80	38.38	None	56.34	40.4	30.40 - 40.40	64.32 - 54.32
MW-4	97.61	97.80	44.08	None	53.53	47.1	36.90 - 46.90	60.71 - 50.71
MW-5	89.23	89.48	Dry	None	Dry	32.3	22.10 - 32.10	67.13 - 57.13
MW-6	101.74	101.99	Dry	None	Dry	43.3	33.10 - 43.10	68.64 - 58.64
MW-6D	101.43	101.84	44.32	None	57.11	54.6	49.40 - 54.40	52.03 - 47.03
MW-7	96.50	96.88	Dry	None	Dry	39.5	29.30 - 39.30	67.20 - 57.20
MW-7D	96.56	96.88	39.84	None	56.72	59.1	53.90 - 58.90	42.66 - 37.66
MW-8	87.94	88.16	Dry	None	Dry	30.6	20.40 - 30.40	67.54 - 57.54
MW-9	102.33	102.54	47.09	None	55.24	52.7	42.50 - 52.50	59.83 - 49.83
MW-10**	99.78	100.02	43.69	**0.38**	56.09	50.9	40.70 - 50.70	59.08 - 49.08
MW-10D	100.03	100.07	50.10	None	49.93	94.8	89.60 - 94.60	10.43 - 5.43
MW-11**	98.46	98.74	46.70	**0.75**	51.77	51.5	41.30 - 51.30	57.16 - 47.16
MW-11D	98.49	98.67	48.28	None	50.21	90.4	85.20 - 90.20	13.29 - 8.29
MW-11DD	98.48	98.63	57.49	None	40.99	161.5	156.30 - 161.30	-57.82 - -62.82
MW-12	97.25	97.53	46.80	None	50.45	53.0	42.80 - 52.80	54.45 - 44.45
MW-13	99.08	99.25	47.62	None	51.46	48.3	38.10 - 48.10	60.98 - 50.98
MW-14**	94.99	95.22	44.44	**0.28**	50.55	50.6	40.40 - 50.40	54.59 - 44.59
MW-14D	95.17	95.20	45.19	None	49.98	81.7	76.50 - 81.50	18.67 - 13.67
MW-15	96.64	96.88	46.26	None	50.38	51.3	41.10 - 51.10	55.54 - 45.54
MW-16**	99.91	100.08	42.79	**0.12**	57.12	49.0	38.80 - 48.80	61.11 - 51.11
MW-17	103.40	103.90	46.25	None	57.15	48.7	38.50 - 48.50	64.90 - 54.90
MW-18	108.17	105.09	53.47	None	54.70	55.9	45.70 - 55.70	62.47 - 52.47
MW-19	104.15	101.06	52.92	None	51.23	55.1	44.90 - 54.90	59.25 - 49.25
MW-20	97.96	94.73	47.93	None	50.03	82.0	61.80 - 81.80	36.16 - 16.16
MW-21	87.23	83.56	38.12	None	49.11	43.9	33.70 - 43.70	53.53 - 43.53
MW-22	84.09	80.46	41.00	None	43.09	45.2	35.00 - 45.00	49.09 - 39.09
MW-23	88.00	84.72	41.23	None	46.77	45.5	35.30 - 45.30	52.70 - 42.70
MW-24	81.89	78.51	54.40	None	27.49	77.1	56.90 - 76.90	24.99 - 4.99
MW-25	87.36	83.86	57.87	None	29.49	57.8	47.60 - 57.60	39.76 - 29.76
MW-26	85.06	81.65	52.66	None	32.40	77.3	57.10 - 77.10	27.96 - 7.96
MW-27	76.31	72.91	Dry	None	Dry	44.7	34.50 - 44.50	41.81 - 31.81
MW-28	98.33	95.07	49.33	None	49.00	51.7	41.50 - 51.50	56.83 - 46.83
MW-29	95.60	95.77	46.77	None	48.83	55.1	44.90 - 54.90	50.70 - 40.70
MW-30	61.37	58.42	Dry	None	Dry	33.2	23.00 - 33.00	38.37 - 28.37
MW-31	67.41	64.10	Dry	None	Dry	40.0	29.80 - 39.80	37.61 - 27.61
MW-32	61.57	58.61	Dry	None	Dry	32.4	22.20 - 32.20	39.37 - 29.37
MW-33	71.29	68.17	48.13	None	23.16	48.8	38.60 - 48.60	32.69 - 22.69
MW-34	71.40	68.02	49.13	None	22.27	50.6	40.40 - 50.40	31.00 - 21.00
MW-35	81.22	78.11	53.07	None	28.15	56.4	46.20 - 56.20	35.02 - 25.02
MW-36	89.46	89.77	47.79	None	41.67	61.0	50.80 - 60.80	38.66 - 28.66
MW-37	94.07	94.10	45.50	None	48.57	101.8	91.60 - 101.60	2.47 - -7.53
MW-38	104.98	101.99	54.97	None	50.01	57.4	47.20 - 57.20	57.78 - 47.78
MW-39	98.77	98.91	46.96	None	51.81	56.2	36.00 - 56.00	62.77 - 42.77
MW-40	97.75	97.95	46.35	None	51.40	55.9	35.70 - 55.70	62.05 - 42.05
MW-41	98.97	99.03	41.36	None	57.61	55.5	35.30 - 55.30	63.67 - 43.67
MW-42	83.75	80.58	45.22	None	38.53	55.8	45.60 - 55.60	38.15 - 28.15
MW-43	52.51	49.56	35.99	None	16.52	39.6	29.40 - 39.40	23.11 - 13.11
MW-44	56.80	53.77	36.08	None	20.72	39.5	29.30 - 39.30	27.50 - 17.50

NOTES:
Groundwater levels were measured on 9/9/08
Measurements are in feet; elevations are relative to an arbitrary site datum
BTOC - below top of casing
NA - Not Available
**Petroleum free-product measured in wells MW-1R (0.84'), MW-2 (1.84'), MW-10 (0.38'), MW-11 (0.75'), MW-14 (0.28'), and MW-16 (0.12').
Groundwater elevation data for MW-1R, MW-2, MW-10, MW-11, MW-14, and MW-16 has been corrected for free-product

TABLE 3

AFVR Gauging Data (MW-1R & MW-16) - June 12, 2008
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #31572
BLE Project Number J08-3661-03

	Monitoring Well Gauging Data					Air Emmissions	
	Vacuum (in.of Hg)		Depth to Groundwater (feet BTOC)			Influent (ppm)	Effluent (ppm)
Time	MW-1R	MW-16	MW-1D	MW-1DD	MW-2		
10:30	19.5	22	46.83	48.99	36.96	6,651	82.5
11:00	19.5	22	46.83	48.99	36.96	6,637	77.3
11:30	19.5	22	46.83	49.00	36.96	6,521	73.4
12:00	19.5	22	46.83	48.99	36.96	5,659	77.1
12:30	20.0	22	46.83	49.00	36.96	5,247	77.9
13:00	20.0	22	46.84	49.00	36.96	4,443	44.9
13:30	20.0	22	46.84	49.00	36.96	3,321	36.1
14:00	20.0	22	46.83	49.00	36.97	2,687	40.2
14:30	20.0	22	46.84	49.00	36.97	2,270	37.3
15:00	20.0	22	46.84	49.00	36.96	1,998	35.0
15:30	21.0	22	46.85	49.00	36.96	1,455	24.7
16:00	21.0	22	46.85	48.99	36.96	1,355	22.1
16:30	21.0	22	46.85	49.00	36.96	1,236	18.9
17:00	21.0	22	46.85	49.00	36.96	1,169	19.4
17:30	20.0	22	46.84	49.00	36.97	1,133	17.2
18:00	20.0	22	46.84	49.00	36.98	1,110	10.5
18:30	20.0	22	46.84	49.00	36.98	1,119	11.9

NOTES:

AFVR event performed on June 12, 2008
Vapor concentrations measured using a portable MiniRAE® 2000
Photo-Ionization Detector (PID).
0.81' (MW-1R) and 0.22' (MW-16) free-product was detected prior to AFVR
inches of Hg - inches of mercury
BTOC - below top of casing
ppm - parts per million

TABLE 4

AFVR Gauging Data (MW-11) - June 13, 2008
KMO #119
Anderson, South Carolina
SCDHEC UST Permit #00505; Cost Agreement #31572
BLE Project Number J08-3661-03

	Monitoring Well Gauging Data							Air Emmissions	
	Vacuum (in.of Hg)			Depth to Groundwater (feet BTOC)				Influent (ppm)	Effluent (ppm)
Time	MW-10	MW-14	MW-39	MW-10D	MW-14D	MW-40	MW-41		
10:15	12	14	13	49.23	44.18	45.51	41.36	5,340	43
10:45	12	14	13	49.23	44.18	45.52	41.37	3,369	38
11:15	12	14	13	49.26	44.18	45.51	41.37	2,620	26
11:45	12	14	13	49.31	44.21	45.53	41.37	1,458	24
12:15	12	14	13	49.36	44.27	45.53	41.39	1,129	17
12:45	12	14	13	49.41	44.34	45.52	41.39	1,120	19
13:15	12	14	13	49.43	44.39	45.53	41.38	1,093	21
13:45	12	14	13	49.44	44.42	45.54	41.39	1,114	24
14:15	12	14	13	49.44	44.44	45.54	41.39	1,131	14
14:45	12	14	13	49.45	44.45	45.55	41.38	1,160	13
15:15	12	14	13	49.45	44.46	45.55	41.39	1,183	17
15:45	12	14	13	49.45	44.46	45.56	41.38	1,031	16
16:15	12	14	13	49.46	44.47	45.57	41.38	1,096	18
16:45	12	14	13	49.45	44.48	45.57	41.37	1,057	16
17:15	12	14	13	49.45	44.48	45.57	41.38	1,083	17
17:45	12	14	13	49.45	44.48	45.58	41.38	1,033	18
18:15	12	14	13	49.46	44.49	45.57	41.38	1,029	16

NOTES:

AFVR event performed on June 13, 2008

Vapor concentrations measured using a portable MiniRAE® 2000
Photo-Ionization Detector (PID).

0.70' (MW-10) and 0.46' (MW-14) of free-product was detected prior to AFVR

in. of Hg - inches of mercury

BTOC - below top of casing

ppm - parts per million

TABLE 5

Historical Groundwater Analytical Data
Moorhead Oil Company - KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #31572
BLE Project Number J08-3661-03

		MW-1		MW-1R		MW-1D		MW-1DD	MW-2			MW-3			MW-4		MW-5		MW-6		MW-6D	MW-7		MW-7D	MW-8			MW-9		MW-10		MW-10D
		Date Sampled		Date Sampled		Date Sampled		Date Sampled	Date Sampled			Date Sampled			Date Sampled		Date Sampled		Date Sampled		Date Sampled	Date Sampled		Date Sampled	Date Sampled			Date Sampled		Date Sampled		Date Sampled
COC	RBSL	4/5/2005	9/9/2008	4/18/2007	9/9/2008	4/18/2007	9/10/2008	9/10/2008	7/27/2004	4/18/2007	9/9/2008	7/27/2004	4/18/2007	9/10/2008	4/18/2007	9/10/2008	4/18/2007	9/9/2008	4/18/2007	9/9/2008	9/10/2008	4/18/2007	9/9/2008	9/10/2008	4/18/2007	9/9/2008	9/10/2008	4/20/2007	9/10/2008	4/20/2007	9/9/2008	9/11/2008
Free Product Thickness (ft)	None	0.00		0.00	**0.84**	0.00	0.00	0.00	0.00	0.00	**1.84**	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00	0.00		0.00	0.00			0.00	0.00	**0.24**	**0.58**	0.00
Benzene (µg/L)	5	N/D		15,000	N/T	11,000	8,310	149	13,100	2,400	N/T	4.7	N/D	9.30	4.2	42.3	N/D		N/D		N/D	N/D		N/D	N/D			4,900	1,850	N/T	N/T	68.4
Toluene (µg/L)	1,000	N/D		22,000	N/T	2,500	2,770	28.8	23,600	580	N/T	N/D	N/D	N/D	N/D	N/D	N/D		N/D		N/D	N/D		N/D	N/D			38.0	14.1	N/T	N/T	7.54
Ethylbenzene (µg/L)	700	N/D		2,400	N/T	340	677	14.1	3,180	220	N/T	N/D	N/D	N/D	N/D	N/D	N/D		N/D		N/D	N/D		N/D	N/D			17.0	N/D	N/T	N/T	1.09
Xylenes (µg/L)	10,000	N/D		14,000	N/T	2,300	1,310	21.6	16,300	1,800	N/T	2.1	N/D	2.70	N/D	N/D	N/D		N/D		N/D	N/D		N/D	N/D			37.0	N/D	N/T	N/T	17.30
Total BTEX (µg/L)	N/A	N/D		53,400	N/T	16,340	13,067	211.5	56,180	5,000	N/T	6.8	N/D	12.0	4.2	42.3	N/D		N/D		N/D	N/D		N/D	N/D			4,992	1,864	N/T	N/T	98.33
MTBE (µg/L)	40	N/D		3,800	N/T	4,300	4,540	115	1,310	440	N/T	3.5	N/D	N/D	4.9	37.8	N/D		N/D		N/D	N/D		N/D	N/D			98.0	401	N/T	N/T	818
Naphthalene (µg/L)	25	N/D		1,200	N/T	210	307	5.22	2,800	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D		N/D		N/D	N/D		N/D	N/D			110	21.3	N/T	N/T	3.16
EDB (µg/L)	0.05	N/D		360	N/T	0.012	N/D	N/D	N/T	1.6	N/T	N/T	N/D	N/D	N/D	N/D	N/D		N/D		N/D	N/D		N/D	N/D			0.045	0.028	N/T	N/T	N/D
1,2-Dichloroethane (µg/L)	5	N/D		520	N/T	300	345	8.69	N/T	44.0	N/T	N/T	N/D	N/D	N/D	10.4	N/D		N/D		N/D	N/D		N/D	N/D			210	167	N/T	N/T	29.0
DIPE (µg/L)	N/A	N/T		1,300	N/T	1,600	1,300	30.0	N/T	210	N/T	N/T	N/D	1.80	N/D	51.0	N/D		N/D		N/D	N/D		N/D	N/D			660	420	N/T	N/T	240
Ethanol (µg/L)	N/A	N/T		N/D	N/T	N/D	N/D	N/D	N/T	N/D	N/T	N/T	N/D	N/D	N/D	N/D	N/D		N/D		N/D	N/D		N/D	N/D			N/D	N/D	N/T	N/T	N/D
ETBA (µg/L)	N/A	N/T		N/D	N/T	N/D	N/D	N/D	N/T	N/D	N/T	N/T	N/D	N/D	N/D	N/D	N/D		N/D		N/D	N/D		N/D	N/D			N/D	N/D	N/T	N/T	N/D
ETBE (µg/L)	N/A	N/T		7,300	N/T	7,600	N/D	N/D	N/T	880	N/T	N/T	N/D	N/D	N/D	N/D	N/D		N/D		N/D	N/D		N/D	N/D			5,200	N/D	N/T	N/T	N/D
TAA (µg/L)	N/A	N/T		1,000	N/T	N/D	9,400	69.0	N/T	N/D	N/T	N/T	N/D	N/D	N/D	120	N/D		N/D		N/D	N/D		N/D	N/D			N/D	6,700	N/D	N/T	990
TAME (µg/L)	N/A	N/T		N/D	N/T	N/D	110	2.4	N/T	N/D	N/T	N/T	N/D	N/D	N/D	2.0	N/D		N/D		N/D	N/D		N/D	N/D			N/D	30	N/T	N/T	15
TBA (µg/L)	N/A	N/T		N/D	N/T	N/D	2,200	N/D	N/T	N/D	N/T	N/T	N/D	N/D	N/D	29.0	N/D		N/D		N/D	N/D		N/D	N/D			N/D	990	N/T	N/T	240
TBF (µg/L)	N/A	N/T		N/D	N/T	N/D	N/D	N/D	N/T	N/D	N/T	N/T	N/D	N/D	N/D	N/D	N/D		N/D		N/D	N/D		N/D	N/D			N/D	N/D	N/T	N/T	N/D
Benz(a)anthracene (µg/L)	10	N/T		N/T	N/T	N/T	N/T	N/T	N/D	N/T	N/T	N/D	N/T	N/T	N/T	N/T	N/T		N/T		N/T	N/T		N/T	N/T			N/T	N/T	N/T	N/T	N/T
Benzo(b)fluoranthene (µg/L)	10	N/T		N/T	N/T	N/T	N/T	N/T	N/D	N/T	N/T	N/D	N/T	N/T	N/T	N/T	N/T		N/T		N/T	N/T		N/T	N/T			N/T	N/T	N/T	N/T	N/T
Benzo(j)fluoranthene (µg/L)	10	N/T		N/T	N/T	N/T	N/T	N/T	N/D	N/T	N/T	N/D	N/T	N/T	N/T	N/T	N/T		N/T		N/T	N/T		N/T	N/T			N/T	N/T	N/T	N/T	N/T
Chrysene (µg/L)	10	N/T		N/T	N/T	N/T	N/T	N/T	N/D	N/T	N/T	N/D	N/T	N/T	N/T	N/T	N/T		N/T		N/T	N/T		N/T	N/T			N/T	N/T	N/T	N/T	N/T
Dibenz(a, h)anthracene (µg/L)	10	N/T		N/T	N/T	N/T	N/T	N/T	N/D	N/T	N/T	N/D	N/T	N/T	N/T	N/T	N/T		N/T		N/T	N/T		N/T	N/T			N/T	N/T	N/T	N/T	N/T
PAH-Naphthalene (µg/L)	25	N/T		N/T	N/T	N/T	N/T	N/T	500	N/T	N/T	90.0	N/T	N/T	N/T	N/T	N/T		N/T		N/T	N/T		N/T	N/T			N/T	N/T	N/T	N/T	N/T
Total PAH's (µg/L)	N/A	N/T		N/T	N/T	N/T	N/T	N/T	500	N/T	N/T	90.0	N/T	N/T	N/T	N/T	N/T		N/T		N/T	N/T		N/T	N/T			N/T	N/T	N/T	N/T	N/T
Lead (µg/L)	15	N/D		27.0	N/T	6.1	N/D	N/D	13.0	N/D	N/T	N/D	N/D	1,430	5.1	N/D	32.0		13.0		N/D	4.5		N/D	18.0			2.8	83.3	N/T	N/T	N/D
Ferrous Iron (µg/L)	N/A	N/T		1,000	N/T	4,400	N/D	N/D	N/T	8,900	N/T	N/T	290	N/D	N/D	N/D	N/D		N/D		N/D	380		N/D	N/D			11,000	1,010	N/T	N/T	N/D
Nitrates (µg/L)	N/A	N/T		N/D	N/T	N/D	689	N/D	N/T	N/D	N/T	N/T	1,400	981	N/D	N/D	N/D		N/D		755	1,000		867	150			N/D	N/D	N/T	N/T	N/D
Sulfites (µg/L)	N/A	N/T		18,000	N/T	N/D	N/D	11,900	N/T	13,000	N/T	N/T	N/D	N/D	N/D	N/D	N/D		N/D		N/D	N/D		N/D	N/D			N/D	7,150	N/T	N/T	18,500
Methane (ppb)	N/A	N/T		N/D	N/T	790	N/T	N/T	N/T	N/D	N/T	N/T	N/D	N/T	N/D	N/T	N/D		N/D		N/T	N/D		N/T	N/D			13.0	N/T	N/T	N/T	N/T
Dissolved Oxygen (mg/L)	N/A	4.91		0.60	N/T	0.58	2.16	1.25	N/T	1.02	N/T	N/T	1.99	1.81	3.36	1.82	0.51		5.12		3.44	5.28		0.94	7.10			1.19	0.39	N/T	N/T	1.01

		MW-11		MW-11D		MW-11DD	MW-12		MW-13			MW-14		MW-14D	MW-15			MW-16			MW-17			MW-18			MW-19		MW-20			MW-21			MW-22		MW-23	
		Date Sampled		Date Sampled		Date Sampled	Date Sampled		Date Sampled			Date Sampled		Date Sampled	Date Sampled			Date Sampled			Date Sampled			Date Sampled			Date Sampled		Date Sampled			Date Sampled			Date Sampled		Date Sampled	
COC	RBSL	4/20/2007	9/9/2008	4/20/2007	9/11/2008	9/11/2008	4/20/2007	9/10/2008	4/20/2007	9/10/2008	9/11/2008	4/20/2007	9/9/2008	9/11/2008	4/20/2007	9/9/2008	9/10/2008	4/18/2007	9/9/2008	9/10/2008	4/18/2007	9/10/2008	9/11/2008	4/20/2007	9/10/2008	9/11/2008	4/20/2007	9/11/2008	9/12/2008	4/20/2007	9/11/2008	9/12/2008	4/20/2007	9/11/2008	9/12/2008	4/20/2007	9/11/2008	4/20/2007	9/11/2008
Free Product Thickness (ft)	None	**0.55**	**0.75**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.38**	**0.28**	0.00	0.00	0.00	0.00	0.00	0.00	**0.12**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Benzene (µg/L)	5	N/T	N/T	350	415	8,430*	N/D	N/D	8,600	N/T	N/T	N/T	511	730	436	1,700	N/T	N/D	N/D	N/D	N/D	N/D	12.0	149	N/D	N/D	1,100	741	880	589	1,300	1,220					
Toluene (µg/L)	1,000	N/T	N/T	20.0	72.5	4,990*	N/D	N/D	8,400	N/T	N/T	N/T	24.9	5.2	15.9	4,300	N/T	N/D	N/D	N/D	N/D	N/D	N/D	12.0	N/D	N/D	690	928	170	88.5	890	65.1					
Ethylbenzene (µg/L)	700	N/T	N/T	17.0	35.3	712	N/D	N/D	2,800	N/T	N/T	N/T	7.82	5.1	52.6	2,200	N/T	N/D	N/D	N/D	N/D	N/D	N/D	3.58	N/D	N/D	470	1,080	450	730	960	845					
Xylenes (µg/L)	10,000	N/T	N/T	44.0	94.3	3,030	N/D	N/D	13,000	N/T	N/T	N/T	88.7	7.9	51.2	9,900	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	1,700	3,960	1,900	1,680	3,400	653					
Total BTEX (µg/L)	N/A	N/T	N/T	431	617	3,742	N/D	N/D	32,800	N/T	N/T	N/T	632	748	556	22,100	N/T	N/D	N/D	N/D	N/D	N/D	12.0	161	N/D	N/D	3,960	6,709	3,580	3,068	6,550	2,785					
MTBE (µg/L)	40	N/T	N/T	380	282	4,050	N/D	N/D	2,200	N/T	N/T	N/T	241	170	165	1,900	N/T	N/D	N/D	N/D	N/D	N/D	36.0	84.6	2.1	1.85	220	109	200	79.7	220	384					
Naphthalene (µg/L)	25	N/T	N/T	13.0	22.0	182	N/D	N/D	1,800	N/T	N/T	N/T	115	210	324	3,200	N/T	N/D	N/D	N/D	N/D	N/D	N/D	104	N/D	N/D	260	773	430	582	610	513					
EDB (µg/L)	0.05	N/T	N/T	N/D	N/D	N/D	N/D	N/D	7.9	1.52	N/T	N/T	N/D	0.02	0.014	1.4	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	0.078	0.030	0.054	N/D	0.280	N/D					
1,2-Dichloroethane (µg/L)	5	N/T	N/T	22.0	17.7	186	N/D	N/D	390	N/T	N/T	N/T	21.7	32.0	N/D	290	N/T	N/D	N/D	N/D	N/D	N/D	34.0	57.4	N/D	N/D	33.0	N/D	29.0	N/D	33.0	27.6					
DIPE (µg/L)	N/A	N/T	N/T	90.0	100	1,300	N/D	N/D	1,100	N/T	N/T	N/T	110	120	110	670	N/T	N/D	N/D	N/D	N/D	N/D	110	290	N/D	N/D	130	71	98.0	43	140	86					
Ethanol (µg/L)	N/A	N/T	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/T	N/T	N/T	N/D	N/D	N/D	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D					
ETBA (µg/L)	N/A	N/T	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/T	N/T	N/T	N/D	N/D	N/D	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D					
ETBE (µg/L)	N/A	N/T	N/T	300	N/D	N/D	N/D	N/D	5,600	N/T	N/T	N/T	N/D	N/D	660	N/D	N/D	1,700	N/T	N/D	N/D	N/D	N/D	750	N/D	N/D	N/D	N/D	660	N/D	690	N/D	N/D	936	N/D			
TAA (µg/L)	N/A	N/D	N/T	N/D	270	7,600	N/D	N/D	N/D	N/T	N/D	N/T	490	N/D	420	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	1,700	N/D	N/D	N/D	320	N/D	120	N/D	440					
TAME (µg/L)	N/A	N/T	N/T	N/D	5.10	93	N/D	N/D	77.0	N/T	N/T	N/T	5.4	N/D	5.8	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	11	N/D	N/D	N/D	4	N/D	2.6	N/D	5.5					
TBA (µg/L)	N/A	N/T	N/T	N/D	64	1,700	N/D	N/D	N/D	N/T	N/T	N/T	120	N/D	130	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	310	N/D	N/D	N/D	110	N/D	46	N/D	110					
TBF (µg/L)	N/A	N/T	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/T	N/T	N/T	N/D	N/D	N/D	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D					
Benz(a)anthracene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T					
Benzo(b)fluoranthene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T					
Benzo(j)fluoranthene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T					
Chrysene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T					
Dibenz(a, h)anthracene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T					
PAH-Naphthalene (µg/L)	25	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T					
Total PAH's (µg/L)	N/A	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T					
Lead (µg/L)	15	N/T	N/T	5.2	N/D	N/D	4.6	64.3	50.0	N/T	N/T	N/T	N/D	3.2	133	4.6	N/T	2.9	N/D	N/D	28.9	1.6	40.8	N/D	14.8	N/D	N/D	N/D	N/D	N/D	N/D	1.2	N/D					
Ferrous Iron (µg/L)	N/A	N/T	N/T	970	N/D	N/D	N/D	N/D	24,000	N/T	N/T	N/T	N/D	4,800	940	18,000	N/T	410	N/D	4,400	N/D	N/D	2,500	N/D	13,000	2,400	10,000	2,190	18,000	930							
Nitrates (µg/L)	N/A	N/T	N/T	N/D	N/D	N/D	900	2,530	N/D	N/T	N/T	N/T	N/D	N/D	N/D	N/D	N/T	490	971	846	1,310	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D					
Sulfites (µg/L)	N/A	N/T	N/T	N/D	49,300	72,900	N/D	N/D	N/D	N/T	N/T	N/T	7,410	N/D	N/D	N/D	N/T	N/D	N/D	N/D	N/D	N/D	N/D	N/D	29,700	N/D	N/D	N/D	N/D	N/D	N/D					
Methane (ppb)	N/A	N/T	N/T	44.0	N/T	N/T	N/D	N/T	N/D	N/T	N/T	N/T	N/D	N/T	N/D	N/T	N/D	N/T	N/D	N/T	N/D	N/T	N/D	N/T	N/D	N/T	N/D	N/T	N/D	N/T	N/D	N/T					
Dissolved Oxygen (mg/L)	N/A	N/T	N/T	0.71	1.29	1.39	5.01	5.54	0.68	0.44	N/T	N/T	1.01	0.71	1.14	0.46	N/T	1.78	0.80	4.20	3.08	1.05	0.75	1.05	1.02	0.81	1.13	0.98	1.09	0.87	1.12							

Notes:
COC = Chemical of Concern
RBSL = Risk-Based Screening Level
Shaded cells indicate COC concentrations that exceed RBSL's
MW-1 through MW-3 were installed during the Tier I phase of work.
MW-1 was compromised during grout injection for the installation of MW-1D. The well was properly abandoned and MW-1R was installed in its place.
MW-13 was dry during this sampling event. Only samples for EDB were able to be collected.
µg/L - micrograms per liter - parts per billion
mg/L - milligrams per liter - parts per million
N/D = Not Detected (at the laboratory detection limit)
N/T = Not Tested
N/A = Not Applicable
*-Recoveries outside control limits due to high level of target analyte in the spiked sample.

