

**SOIL CLEANUP REPORT
AND
REQUEST FOR SITE CLOSURE
BUILDING A-12 FUELING AREA
MCB CAMP LEJEUNE, NORTH CAROLINA
DECEMBER 2009**



NCDENR UST INCIDENT NO.: 32486

LAND USE CLASSIFICATION: PENDING

RISK CLASSIFICATION: PENDING

PREPARED BY:



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Contract No. N40085-08-D-3214

CTO: 0007

Rhea Project No. 450

(FOR LOW-RISK PETROLEUM RELEASES ONLY)

1. Site Identification

Address: 5500 Business Drive, Wilmington, NC 28405 Tel: 910-350-1903

3. Information about Release

Date Discovered: December 18, 1993

Estimated Quantity of Release: Unknown

Cause of Release: Unknown

Source of Release (Dispenser/Piping/UST): UST or associated piping is suspected

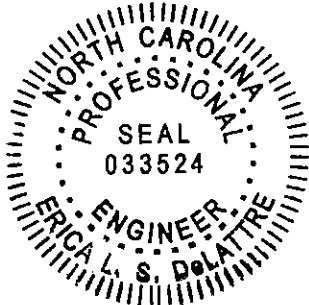
Sizes and contents of UST system(s) from which the release occurred: One 10,000 gallon diesel UST, one 10,000 gallon gasoline UST, dispenser, and approximately 1,000 feet of piping.

Criteria Used to Classify Risk: _____

4. Certification (*The title page must display the seal and signature of the certifying P.E. or L.G. and the name and certification number of the company or corporation [See 15A NCAC 2L .0103(e).]*)

I, Erica L.S. DeLattre, a Professional Engineer/Licensed Geologist (*circle one*) for Rhēa Engineers & Consultants, Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.

(Please Affix Seal and Signature)



A handwritten signature in black ink that reads "Erica L.S. DeLattre".

Rhēa Engineers & Consultants, Inc. is licensed to practice geology/engineering (*circle one or both*) in North Carolina. The certification number of the company or corporation is C-2339.

B. EXECUTIVE SUMMARY

Site A-12 is located within the amphibious vehicle maintenance facility in the Courthouse Bay area of Marine Corps Base (MCB) Camp Lejeune, as shown on Figures 1 and 2. The site contained two 10,000 gallon Underground Storage Tanks (USTs), A12-1 (diesel) and A12-2 (gasoline), along with associated product transfer piping and a dispenser. Approximately 110 feet of product transfer piping was estimated to be located between the tank basin and the dispenser at the water's edge, on Courthouse Bay. The tanks were removed in December 1992 by Jones and Frank and free product was detected.

The North Carolina Department of Environment and Natural Resources (NCDENR) requested that MCB Camp Lejeune conduct an assessment for the site. A Phase I Limited Site Assessment (LSA) was conducted by CATLIN Engineers and Scientists (CATLIN) and dated May 8, 2008. CATLIN reported that the underground transfer piping remained in place and only minor soil contamination existed along the transfer lines and the sidewall of the tank pit. Groundwater did not appear to be adversely affected. NCDENR approved CATLIN's recommendation in the LSA to remove the piping and excavate contaminated soils. In July and September 2008, CATLIN conducted further soil assessments and attempted to remove the transfer piping. Upon initial excavation, CATLIN discovered additional fuel lines and only removed a portion of a line set due to budget constraints.

Rhēa Engineers & Consultants, Inc. (Rhēa) was contracted to remove all the additional discovered line sets. Rhēa removed eight fuel line sets totaling 650 feet of removed piping sets (1,730 feet of pipe) and 1180.13 tons of surrounding soil. A total of 43 confirmatory soil samples were collected along the exposed fuel line and were analyzed for Total Petroleum Hydrocarbons (TPH) Diesel Range Organics (DRO) and TPH Gasoline Range Organics (GRO). One soil sample, A12-T1-S-C2 contained 14.7 mg/kg for TPH DRO, which exceeds the North Carolina Action Level for TPH DRO (10 mg/kg). The area of the sample was over-excavated and re-sampled for TPH GRO and DRO. The sample from the over-excavated area, A12-T1-S-C2-2, did not contain any exceedances for either TPH DRO or TPH GRO. On October 16, 2009, Environmental Management Division (EMD) requested that Rhēa take another sample at the exact location of A12-T1-S-C2-2 and analyze the sample for the risk-based parameters, using Method 8260, Method 8270 and Massachusetts Department of Environmental Protection (MADEP) Extractable Petroleum Hydrocarbons (EPH) and Volatile Petroleum Hydrocarbons (VPH). Rhēa located the sample location using a Global Positioning System (GPS) and collected the sample on October 19, 2009. The sample results were "below quantitation limit" (BQL) for all constituents in all methods.