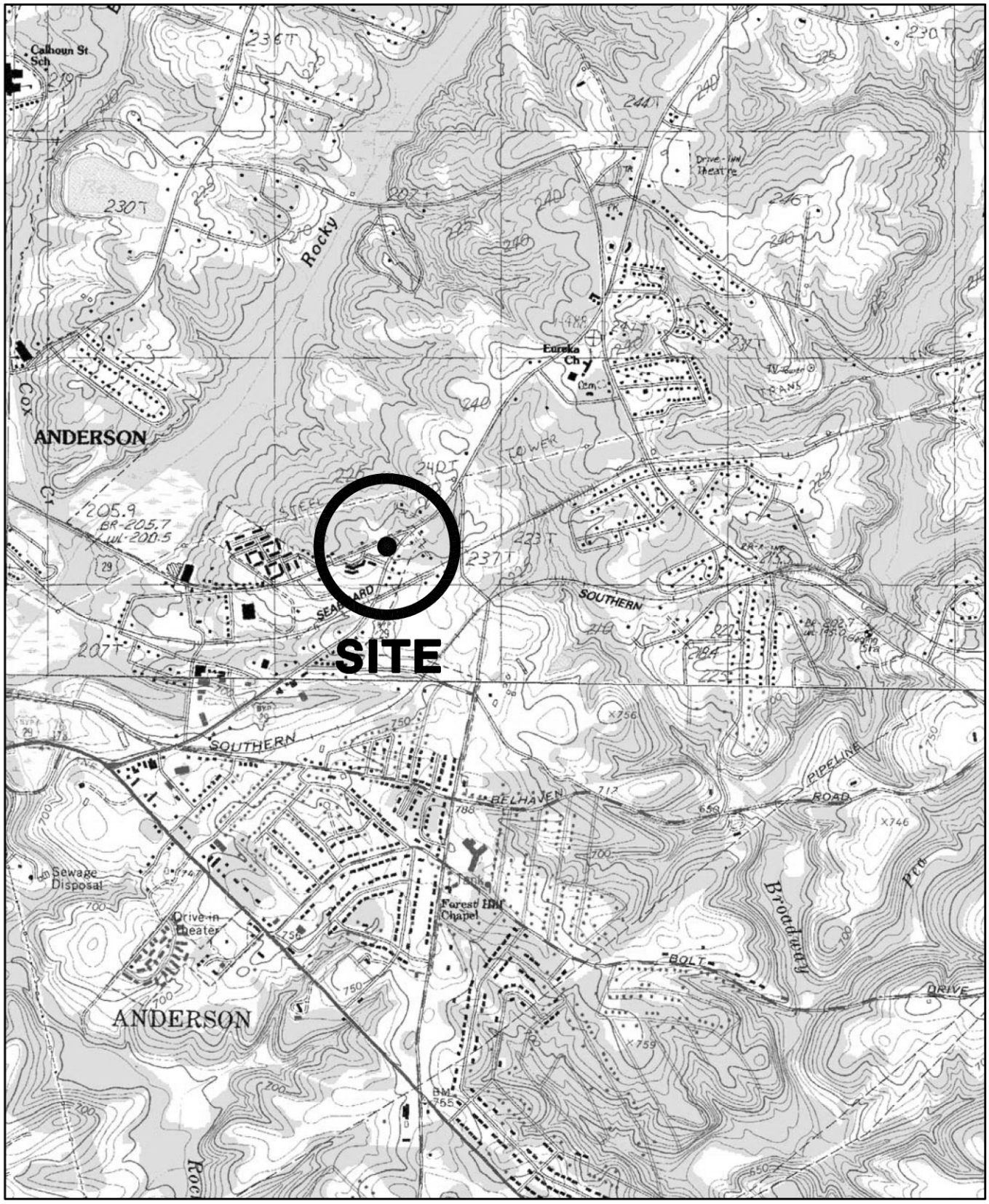
TABLE 5 - CONTINUED

Historical Groundwater Analytical Data
Moorhead Oil Company - KMO 119
Anderson, South Carolina
SCDHEC UST Permit #00505; C.A. #31572
BLE Project Number J08-3661-03

		MW-24		MW-25		MW-26		MW-27		MW-28		MW-29		MW-30		MW-31		MW-32		MW-33	MW-34	MW-35	MW-36	MW-37	MW-38	MW-39	MW-40	MW-41	MW-42	MW-43	MW-44
		Date Sampled		Date Sampled		Date Sampled		Date Sampled		Date Sampled		Date Sampled		Date Sampled		Date Sampled		Date Sampled		Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled	Date Sampled
COC	RBSL	4/20/2007	9/12/2008	4/20/2007	9/11/2008	4/20/2007	9/12/2008	4/20/2007	9/9/2008	4/20/2007	9/11/2008	4/20/2007	9/11/2008	4/20/2007	9/9/2008	4/20/2007	9/9/2008	4/20/2007	9/9/2008	9/11/2008	9/11/2008	9/12/2008	9/12/2008	9/12/2008	9/12/2008	9/11/2008	9/11/2008	9/11/2008	9/12/2008	9/11/2008	9/12/2008
Free Product Thickness (ft)	None	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Benzene (µg/L)	5	N/D	N/D	6.0	N/D	130	68.4	9.7		77.0	274	1.8	6.09	N/D		N/D		N/D		N/D	N/D	N/D	N/D	N/D	50.6	N/D	10.1	45.1	106	N/D	N/D	N/D
Toluene (µg/L)	1,000	N/D	N/D	N/D	N/D	50.0	N/D	N/D		N/D	N/D	N/D	2.69	N/D		N/D		N/D		N/D	N/D	N/D	N/D	N/D	N/D	N/D	1.31	N/D	7.28	N/D	N/D	N/D
Ethylbenzene (µg/L)	700	N/D	N/D	N/D	N/D	42.0	N/D	1.0		N/D	N/D	N/D	N/D	N/D		N/D		N/D		N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	4.63	8.07	N/D	N/D	N/D
Xylenes (µg/L)	10,000	N/D	N/D	4.1	1.39	150	N/D	N/D		4.0	11.7	N/D	5.23	N/D		N/D		N/D		1.39	N/D	N/D	N/D	N/D	N/D	N/D	7.21	6.69	87.5	N/D	N/D	N/D
Total BTEX (µg/L)	N/A	N/D	N/D	10.1	1.39	372	68.4	10.7		81.0	285.7	1.8	14.01	N/D		N/D		N/D		1.39	N/D	N/D	N/D	N/D	50.6	N/D	18.62	56.42	208.85	N/D	N/D	N/D
MTBE (µg/L)	40	N/D	N/D	56.0	2.82	150	139	88.0		36.0	110	12.0	85.0	N/D		12.0		N/D		92.9	2.76	N/D	N/D	N/D	53.2	N/D	15.3	5.41	132	N/D	14.5	34.6
Naphthalene (µg/L)	25	N/D	N/D	N/D	1.33	28.0	11.6	57.0		12.0	86.6	N/D	25.4	N/D		N/D		N/D		2.36	N/D	N/D	N/D	N/D	2.83	N/D	1.36	5.04	11.9	N/D	N/D	N/D
EDB (µg/L)	0.05	N/D	N/D	N/D	N/D	N/D	N/D	N/D		N/D	N/D	N/D	N/D	N/D		N/D		N/D		N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	0.160	N/D	N/D	N/D
1,2-Dichloroethane (µg/L)	5	N/D	N/D	6.8	1.15	17.0	13.8	12.0		6.0	16.0	1.9	8.94	N/D		1.6		N/D		6.64	N/D	N/D	N/D	N/D	1.10	N/D	N/D	N/D	8.45	N/D	1.59	3.00
DIPE (µg/L)	N/A	N/D	N/D	16.0	N/D	63.0	79.0	48.0		28.0	93.0	N/D	N/D	N/D		N/D		N/D		7.8	N/D	N/D	N/D	N/D	22	N/D	8.80	10	95	N/D	N/D	N/D
Ethanol (µg/L)	N/A	N/D	N/D	N/D	N/D	N/D	N/D	N/D		N/D	N/D	N/D	N/D	N/D		N/D		N/D		N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
ETBA (µg/L)	N/A	N/D	N/D	N/D	N/D	N/D	N/D	N/D		N/D	N/D	N/D	N/D	N/D		N/D		N/D		N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
ETBE (µg/L)	N/A	N/D	N/D	N/D	N/D	480	N/D	230		180	N/D	N/D	N/D	N/D		N/D		N/D		N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
TAA (µg/L)	N/A	N/D	N/D	N/D	N/D	N/D	380	N/D		N/D	380	N/D	N/D	N/D		N/D		N/D		N/D	N/D	N/D	N/D	N/D	110	N/D	35.0	61.0	250	N/D	N/D	N/D
TAME (µg/L)	N/A	N/D	N/D	N/D	N/D	N/D	6.30	N/D	Dry	N/D	4.00	N/D	170	N/D	Dry	N/D	Dry	N/D	Dry	N/D	N/D	N/D	N/D	N/D	1.50	N/D	N/D	N/D	4.3	N/D	N/D	N/D
TBA (µg/L)	N/A	N/D	N/D	N/D	N/D	N/D	100	N/D		N/D	98.0	N/D	N/D	N/D		N/D		N/D		N/D	N/D	N/D	N/D	N/D	30	N/D	130	200	73.0	N/D	N/D	N/D
TBF (µg/L)	N/A	N/D	N/D	N/D	N/D	N/D	N/D	N/D		N/D	N/D	N/D	48.0	N/D		N/D		N/D		N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
Benzo(a)anthracene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T		N/T	N/T	N/T	N/T	N/T		N/T		N/T		N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Benzo(b)fluoranthene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T		N/T	N/T	N/T	N/T	N/T		N/T		N/T		N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Benzo(k)fluoranthene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T		N/T	N/T	N/T	N/T	N/T		N/T		N/T		N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Chrysene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T		N/T	N/T	N/T	N/T	N/T		N/T		N/T		N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Dibenz(a, h)anthracene (µg/L)	10	N/T	N/T	N/T	N/T	N/T	N/T	N/T		N/T	N/T	N/T	N/T	N/T		N/T		N/T		N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
PAH-Naphthalene (µg/L)	25	N/T	N/T	N/T	N/T	N/T	N/T	N/T		N/T	N/T	N/T	N/T	N/T		N/T		N/T		N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Total PAH's (µg/L)	N/A	N/T	N/T	N/T	N/T	N/T	N/T	N/T		N/T	N/T	N/T	N/T	N/T		N/T		N/T		N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Lead (µg/L)	15	10.0	N/D	N/D	41.6	1.9	29.0	1.8		N/D	23.5	N/D	N/D	1.2		5.0		2.1		77.4	48.5	23.0	24.5	N/D	18.9	17.3	37.5	33.2	22.8	21.0	235
Ferrous Iron (µg/L)	N/A	22,000	N/D	500	N/D	1,800	N/D	290		N/D	N/D	150	280	N/D		N/D		180		N/D	N/D	N/D	320	N/D	N/D	N/D	680	650	N/D	N/D	N/D	N/D
Nitrates (µg/L)	N/A	N/D	N/D	N/D	607	N/D	N/D	N/D		330	N/D	540	N/D	N/D		N/D		770		N/D	1,070	1,860	1,650	N/D	74.4	N/D	1,250	N/D	N/D	1,950	1,030
Sulfates (µg/L)	N/A	16,000	21,200	N/D	N/D	13,000	6,440	N/D		N/D	N/D	N/D	N/D	N/D		N/D		N/D		N/D	N/D	5,820	N/D	11,000	519	40,800	19,600	68,300	16,700	N/D	N/D
Methane (ppb)	N/A	N/D	N/T	N/D	N/T	N/D	N/T	N/D		N/D	N/T	N/D	N/T	N/D		N/D		N/D		N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T	N/T
Dissolved Oxygen (mg/L)	N/A	1.82	1.99	3.22	1.69	3.78	2.66	3.23		2.64	1.36	5.40	0.96	7.34		7.15		7.67		6.75	8.11	5.61	4.51	1.86	4.72	1.10	0.98	1.22	1.60	6.04	4.77

Notes:
COC = Chemical of Concern
RBSL = Risk-Based Screening Level
Shaded cells indicate COC concentrations that exceed RBSL's
MW-1 through MW-3 were installed during the Tier I phase of work.
MW-1 was compromised during grout injection for the installation of MW-1D. The well was properly abandoned and MW-1R was installed in its place.
µg/L - micrograms per liter - parts per billion
mg/L - milligrams per liter - parts per million
N/D = Not Detected (at the laboratory detection limit)
N/T = Not Tested
N/A = Not Applicable

FIGURES

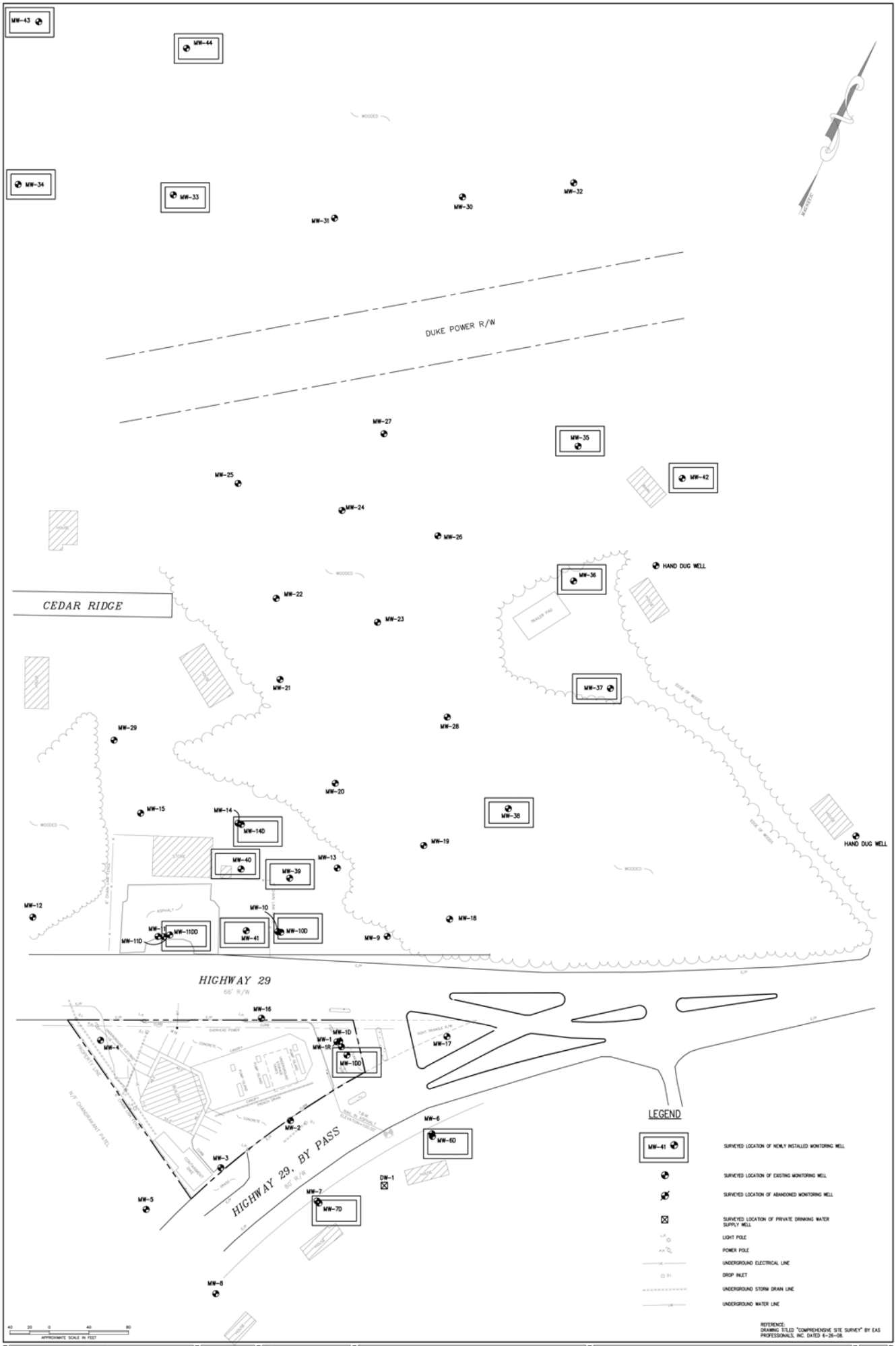


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, BELTON WEST AND SAYLORS CROSSROADS, S.C. QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: AEH	DATE: 03-21-07	BLE inc. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP MOORHEAD OIL COMPANY – KMO 119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA
CHECKED: TJB	CAD: MOOREHEAD-02SLM		
APPROVED:	JOB NO: J07-3661-02		FIGURE 1



REVISIONS		
No.	DESCRIPTION	BY
1		
2		

DRAWN	AEH
CHECKED	TJB
APPROVED	
DATE	10-22-08
FILE	KMO119-03SAM
JOB NO:	JOB-3661-03

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

SITE ASSESSMENT MAP
FORMER KMO #119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE NO. 2

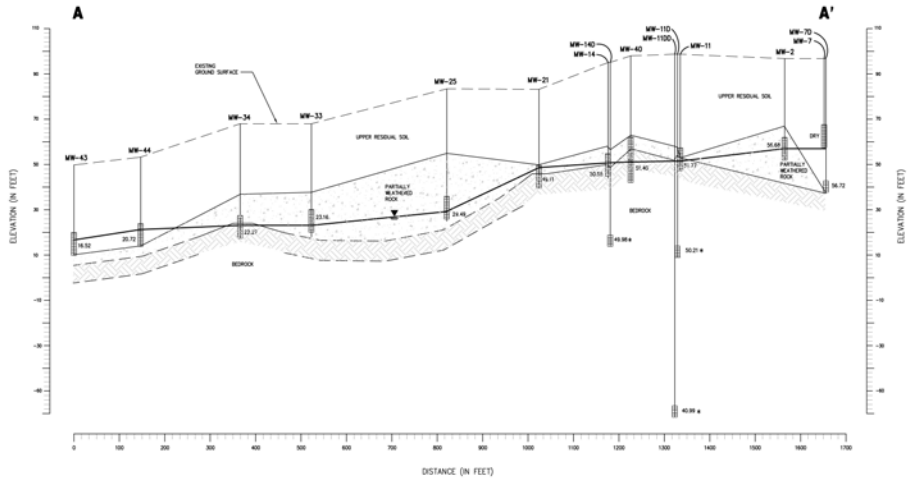
WELL	ELEVATION TOP OF CASING	ELEVATION GROUND	COORDINATES NORTHING	COORDINATES EASTING
MW-1	101.31	101.50	N 500.00	E 500.00
MW-2	97.00	97.18	N 408.14	E 489.55
MW-3	94.72	94.80	N 335.91	E 444.65
DW-1	100.10	100.10	N 386.44	E 602.07
MW-1R	100.89	101.32	N 497.29	E 506.21
MW-10	101.50	101.63	N 501.73	E 503.32
MW-4	97.61	97.80	N 404.00	E 281.09
MW-5	89.23	89.48	N 295.62	E 392.84
MW-6	101.74	101.99	N 494.28	E 625.75
MW-7	96.50	96.88	N 344.85	E 547.34
MW-8	87.94	88.19	N 217.53	E 491.91
MW-9	102.33	102.54	N 618.17	E 553.53
MW-10	99.78	100.02	N 577.36	E 399.93
MW-11	98.46	98.74	N 533.55	E 291.36
MW-11D	98.49	98.67	N 525.72	E 296.93
MW-12	97.25	97.53	N 469.76	E 167.77
MW-13	99.08	99.25	N 550.60	E 428.75
MW-14	94.99	95.22	N 660.11	E 318.60
MW-15	96.64	96.88	N 630.25	E 224.45
MW-16	99.91	100.08	N 490.65	E 420.60
MW-17	103.40	103.90	N 550.28	E 599.44
MW-18	108.17	105.09	N 659.76	E 553.50
MW-19	104.15	101.06	N 717.11	E 499.24
MW-20	97.96	94.73	N 738.11	E 391.89
MW-21	87.23	83.58	N 811.20	E 298.11
MW-22	84.09	80.46	N 884.50	E 291.15
MW-23	88.00	84.72	N 904.12	E 364.58
MW-24	91.89	78.51	N 992.84	E 285.83
MW-25	87.36	83.66	N 974.53	E 179.51
MW-26	85.06	81.83	N 1008.94	E 384.72
MW-27	76.31	72.91	N 1060.53	E 292.81
MW-28	98.33	95.07	N 845.33	E 468.05
MW-29	95.60	95.77	N 686.69	E 189.84
MW-30	61.37	58.42	N 1130.92	E 267.77
MW-31	67.41	64.10	N 1258.62	E 158.33
MW-32	61.57	58.61	N 1390.81	E 364.64
MW-10D	101.13	101.13	N 491.93	E 514.72
MW-6D	101.43	101.84	N 452.10	E 623.14
MW-7D	96.56	96.88	N 343.72	E 549.97
MW-10D	100.03	100.07	N 578.16	E 403.12
MW-11D	98.48	98.63	N 529.96	E 301.60
MW-14D	95.17	95.20	N 661.39	E 322.12
MW-33	71.29	68.17	N 1214.68	E -0.16
MW-34	71.40	68.02	N 1160.30	E -147.81
MW-35	81.22	78.11	N 1149.47	E 477.20
MW-36	89.46	89.77	N 1023.14	E 528.59
MW-37	94.10	94.07	N 939.12	E 606.87
MW-38	104.99	101.99	N 786.08	E 562.20
MW-39	98.77	98.91	N 631.69	E 388.87
MW-40	97.75	97.95	N 620.01	E 340.23
MW-41	98.97	99.03	N 565.23	E 370.45
MW-42	83.75	80.58	N 1162.65	E 586.64
MW-43	52.91	49.56	N 1318.06	E -195.84
MW-44	56.80	53.77	N 1355.48	E -48.42

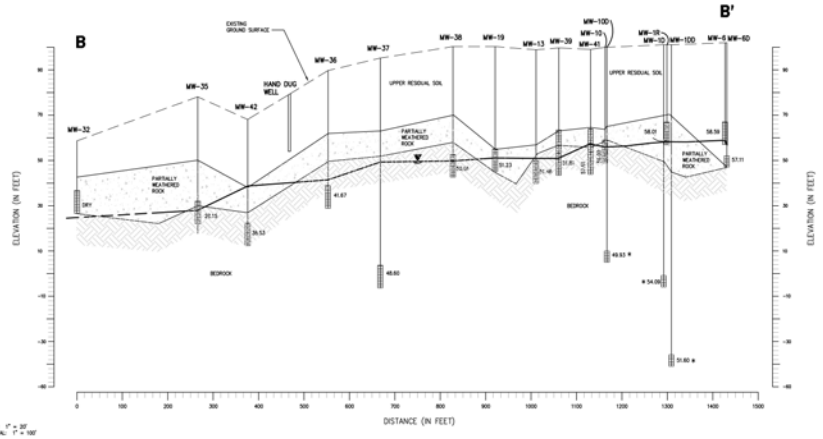
A COMPLETE BOUNDARY SURVEY WAS NOT DONE AT THIS TIME.

REVISED 3-30-07 ADDED MW-4 THRU MW-32, DW-1, MW-10 & MW-1R
REVISED 6-26-08 ADDED MW-10D, MW-6DD, MW-7D, MW-10D, MW-11D, MW-14D, MW-33 THRU MW-44

EAS
PROFESSIONALS, INC.
153 BROZZINI CT. SUITE C
GREENVILLE, S.C. 29615
PHONE (864) 234-7388

COMPREHENSIVE SITE SURVEY
UST No. 00505 KEN MOORHEAD KMO 119
ANDERSON, S.C. 3661-01
DANIEL J. STILES





SCALES:
VERTICAL: 1" = 20'
HORIZONTAL: 1" = 100'

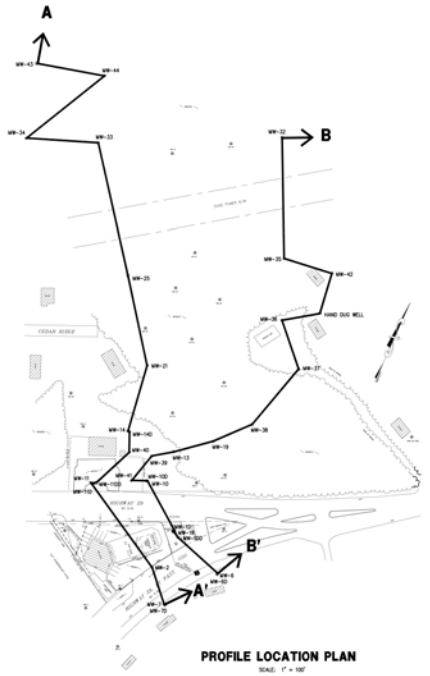
LEGEND

GROUNDWATER LEVEL (MEASURED ON 9-9-07)

57.66 GROUNDWATER ELEVATION (IN FEET)

50.21 ± GROUNDWATER ELEVATION NOT USED FOR CONTOURING DUE TO THE DEPTH OF THE SCREENED INTERVAL

SCREENED INTERVAL



PROFILE LOCATION PLAN

SCALE: 1" = 100'

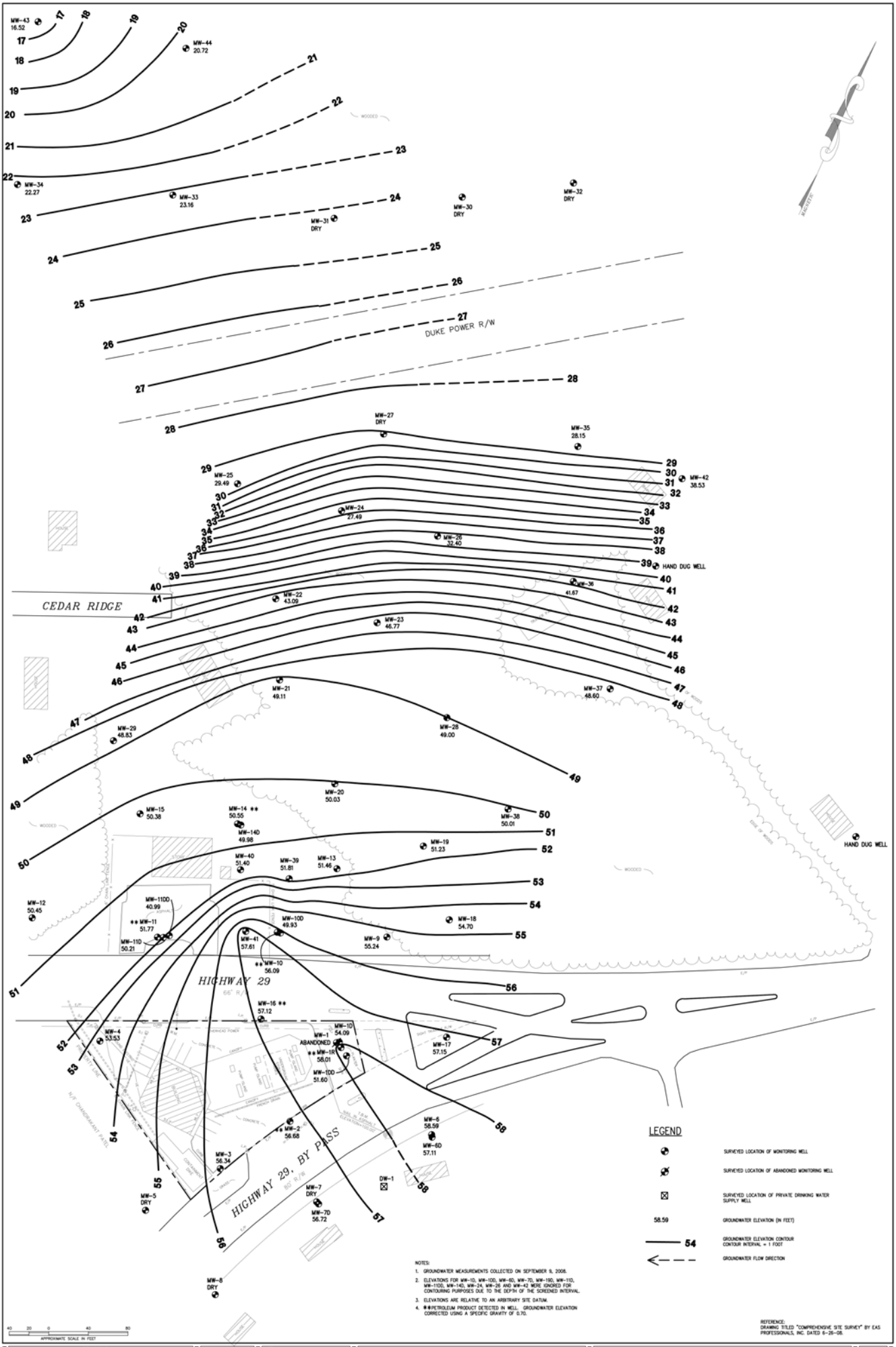
REVISIONS		
No.	DESCRIPTION	BY

DRAWN:	ADH
CHECKED:	TJB
APPROVED:	
DATE:	10-20-08
CAD FILE:	KW0119-03PROF
JOB NO:	J07-3661-03

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
1004 PONDEROSA COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE 864/281-0030 FAX 281/920-4030

SUBSURFACE GEOLOGIC PROFILES A-A' AND B-B'
FORMER KWIK #119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE NO.
4



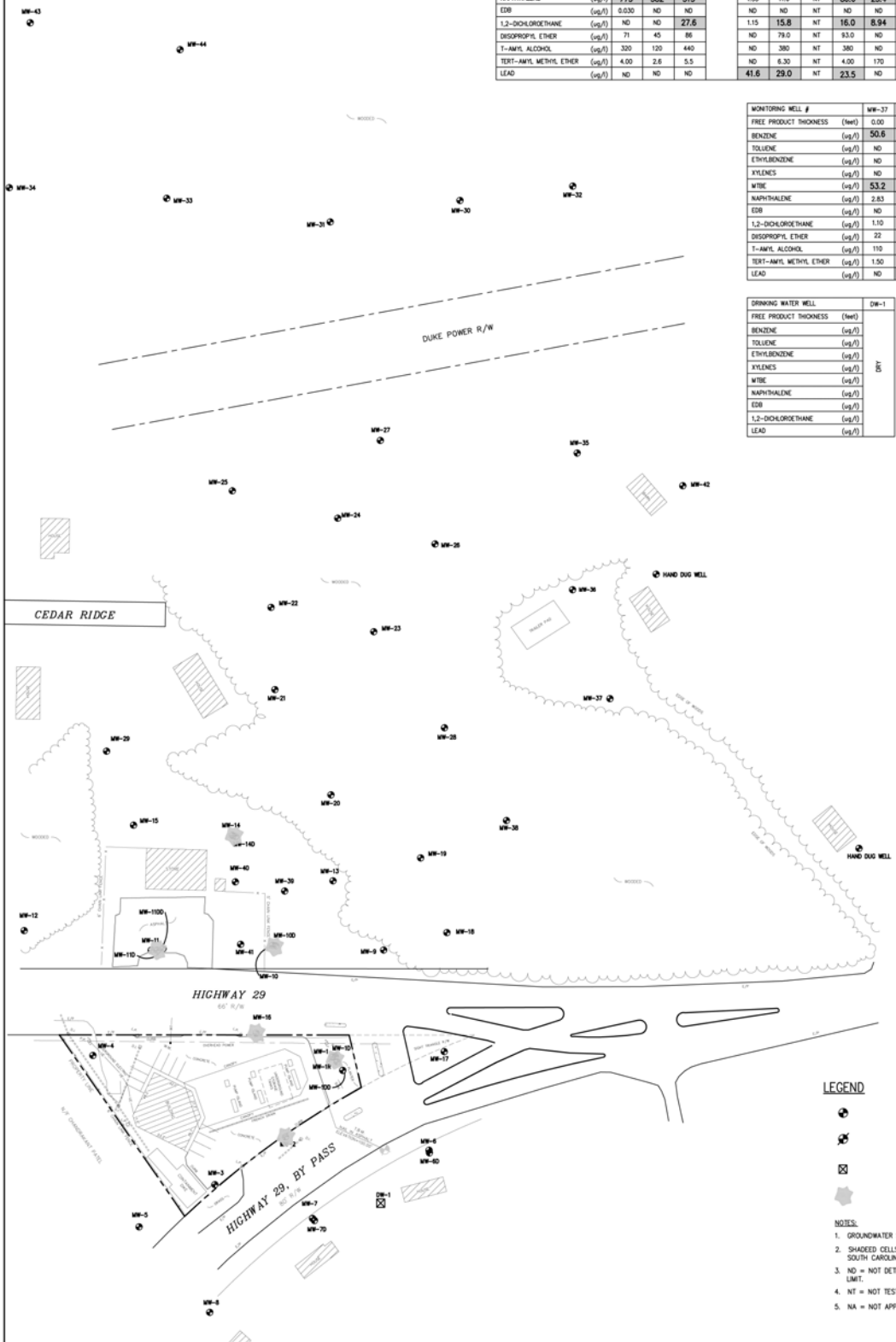
REVISIONS			DRAWN	AEH	DATE	10-22-08	BUNNELL-LAMMONS ENGINEERING, INC.	GROUNDWATER POTENTIOMETRIC MAP – SEPTEMBER 9, 2008	FIGURE NO.
No.	DESCRIPTION	BY	CHECKED	TJB	FILE	KMO119-03P0T9908	6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	FORMER KMO #119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA	5
1			APPROVED		JOB NO:	J08-3661-03			
2									

MONITORING WELL #		MW-1R	MW-10	MW-10D	MW-2	MW-3	MW-4	MW-5	MW-6	MW-6D	MW-7	MW-7D	MW-8	MW-9	MW-10	MW-10D	MW-11	MW-11D	MW-11DD	MW-12	MW-13	MW-14	MW-14D	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20
FREE PRODUCT THICKNESS	(feet)	0.84	0.00	0.00	1.84	0.00	0.00	DRY	DRY	0.00	DRY	0.00	DRY	0.00	0.38	0.00	0.75	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.12	0.00	0.00	0.00	0.00
BENZENE	(ug/l)	NT	8,310	149	NT	9.3	42.3			ND		ND		1,850	NT	68.4	NT	415	8,430	ND	NA	NT	511	436	NT	ND	ND	149	ND
TOLUENE	(ug/l)	NT	2,770	26.8	NT	ND	ND			ND		ND		14.1	NT	7.54	NT	72.5	4,990	ND	NA	NT	24.9	15.9	NT	ND	ND	12	ND
ETHYLBENZENE	(ug/l)	NT	677	14.1	NT	ND	ND			ND		ND		ND	NT	5.09	NT	35.5	712	ND	NA	NT	7.82	52.6	NT	ND	ND	3.58	ND
XYLENES	(ug/l)	NT	1,310	21.6	NT	2.70	ND			ND		ND		ND	NT	17.30	NT	94.3	3,030	ND	NA	NT	88.7	51.2	NT	ND	ND	ND	ND
MTBE	(ug/l)	NT	4,540	115	NT	ND	37.6			ND		ND		405	NT	818	NT	282	4,050	ND	NA	NT	241	165	NT	ND	ND	84.6	1.85
NAPHTHALENE	(ug/l)	NT	307	5.22	NT	ND	ND			ND		ND		21.3	NT	3.16	NT	22.0	182	ND	NA	NT	115	324	NT	ND	ND	104	ND
EDB	(ug/l)	NT	ND	ND	NT	ND	ND			ND		ND		0.028	NT	ND	NT	ND	ND	ND	1.32	NT	ND	0.014	NT	ND	ND	ND	ND
1,2-DICHLOROETHANE	(ug/l)	NT	345	8.69	NT	ND	10.4			ND		ND		167	NT	29.0	NT	17.7	186	ND	NA	NT	21.7	ND	NT	ND	ND	57.4	ND
DISOPROPYL ETHER	(ug/l)	NT	1,300	30.0	NT	1.60	51.0			ND		ND		620	NT	240	NT	100	1,300	ND	NA	NT	110	110	NT	ND	ND	290	ND
T-AMYL ALCOHOL	(ug/l)	NT	9,400	69.0	NT	ND	120			ND		ND		6,700	NT	990	NT	270	7,600	ND	NA	NT	490	420	NT	ND	ND	1,700	ND
TERT-AMYL METHYL ETHER	(ug/l)	NT	110	2.4	NT	ND	2.0			ND		ND		30	NT	15	NT	5.50	92	ND	NA	NT	5.4	5.8	NT	ND	ND	11	ND
LEAD	(ug/l)	NT	ND	ND	NT	1,430	ND			ND		ND		1,010	NT	ND	NT	ND	ND	64.3	NA	NT	ND	113	NT	ND	26.9	40.8	ND

MONITORING WELL #		MW-21	MW-22	MW-23	MW-24	MW-25	MW-26	MW-27	MW-28	MW-29	MW-30	MW-31	MW-32	MW-33	MW-34	MW-35	MW-36
FREE PRODUCT THICKNESS	(feet)	0.00	0.00	0.00	DRY	0.00	0.00	0.0	0.00	0.00	DRY	DRY	DRY	0.00	0.00	0.00	0.00
BENZENE	(ug/l)	741	589	1,220		ND	68.4	NT	274	6.09				ND	ND	ND	ND
TOLUENE	(ug/l)	928	88.5	65.1		ND	ND	NT	ND	2.69				ND	ND	ND	ND
ETHYLBENZENE	(ug/l)	1,080	730	845		ND	ND	NT	ND	ND				ND	ND	ND	ND
XYLENES	(ug/l)	3,960	1,680	655		1.39	ND	NT	11.7	5.23				1.39	ND	ND	ND
MTBE	(ug/l)	109	79.7	264		2.82	139	NT	110	85.0				92.9	2.76	ND	ND
NAPHTHALENE	(ug/l)	773	582	513		1.33	11.6	NT	86.6	25.4				2.36	ND	ND	ND
EDB	(ug/l)	0.030	ND	ND		ND	ND	NT	ND	ND				ND	ND	ND	ND
1,2-DICHLOROETHANE	(ug/l)	ND	ND	27.6		1.15	15.8	NT	16.0	8.94				6.64	ND	ND	ND
DISOPROPYL ETHER	(ug/l)	71	45	86		ND	79.0	NT	93.0	ND				7.8	ND	ND	ND
T-AMYL ALCOHOL	(ug/l)	320	120	440		ND	380	NT	380	ND				ND	ND	ND	ND
TERT-AMYL METHYL ETHER	(ug/l)	4.00	2.6	5.5		ND	6.30	NT	4.00	170				ND	ND	ND	ND
LEAD	(ug/l)	ND	ND	ND		41.6	29.0	NT	23.5	ND				77.4	48.5	23.0	24.5

MONITORING WELL #		MW-37	MW-38	MW-39	MW-40	MW-41	MW-42	MW-43	MW-44
FREE PRODUCT THICKNESS	(feet)	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00
BENZENE	(ug/l)	50.6	ND	10.1	45.1	106	ND	ND	ND
TOLUENE	(ug/l)	ND	ND	1.31	ND	7.28	ND	ND	ND
ETHYLBENZENE	(ug/l)	ND	ND	ND	4.63	8.07	ND	ND	ND
XYLENES	(ug/l)	ND	ND	7.21	6.69	87.5	ND	ND	ND
MTBE	(ug/l)	53.2	ND	15.3	5.41	132	ND	14.5	34.6
NAPHTHALENE	(ug/l)	2.83	ND	1.36	5.04	11.9	ND	ND	ND
EDB	(ug/l)	ND	ND	ND	ND	0.160	ND	ND	ND
1,2-DICHLOROETHANE	(ug/l)	1.10	ND	ND	ND	8.45	ND	1.59	3.00
DISOPROPYL ETHER	(ug/l)	22	ND	8.60	10	95	ND	ND	ND
T-AMYL ALCOHOL	(ug/l)	110	ND	35	61	250	ND	ND	ND
TERT-AMYL METHYL ETHER	(ug/l)	1.50	ND	ND	ND	4.3	ND	ND	ND
LEAD	(ug/l)	ND	18.9	17.3	37.5	33.2	22.8	21.0	235

DRINKING WATER WELL		DW-1
FREE PRODUCT THICKNESS	(feet)	DRY
BENZENE	(ug/l)	
TOLUENE	(ug/l)	
ETHYLBENZENE	(ug/l)	
XYLENES	(ug/l)	
MTBE	(ug/l)	
NAPHTHALENE	(ug/l)	
EDB	(ug/l)	
1,2-DICHLOROETHANE	(ug/l)	
LEAD	(ug/l)	



LEGEND

- SURVEYED LOCATION OF MONITORING WELL
- SURVEYED LOCATION OF ABANDONED MONITORING WELL
- SURVEYED LOCATION OF PRIVATE DRINKING WATER SUPPLY WELL
- FREE-PRODUCT

NOTES:

1. GROUNDWATER SAMPLES COLLECTED ON SEPTEMBER 10-12, 2008.
2. SHADED CELLS INDICATE CONCENTRATIONS EXCEEDING SOUTH CAROLINA RISK-BASED SCREENING LEVELS.
3. ND = NOT DETECTED AT THE LABORATORY DETECTION LIMIT.
4. NT = NOT TESTED. FREE-PRODUCT WAS DETECTED IN MONITORING WELL.
5. NA = NOT APPLICABLE - INSUFFICIENT WATER AVAILABLE FOR SAMPLING.

50 25 0 50 100
APPROXIMATE SCALE IN FEET

REFERENCE:
DRAWING TITLED "COMPREHENSIVE SITE SURVEY" BY EAS PROFESSIONALS, INC. DATED 6-26-08.

REVISIONS		
No.	DESCRIPTION	BY
1		
2		

DRAWN	AEH
CHECKED	TJB
APPROVED	
DATE	10-22-08
FILE	KMO119-03GWCOC
JOB NO:	J08-3661-03

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1265 FAX: (864)288-4430

GROUNDWATER COC MAP
FORMER KMO #119
UST PERMIT #00505
ANDERSON, SOUTH CAROLINA

FIGURE NO. 6

APPENDICES

APPENDIX A

DRILLING PROCEDURES, MONITORING WELL CONSTRUCTION PROCEDURES, MONITORING WELL CONSTRUCTION DIAGRAMS, MONITORING WELL PURGING AND SAMPLING PROCEDURES, AND MONITORING WELL PURGING AND SAMPLING LOGS

APPENDIX A

MONITORING WELL CONSTRUCTION PROCEDURES

Type II Well

Type II groundwater monitoring wells consisted of 2-inch polyvinyl chloride (PVC) Schedule 40 casing with flush-threaded joints installed in a 8.25-inch nominal diameter augered borehole. The bottom (5,10, or 20-foot) section of each well was a manufactured well screen with 0.010-inch wide machined slots. The well screen was installed to the depth of the boring.

Type III Well

In the Type III well installation, a 10-inch nominal diameter boring was advanced through the overburden soils and bedrock using air hammer drilling techniques. A 6-inch diameter PVC casing was installed to the termination depth of each borehole. The annular space between the hole and the 6-inch casing was pressure grouted with a cement/bentonite grout mixture to ground surface. The grout was allowed to set-up and cure for a minimum of 24 hours. After the grout cured, the borings were advanced to a depth of the next occurrence of groundwater. The borings were advanced from the base of the 6-inch casing to a using air hammer drilling techniques. A monitoring well was installed, constructed of 2-inch PVC Schedule 40 casing with flush-threaded joints and a manufactured well screen with 0.010-inch wide machined slots. The well screen was 5 feet in length.

A. General

In the Type II and Type III wells, a washed sand filter pack was emplaced around the outside of the pipe from the bottom of the well casing to at least 2 feet above the top of the well screen. The sand filter pack was used to stabilize the formation and to help yield a less turbid ground-water sample.

A two-foot thick (minimum) bentonite seal was installed on top of the sand filter pack to seal the monitoring well at the desired level. The well annulus was then grouted to the surface with a cement/bentonite grout mixture. A PVC cap and a steel protective cover or steelbolted manhole cover was secured over each wellhead.

APPENDIX A - CONTINUED

MONITORING WELL PURGING AND SAMPLING PROCEDURES

Pursuant to SCDHEC's directive, purging was not required for monitoring wells where the well screens bracket the water table during the time of sampling (with the exception of new well development). Therefore, the monitoring wells which required purging were purged prior to sample collection to remove any stagnant water from the well so that the samples collected were representative of the groundwater quality in the vicinity of each well. For wells that recovered quickly, a minimum of three volumes of water was evacuated. Wells that were evacuated to dryness with less than three well volumes being removed were sampled as soon as the well had recovered enough to yield sufficient volume for a sample.
Specific conductance, pH, water temperature, and dissolved oxygen were measured periodically during well evacuation using instruments, which were calibrated as required.

The monitoring wells were purged using 42-inch long disposable bailers attached to an unused polypropylene cord or a downhole pump with disposable polyethylene tubing. To minimize the potential for cross-contamination between wells, a new clean bailer or new tubing was used for each well.

Samples for VOC analysis were placed in laboratory prepared 40-milliliter glass vials with Teflon ® lined lids and marked with identifying numbers. The VOC samples were preserved using hydrochloric acid (HCl). The nitrate and sulfate samples were not preserved. The sample containers were maintained at approximately 4° Celsius in a refrigerated sample cooler. The sample cooler was shipped to Environmental Science Corp. in Mt. Juliet, Tennessee via overnight delivery service for analysis.

APPENDIX B

LABORATORY DATA SHEETS

Genapure
Analytical Services, Inc.

ANALYTICAL RESULTS

Printed: 04/11/08 07:23pm

TREVOR BENTON
BUNNELL-LAMMONS ENGINEERS
6004 PONDERS CT
GREENVILLE, SC 296154601

Regarding:

TREVOR BENTON
BUNNELL-LAMMONS ENGINEERS
6004 PONDERS CT
GREENVILLE, SC 296154601

Project No: 004037 KMO #119, KMO #119 Inv. No: 210420
Job Name: KMO#119
Job Id: 3661-03

Collected by: Customer Sampled

Laboratory Sample #	Client Sample #
L250928-1	**MW-36**
L250928-2	**MW-37**

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.
Flags: ND or U-below PQL; IL-meets internal lab limits;MI-matrix interference; NA-not applicable.
Flags: CFR-Pb/Cu rule; NFL-no free liquids; DRY = dry wt; ASIS = wet wt; C(#) See attached USB code
FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol; L-exceeds calibration; Q-holding time exceeded;
FLDEP Flags: T-value<MDL; V-present in blank; Y-improper preservation; B-colonies exceed range;I-estimated value;between the MDL and PQL;
Lab certification IDs: FLDOH/NELAC E86240; NC 444; SC 96031001; IL/NELAC 200020; VA 00395; KS/NELAC E-10360; TN 02985; GA 917;NJ FL014;PA 68-03756;
Lab IDs: ADEM 40850; USDA Soil Permit# S-35240; The above results relate only to the samples.
EPA 18 is a non-NELAC certifiable parameter.

Respectfully submitted,

Tiffany Mackie

Tiffany Mackie
Project Manager

ANALYTICAL RESULTS
Printed: 04/11/08 07:23pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 210420
Job Name: KMO#119
Job Id: 3661-03

Sample Number	L250928-1
Sample Description	MW-36
Samp. Date/Time/Temp	04/07/08 03:00pm NA C
Receive Date	04/08/08
Sampled by	Customer Sampled
Received Temp	4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	U	ug/l	1	1.0	N/A	04/11/08	DE
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	04/11/08	DE
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	04/11/08	DE
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	04/11/08	DE
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	04/11/08	DE
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	04/11/08	DE
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	04/11/08	DE
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	04/11/08	DE
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	98	%	1	69-134		04/11/08	DE
TOLUENE-D8 (SURR)	5030/8260	101	%	1	63-127		04/11/08	DE
4-BROMOFLUOROBENZENE (SURR)	5030/8260	95	%	1	64-130		04/11/08	DE
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	04/08/08	04/09/08	EN
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	123	%	1	60-140	04/08/08	04/09/08	EN

Serial Number: 669161

ANALYTICAL RESULTS
Printed: 04/11/08 07:23pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 210420
Job Name: KMO#119
Job Id: 3661-03

Sample Number	L250928-2
Sample Description	MW-37
Samp. Date/Time/Temp	04/07/08 02:30pm NA C
Receive Date	04/08/08
Sampled by	Customer Sampled
Received Temp	4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	59.1	ug/l	1	1.0	N/A	04/11/08	DE
BENZENE	5030/8260	68.7	ug/l	1	1.0	N/A	04/11/08	DE
TOLUENE	5030/8260	68.7	ug/l	1	1.0	N/A	04/11/08	DE
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	04/11/08	DE
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	04/11/08	DE
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	04/11/08	DE
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	04/11/08	DE
NAPHTHALENE	5030/8260	1.98	ug/l	1	1.0	N/A	04/11/08	DE
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	100	%	1	69-134		04/11/08	DE
TOLUENE-D8 (SURR)	5030/8260	104	%	1	63-127		04/11/08	DE
4-BROMOFLUOROBENZENE (SURR)	5030/8260	98	%	1	64-130		04/11/08	DE
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	04/08/08	04/09/08	EN
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	97	%	1	60-140	04/08/08	04/09/08	EN

Serial Number: 669161

Genapure Analytical Services, Inc.

3231 NW 7th Ave., Boca Raton, FL 33431
www.genapure.com

CHAIN OF CUSTODY RECORD

Log# 252928 T#S 2 Quote: _____ Page 1 of 1

Company Name: BLE PO#
Address: 6004 Ponders Court
City: Greenville State: SC Zip: 29615
Attn: Trevor Benton Fax# 864-288-4430
email: trevor@blecorp.com

Project Name: KMO #119 Proj# 3661-03
Sampler Signature: [signature] Phone# 864-288-1265

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity OK(Y/N)	Total # of containers
i.e.	MW-1	6/16/04	11:35	GW	X		1
_1	MW-36	4-7-08	1500	GW			6
_2	MW-37	4-7-08	1430	GW			6
_3							
_4							
_5							
_6							
_7							
_8							
_9							
_0							

LAB ANALYSIS

	Parameters										EXAMPLE Diss.8RCRA 6010
Sample											
TRC											
pH											
Pres Codes											
Parameters	BTEX/nap MTBE 8260B	EDB 8011									
# of Containers Size/Type	3 VOAs	3 VOAs									1 16ozP
_1	3 VOAs	3 VOAs									
_2	3 VOAs	3 VOAs									

Container Type Codes

AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PL C	Plastic container
AL	Amber Liter	PL J	Plastic Jar
CL	Clear Liter	Ziploc	Ziploc bag
AP	Amber Plastic	TEDLAR B	Tedlar bag
AG	Amber Glass	WHIRL P	Whirl pak
SJ	Soil Jar	G	Gallon Jug

Other _____
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other ___
Example: 4ozP = 4oz Plastic, 8oxSJ=8oz Soil Jar

Matrix Codes*

SD	Solid Waste	WW	Waste Water
SO	Soil	AFW	Analyte Free Water
SE	Sediment	DW	Drinking Water
OL	Oil	SU	Surface Water
PE	Petroleum	AQ	Aqueous
NA	Nonaqueous	SW	Source Water
ML	Misc. Liquid	A	Air
GW	Ground Water	O	Other_____
EFF	Effluent		(Please Specify)
INF	Influent		

Pres/Codes

A. None	E. HCL	I. Ice
B. HNO_3	F. MeOH	J. MCAA
C. H_2SO_4	G. $Na_2S_2O_3$	K. Zn Acetate
D. NaOH	H. $NaHSO_4$	O. Other

REMARKS

ORIGINAL

T.A.T. REQUEST Standard	RUSH	Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers #'s
Y/N	Date Required	Y___ N___	None___ 1___ 2___ 3___ Other___	Y N			___ ___ ___ ___ ___

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
	[signature]	sampler	4-7-08	1700	[signature]	GSO	4/8/08	10:57

Lab Use Only

	Yes	No	N/A
Sample INTACT upon arrival?			
Received on Wet Ice? Temp 4°c			
Proper Preservatives Indicated?			
Received within holding time?			
Custody seals Intact?			
Volatile rec'd without headspace?			
Proper Containers Used?			

174386

Genapure Analytical Services, Inc.

Level I QA

FOR

BUNNELL-LAMMONS ENGINEERS

BUNNELL-LAMMONS ENGINEERS

3661-03

Field Sample ID	Laboratory Sample ID	Date of Collection
MW-36	L250928-1	04/07/08
MW-37	L250928-2	04/07/08

Log No.L250928

6 pages (including cover sheet)

Qa Information for Login
usb_qa_export.idxl
L250928

Dept	Matrix	Product	Workgroup	RunID	
Volatiles Analy	GW	8260BTEXNAP	1D041108VM	1D041108VM	928-1
Volatiles Analy	GW	8260BTEXNAP	1D041108VM	1D041108VM	928-2
Semi-Volatiles	GW	8011EDB	04038SGL	10040808SG-04038SGL	928-1
Semi-Volatiles	GW	8011EDB	04038SGL	10040808SG-04038SGL	928-2
Semi-Volatiles	GW	8011EDB	04038SGL	10040808SG-04038SGL	928-1
Semi-Volatiles	GW	8011EDB	04038SGL	10040808SG-04038SGL	928-2

GENAPURE

BLANK RESULTS

Test Report No.: L250928

Client Name : BUNNELL-LAMMONS ENGINEERS

Job Name : KMO#119

Parameter	Method	Units	Result	PQL	MDL	Flags
BENZENE	5030/8260	ug/l	U	1.00	0.31	
ETHYL BENZENE	5030/8260	ug/l	U	1.00	0.31	
M&P-XYLENES	5030/8260	ug/l	U	2.00	0.77	
METHYL TERTIARY BUTYLETHER	5030/8260	ug/l	U	1.00	0.12	
NAPHTHALENE	5030/8260	ug/l	U	1.00	0.41	
O-XYLENE	5030/8260	ug/l	U	1.00	0.38	
TOLUENE	5030/8260	ug/l	0.850	1.00	0.28	I
XYLENES (TOTAL)	5030/8260	ug/l	U	3.00	1.2	
4-BROMOFLUOROBENZENE (SURR)	5030/8260	%	95	—	—	
DIBROMOFLUOROMETHANE (SURR)	5030/8260	%	102	—	—	
TOLUENE-D8 (SURR)	5030/8260	%	102	—	—	

Form No. WC3

GENAPURE

LABORATORY CONTROL SAMPLE RESULTS

Test Report No.: L250928

Client Name : BUNNELL-LAMMONS ENGINEERS

Job Name : KMO#119

Parameter	Method	Units	TrueValue	LCS Result	LCS Rec. %	LCS Dup Result	LCS Dup Rec.%	Recovery Limits	% RPD	RPD Limit	Flags
BENZENE	5030/8260	ug/l	20.0	17.8	89	N/A	N/A	65-141	N/A	N/A	
TOLUENE	5030/8260	ug/l	20.0	23.9	120			64-139			V
4-BROMOFLUOROBENZENE (SURR)	5030/8260	ug/l	50.0	46.85	94			64-130			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	ug/l	50.0	55.68	111			69-134			
TOLUENE-D8 (SURR)	5030/8260	ug/l	50.0	61.79	124			63-127			

Spike Recovery: 0 out of 10 outside limits

Duplicate RPD: 0 out of 0 outside limits

Form No. WC5

GENAPURE

SPIKE/SPIKE DUPLICATE SAMPLE RESULTS

Test Report No.: L250928

Client Name : BUNNELL-LAMMONS ENGINEERS

Job Name : KMO#119

Parameter	Sample Number	Method	Units	Sample Result	Spike Conc.	Spiked Result	Spike Rec. %	Spike Dup Result	Spike Dup Rec.%	Recovery Limits	% RPD	RPD Limit	Flags
BENZENE	L250562-3	5030/8260	ug/l	0.480 I	20.0	21.7	106	21.5	105	61-152	1.0	20	
TOLUENE	L250562-3	5030/8260	ug/l	0.880 IV	20.0	21.4	103	21.6 V	104	60-149	1.0	20	V
4-BROMOFLUOROBENZENE (SURR)	L250562-3	5030/8260	ug/l	—	50.0	47.1	94	47.37	95	64-130	—	—	
DIBROMOFLUOROMETHANE (SURR)	L250562-3	5030/8260	ug/l	—	50.0	50.41	101	49.32	99	69-134	—	—	
TOLUENE-D8 (SURR)	L250562-3	5030/8260	ug/l	—	50.0	51.82	104	52.19	104	63-127	—	—	

Spike Recovery: 0 out of 10 outside limits

Duplicate RPD: 0 out of 2 outside limits

Form No. WC4

US Biosystems, Inc.

SW-846 EPA8011 BATCH QC REPORT

Blank, LCS/LCS-dup, MS/MS-dup

						MSAMP ID:
						L250660-5
	BLANK	LFB	LFBD	LFM	LFMD	MSAMP
BATCH ID	04038SGL					
CLOCK ID	1O040808SG	1O040808SG	1O040808SG	1O040808SG	1O040808SG	1O040808SG
DATE EXTRACTED	4/8/2008					
TIME EXTRACTED	18:00					
DATE ANALYZED	4/9/08	4/9/08	4/9/08	4/9/08	4/9/08	4/9/08
TIME ANALYZED	2:42	3:05	7:24	11:42	12:05	12:29
ANALYST	EN					

Log#s:	
L250928	

Note for South Carolina projects: State required limits are 70-130% for Method Blank (surrogate) and LCS (surrogate and spike). Qualify the above recoveries IL if they fall 70-130% but pass the method required 60-140%

ANALYTE	CONCENTRATION (ug/L)						DETECTION LIMIT (ug/L)	MDL (ug/L)	LCS/LCSD MS/MSD TRUE VALUE (ug/L)	% RECOVERY									%RPD			% RSD	
										BLANK	LCS	LCSD	AVE LCS/LCSD	MS	MSD	AVE MS/MSD	LIMITS LOW	LIMITS HIGH	LCS/LCSD	MS/MSD	LIMITS	LCS/LCSD	LIMITS
EDB	BMDL	0.104	0.105	0.111	0.105	0.00	0.020	0.0059	0.10	N/A	104	105	105	111	105	108	83	134	1.0	0.5	16	0.7	10
DBCP	BMDL	0.101	0.103	0.103	0.103	0.00	0.020	0.0190	0.10	N/A	101	103	102	103	103	103	75	131	2.0	1.0	20	1.4	10
BFB (Surrogate)	3.376	3.181	3.308	3.556	3.392	3.492	N/A	N/A	4.00	84	80	83	N/A	89	89	N/A	60	140	N/A	N/A	N/A	N/A	N/A

MSAMP: 0.00=BDL or N/A

NOTE:

KEY: **RDL**=Reportable Detection Limit, **MDL**=Method Detection Limit, **LFB(D)**= Laboratory Fortified Blank (Duplicate), **LFM** = Laboratory Fortified Matrix, **MSAMP**= Matrix Sample spiked, **AVE**=Average
RPD= Relative Percent Difference, **Workgroup**= Batch, **Run ID (Clock ID)**= Calibration Check Standards(instrument checks), **Flags**= QC has not met criteria.
LAST UPDATED: 05/11/06

Genapure Analytical Services, Inc.

ANALYTICAL RESULTS

Printed: 06/08/08 10:37pm

TREVOR BENTON
BUNNELL-LAMMONS ENGINEERS
6004 PONDERS CT
GREENVILLE, SC 296154601

Regarding:

TREVOR BENTON
BUNNELL-LAMMONS ENGINEERS
6004 PONDERS CT
GREENVILLE, SC 296154601

Project No: 004037 KMO #119, KMO #119 Inv. No: 214006
Job Name: KMO#118
Job Id: J08-3661-03

Collected by: Customer Sampled

Laboratory Sample #	Client Sample #
L255235-1	MW-33
L255235-2	MW-34

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.
Flags: ND or U-below PQL; IL-meets internal lab limits;MI-matrix interference; NA-not applicable.
Flags: CFR-Pb/Cu rule; NFL-no free liquids; DRY = dry wt; ASIS = wet wt; C(#) See attached USB code
FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol; L-exceeds calibration; Q-holding time exceeded;
FLDEP Flags: T-value<MDL; V-present in blank; Y-improper preservation; B-colonies exceed range;I-estimated value;between the MDL and PQL;
Lab certification IDs: FLDOH/NELAC E86240; NC 444; SC 96031001; IL/NELAC 200020; VA 00395; KS/NELAC E-10360; TN 02985; GA 917;NJ FL014;PA 68-03756;
Lab IDs: ADEM 40850; USDA Soil Permit# S-35240; The above results relate only to the samples.
EPA 18 is a non-NELAC certifiable parameter. Estimated uncertainty is available upon request.

Respectfully submitted,

Tiffany Mackie

Tiffany Mackie
Project Manager

ANALYTICAL RESULTS
Printed: 06/08/08 10:37pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 214006
Job Name: KMO#118
Job Id: J08-3661-03

Sample Number	L255235-1
Sample Description	MW-33
Samp. Date/Time/Temp	06/02/08 11:40am NA C
Receive Date	06/04/08
Sampled by	Customer Sampled
Received Temp	3 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	86.1	ug/l	1	1.0	N/A	06/06/08	ky
1,2-DICHLOROETHANE	5030/8260	7.21	ug/l	1	1.0	N/A	06/06/08	ky
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
M&P-XYLENES	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	06/06/08	ky
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	100	%	1	69-134		06/06/08	ky
TOLUENE-D8 (SURR)	5030/8260	105	%	1	63-127		06/06/08	ky
4-BROMOFLUOROBENZENE (SURR)	5030/8260	118	%	1	64-130		06/06/08	ky

Serial Number: 673016

ANALYTICAL RESULTS
Printed: 06/08/08 10:37pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 214006
Job Name: KMO#118
Job Id: J08-3661-03

Sample Number	L255235-2
Sample Description	MW-34
Samp. Date/Time/Temp	06/02/08 11:50am NA C
Receive Date	06/04/08
Sampled by	Customer Sampled
Received Temp	3 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	3.41	ug/l	1	1.0	N/A	06/06/08	ky
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
M&P-XYLENES	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	06/06/08	ky
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	06/06/08	ky
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	101	%	1	69-134		06/06/08	ky
TOLUENE-D8 (SURR)	5030/8260	105	%	1	63-127		06/06/08	ky
4-BROMOFLUOROBENZENE (SURR)	5030/8260	117	%	1	64-130		06/06/08	ky

Serial Number: 673016

Pace Analytical GENEPURE #25523

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

0986732

Section A
Required Client Information:

Company: BLE
Address: 6004 PONDERS CT
GREENVILLE SC 29615
Email To: trevor@blecorp.com
Phone: 864-288-1265 Fax:
Requested Due Date/TAT: 6/6/08 *

Section B
Required Project Information:

Report To: TREVOR BENTON
Copy To:
Purchase Order No.:
Project Name: KMC #119
Project Number: J08-3661-03

Section C
Invoice Information:

Attention: TREVOR BENTON
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ Other

SITE LOCATION

☐ GA ☐ IL ☐ IN ☐ MI ☐ MN ☐ NC
☐ OH ☒ SC ☐ WI ☐ OTHER

Section D
Required Client Information

SAMPLE ID

One Character per box.
(A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: 8260B BTEX + MTBE + 1,2 DCA	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	MW-33	WT	G			6/2/08	1140		3				3					✓	✓		
2	MW-34	WT	G			↓	1150		3				3					✓			
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
BLE	6/3/08	1700	GAI	6/4	9:41

SAMPLE CONDITION

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
3	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: TREVOR BENTON
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 06/03/08

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

ALLQ020rev.3,31Mar05

Genapure Analytical Services, Inc.

ANALYTICAL RESULTS

Printed: 09/24/08 07:56pm

TREVOR BENTON
BUNNELL-LAMMONS ENGINEERS
6004 PONDERS CT
GREENVILLE, SC 296154601

Regarding:

TREVOR BENTON
BUNNELL-LAMMONS ENGINEERS
6004 PONDERS CT
GREENVILLE, SC 296154601

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Collected by: Customer Sampled

Laboratory Sample #	Client Sample #
L262233-1	**MW-1D**
L262233-2	**MW-1DD**
L262233-3	**MW-3**
L262233-4	**MW-4**
L262233-5	**MW-6D**
L262233-6	**MW-7D**
L262233-7	**MW-9**
L262233-8	**MW-12**
L262233-9	**MW-13**
L262233-10	**MW-15**
L262233-11	**MW-17**

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.
Flags: ND or U-below PQL; IL-meets internal lab limits;MI-matrix interference; NA-not applicable.
Flags: CFR-Pb/Cu rule; NFL-no free liquids; DRY = dry wt; ASIS = wet wt; C(#) See attached USB code
FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol; L-exceeds calibration; Q-holding time exceeded;
FLDEP Flags: T-value<MDL; V-present in blank; Y-improper preservation; B-colonies exceed range;I-estimated value;between the MDL and PQL;
Lab certification IDs: FLDOH/NELAC E86240; NC 444; SC 96031001; IL/NELAC 200020; VA 00395; KS/NELAC E-10360; TN 02985; GA 917;NJ FL014;PA 68-03756;
Lab IDs: ADEM 40850; USDA Soil Permit# S-35240; The above results relate only to the samples.
EPA 18 is a non-NELAC certifiable parameter. Estimated uncertainty is available upon request.

Genapure Analytical Services, Inc. 3231 NW 7th Avenue Boca Raton, FL 33431 (888)862-5227

 Serial Number: 680144

Respectfully submitted,

Tiffany Mackie

Tiffany Mackie
Project Manager

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

L262233-12 MW-18

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-1
Sample Description MW-1D
Samp. Date/Time/Temp 09/10/08 02:50pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	4540	ug/l	500	500	N/A	09/22/08	LN
1,2-DICHLOROETHANE	5030/8260	345	ug/l	5	5.0	N/A	09/20/08	LN
BENZENE	5030/8260	8310	ug/l	500	500	N/A	09/22/08	LN
TOLUENE	5030/8260	2770	ug/l	500	500	N/A	09/22/08	LN
ETHYL BENZENE	5030/8260	677	ug/l	5	5.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	1310	ug/l	5	10	N/A	09/20/08	LN
O-XYLENE	5030/8260	595	ug/l	500	500	N/A	09/22/08	LN
XYLENES (TOTAL)	5030/8260	1310	ug/l	5	15	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	307	ug/l	5	5.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	104	%	5	69-134		09/20/08	LN
DIBROMOFLUOROMETHANE (SURR)	5030/8260	102	%	500	69-134		09/22/08	LN
TOLUENE-D8 (SURR)	5030/8260	101	%	5	63-127		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	98	%	500	63-127		09/22/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	101	%	5	64-130		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	100	%	500	64-130		09/22/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/20/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/15/08	09/18/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	110	%	1	60-140	09/15/08	09/18/08	LR
8260 OXY								
DIPE (E87653)	8260B	1300	ug/l	10	10.0	N/A	09/19/08	SUB
ETHANOL (E87653)	8260B	U	ug/l	10	1000	N/A	09/19/08	SUB
ETBA (E87653)	8260B	U	ug/l	10	200	N/A	09/19/08	SUB
ETBE (E87653)	8260B	U	ug/l	10	10.0	N/A	09/19/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-1
Sample Description MW-1D
Samp. Date/Time/Temp 09/10/08 02:50pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TAA (E87653)	8260B	9400	ug/l	10	200	N/A	09/19/08	SUB
TAME (E87653)	8260B	110	ug/l	10	10.0	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (E87653)	8260B	2200	ug/l	10	200	N/A	09/19/08	SUB
TERT-BUTYL FORMATE (E87653)	8260B	U	ug/l	10	50.0	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	0.689	mg/l	10	0.50	N/A	09/11/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/11/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/11/08	AD

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-2
Sample Description MW-1DD
Samp. Date/Time/Temp 09/10/08 12:15pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	115	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	8.69	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	149	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	26.8	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	14.1	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	14.4	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	7.22	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	21.6	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	5.22	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	106	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	106	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/20/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/15/08	09/18/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	97	%	1	60-140	09/15/08	09/18/08	LR
8260 OXY								
DIPE (E87653)	8260B	30.0	ug/l	1	1.00	N/A	09/18/08	SUB
ETHANOL (E87653)	8260B	U	ug/l	1	100	N/A	09/18/08	SUB
ETBA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
ETBE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TAA (E87653)	8260B	69.0	ug/l	1	20.0	N/A	09/18/08	SUB
TAME (E87653)	8260B	2.40	ug/l	1	1.00	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number	L262233-2
Sample Description	MW-1DD
Samp. Date/Time/Temp	09/10/08 12:15pm NA C
Receive Date	09/11/08
Sampled by	Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date,	Analyst
TERT-BUTYL FORMATE (E87653)	8260B	U	ug/l	1	5.00	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/11/08	AD
SULFATE	300.0	11.9	mg/l	10	5.0	N/A	09/11/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/11/08	AD

Serial Number: 680144

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-3
Sample Description MW-3
Samp. Date/Time/Temp 09/10/08 11:25am NA C
Receive Date 09/11/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	9.30	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	2.16	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	2.70	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	102	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	107	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	1.43	mg/l	50	0.50	09/18/08	09/20/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/15/08	09/18/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	86	%	1	60-140	09/15/08	09/18/08	LR
8260 OXY								
DIPE (E87653)	8260B	1.60	ug/l	1	1.00	N/A	09/18/08	SUB
ETHANOL (E87653)	8260B	U	ug/l	1	100	N/A	09/18/08	SUB
ETBA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
ETBE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TAA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
TAME (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number	L262233-3
Sample Description	MW-3
Samp. Date/Time/Temp	09/10/08 11:25am NA C
Receive Date	09/11/08
Sampled by	Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (E87653)	8260B	U	ug/l	1	5.00	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	0.985	mg/l	10	0.50	N/A	09/11/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/11/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/11/08	AD

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-4
Sample Description MW-4
Samp. Date/Time/Temp 09/10/08 11:45am NA C
Receive Date 09/11/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	37.6	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	10.4	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	42.3	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	103	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	103	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	111	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/20/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/15/08	09/18/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	96	%	1	60-140	09/15/08	09/18/08	LR
8260 OXY								
DIPE (E87653)	8260B	51.0	ug/l	1	1.00	N/A	09/18/08	SUB
ETHANOL (E87653)	8260B	U	ug/l	1	100	N/A	09/18/08	SUB
ETBA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
ETBE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TAA (E87653)	8260B	120	ug/l	1	20.0	N/A	09/18/08	SUB
TAME (E87653)	8260B	2.00	ug/l	1	1.00	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (E87653)	8260B	29.0	ug/l	1	20.0	N/A	09/18/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number	L262233-4
Sample Description	MW-4
Samp. Date/Time/Temp	09/10/08 11:45am NA C
Receive Date	09/11/08
Sampled by	Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (E87653)	8260B	U	ug/l	1	5.00	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/11/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/11/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/11/08	AD

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-5
Sample Description MW-6D
Samp. Date/Time/Temp 09/10/08 12:04pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	110	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	107	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/20/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/15/08	09/18/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	94	%	1	60-140	09/15/08	09/18/08	LR
8260 OXY								
DIPE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
ETHANOL (E87653)	8260B	U	ug/l	1	100	N/A	09/18/08	SUB
ETBA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
ETBE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TAA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
TAME (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number	L262233-5
Sample Description	MW-6D
Samp. Date/Time/Temp	09/10/08 12:04pm NA C
Receive Date	09/11/08
Sampled by	Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date,	Analyst
TERT-BUTYL FORMATE (E87653)	8260B	U	ug/l	1	5.00	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	0.755	mg/l	10	0.50	N/A	09/11/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/11/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/11/08	AD

Serial Number: 680144

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-6
Sample Description MW-7D
Samp. Date/Time/Temp 09/10/08 04:50pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	109	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	98	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	105	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/20/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/15/08	09/18/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	90	%	1	60-140	09/15/08	09/18/08	LR
8260 OXY								
DIPE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
ETHANOL (E87653)	8260B	U	ug/l	1	100	N/A	09/18/08	SUB
ETBA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
ETBE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TAA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
TAME (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-6
Sample Description MW-7D
Samp. Date/Time/Temp 09/10/08 04:50pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (E87653)	8260B	U	ug/l	1	5.00	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	0.867	mg/l	10	0.50	N/A	09/11/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/11/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/11/08	AD

Serial Number: 680144

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-7
Sample Description MW-9
Samp. Date/Time/Temp 09/10/08 12:13pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	405	ug/l	10	10	N/A	09/22/08	LN
1,2-DICHLOROETHANE	5030/8260	167	ug/l	10	10	N/A	09/22/08	LN
BENZENE	5030/8260	1850	ug/l	10	10	N/A	09/22/08	LN
TOLUENE	5030/8260	14.1 V	ug/l	10	10	N/A	09/22/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	10	10	N/A	09/22/08	LN
M&P-XYLENES	5030/8260	U	ug/l	10	20	N/A	09/22/08	LN
O-XYLENE	5030/8260	U	ug/l	10	10	N/A	09/22/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	10	30	N/A	09/22/08	LN
NAPHTHALENE	5030/8260	21.3	ug/l	10	10	N/A	09/22/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	97	%	10	69-134		09/22/08	LN
TOLUENE-D8 (SURR)	5030/8260	97	%	10	63-127		09/22/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	101	%	10	64-130		09/22/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0853	mg/l	1	0.010	09/18/08	09/20/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	0.0280	ug/l	1	0.010	09/15/08	09/18/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	105	%	1	60-140	09/15/08	09/18/08	LR
8260 OXY								
DIPE (E87653)	8260B	620	ug/l	5	5.00	N/A	09/19/08	SUB
ETHANOL (E87653)	8260B	U	ug/l	5	500	N/A	09/19/08	SUB
ETBA (E87653)	8260B	U	ug/l	5	100	N/A	09/19/08	SUB
ETBE (E87653)	8260B	U	ug/l	5	5.00	N/A	09/19/08	SUB
TAA (E87653)	8260B	6700	ug/l	5	100	N/A	09/19/08	SUB
TAME (E87653)	8260B	30.0	ug/l	5	5.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (E87653)	8260B	990	ug/l	5	100	N/A	09/19/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number	L262233-7
Sample Description	MW-9
Samp. Date/Time/Temp	09/10/08 12:13pm NA C
Receive Date	09/11/08
Sampled by	Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date,	Analyst
TERT-BUTYL FORMATE (E87653)	8260B	U	ug/l	5	25.0	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/11/08	AD
SULFATE	300.0	7.15	mg/l	10	5.0	N/A	09/11/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	1.01	mg/l	1	0.10	N/A	09/11/08	AD

Serial Number: 680144

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-8
Sample Description MW-12
Samp. Date/Time/Temp 09/10/08 02:17pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	U*	ug/l	50	50	N/A	09/22/08	LN
1,2-DICHLOROETHANE	5030/8260	U*	ug/l	50	50	N/A	09/22/08	LN
BENZENE	5030/8260	U*	ug/l	50	50	N/A	09/22/08	LN
TOLUENE	5030/8260	U*	ug/l	50	50	N/A	09/22/08	LN
ETHYL BENZENE	5030/8260	U*	ug/l	50	50	N/A	09/22/08	LN
M&P-XYLENES	5030/8260	U*	ug/l	50	100	N/A	09/22/08	LN
O-XYLENE	5030/8260	U*	ug/l	50	50	N/A	09/22/08	LN
XYLENES (TOTAL)	5030/8260	U*	ug/l	50	150	N/A	09/22/08	LN
NAPHTHALENE	5030/8260	U*	ug/l	50	50	N/A	09/22/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	102*	%	50	69-134		09/22/08	LN
TOLUENE-D8 (SURR)	5030/8260	96*	%	50	63-127		09/22/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	98*	%	50	64-130		09/22/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0643	mg/l	1	0.010	09/18/08	09/20/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/15/08	09/18/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	93	%	1	60-140	09/15/08	09/18/08	LR
8260 OXY								
DIPE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
ETHANOL (E87653)	8260B	U	ug/l	1	100	N/A	09/18/08	SUB
ETBA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
ETBE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TAA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
TAME (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-8
Sample Description MW-12
Samp. Date/Time/Temp 09/10/08 02:17pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (E87653)	8260B	U	ug/l	1	5.00	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	2.53	mg/l	10	0.50	N/A	09/11/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/11/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/11/08	AD

**** NOTES CONCERNING THE ABOVE SAMPLE ****

Method 5030/8260 - Flag_Sample analyzed at a dilution due to physical characteristics and/or high levels of non-target compounds

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number	L262233-9
Sample Description	MW-13
Samp. Date/Time/Temp	09/10/08 02:42pm NA C
Receive Date	09/11/08
Sampled by	Customer Sampled
Received Temp	4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
EDB by 8011								
1,2-DIBROMOETHANE	8011	1.32	ug/l	1	0.010	09/15/08	09/18/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	106	%	1	60-140	09/15/08	09/18/08	LR

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-10
Sample Description MW-15
Samp. Date/Time/Temp 09/10/08 03:06pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	165	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	436	ug/l	10	10	N/A	09/22/08	LN
TOLUENE	5030/8260	15.9	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	52.6	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	24.7	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	26.5	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	51.2	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	324	ug/l	10	10	N/A	09/22/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	103	%	1	69-134		09/20/08	LN
DIBROMOFLUOROMETHANE (SURR)	5030/8260	96	%	10	69-134		09/22/08	LN
TOLUENE-D8 (SURR)	5030/8260	103	%	1	63-127		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	96	%	10	63-127		09/22/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	112	%	1	64-130		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	101	%	10	64-130		09/22/08	LN
Metals Analysis								
LEAD	3010/6010B	0.113	mg/l	1	0.010	09/18/08	09/20/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	0.0140	ug/l	1	0.010	09/15/08	09/18/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	94	%	1	60-140	09/15/08	09/18/08	LR
8260 OXY								
DIPE (E87653)	8260B	110	ug/l	1	1.00	N/A	09/19/08	SUB
ETHANOL (E87653)	8260B	U	ug/l	1	100	N/A	09/19/08	SUB
ETBA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
ETBE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-10
Sample Description MW-15
Samp. Date/Time/Temp 09/10/08 03:06pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TAA (E87653)	8260B	420	ug/l	1	20.0	N/A	09/19/08	SUB
TAME (E87653)	8260B	5.80	ug/l	1	1.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (E87653)	8260B	130	ug/l	1	20.0	N/A	09/19/08	SUB
TERT-BUTYL FORMATE (E87653)	8260B	U	ug/l	1	5.00	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/11/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/11/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	0.940	mg/l	1	0.10	N/A	09/11/08	AD

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-11
Sample Description MW-17
Samp. Date/Time/Temp 09/10/08 01:50pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	U	ug/l	1	1.0	N/A	09/22/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/22/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/22/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/22/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/22/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/22/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/22/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/22/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/22/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	101	%	1	69-134		09/22/08	LN
TOLUENE-D8 (SURR)	5030/8260	97	%	1	63-127		09/22/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	99	%	1	64-130		09/22/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	50	0.50	09/18/08	09/20/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/15/08	09/18/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	88	%	1	60-140	09/15/08	09/18/08	LR
8260 OXY								
DIPE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
ETHANOL (E87653)	8260B	U	ug/l	1	100	N/A	09/18/08	SUB
ETBA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
ETBE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TAA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
TAME (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-11
Sample Description MW-17
Samp. Date/Time/Temp 09/10/08 01:50pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (E87653)	8260B	U	ug/l	1	5.00	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	0.971	mg/l	10	0.50	N/A	09/11/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/11/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/11/08	AD

Serial Number: 680144

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-12
Sample Description MW-18
Samp. Date/Time/Temp 09/10/08 03:40pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	105	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	109	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0269	mg/l	1	0.010	09/18/08	09/20/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/15/08	09/18/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	97	%	1	60-140	09/15/08	09/18/08	LR
8260 OXY								
DIPE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
ETHANOL (E87653)	8260B	U	ug/l	1	100	N/A	09/18/08	SUB
ETBA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
ETBE (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TAA (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
TAME (E87653)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (E87653)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:56pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220346
Job Name: KMO#119
Job Id:

Sample Number L262233-12
Sample Description MW-18
Samp. Date/Time/Temp 09/10/08 03:40pm NA C
Receive Date 09/11/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (E87653)	8260B	U	ug/l	1	5.00	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	1.11	mg/l	10	0.50	N/A	09/11/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/11/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/11/08	AD

Serial Number: 680144

Genapure Analytical Services, Inc.

3231 NW 7th Ave., Boca Raton, FL 33431
www.genapure.com

CHAIN OF CUSTODY RECORD

Log# 26223 T#S___ Quote:_____ Page 1 of 2

Company Name: BLE PO#
Address: 6004 PONDERS CT
City: GREENVILLE State: SC Zip: 29615
Attn: TREVOR BENTON Fax#
email: TREVOR@BLECORP.COM
Project Name KMO #119 Proj#
Sampler Signature: Phone# 864-288-1265

LAB ANALYSIS

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity OK(Y/N)	Total # of containers	Parameters: 8260 BTEX, MTBE, DCA	8011 EDB	8260 8-OXY	TOTAL LEAD 6010	NO_3 SO_4 Fe ++				EXAMPLE Diss.8RCRA 6010
	Sample															
	TRC															
	pH									2	a					
	Pres Codes															
i.e.	MW-1	6/16/04	11:35	GW	X		1									1 16ozP
								# of Containers Size/Type								
_1	MW-1D	9/10/08	1450	GW			8	2	2	2	1	1	(2)8P	(6)V		
_2	MW-1DD		1215													
_3	MW-3		1125													
_4	MW-4		1145													
_5	MW-6D		1204													
_6	MW-7D		1650													
_7	MW-9		1213													
_8	MW-12		1417													
_9	MW-13		1442				3		1	X	X	X	(3)V			
10	MW-15	☆	1506	☆			8	☆	2	☆	1	1	(2)8P	(6)V		

Container Type Codes

AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PL C	Plastic container
AL	Amber Liter	PL J	Plastic Jar
CL	Clear Liter	Ziploc	Ziploc bag
AP	Amber Plastic	TEDLAR B	Tedlar bag
AG	Amber Glass	WHIRL P	Whirl pak
SJ	Soil Jar	G	Gallon Jug

Other_____
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other____
Example: 4ozP = 4oz Plastic, 8oxSJ=8oz Soil Jar

Matrix Codes*

SD	Solid Waste	WW	Waste Water
SO	Soil	AFW	Analyte Free Water
SE	Sediment	DW	Drinking Water
OL	Oil	SU	Surface Water
PE	Petroleum	AQ	Aqueous
NA	Nonaqueous	SW	Source Water
ML	Misc. Liquid	A	Air
GW	Ground Water	O	Other_____
EFF	Effluent		(Please Specify)
INF	Influent		

Pres/Codes

A. None	E. HCL	I. Ice
B. HNO_3	F. MeOH	J. MCAA
C. H_2SO_4	G. $Na_2S_2O_3$	K. Zn Acetate
D. NaOH	H. $NaHSO_4$	O. Other

REMARKS

T.A.T. REQUEST Standard	RUSH	Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers #'s
(Y)	Date Required	Y X N	None___ 1___ 2___ 3___ Other___	Y N			___ ___ ___ ___ ___

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
		BLE	9/10/08	1730	FD	GW	9/11/08	9:30

Lab Use Only

	Yes	No	N/A
Sample INTACT upon arrival?	✓		
Received on Wet Ice? Temp ___°c			
Proper Preservatives Indicated?			
Received within holding time?			
Custody seals Intact?			
Volatile rec'd without headspace?			
Proper Containers Used?			

ORIGINAL

174072

CHAIN OF CUSTODY RECORD

Genapure Analytical Services, Inc.

3231 NW 7th Ave., Boca Raton, FL 33431
www.genapure.com

Log# 26283 T#S___ Quote:_____ Page 2 of 2

Company Name: BLE PO#
Address: 6004 Powders Ct
City: Greenville State: SC Zip: 29615
Attn: Trevor Benton Fax#
email: Trevor@blecorp.com
Project Name: KMO #119 Proj#
Sampler Signature: Phone# 864-288-1265

LAB ANALYSIS

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity OK(Y/N)	Total # of containers
i.e.	MW-1	6/16/04	11:35	GW	X		1
L1	MW-17	9/10/08	1350	GW			8
L2	MW-18	9/10/08	1540	GW			8
_3							
_4							
_5							
_6							
_7							
_8							
_9							
_0							

Parameters: 8260 BTEX, MNP, MTBE, DCA | 8011 EDB | 8260 8-Oxy | 6020 Total Lead | NO3/SO4/Fe TT

Sample / TRC / pH / Pres Codes

pH: 2 2

# of Containers Size/Type: L1: 2 2 2 1 1 3 (8 6) | L2: 2 2 2 1 1 3

EXAMPLE Diss.8RCRA 6010: 1 16ozP

REMARKS

Container Type Codes

AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PL C	Plastic container
AL	Amber Liter	PL J	Plastic Jar
CL	Clear Liter	Ziploc	Ziploc bag
AP	Amber Plastic	TEDLAR B	Tedlar bag
AG	Amber Glass	WHIRL P	Whirl pak
SJ	Soil Jar	G	Gallon Jug

Other_____
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other____
Example: 4ozP = 4oz Plastic, 8oxSJ=8oz Soil Jar

Matrix Codes*

SD	Solid Waste	WW	Waste Water
SO	Soil	AFW	Analyte Free Water
SE	Sediment	DW	Drinking Water
OL	Oil	SU	Surface Water
PE	Petroleum	AQ	Aqueous
NA	Nonaqueous	SW	Source Water
ML	Misc. Liquid	A	Air
GW	Ground Water	O	Other_____
EFF	Effluent		(Please Specify)
INF	Influent		

Pres/Codes

A. None	E. HCL	I. Ice
B. HNO_3	F. MeOH	J. MCAA
C. H_2SO_4	G. $Na_2S_2O_3$	K. Zn Acetate
D. NaOH	H. $NaHSO_4$	O. Other

T.A.T. REQUEST Standard	RUSH	Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers #'s
X Y/N	Date Required	Y ✓ N____	None___ 1___ 2___ 3___ Other___	Y N			____ ____ ____ ____ ____

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
		BLE	9/10/08	1780	FE	GS	9/11/8	9:3

Lab Use Only

	Yes	No	N/A
Sample INTACT upon arrival?	✓		
Received on Wet Ice? Temp 6°c	✓		
Proper Preservatives Indicated?			
Received within holding time?			
Custody seals Intact?			
Volatile rec'd without headspace?			
Proper Containers Used?			

174071

ORIGINAL

Genapure
Analytical Services, Inc.

ANALYTICAL RESULTS

Printed: 09/24/08 07:58pm

TREVOR BENTON
BUNNELL-LAMMONS ENGINEERS
6004 PONDERS CT
GREENVILLE, SC 296154601

Regarding:

TREVOR BENTON
BUNNELL-LAMMONS ENGINEERS
6004 PONDERS CT
GREENVILLE, SC 296154601

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Collected by: Customer Sampled

Laboratory Sample #	Client Sample #
L262311-1	**MW-11D**
L262311-2	**MW-11DD**
L262311-3	**MW-19**
L262311-4	**MW-21**
L262311-5	**MW-22**
L262311-6	**MW-23**
L262311-7	**MW-25**
L262311-8	**MW-28**
L262311-9	**MW-29**
L262311-10	**MW-39**
L262311-11	**MW-40**

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.
Flags: ND or U-below PQL; IL-meets internal lab limits;MI-matrix interference; NA-not applicable.
Flags: CFR-Pb/Cu rule; NFL-no free liquids; DRY = dry wt; ASIS = wet wt; C(#) See attached USB code
FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol; L-exceeds calibration; Q-holding time exceeded;
FLDEP Flags: T-value<MDL; V-present in blank; Y-improper preservation; B-colonies exceed range;I-estimated value;between the MDL and PQL;
Lab certification IDs: FLDOH/NELAC E86240; NC 444; SC 96031001; IL/NELAC 200020; VA 00395; KS/NELAC E-10360; TN 02985; GA 917;NJ FL014;PA 68-03756;
Lab IDs: ADEM 40850; USDA Soil Permit# S-35240; The above results relate only to the samples.
EPA 18 is a non-NELAC certifiable parameter. Estimated uncertainty is available upon request.

Respectfully submitted,

Tiffany Mackie

Tiffany Mackie
Project Manager

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: **KNO#119**
Job Id:

L262311-12	**MW-41**
L262311-13	**MW-10D**
L262311-14	**MW-14D**
L262311-15	**MW-33**
L262311-16	**MW-34**
L262311-17	**MW-43**

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-1
Sample Description MW-11D
Samp. Date/Time/Temp 09/11/08 12:40pm NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	282	ug/l	10	10	N/A	09/23/08	LN
1,2-DICHLOROETHANE	5030/8260	17.7	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	415	ug/l	10	10	N/A	09/23/08	LN
TOLUENE	5030/8260	72.5	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	35.5	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	57.3	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	37.0	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	94.3	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	22.0	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	90	%	1	69-134		09/20/08	LN
DIBROMOFLUOROMETHANE (SURR)	5030/8260	94	%	10	69-134		09/23/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	1	63-127		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	98	%	10	63-127		09/23/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	104	%	1	64-130		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	103	%	10	64-130		09/23/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	103	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	100	ug/l	1	1.00	N/A	09/18/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/18/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-1
Sample Description MW-11D
Samp. Date/Time/Temp 09/11/08 12:40pm NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TAA (SHEALY)	8260B	270	ug/l	1	20.0	N/A	09/18/08	SUB
TAME (SHEALY)	8260B	5.50	ug/l	1	1.00	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	64.0	ug/l	1	20.0	N/A	09/18/08	SUB
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/12/08	AD
SULFATE	300.0	49.5 V	mg/l	10	5.0	N/A	09/12/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/12/08	AD

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-2
Sample Description MW-11DD
Samp. Date/Time/Temp 09/11/08 10:00am NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	4050	ug/l	50	50	N/A	09/23/08	LN
1,2-DICHLOROETHANE	5030/8260	186	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	8430*	ug/l	50	50	N/A	09/23/08	LN
TOLUENE	5030/8260	4990*	ug/l	50	50	N/A	09/23/08	LN
ETHYL BENZENE	5030/8260	712	ug/l	50	50	N/A	09/23/08	LN
M&P-XYLENES	5030/8260	2050	ug/l	50	100	N/A	09/23/08	LN
O-XYLENE	5030/8260	976	ug/l	50	50	N/A	09/23/08	LN
XYLENES (TOTAL)	5030/8260	3030	ug/l	50	150	N/A	09/23/08	LN
NAPHTHALENE	5030/8260	182	ug/l	50	50	N/A	09/23/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	94	%	1	69-134		09/20/08	LN
DIBROMOFLUOROMETHANE (SURR)	5030/8260	95	%	50	69-134		09/23/08	LN
TOLUENE-D8 (SURR)	5030/8260	106	%	1	63-127		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	99	%	50	63-127		09/23/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	110	%	1	64-130		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	103	%	50	64-130		09/23/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	125	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	1300	ug/l	10	10.0	N/A	09/18/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	10	1000	N/A	09/18/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	10	200	N/A	09/18/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	10	10.0	N/A	09/18/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-2
Sample Description MW-11DD
Samp. Date/Time/Temp 09/11/08 10:00am NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TAA (SHEALY)	8260B	7600	ug/l	10	200	N/A	09/18/08	SUB
TAME (SHEALY)	8260B	92.0	ug/l	10	10.0	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	1700	ug/l	10	200	N/A	09/18/08	SUB
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	10	50.0	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/12/08	AD
SULFATE	300.0	72.9 V	mg/l	10	5.0	N/A	09/12/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/12/08	AD

**** NOTES CONCERNING THE ABOVE SAMPLE ****

BENZENE - Flag-MS and/or MSD recoveries outside control limits due to the high level of target analyte in the spiked sample. LCS and/or LCSD within limits. Data reported.

TOLUENE - Flag-MS and/or MSD recoveries outside control limits due to the high level of target analyte in the spiked sample. LCS and/or LCSD within limits. Data reported.

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-3
Sample Description MW-19
Samp. Date/Time/Temp 09/11/08 09:40am NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	84.6	ug/l	2	2.0	N/A	09/23/08	LN
1,2-DICHLOROETHANE	5030/8260	57.4	ug/l	2	2.0	N/A	09/23/08	LN
BENZENE	5030/8260	149	ug/l	2	2.0	N/A	09/23/08	LN
TOLUENE	5030/8260	12.0	ug/l	2	2.0	N/A	09/23/08	LN
ETHYL BENZENE	5030/8260	3.58	ug/l	2	2.0	N/A	09/23/08	LN
M&P-XYLENES	5030/8260	U	ug/l	2	4.0	N/A	09/23/08	LN
O-XYLENE	5030/8260	U	ug/l	2	2.0	N/A	09/23/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	2	6.0	N/A	09/23/08	LN
NAPHTHALENE	5030/8260	104	ug/l	2	2.0	N/A	09/23/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	91	%	2	69-134		09/23/08	LN
TOLUENE-D8 (SURR)	5030/8260	103	%	2	63-127		09/23/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	107	%	2	64-130		09/23/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0408	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	108	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	290	ug/l	1	1.00	N/A	09/18/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/18/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TAA (SHEALY)	8260B	1700	ug/l	1	20.0	N/A	09/18/08	SUB
TAME (SHEALY)	8260B	11.0	ug/l	1	1.00	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	310	ug/l	1	20.0	N/A	09/18/08	SUB

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-3
Sample Description MW-19
Samp. Date/Time/Temp 09/11/08 09:40am NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/12/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/12/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/12/08	AD

ANALYTICAL RESULTS
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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-4
Sample Description MW-21
Samp. Date/Time/Temp 09/11/08 10:15am NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	109	ug/l	10	10	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	10	10	N/A	09/20/08	LN
BENZENE	5030/8260	741	ug/l	10	10	N/A	09/20/08	LN
TOLUENE	5030/8260	928	ug/l	10	10	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	1080	ug/l	10	10	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	2750	ug/l	10	20	N/A	09/20/08	LN
O-XYLENE	5030/8260	1210	ug/l	10	10	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	3960	ug/l	10	30	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	773	ug/l	10	10	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	87	%	10	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	10	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	107	%	10	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	0.0300	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	112	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	71.0	ug/l	1	1.00	N/A	09/19/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/19/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
TAA (SHEALY)	8260B	320	ug/l	1	20.0	N/A	09/19/08	SUB
TAME (SHEALY)	8260B	4.00	ug/l	1	1.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	110	ug/l	1	20.0	N/A	09/19/08	SUB

ANALYTICAL RESULTS
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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number	L262311-4
Sample Description	MW-21
Samp. Date/Time/Temp	09/11/08 10:15am NA C
Receive Date	09/12/08
Sampled by	Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	2.40	mg/l	1	0.10	N/A	09/12/08	AD

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-5
Sample Description MW-22
Samp. Date/Time/Temp 09/11/08 11:10am NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	79.7	ug/l	10	10	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	10	10	N/A	09/20/08	LN
BENZENE	5030/8260	589	ug/l	10	10	N/A	09/20/08	LN
TOLUENE	5030/8260	88.5	ug/l	10	10	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	730	ug/l	10	10	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	1070	ug/l	10	20	N/A	09/20/08	LN
O-XYLENE	5030/8260	606	ug/l	10	10	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	1680	ug/l	10	30	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	582	ug/l	10	10	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	87	%	10	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	101	%	10	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	105	%	10	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	108	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	45.0	ug/l	1	1.00	N/A	09/18/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/18/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TAA (SHEALY)	8260B	120	ug/l	1	20.0	N/A	09/18/08	SUB
TAME (SHEALY)	8260B	2.60	ug/l	1	1.00	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	46.0	ug/l	1	20.0	N/A	09/18/08	SUB

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-5
Sample Description MW-22
Samp. Date/Time/Temp 09/11/08 11:10am NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	2.19	mg/l	1	0.10	N/A	09/12/08	AD

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-6
Sample Description MW-23
Samp. Date/Time/Temp 09/11/08 11:55am NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	264	ug/l	10	10	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	27.6	ug/l	10	10	N/A	09/20/08	LN
BENZENE	5030/8260	1220	ug/l	10	10	N/A	09/20/08	LN
TOLUENE	5030/8260	65.1	ug/l	10	10	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	845	ug/l	10	10	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	463	ug/l	10	20	N/A	09/20/08	LN
O-XYLENE	5030/8260	192	ug/l	10	10	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	655	ug/l	10	30	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	513	ug/l	10	10	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	88	%	10	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	10	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	106	%	10	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	107	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	86.0	ug/l	1	1.00	N/A	09/19/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/19/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
TAA (SHEALY)	8260B	440	ug/l	1	20.0	N/A	09/19/08	SUB
TAME (SHEALY)	8260B	5.50	ug/l	1	1.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	110	ug/l	1	20.0	N/A	09/19/08	SUB

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-6
Sample Description MW-23
Samp. Date/Time/Temp 09/11/08 11:55am NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	0.930	mg/l	1	0.10	N/A	09/12/08	AD

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-7
Sample Description MW-25
Samp. Date/Time/Temp 09/11/08 11:35am NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	2.82	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	1.15	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	1.39	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	1.39	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	1.33	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	89	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	98	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	103	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0416	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	99	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/18/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TAA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB
TAME (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/18/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/18/08	SUB

ANALYTICAL RESULTS
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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-7
Sample Description MW-25
Samp. Date/Time/Temp 09/11/08 11:35am NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/18/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	0.607	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/12/08	AD

ANALYTICAL RESULTS
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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-8
Sample Description MW-28
Samp. Date/Time/Temp 09/11/08 10:40am NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	110	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	16.0	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	274	ug/l	10	10	N/A	09/23/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	6.00	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	5.71	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	11.7	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	86.6	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	89	%	1	69-134		09/20/08	LN
DIBROMOFLUOROMETHANE (SURR)	5030/8260	93	%	10	69-134		09/23/08	LN
TOLUENE-D8 (SURR)	5030/8260	101	%	1	63-127		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	98	%	10	63-127		09/23/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	108	%	1	64-130		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	101	%	10	64-130		09/23/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0235	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	107	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	93.0	ug/l	1	1.00	N/A	09/19/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/19/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB

ANALYTICAL RESULTS
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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-8
Sample Description MW-28
Samp. Date/Time/Temp 09/11/08 10:40am NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TAA (SHEALY)	8260B	380	ug/l	1	20.0	N/A	09/19/08	SUB
TAME (SHEALY)	8260B	4.00	ug/l	1	1.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	98.0	ug/l	1	20.0	N/A	09/19/08	SUB
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/12/08	AD

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-9
Sample Description MW-29
Samp. Date/Time/Temp 09/11/08 09:00am NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	85.0	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	8.94	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	6.09	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	2.69	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	4.09	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	5.23	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	25.4	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	89	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	101	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	105	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	104	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/19/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
TAA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
TAME (SHEALY)	8260B	170	ug/l	1	1.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-9
Sample Description MW-29
Samp. Date/Time/Temp 09/11/08 09:00am NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	48.0	ug/l	1	5.00	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	0.260	mg/l	1	0.10	N/A	09/12/08	AD

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-10
Sample Description MW-39
Samp. Date/Time/Temp 09/11/08 10:20am NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	15.3	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	10.1	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	1.31	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	3.96	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	3.25	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	7.21	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	1.36	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	89	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	99	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	107	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0173	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	102	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	8.60	ug/l	1	1.00	N/A	09/19/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/19/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
TAA (SHEALY)	8260B	35.0	ug/l	1	20.0	N/A	09/19/08	SUB
TAME (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	130	ug/l	1	20.0	N/A	09/19/08	SUB

ANALYTICAL RESULTS
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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-10
Sample Description MW-39
Samp. Date/Time/Temp 09/11/08 10:20am NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	40.6 V	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/12/08	AD

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-11
Sample Description MW-4O
Samp. Date/Time/Temp 09/11/08 11:09am NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	5.41	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	45.1	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	4.63	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	5.18	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	6.69	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	5.04	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	89	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	101	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	107	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0375	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	113	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	10.0	ug/l	1	1.00	N/A	09/19/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/19/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
TAA (SHEALY)	8260B	61.0	ug/l	1	20.0	N/A	09/19/08	SUB
TAME (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	200	ug/l	1	20.0	N/A	09/19/08	SUB

ANALYTICAL RESULTS
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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-11
Sample Description MW-4D
Samp. Date/Time/Temp 09/11/08 11:09am NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	1.25	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	19.6 V	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	0.680	mg/l	1	0.10	N/A	09/12/08	AD

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-12
Sample Description MW-41
Samp. Date/Time/Temp 09/11/08 09:19am NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	132	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	8.45	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	106	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	7.28	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	8.07	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	54.5	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	33.0	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	87.5	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	11.9	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	89	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	102	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	108	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0332	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	0.160	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	103	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	95.0	ug/l	1	1.00	N/A	09/19/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/19/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
TAA (SHEALY)	8260B	250	ug/l	1	20.0	N/A	09/19/08	SUB
TAME (SHEALY)	8260B	4.30	ug/l	1	1.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	73.0	ug/l	1	20.0	N/A	09/19/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number	L262311-12
Sample Description	MW-41
Samp. Date/Time/Temp	09/11/08 09:19am NA C
Receive Date	09/12/08
Sampled by	Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	68.3 V	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	0.650	mg/l	1	0.10	N/A	09/12/08	AD

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-13
Sample Description MW-10D
Samp. Date/Time/Temp 09/11/08 10:00am NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	818	ug/l	20	20	N/A	09/23/08	LN
1,2-DICHLOROETHANE	5030/8260	29.0	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	68.4	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	7.54	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	5.09	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	10.6	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	6.71	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	17.3	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	3.16	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	88	%	1	69-134		09/20/08	LN
DIBROMOFLUOROMETHANE (SURR)	5030/8260	95	%	20	69-134		09/23/08	LN
TOLUENE-D8 (SURR)	5030/8260	102	%	1	63-127		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	20	63-127		09/23/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	105	%	1	64-130		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	101	%	20	64-130		09/23/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	106	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	240	ug/l	1	1.00	N/A	09/19/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/19/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB

ANALYTICAL RESULTS
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Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-13
Sample Description MW-10D
Samp. Date/Time/Temp 09/11/08 10:00am NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TAA (SHEALY)	8260B	990	ug/l	1	20.0	N/A	09/19/08	SUB
TAME (SHEALY)	8260B	15.0	ug/l	1	1.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	240	ug/l	1	20.0	N/A	09/19/08	SUB
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	18.5 V	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/12/08	AD

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number: L262311-14
Sample Description: MW-14D
Samp. Date/Time/Temp: 09/11/08 03:00pm NA C
Receive Date: 09/12/08
Sampled by: Customer Sampled
Received Temp: 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	241	ug/l	10	10	N/A	09/23/08	LN
1,2-DICHLOROETHANE	5030/8260	21.7	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	511	ug/l	10	10	N/A	09/23/08	LN
TOLUENE	5030/8260	24.9	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	7.82	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	49.8	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	38.9	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	88.7	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	115	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	88	%	1	69-134		09/20/08	LN
DIBROMOFLUOROMETHANE (SURR)	5030/8260	94	%	10	69-134		09/23/08	LN
TOLUENE-D8 (SURR)	5030/8260	102	%	1	63-127		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	97	%	10	63-127		09/23/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	105	%	1	64-130		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	104	%	10	64-130		09/23/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	106	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	110	ug/l	1	1.00	N/A	09/19/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/19/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-14
Sample Description MW-14D
Samp. Date/Time/Temp 09/11/08 03:00pm NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TAA (SHEALY)	8260B	490	ug/l	1	20.0	N/A	09/19/08	SUB
TAME (SHEALY)	8260B	5.40	ug/l	1	1.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	120	ug/l	1	20.0	N/A	09/19/08	SUB
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	7.41 V	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/12/08	AD

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-15
Sample Description MW-33
Samp. Date/Time/Temp 09/11/08 02:25pm NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	92.9	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	6.64	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	1.39	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	1.39	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	2.36	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	89	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	99	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	101	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0774	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	94	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	7.80	ug/l	1	1.00	N/A	09/19/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/19/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
TAA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
TAME (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-15
Sample Description MW-33
Samp. Date/Time/Temp 09/11/08 02:25pm NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/20/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/12/08	AD

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-16
Sample Description MW-34
Samp. Date/Time/Temp 09/11/08 03:05pm NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	2.76	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	91	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	98	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	102	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0485	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	93	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	U	ug/l	5	5.00	N/A	09/20/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	5	500	N/A	09/20/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	5	100	N/A	09/20/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	5	5.00	N/A	09/20/08	SUB
TAA (SHEALY)	8260B	U	ug/l	5	100	N/A	09/20/08	SUB
TAME (SHEALY)	8260B	U	ug/l	5	5.00	N/A	09/20/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	U	ug/l	5	100	N/A	09/20/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-16
Sample Description MW-34
Samp. Date/Time/Temp 09/11/08 03:05pm NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	5	25.0	N/A	09/20/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	1.07	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/12/08	AD

Serial Number: 680145

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-17
Sample Description MW-43
Samp. Date/Time/Temp 09/11/08 04:00pm NA C
Receive Date 09/12/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	14.5	ug/l	1	1.0	N/A	09/20/08	LN
1,2-DICHLOROETHANE	5030/8260	1.59	ug/l	1	1.0	N/A	09/20/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/20/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/20/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/20/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	90	%	1	69-134		09/20/08	LN
TOLUENE-D8 (SURR)	5030/8260	97	%	1	63-127		09/20/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	102	%	1	64-130		09/20/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0210	mg/l	1	0.010	09/18/08	09/21/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/19/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	87	%	1	60-140	09/18/08	09/19/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/19/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
TAA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB
TAME (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/19/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/19/08	SUB

ANALYTICAL RESULTS
Printed: 09/24/08 07:58pm

Project No: 004037 KMO #119, KMO #119 Inv. No: 220347
Job Name: KNO#119
Job Id:

Sample Number L262311-17
Sample Description MW-43
Samp. Date/Time/Temp 09/11/08 04:00pm NA C
Receive Date 09/12/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/19/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	1.95	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/12/08	AD

Serial Number: 680145

Genapure™ Analytical Services, Inc.

3231 NW 7th Ave., Boca Raton, FL 33431
www.genapure.com

CHAIN OF CUSTODY RECORD

Log# 262311 T#S___ Quote:_____ Page 1 of 2

Company Name: BLE PO#
Address: 6004 Ponders Ct
City: Greenville State: SC Zip: 29615
Attn: Trevor Benton Fax#
email: Trevor@blecorp.com
Project Name: KMO 119 Proj#
Sampler Signature: Phone# 864-288-1265

Container Type Codes

AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PL C	Plastic container
AL	Amber Liter	PL J	Plastic Jar
CL	Clear Liter	Ziploc	Ziploc bag
AP	Amber Plastic	TEDLAR B	Tedlar bag
AG	Amber Glass	WHIRL P	Whirl pak
SJ	Soil Jar	G	Gallon Jug

Other_____
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other____
Example: 4ozP = 4oz Plastic, 8oxSJ=8oz Soil Jar

Matrix Codes*

SD	Solid Waste	WW	Waste Water
SO	Soil	AFW	Analyte Free Water
SE	Sediment	DW	Drinking Water
OL	Oil	SU	Surface Water
PE	Petroleum	AQ	Aqueous
NA	Nonaqueous	SW	Source Water
ML	Misc. Liquid	A	Air
GW	Ground Water	O	Other_____
EFF	Effluent		(Please Specify)
INF	Influent		

Pres/Codes

A. None	E. HCL	I. Ice
B. HNO_3	F. MeOH	J. MCAA
C. H_2SO_4	G. $Na_2S_2O_3$	K. Zn Acetate
D. NaOH	H. $NaHSO_4$	O. Other

LAB ANALYSIS

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity OK(Y/N)	Total # of containers	Parameters	Sample	TRC	pH	Pres Codes	EXAMPLE Diss.8RCRA 6010
													# of Containers / Size/Type
i.e.	MW-1	6/16/04	11:35	GW	X		1						1 16ozP
_1	MW-11D	9/11/08	1240	GW			8	2	2	2	1	1	3 8P 5 V
_2	MW-11DD		1000										
_3	MW-19		0940										
_4	MW-21		1015										
_5	MW-22		1110										
_6	MW-23		1155										
_7	MW-25		1135										
_8	MW-28		1040										
_9	MW-29		0900										
10	MW-39		1020										

Parameters: 2 BTEX, MTBE, NAP, DCA | 8011 EDB | 8260 8-OXY | TOTAL LEAD 6020 | NO_3 SO_4 / Fe++

REMARKS

T.A.T. REQUEST Standard	RUSH	Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers #'s
Y N	Date Required	Y✓ N	None 1 2 3 Other	Y N			

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
		BLE	9/11/08	1700	TG	GS	9/12/08	10:30

Lab Use Only

	Yes	No	N/A
Sample INTACT upon arrival?	4		
Received on Wet Ice? Temp ___°C			
Proper Preservatives Indicated?			
Received within holding time?			
Custody seals Intact?			
Volatile rec'd without headspace?			
Proper Containers Used?			

ORIGINAL

174079

CHAIN OF CUSTODY RECORD

Genapure Analytical Services, Inc.
3231 NW 7th Ave., Boca Raton, FL 33431
www.genapure.com

Log# 262311 T#S___ Quote:_____ Page 2 of 2

Company Name: BLE PO#
Address: 6007 PONDERS CT
City: GREENVILLE State: SC Zip: 29615
Attn: TREVOR BENTON Fax#
email: TREVOR@BLECORP.COM
Project Name KMO #119 Proj#
Sampler Signature Phone# 864-288-1265

LAB ANALYSIS

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity OK(Y/N)	Total # of containers
i.e.	MW-1	6/16/04	11:35	GW	X		1
1	MW-40	9/4/08	1109	GW			8
2	MW-41		0919				
3	MW-10D		1600				
4	MW-14D		1500				
5	MW-33		1425				
6	MW-34		1505				
7	MW-43		1600				
8							
9							
10							

Parameters: 8260 BTEX, MTBE; MNP, DCA | 8011 EDB | 8260 8-OXY | 6020 TOTAL LEAD | NO3/SO4/FE++

pH: 2 2

# of Containers Size/Type: 2 | 2 | 2 | 1 | 1 | 1 | 8P | 6V

EXAMPLE Diss.8RCRA 6010: 1 16ozP

REMARKS

T.A.T. REQUEST: Standard O/N | RUSH Date Required

Short Hold: Y___ N___

QA/QC Report Level: None___ 1___ 2___ 3___ Other___

COC OK: Y N

Initials

Required State Certification

Coolers #'s

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
		BLE	9/4/08	1700	JG	9/12/8	9/12/8	1015

Container Type Codes

AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PL C	Plastic container
AL	Amber Liter	PL J	Plastic Jar
CL	Clear Liter	Ziploc	Ziploc bag
AP	Amber Plastic	TEDLAR B	Tedlar bag
AG	Amber Glass	WHIRL P	Whirl pak
SJ	Soil Jar	G	Gallon Jug

Other_____
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other____
Example: 4ozP = 4oz Plastic, 8oxSJ=8oz Soil Jar

Matrix Codes*

SD	Solid Waste	WW	Waste Water
SO	Soil	AFW	Analyte Free Water
SE	Sediment	DW	Drinking Water
OL	Oil	SU	Surface Water
PE	Petroleum	AQ	Aqueous
NA	Nonaqueous	SW	Source Water
ML	Misc. Liquid	A	Air
GW	Ground Water	O	Other_____ (Please Specify)
EFF	Effluent		
INF	Influent		

Pres/Codes

A. None	E. HCL	I. Ice
B. HNO_3	F. MeOH	J. MCAA
C. H_2SO_4	G. $Na_2S_2O_3$	K. Zn Acetate
D. NaOH	H. $NaHSO_4$	O. Other

Lab Use Only

	Yes	No	N/A
Sample INTACT upon arrival?			
Received on Wet Ice? Temp 4 °c			
Proper Preservatives Indicated?			
Received within holding time?			
Custody seals Intact?			
Volatile rec'd without headspace?			
Proper Containers Used?			

ORIGINAL

186225

Genapure Analytical Services, Inc.

ANALYTICAL RESULTS

Printed: 09/28/08 09:46am

TREVOR BENTON
BUNNELL-LAMMONS ENGINEERS
6004 PONDERS CT
GREENVILLE, SC 296154601

Regarding:

TREVOR BENTON
BUNNELL-LAMMONS ENGINEERS
6004 PONDERS CT
GREENVILLE, SC 296154601

Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Collected by: Customer Sampled

Laboratory Sample #	Client Sample #
L262365-1	**MW-20**
L262365-2	**MW-24**
L262365-3	**MW-26**
L262365-4	**MW-37**
L262365-5	**MW-35**
L262365-6	**MW-42**
L262365-7	**MW-44**
L262365-8	**MW-38**
L262365-9	**MW-36**

All analyses were performed using EPA, ASTM, NIOSH, USGS, or Standard Methods and certified to meet NELAC requirements.
Flags: ND or U-below PQL; IL-meets internal lab limits;MI-matrix interference; NA-not applicable.
Flags: CFR-Pb/Cu rule; NFL-no free liquids; DRY = dry wt; ASIS = wet wt; C(#) See attached USB code
FLDEP Flags: J(#)-estimated 1:surr. fail 2:no known QC req. 3:QC fail %R or %RPD; 4:matrix int. 5:improper fld. protocol; L-exceeds calibration; Q-holding time exceeded;
FLDEP Flags: T-value<MDL; V-present in blank; Y-improper preservation; B-colonies exceed range;I-estimated value;between the MDL and PQL;
Lab certification IDs: FLDOH/NELAC E86240; NC 444; SC 96031001; IL/NELAC 200020; VA 00395; KS/NELAC E-10360; TN 02985; GA 917;NJ FL014;PA 68-03756;
Lab IDs: ADEM 40850; USDA Soil Permit# S-35240; The above results relate only to the samples.
EPA 18 is a non-NELAC certifiable parameter. Estimated uncertainty is available upon request.

Respectfully submitted,

Tiffany Mackie

Tiffany Mackie
Project Manager

ANALYTICAL RESULTS
Printed: 09/28/08 09:46am

Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-1
Sample Description MW-20
Samp. Date/Time/Temp 09/12/08 09:15am NA C
Receive Date 09/13/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	1.85	ug/l	1	1.0	N/A	09/25/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/25/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/25/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/25/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/25/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/25/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/25/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/25/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/25/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	107	%	1	69-134		09/25/08	LN
TOLUENE-D8 (SURR)	5030/8260	98	%	1	63-127		09/25/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	102	%	1	64-130		09/25/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0148	mg/l	1	0.010	09/19/08	09/23/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/20/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	92	%	1	60-140	09/18/08	09/20/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/17/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TAA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
TAME (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-1
Sample Description MW-20
Samp. Date/Time/Temp 09/12/08 09:15am NA C
Receive Date 09/13/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date,	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/17/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	29.7 V	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/13/08	AD

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-2
Sample Description MW-24
Samp. Date/Time/Temp 09/12/08 10:33am NA C
Receive Date 09/13/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/24/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/24/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	95	%	1	69-134		09/24/08	LN
TOLUENE-D8 (SURR)	5030/8260	99	%	1	63-127		09/24/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	107	%	1	64-130		09/24/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/19/08	09/23/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/20/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	88	%	1	60-140	09/18/08	09/20/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/17/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TAA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
TAME (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-2
Sample Description MW-24
Samp. Date/Time/Temp 09/12/08 10:33am NA C
Receive Date 09/13/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/17/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	21.2 V	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/13/08	AD

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-3
Sample Description MW-26
Samp. Date/Time/Temp 09/12/08 11:42am NA C
Receive Date 09/13/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	139	ug/l	10	10	N/A	09/24/08	LN
1,2-DICHLOROETHANE	5030/8260	15.8	ug/l	10	10	N/A	09/24/08	LN
BENZENE	5030/8260	68.4	ug/l	10	10	N/A	09/24/08	LN
TOLUENE	5030/8260	U	ug/l	10	10	N/A	09/24/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	10	10	N/A	09/24/08	LN
M&P-XYLENES	5030/8260	U	ug/l	10	20	N/A	09/24/08	LN
O-XYLENE	5030/8260	U	ug/l	10	10	N/A	09/24/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	10	30	N/A	09/24/08	LN
NAPHTHALENE	5030/8260	11.6	ug/l	10	10	N/A	09/24/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	96	%	10	69-134		09/24/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	10	63-127		09/24/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	100	%	10	64-130		09/24/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0290	mg/l	1	0.010	09/19/08	09/23/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/20/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	107	%	1	60-140	09/18/08	09/20/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	79.0	ug/l	1	1.00	N/A	09/17/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/17/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TAA (SHEALY)	8260B	380	ug/l	1	20.0	N/A	09/17/08	SUB
TAME (SHEALY)	8260B	6.30	ug/l	1	1.00	N/A	09/17/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	100	ug/l	1	20.0	N/A	09/17/08	SUB

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-3
Sample Description MW-26
Samp. Date/Time/Temp 09/12/08 11:42am NA C
Receive Date 09/13/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date,	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/17/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	6.44 V	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/13/08	AD

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-4
Sample Description MW-37
Samp. Date/Time/Temp 09/12/08 03:15pm NA C
Receive Date 09/13/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	53.2	ug/l	1	1.0	N/A	09/24/08	LN
1,2-DICHLOROETHANE	5030/8260	1.10	ug/l	1	1.0	N/A	09/24/08	LN
BENZENE	5030/8260	50.6	ug/l	1	1.0	N/A	09/24/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/24/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/24/08	LN
NAPHTHALENE	5030/8260	2.83	ug/l	1	1.0	N/A	09/24/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	95	%	1	69-134		09/24/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	1	63-127		09/24/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	109	%	1	64-130		09/24/08	LN
Metals Analysis								
LEAD	3010/6010B	U	mg/l	1	0.010	09/19/08	09/23/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/20/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	92	%	1	60-140	09/18/08	09/20/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	22.0	ug/l	1	1.00	N/A	09/17/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/17/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TAA (SHEALY)	8260B	110	ug/l	1	20.0	N/A	09/17/08	SUB
TAME (SHEALY)	8260B	1.50	ug/l	1	1.00	N/A	09/17/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	30.0	ug/l	1	20.0	N/A	09/17/08	SUB

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number	L262365-4
Sample Description	MW-37
Samp. Date/Time/Temp	09/12/08 03:15pm NA C
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Parameter	Method	Result		DIL	PQL	Prep Date	Test Date,	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/17/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	11.0 V	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/13/08	AD

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-5
Sample Description MW-35
Samp. Date/Time/Temp 09/12/08 11:05am NA C
Receive Date 09/13/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/24/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/24/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	100	%	1	69-134		09/24/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	1	63-127		09/24/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	106	%	1	64-130		09/24/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0230	mg/l	1	0.010	09/19/08	09/23/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/20/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	86	%	1	60-140	09/18/08	09/20/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/17/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TAA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
TAME (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number	L262365-5
Sample Description	MW-35
Samp. Date/Time/Temp	09/12/08 11:05am NA C
Receive Date	09/13/08
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Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/17/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	1.86	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	5.82 V	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/13/08	AD

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-6
Sample Description MW-42
Samp. Date/Time/Temp 09/12/08 12:15pm NA C
Receive Date 09/13/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/24/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/24/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	100	%	1	69-134		09/24/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	1	63-127		09/24/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	112	%	1	64-130		09/24/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0228	mg/l	1	0.010	09/19/08	09/23/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/20/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	89	%	1	60-140	09/18/08	09/20/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/17/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TAA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
TAME (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB

ANALYTICAL RESULTS
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Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-6
Sample Description MW-42
Samp. Date/Time/Temp 09/12/08 12:15pm NA C
Receive Date 09/13/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/17/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	U	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	16.7 V	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/13/08	AD

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Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-7
Sample Description MW-44
Samp. Date/Time/Temp 09/12/08 09:30am NA C
Receive Date 09/13/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	34.6	ug/l	1	1.0	N/A	09/24/08	LN
1,2-DICHLOROETHANE	5030/8260	3.00	ug/l	1	1.0	N/A	09/24/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/24/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/24/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	98	%	1	69-134		09/24/08	LN
TOLUENE-D8 (SURR)	5030/8260	98	%	1	63-127		09/24/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	116	%	1	64-130		09/24/08	LN
Metals Analysis								
LEAD	3010/6010B	0.235	mg/l	5	0.050	09/19/08	09/23/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/20/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	87	%	1	60-140	09/18/08	09/20/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/17/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TAA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
TAME (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB

ANALYTICAL RESULTS
Printed: 09/28/08 09:46am

Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-7
Sample Description MW-44
Samp. Date/Time/Temp 09/12/08 09:30am NA C
Receive Date 09/13/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date,	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/17/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	1.03	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/13/08	AD

**** NOTES CONCERNING THE ABOVE SAMPLE ****

5X FOR PB, BECOUSE IS HIGH IN FE(INTERFERING ANALYTES)

ANALYTICAL RESULTS
Printed: 09/28/08 09:46am

Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-8
Sample Description MW-38
Samp. Date/Time/Temp 09/12/08 03:30pm NA C
Receive Date 09/13/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/24/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/24/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	101	%	1	69-134		09/24/08	LN
TOLUENE-D8 (SURR)	5030/8260	100	%	1	63-127		09/24/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	106	%	1	64-130		09/24/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0189	mg/l	1	0.010	09/19/08	09/23/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/20/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	84	%	1	60-140	09/18/08	09/20/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/17/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TAA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
TAME (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB

ANALYTICAL RESULTS
Printed: 09/28/08 09:46am

Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-8
Sample Description MW-38
Samp. Date/Time/Temp 09/12/08 03:30pm NA C
Receive Date 09/13/08
Sampled by Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/17/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	0.0744	mg/l	1	0.050	N/A	09/13/08	AD
SULFATE	300.0	0.519 V	mg/l	1	0.50	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	U	mg/l	1	0.10	N/A	09/13/08	AD

Serial Number: 680369

ANALYTICAL RESULTS
Printed: 09/28/08 09:46am

Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number L262365-9
Sample Description MW-36
Samp. Date/Time/Temp 09/12/08 02:30pm NA C
Receive Date 09/13/08
Sampled by Customer Sampled
Received Temp 4 C Iced (Y/N): Y

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date	Analyst
Volatile Organic Compounds								
METHYL TERTIARY BUTYLETHER	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
1,2-DICHLOROETHANE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
TOLUENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
ETHYL BENZENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
M&P-XYLENES	5030/8260	U	ug/l	1	2.0	N/A	09/24/08	LN
O-XYLENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
XYLENES (TOTAL)	5030/8260	U	ug/l	1	3.0	N/A	09/24/08	LN
NAPHTHALENE	5030/8260	U	ug/l	1	1.0	N/A	09/24/08	LN
SURROGATES		% RECOVERY			% Recovery Limits			
DIBROMOFLUOROMETHANE (SURR)	5030/8260	97	%	1	69-134		09/24/08	LN
TOLUENE-D8 (SURR)	5030/8260	98	%	1	63-127		09/24/08	LN
4-BROMOFLUOROBENZENE (SURR)	5030/8260	115	%	1	64-130		09/24/08	LN
Metals Analysis								
LEAD	3010/6010B	0.0245	mg/l	1	0.010	09/19/08	09/23/08	IG
EDB by 8011								
1,2-DIBROMOETHANE	8011	U	ug/l	1	0.010	09/18/08	09/20/08	LR
SURROGATES		% RECOVERY			% Recovery Limits			
BROMOFLUOROBENZENE (SURR)	8011	115	%	1	60-140	09/18/08	09/20/08	LR
8260 OXY								
DIPE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
ETHANOL (SHEALY)	8260B	U	ug/l	1	100	N/A	09/17/08	SUB
ETBA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
ETBE (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TAA (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB
TAME (SHEALY)	8260B	U	ug/l	1	1.00	N/A	09/17/08	SUB
TERTIARY BUTYL ALCOHOL (SHEALY)	8260B	U	ug/l	1	20.0	N/A	09/17/08	SUB

ANALYTICAL RESULTS
Printed: 09/28/08 09:46am

Project No: 004037 KMO #119, KMO #119 Inv. No: 220550
Job Name: KMO#119
Job Id:

Sample Number	L262365-9
Sample Description	MW-36
Samp. Date/Time/Temp	09/12/08 02:30pm NA C
Receive Date	09/13/08
Sampled by	Customer Sampled

Parameter	Method	Result		DIL	PQL	Prep Date	Test Date,	Analyst
TERT-BUTYL FORMATE (SHEALY)	8260B	U	ug/l	1	5.00	N/A	09/17/08	SUB
Ion Chromatography								
NITRATE (AS N)	300.0	1.65	mg/l	10	0.50	N/A	09/13/08	AD
SULFATE	300.0	U	mg/l	10	5.0	N/A	09/13/08	AD
Ferrous Iron								
FERROUS IRON	SM4500Fe-D	0.320	mg/l	1	0.10	N/A	09/13/08	AD

Serial Number: 680369

Genapure Analytical Services, Inc.

3231 NW 7th Ave., Boca Raton, FL 33431
www.genapure.com

CHAIN OF CUSTODY RECORD

Log# 262365 T#S___ Quote:_____ Page 1 of 1

Container Type Codes			
AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PL C	Plastic container
AL	Amber Liter	PL J	Plastic Jar
CL	Clear Liter	Ziploc	Ziploc bag
AP	Amber Plastic	TEDLAR B	Tedlar bag
AG	Amber Glass	WHIRL P	Whirl pak
SJ	Soil Jar	G	Gallon Jug

Other_____
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, 40ml other____
Example: 4ozP = 4oz Plastic, 8oxSJ=8oz Soil Jar

Matrix Codes*			
SD	Solid Waste	WW	Waste Water
SO	Soil	AFW	Analyte Free Water
SE	Sediment	DW	Drinking Water
OL	Oil	SU	Surface Water
PE	Petroleum	AQ	Aqueous
NA	Nonaqueous	SW	Source Water
ML	Misc. Liquid	A	Air
GW	Ground Water	O	Other_____
EFF	Effluent		(Please Specify)
INF	Influent		

Pres/Codes		
A. None	E. HCL	I. Ice
B. HNO_3	F. MeOH	J. MCAA
C. H_2SO_4	G. $Na_2S_2O_3$	K. Zn Acetate
D. NaOH	H. $NaHSO_4$	O. Other

Company Name: BLE PO#
Address: Coast Founders CT
City: Greenville State: SC Zip: 29615
Attn: Trevor Benton Fax#
email: Trevor@blecorp.com

Project Name: KMO #119 Proj#
Sampler Signature: Phone# (864) 288-1265

LAB ANALYSIS

#	Sample Label (Client ID)	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity OK(Y/N)	Total # of containers	Parameters: 8260 BTEX, MTBE, NAP, DCA	8011 EDB	8260 8-OXY	NO_3/SO_4/Fe^{++}	6020 Total Lead	EXAMPLE Diss.8RCRA 6010
	Sample												
	TRC												
	pH							V	ia	1	5	2	
	Pres Codes												
i.e.	MW-1	6/16/04	11:35	GW	X		1						# of Containers / Size/Type: 1 16ozP
_1	MW-20	9/12/08	0915	GW			8	2	2	2	1	1	
_2	MW-24		1033										
_3	MW-26		1142										
_4	MW-37		1515										
_5	MW-35		1105										
_6	MW-42		1215										
_7	MW-44		0930										
_8	MW-36		1530										
_9	MW-36		1520										
_0													

REMARKS
DUP 6N

ORIGINAL

T.A.T. REQUEST Standard	Date Required	Short Hold	QA/QC Report Level	COC OK	Initials	Required State Certification	Coolers #'s
10	NLT	Y ✓ N____	None___ 1___ 2___ 3___ Other___	Y N	BS		___ ___ ___ ___ ___

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
		BLE	9/12/08	1700		GAS	9/13/08	1130

Lab Use Only

	Yes	No	N/A
Sample INTACT upon arrival?	✓		
Received on Wet Ice? Temp ___°c	✓		
Proper Preservatives Indicated?			
Received within holding time?			
Custody seals Intact?			
Volatile rec'd without headspace?			
Proper Containers Used?			

APPENDIX C

WASTE TRANSPORTATION AND DISPOSAL RECORDS

Environmental Soils Inc.

PO Box 295 • Lattimore, NC 28089
Phone 704-434-0075 • Fax 704-434-9533

Non-Hazardous Waste Manifest #16773

Date 4-16-08 Load Number _____
(numbered sequentially as trucks are dispatched)

ENVIRONMENTAL CONSULTANT: BLE, INC.
Contact: Mr. Trevor Benton Phone: 864-288-1265 Fax: 864-288-4430
GENERATOR: KEN MOOREHEAD OIL COMPANY
Address: 2900 N. MAIN ST, ANDERSON, SC County: Anderson
Contact: Mr. Chris Moorehead Phone: _____
WASTE ORIGINATION POINT: Complete Address: CITGO - KMO # 119
1312 WILLIAMSTON ROAD, Anderson, SC
Class & Type of Contaminate in soil Petroleum - SCDHEC # 00505
SOURCE OF CONTAMINATION: (ex. UST or other source) UST System

GENERATORS CERTIFICATION OF WASTE CONSTITUENTS: In lieu of submitting analytical data (methods 8240 and 8270) verifying that the waste in question does not contain organic constituents other than those which would normally appear in analysis of virgin petroleum product residue, I am submitting this Certificate of Waste Constituents. I certify that I am familiar with the source of contamination of the soil and further certify the source, to the best of my knowledge, contains no contaminants other than that listed above.

Generators Signature: _____ Date: _____

TRANSPORTER: EXCALIBUR ENV. SERVICES, INC
Contact: Bradley A. Morris Phone: 864-967-9744
As the carrier, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured, and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.
Carrier Signature: _____ Date: _____

TRUCK #: 01 TAG #: — VOLUME: 38 DRUMS
TRUCK DRIVER SIGNATURE: Bradley A. Morris DATE: 4-16-08

DESTINATION: Environmental Soils Inc. 910 Crowder Rd, Shelby, NC 28150 Dedicated Land Application Site Permit #SR0300038

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the Sate of North Carolina.

Facility Signature: Ray Towery Date: 4/16/08
Signature: William Bacon Date: 4/16/08
Company Name EST Title: _____

White/Facility Canary/Invoice Pink/Carrier Goldenrod/Generator

Environmental Soils Inc.

PO Box 295 • Lattimore, NC 28089
Phone 704-434-0075 • Fax 704-434-9533

Non-Hazardous Waste Manifest #16782

Date 6/4/08 Load Number _____

(numbered sequentially as trucks are dispatched)

ENVIRONMENTAL CONSULTANT: BLE, INC.

Contact: Mr. Trevor Benton Phone: 864-288-1265 Fax: 864-288-4430

GENERATOR: KEN MOOREHEAD OIL CO.

Address: 2900 N. MAIN ST. Anderson, SC County: Anderson

Contact: Mr. Chris Moorehead Phone: _____

WASTE ORIGINATION POINT: Complete Address: CITGO - KMO # 119
1312 WILLIAMSTON ROAD, ANDERSON, SC

Class & Type of Contaminate in soil Petroleum - SCDHEC UST PERMIT # 00505

SOURCE OF CONTAMINATION: (ex. UST or other source) UST System

GENERATORS CERTIFICATION OF WASTE CONSTITUENTS: In lieu of submitting analytical data (methods 8240 and 8270) verifying that the waste in question does not contain organic constituents other than those which would normally appear in analysis of virgin petroleum product residue, I am submitting this Certificate of Waste Constituents. I certify that I am familiar with the source of contamination of the soil and further certify the source, to the best of my knowledge, contains no contaminants other than that listed above.

Generators Signature: _____ Date: _____

TRANSPORTER: EXCALIBUR ENV. SERVICES, INC.

Contact: Bradley A. Morris Phone: 864-967-9744

As the carrier, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured, and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.

Carrier Signature: Bradley Morris Date: 6/4/08

TRUCK #: 01 TAG #: — VOLUME: 28 DRUMS

TRUCK DRIVER SIGNATURE: Bradley Morris DATE: 6/4/08

DESTINATION: Environmental Soils Inc. 910 Crowder Rd, Shelby, NC 28150 Dedicated Land Application Site Permit #SR0300038

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the Sate of North Carolina.

Facility Signature: Ray Morris Date: 6-11-08

Signature: Gary Ellis Date: 6-11-08

Company Name E S I Title: _____

White/Facility Canary/Invoice Pink/Carrier Goldenrod/Generator

NON-HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 161

2. Page 1 of 1

3. Generator's Name and Mailing Address
KMO #119 (CITGO) RD.
1312 WILLIAMSTON
ANDERSON, SC

C/O Excalibur Environmental
403 Cotton Hall Court
Simpsonville, SC 29680

4. Generator's Phone 967-9744

5. Transporter 1 Company Name: Excalibur Environmental

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone (864) 967-9744

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 South Main Street
Mauldin, SC 29662

10. US EPA ID Number: SCR000762468

E. State Facility's ID

F. Facility's Phone (864) 962-9953

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Contaminated Water			60	G
b.				
c.				
d.				

GENERATOR

G. Additional Descriptions for Materials Listed Above
< 250 MG/L

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
SCDHEC UST PERMIT # 00505

NON-HAZARDOUS WASTE

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.

Agent for KMO #119

Printed/Typed Name: BRADLEY A. MORRIS | Signature: Bradley A. Morris | Date: Month 6 Day 23 Year 08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: BRADLEY A. MORRIS | Signature: Bradley A. Morris | Date: Month 6 Day 23 Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name: Ryan Blackstone | Signature | Date: Month 6 Day 23 Year 08

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 162

2. Page 1 of 1

3. Generator's Name and Mailing Address
KMO #119 (CITGO)
1312 WILLIAMSTON RD
ANDERSON, SC
c/o Excalibur Environmental
403 Cotton Hall Court
Simpsonville, SC 29680

4. Generator's Phone 967-9744

5. Transporter 1 Company Name
Excalibur Environmental

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone (864) 967-9744

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 South Main Street
Mauldin, SC 29662

10. US EPA ID Number
SCR000762468

E. State Facility's ID

F. Facility's Phone
(864) 962-9963

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Contaminated Water			80	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above
< 250 MG/L

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
SC DHEC UST PERMIT # 00505

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Agent for KMO #119

Printed/Typed Name: BRADLEY A. MORRIS | Signature: Bradley A. Morris | Date: Month 6 Day 23 Year 08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: BRADLEY A. MORRIS | Signature: Bradley A. Morris | Date: Month 6 Day 23 Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name: RYAN BLACKSTONE | Signature | Date: Month 6 Day 23 Year 08

NON-HAZARDOUS WASTE

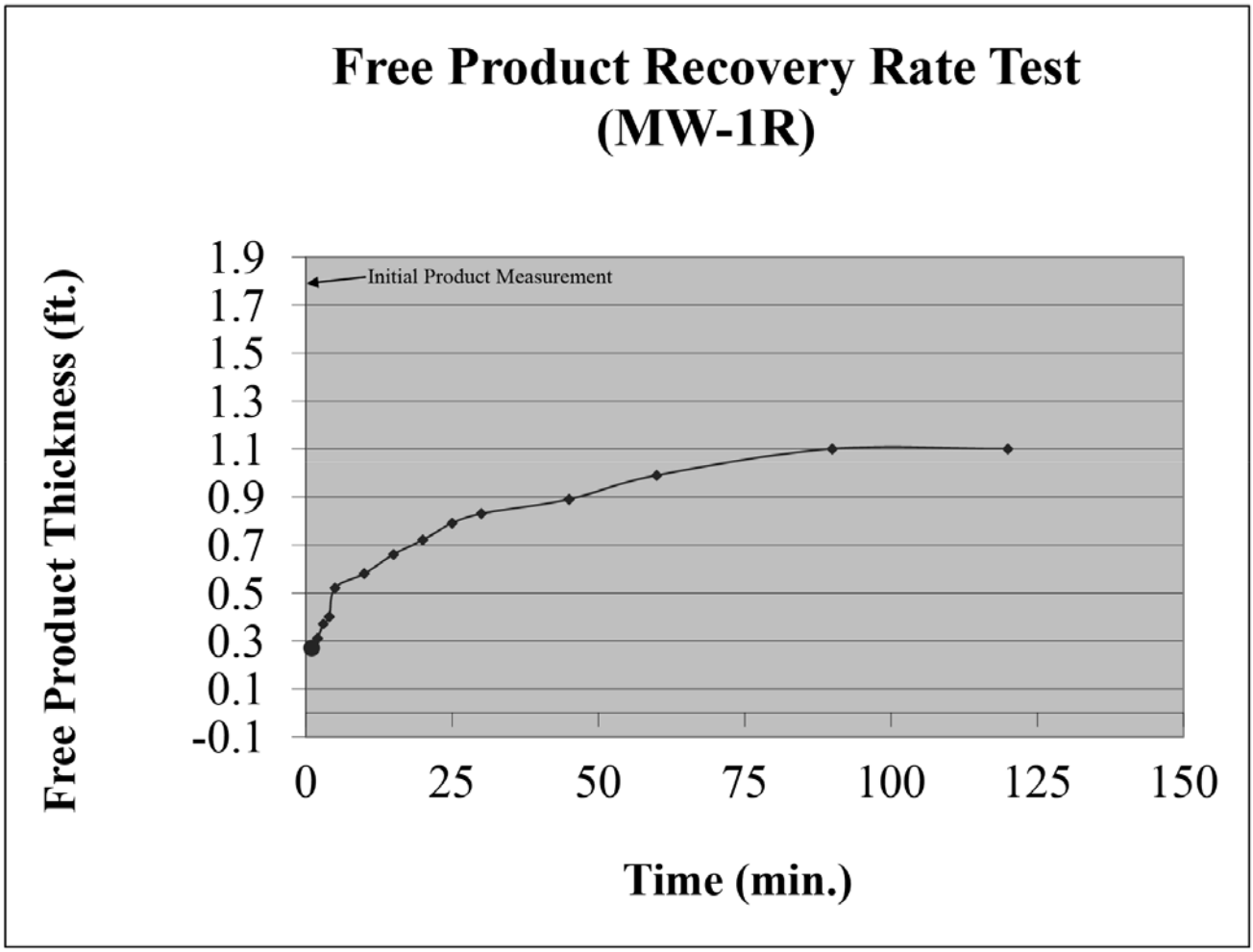
APPENDIX D

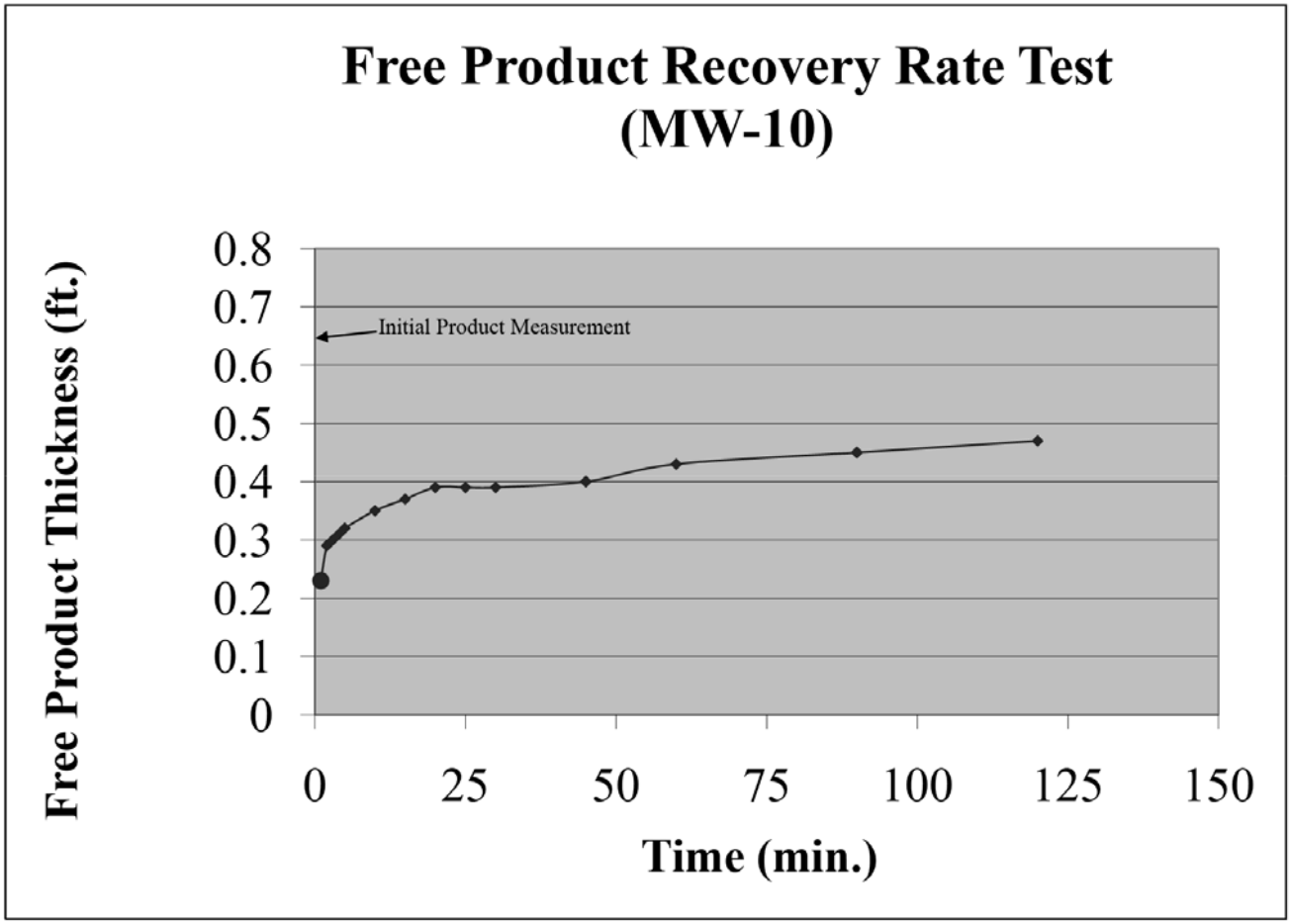
FREE PRODUCT RECOVERY RATE TEST PROCEDURES AND GRAPHS

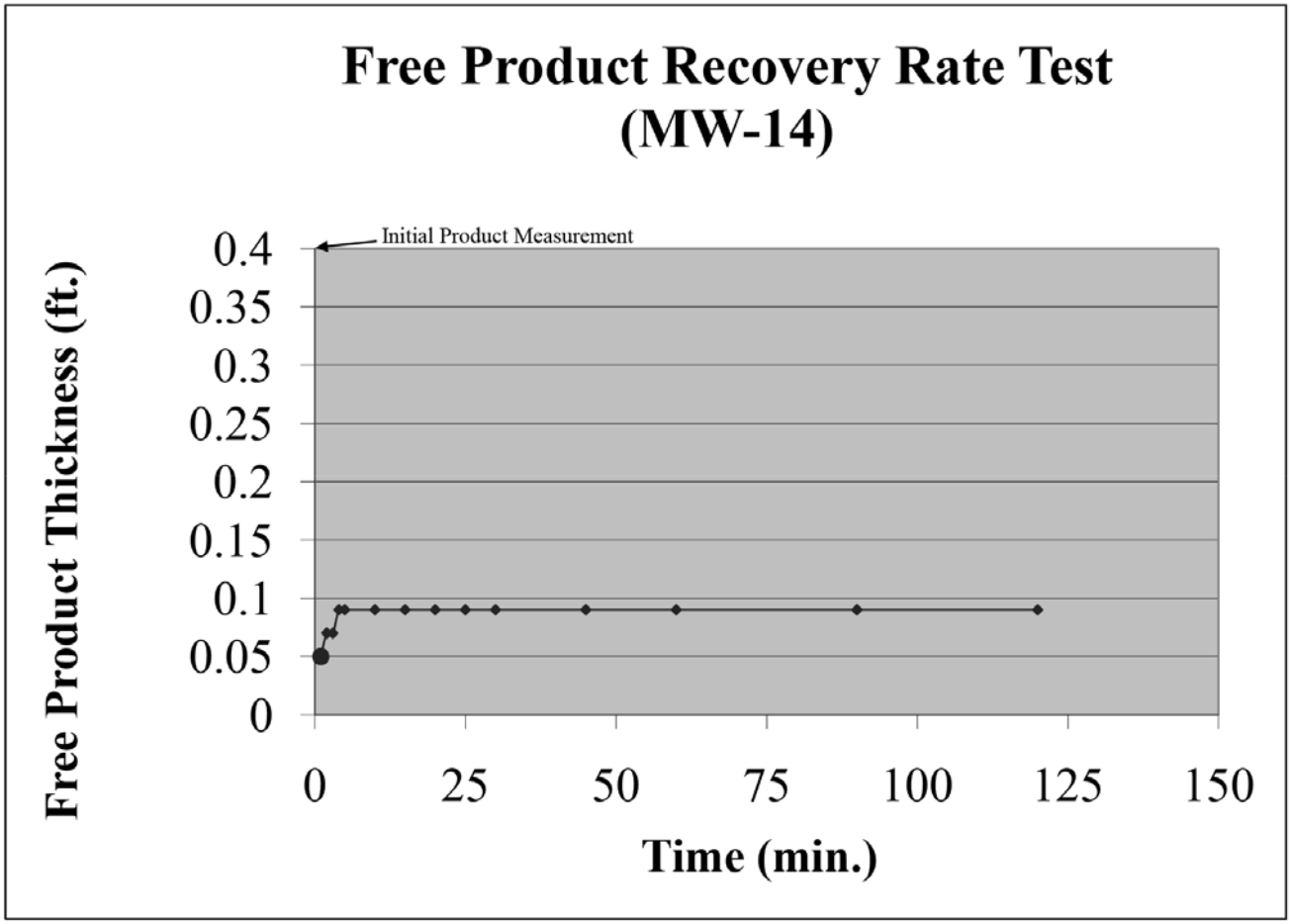
APPENDIX D

FREE PRODUCT RECOVERY RATE TEST PROCEDURES

Free product recovery rate tests were performed utilizing a Solinst® Model 122 Oil/Water Interface Probe and a bailer. Depth-to-product and depth-to-water in the monitoring well were measured with the interface probe. Proper measurement was made by employing the integrated measuring tape on the probe and by monitoring audible feedback tones differentiating between free product and groundwater. After the thickness of free phase petroleum product in the monitoring well was measured, the product was completely bailed from the water column. Every attempt was made to limit the amount of groundwater removed from the monitoring well. After all petroleum product was removed from the well, the rate at which the product recovered was measured using the interface probe. Measurements were recorded for a two-hour time period. All free phase petroleum product was contained in a five-gallon plastic bucket, on site. These wastes were transported off site and properly disposed of.


Free Product Recovery Rate Test
(MW-1R)
Free Product Thickness (ft.)
1.9
1.7
1.5
1.3
1.1
0.9
0.7
0.5
0.3
0.1
-0.1
Initial Product Measurement
0
25
50
75
100
125
150
Time (min.)


Free Product Recovery Rate Test
(MW-10)
Free Product Thickness (ft.)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Initial Product Measurement
0
25
50
75
100
125
150
Time (min.)


Free Product Recovery Rate Test
(MW-14)
Initial Product Measurement
Free Product Thickness (ft.)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
25
50
75
100
125
150
Time (min.)

NON-HAZARDOUS WASTE MANIFEST

00505 art

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 210

2. Page 1 of 1

3. Generator's Name and Mailing Address
KMO #119
1312 Williamston Rd.
Anderson, SC

C/O Excalibur Environmental
403 Cotton Hall Court
Simpsonville, SC 29680
967 - 9744

4. Generator's Phone

5. Transporter 1 Company Name
Excalibur Environmental

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone (864) 967-9744

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 South Main Street
Mauldin, SC 29662

10. US EPA ID Number
SCR000762468

E. State Facility's ID

F. Facility's Phone (864) 962-9953

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Impacted Water #6629			4 DRUMS	
b.				
c.				
d.				

RECEIVED
NOV 13 2008
UNDERGROUND STORAGE TANK PROGRAM

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
SCDHEC SITE ID # 00505

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: BRADLEY A. MORRIS
Signature: Bradley A. Morris
Date: Month 11 Day 6 Year 08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: BRADLEY A. MORRIS
Signature: Bradley A. Morris
Date: Month 11 Day 6 Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name: RYAN BLACKSTONE
Signature: Ryan Blackstone
Date: Month 11 Day 6 Year 08

NON-HAZARDOUS WASTE

UST DOCKET
6 tech

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

MS EUNICE FULLER
KEN MOOREHEAD OIL INCORPORATED
PO BOX 2587
ANDERSON SC 29622-2587

NOV 17 2008

Re: Assessment Plan Directive
M D Food Mart, Former KMO #119, 1312 Williamston Road, Anderson, SC
UST Permit #00505
Release Reported December 20, 1989
Tier II Assessment Report received November 28, 2008
Anderson County

Dear Ms. Fuller:

The Underground Storage Tank (UST) Program has reviewed the referenced report submitted by Bunnell Lammons Engineering, Incorporated on your behalf. The report indicates that free phase product is present in several wells and the horizontal extent of petroleum Chemicals of Concern (CoC) are above risk-based screening levels (RBSLs). The plan should include Aggressive Fluid and Vapor Recovery events and installation of monitoring wells adjacent to wells that are currently dry.

To determine what risk the referenced release may pose to the environment and public health, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of the scope of work as outlined in the Tier II Assessment Guidance Document is necessary. The Tier II Assessment Guidance Document and Tier II Assessment forms are available online at http://www.scdhec.gov/eqc/admin/html/..%5C..%5Cust%5Cpubs%5Ctier2.pdf and http://webserver03 dhec.sc. gov/iieforms/d3527.pdf respectively.

Please have your contractor complete and submit the Assessment Component Cost Agreement and Assessment Plan Forms within thirty days of the date of this letter. Every component may not be necessary to complete the above scope of work. The State Underground Petroleum Environmental Response Bank (SUPERB) Account allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that approval from the Department must be issued before work begins.**

On all correspondence regarding this site, please reference UST permit 00505. Should you have any questions regarding this correspondence, please feel free to contact me at (803) 896-6669 or (800) 826-5435 (within South Carolina only). I can also be reached by email at shradeaa@dhec.sc.gov. or by fax at (803) 896-6245.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

cc: Bunnell Lammons Engineering, 6004 Ponders Court, Greenville, SC 29615 (with enc.)
Technical file (without enc.)

UST DOCKET
Mech

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

MS EUNICE FULLER
KEN MOORHEAD OIL INCORPORATED
PO BOX 2587
ANDERSON SC 29622-2587

MAR 05 2009

Re: Notice of Apparent Violation
KMO #119, 1312 Williamston Road, Anderson, SC
UST Permit #00505
Release Reported December 20, 1989
Tier II Assessment Report received November 28, 2008
Anderson County

Ms. Fuller:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC), has requested an Assessment Plan on November 17, 2008. A copy of the directive is attached.

The plan was due on or before December 20, 2008 and a report of findings 90 days after the letter approving additional assessment activities is received by you. To date the required plan and report have not been received. In accordance with Section 280.65 of the South Carolina Underground Storage Tank Regulations, the assessment must be conducted as chemicals of concern are above the risk-based-screening levels. Implementation of this scope of work should proceed upon receipt of this correspondence. **Please submit the plan within 10 days from the date of this letter and the report 90 days from the date of the approval letter. Should you not submit the plan by Tuesday, March 17, 2009 and the assessment report 90 days after the approval letter is received by you, this office will be forced to initiate enforcement action.**

On all correspondence or inquiries regarding this project, please reference UST permit number 00505 and cost agreement 22807. If you have any questions, please contact me at (803) 896-6669, (800) 826-5435 (within South Carolina only), fax me at (803) 896-6245, or e-mail me at shradeaa@dhec.sc.gov if you have questions or need additional information.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

UST DOCKET Stock

enc: SCDHEC Directive dated November 17, 2008

cc: Bunnell-Lammons Engineering Inc., 6004 Ponders Ct., Greenville, SC 29615 (with enc.)
Technical File (without enc.)

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

UST
MAR 16 2009
PROGRAM

March 10, 2009

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
2600 Bull St.
Columbia, SC 29201-1708

Attention: Mr. Arthur Sharder
Hydrogeologist

UST
DOCKET
11

Subject: **Additional Groundwater Assessment Plan**
Former KMO #119
1312 Williamston Road
Anderson, South Carolina, Anderson County
UST Permit # 00505
BLE Project No. J09-3661-04

Dear Mr. Shrader:

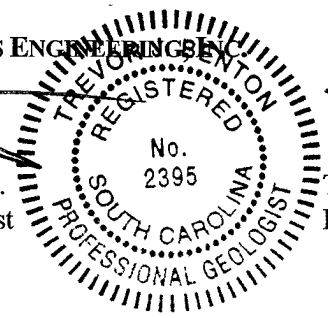
On behalf of Ken Moorhead Oil Company, Inc., Bunnell-Lammons Engineering, Inc. (BLE) is pleased to submit this *Additional Groundwater Assessment Plan* for the Former KMO #119 site in Anderson, South Carolina. This proposed scope of work is based on the results of our original *Report of Tier II Assessment* completed in 2007 and our *Addendum to Tier II Assessment* completed in 2008. The South Carolina Department of Health and Environmental Control's (SCDHEC) comments on the *Addendum to Tier II Assessment* are incorporated in this plan.

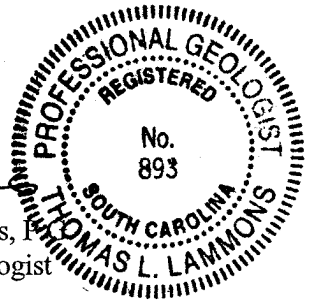
Based on our present schedule we can begin the fieldwork after receipt of your written authorization to proceed. Our written report can be submitted within the timeframe required by SCDHEC.

As our authorization to proceed, please provide a written notice of approval. Please contact us if you have any questions.

Sincerely,

BUNNELL-LAMMONS ENGINEERING, INC.





Trevor J. Benton, P.G.
Project Hydrogeologist

Thomas L. Lammons, P.G.
Principal Hydrogeologist

Attachment

cc: Ms. Eunice Fuller, Ken Moorhead Oil Co., Inc., P.O. Box 2587, Anderson, SC 29622

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615

PHONE (864) 288-1265
FAX (864) 288-4430

Expanded Tier II Plan
Division of Underground Storage Tank Management

UST Permit #: 00505 County: Anderson Facility Name: Former KMO #119

Facility Address: 1312 Williamston Road, Anderson, South Carolina (Figure 1)

Responsible Party: Ken Moorhead Oil Company, Inc. Address: P.O. Box 2587, Anderson, South Carolina 29622

No. USTs: 4 Removed? Yes – December 1991 (date) Replaced? Yes – Alternate location (date)

Current use of facility/property: Petroleum Retail Facility and Convenience Store

Current property owner name: DEV Enterprises, Inc

Current property owner address: 1312 Williamston Road, Anderson, South Carolina

Field Screening Methodology

Specify the field screening methodology to be used. The use of field screening methods to optimize the number and location of permanent wells is required.

Geoprobe for soil and groundwater samples, field screening and laboratory analysis.

No. Samples	Location	Depth (ft)	Laboratory Analysis
NA – Completed during original Tier II Assessment			

Permanent Monitoring Wells (estimate number and total completed depth)

# of shallow wells:	10	Total depth:	480 ft.
# of deep wells:	7	Total depth:	960 ft.

Comments, if warranted: **See attached Figure 2 for well locations.**

Shallow Wells:
Well MW-45 will be installed to define the horizontal extent of the petroleum contaminant plume to the west of MW-4. MW-5R through MW-8R, MW-13R (had less than one foot of water for sampling), MW-27R, and MW-30R through MW-32R will be installed to replace their counterparts, as they have become dry. These shallow wells will be installed utilizing hollow stem auger drilling techniques (except MW-13R) and will be constructed with ten foot screens. MW-13R will be installed utilizing air hammer drilling techniques. For budgeting purposes, we have assumed MW-45 will be installed to a total depth of 40 feet and each replacement well will be drilled ten feet deeper than its dry counterpart (approximately 480 feet total).

UST Permit #: 00505 Facility Name: Former KMO #119

Deep Wells:
Wells MW-1DDD and MW-11DDD will be installed as Type III "pit-cased" monitoring wells and located adjacent to their shallow well counterparts to assess the vertical extent of petroleum contaminants. The outer casings will be pit-cased in bedrock and drilled to the first occurrence of water below the termination depth of the deepest adjacent well. Strong recharging conditions have been measured between monitoring wells MW-1R/MW-1DD (approximate 0.070 ft/ft downward gradient) and MW-11/MW-11DD (approximate 0.099 ft/ft downward gradient). Additionally, moderate to high CoC concentrations have been detected in the intermediate and deep bedrock monitoring wells (especially MW-11DD – total depth 161.5 feet). Therefore, since the vertical component of the contaminant plume has not been fully defined, we propose the installation of five additional intermediate and deep bedrock monitoring wells. Wells, MW-27D, MW-27DD, MW-37D, MW-33D, and MW-33DD will be installed as bedrock monitoring wells to elevations corresponding with existing wells MW-1D/MW-1DD and MW-11D/MW-11DD. Cross sections depicting these proposed wells are shown on the attached Figure 3. Each deep monitoring well will be installed with a five foot screen. We have assumed wells MW-1DDD and MW-11DDD will be installed to 210 feet each. We have anticipated the total depths for the following bedrock wells: MW-27D - 69 feet, MW-27DD – 136 feet, MW-33D – 65 feet, MW-33DD – 131 feet and MW-37D – 135 feet (approximately 960 feet total). These depths are subject to change based on geologic conditions and will be determined in the field. SCDHEC will be notified immediately by BLE field personnel of any significant changes to these depths.

Analyses

List the analytical parameters (e.g., BTEX, MTBE) and estimated number.

60 (17 new wells and 43 existing (excludes previously dry wells)) groundwater samples from monitoring wells analyzed for BTEX, naphthalene, MTBE, 1,2-DCA, EDB, and 8 oxygenates. Samples will be collected from below the free-product/water interface in applicable monitoring wells.

1 out-of-service drinking water well located southeast of the site will be analyzed for BTEX, naphthalene, MTBE, 1,2-DCA, EDB, and 8 oxygenates (if water is present during the sampling event).

Implementation Schedule

Start up date: 4/1/09 Completion date: 7/1/09

Report submittal date: 7/1/09

Site Maps

1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following.

North arrow	Legend with facility name and address, UST Permit number, date, and a bar scale
Location of property lines	Streets or highways (indicate names and numbers)
Location of buildings	Identification of located buildings
Paved areas on or adjacent to site	Location of all present and former ASTs and USTs
Previous soil sampling locations	Underground and above ground utilities on or adjacent to site
Previous monitoring well locations	Location of any other potential receptor

UST Permit #: 00505 Facility Name: Former KMO #119

Aquifer Characterization (Check one and provide explanation for choice)

Pump test: _____ Slug tests: _____

Free-product recovery rate test _____

Small Volume Disposal Type and Method

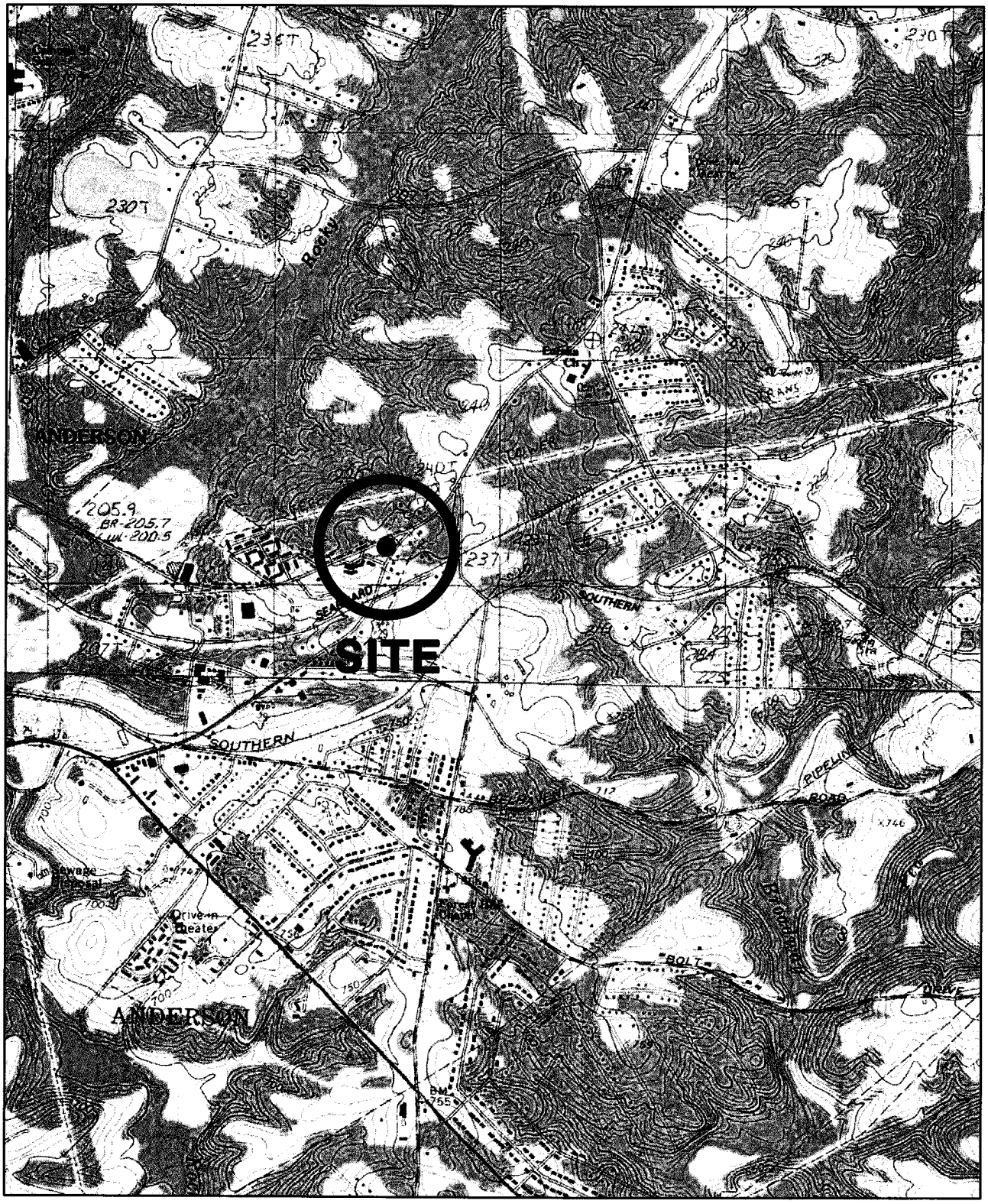
Soil: Contain in 55-gallon drums until transported and disposed at a permitted treatment/disposal facility.

Purge water: Contain in 55-gallon drums until transported and disposed at a permitted treatment/disposal facility.

Additional comments: Conduct AFVR events in product wells MW-1R, MW-2, MW-10, MW-11, MW-14, and MW-16. Separate events will be required due to extended distances between wells. One event will be conducted on monitoring wells MW-1R and MW-16, the second event will be conducted on MW-2, the third event will be conducted on MW-11, and the fourth event will be conducted on MW-10 and MW-14. Water generated from the events will be disposed at a permitted facility.

BLE Project No. J09-3661-04

	Name: Former KMO #119 - Additional Groundwater Assessment		UST Permit # 00505		Date:	3/11/2009
1	Plan					
		Plan Preparation	1	each	100	100.00
		Tax Maps			50	0.00
2	Receptor Survey			each	500	0.00
3	Comp Survey		1	each	1000	1,000.00
4	Mob/Demob	equipment **9(x2), 23(x4)**	6	each	575	3,450.00
		personnel **9(x2), 10, 17, 23(x4)**	8		290	2,320.00
			Total Feet		SUPERB Allowable Rate	
5	Soil Borings (Hand Auger)*				14	0.00
6	Field Screening	Geoprobe - soil			17	0.00
		Geoprobe - groundwater (horizontal delineation)			17	0.00
		Geoprobe - groundwater (vertical delineation)			17	0.00
		Total Field Screening (ft)		**0 feet**		
7	Soil Leach Model			each	200	0.00
8	Abandonments	Geoprobe - soil			5	0.00
		Geoprobe - groundwater (horizontal delineation)			5	0.00
		Geoprobe - groundwater (vertical delineation)			5	0.00
		Total Abandonment (ft)		**0 feet**		
9	Well Installation	Water Table (hand auger)			20	0.00
		Water Table (drilled) - (MW-45, -5R thru -8R, -13R, -27R, -30R thru -32R)	480		38	18,240.00
		Type III (telescope) - MW-1DDD & MW-11DDD	420		58	24,360.00
		Rock drill - (MW-27D, -27DD, -33D, -33DD, -37D)	540		58	31,320.00
		Total Drilling (ft)		**1440 feet**		
10	Sample Collection	Ground water (17 new wells, 12 existing wells not bracketing water table)	29	each	55	1,595.00
		Air/Vapor			90	0.00
		Water Supply	1		25	25.00
		Groundwater No Purge (28 existing wells w/o FP)	28		35	980.00
		Gauge Well Only			20	0.00
		Sample Below Product (MW-1R, -2, -10, -11, -14, -16)	3		50	150.00
		Passive Diffusion Bag			40	0.00
11	GW Samples	BTEX + naphth + MTBE (60 wells and 1 DW well)	61	each	100	6,100.00
		Rush BTEX analysis			120	0.00
		BTEX + napth + MTBE Trimethylbenzene			135	0.00
		PAH			120	0.00
		Lead			20	0.00
		EDB	61		55	3,355.00
		8 RCRA Metals			140	0.00
		TPH			55	0.00
		pH			10	0.00
		BOD			40	0.00
		Nitrates			20	0.00
		Sulfates			20	0.00
		Ferrous Iron			20	0.00
		Methane			110	0.00
		Organic Lead			100	0.00
		8 Oxygenates	61		85	5,185.00
		1,2-DCA	61		10.75	655.75
11	Soil Samples	BTEX + naphth			100	0.00
		PAH			120	0.00
		8 RCRA Metals			150	0.00
		TPH (9071)			60	0.00
		TPH (3550)			65	0.00
		TPH (5035)			65	0.00
		Grain Size/hydrometer (boring w/ highest field screening result)			75	0.00
		TOC (background soil boring)			35	0.00
12	Aquifer Characterization*					
		Pumping Test		hours	120	0.00
		Slug Test		test	150	0.00
13	Free Product Test*			test	120	0.00
14	Fate/Transport Modeling			each		
		Modeling			300	0.00
		Dominico Modeling			500	0.00
15	Risk Evaluation					0.00
		Tier I		each	300	0.00
		Tier II			500	0.00
16	Subsequent Survey*				260	0.00
17	Disposal	Purging/Sampling	4	drums	90	360.00
		Pumping Test/AFVR	2000	gallons	0.6	1,200.00
		Product		drums	110	0.00
		Soil (Treatment/Disposal)	30	drums	50	1,500.00
23	AFVR	8-hour Event	4	each	3000	12,000.00
		Additional Hour		per hour	204	0.00
		Off-gas Treatment	32	per hour	35	1,120.00
	SUBTOTAL					115,015.75
	Report 15%					17,252.36
	TOTAL					132,268.11



2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES,
BELTON WEST AND SAYLORS CROSSROADS, S.C.
QUADRANGLES, 1983 AND PHOTOREVISED 1979.

DRAWN: AEH	DATE: 03-10-09	BLE inc. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP MOORHEAD OIL COMPANY – KMO 119 UST PERMIT #00505 ANDERSON, SOUTH CAROLINA	FIGURE 1
CHECKED: TJB	CAD: MOOREHEAD-02SLM			
APPROVED:	JOB NO: J09-3661-04			