At the request of NCDENR, a temporary well (USTAS12-MW01) was installed at the location of A12-T1-S-C2-2. A groundwater sample, A12TW, was collected and analyzed for Environmental Protection Agency (EPA) Methods 602, 625, and MADEP – EPH and VPH. Analytical results revealed no detections of any constituents.

Based on the confirmatory analytical results from the 2008 and 2009 fuel line and soil removal actions, the groundwater sampling results from the LSA, and the groundwater results from A12TW, Rhēa concludes that the project site meets the criteria for Industrial/Commercial Land Use and Low Risk classification. No free phase product is present at the site. It is recommended that this incident be reviewed and considered for “No Further Action” with a Land Use Restriction (LUR).

C. TABLE OF CONTENTS

	PAGE
A. TITLE PAGE	1
B. EXECUTIVE SUMMARY	3
C. TABLE OF CONTENTS.....	5
D. SITE HISTORY AND CHARACTERIZATION.....	8
D.1. LOCATION, OWNERSHIP INFORMATION, AND TANK DESCRIPTION	8
D.2. HISTORICAL BACKGROUND INFORMATION	8
D.2.1 UST Removal, December 1992	8
D.2.2 Phase I Limited Site Assessment, May 2008.....	8
D.2.3 Tank Basin Soil Delineation, July 2008.....	9
E. SUMMARY OF SOIL ASSESSMENT INFORMATION	9
F. OBJECTIVES OF CORRECTIVE ACTION AT THE SITE	9
G. SOIL REMEDIATION.....	10
G.1 CATLIN’S SEPTEMBER 2008 REMOVAL ACTION	10
G.2 RHĒA’S SEPTEMBER 2009 REMOVAL ACTION.....	11
H. POST REMEDIATION SAMPLING.....	13
H.1 CATLIN’S SEPTEMBER 2008 REMOVAL ACTION SAMPLING AND ANALYSIS	13
H.2 RHĒA’S SEPTEMBER 2009 REMOVAL ACTION SAMPLING AND ANALYSIS ...	14
H.3 CATLIN AND RHĒA DECEMBER 2009 GROUNDWATER SAMPLING.....	15
I. CONCLUSIONS AND PETITION FOR SITE CLOSURE	15
J. PUBLIC NOTICE.....	16
K. LIMITATIONS.....	16
L. REFERENCES	16

TABLES

FIGURES

APPENDIX A	SEPTEMBER 2009 BACKFILL INFORMATION
APPENDIX B	DISPOSAL RECORDS – 2008 AND 2009
APPENDIX C	REMOVAL ACTION FIELD NOTES AND SAMPLE LOGS
APPENDIX D	NOTICE OF REGULATORY REQUIREMENTS AND REVIEW OF LSA
APPENDIX E	PHOTOGRAPHS
APPENDIX F	AUGUST 2008 SOIL SAMPLING LABORATORY DATA
APPENDIX G	SEPTEMBER 2008 CONFIRMATION SAMPLING AND DISPOSAL SAMPLING LABORATORY DATA
APPENDIX H	SEPTEMBER 2009 CONFIRMATION SAMPLING AND DISPOSAL SAMPLING LABORATORY DATA
APPENDIX I	DECEMBER 2009 GROUNDWATER LABORATORY DATA
APPENDIX J	BORING LOG, WELL CONSTRUCTION DETAILS, AND WELL ABANDONMENT RECORD

LIST OF TABLES

TABLE 1	SITE HISTORY – UST SYSTEM INFORMATION
TABLE 2	SITE HISTORY – UST OWNER/OPERATOR INFORMATION
TABLE 3A	JULY 2008 TANK BASIN SOIL DELINEATION SAMPLING RESULTS – METHOD 8260
TABLE 3B	JULY 2008 TANK BASIN SOIL DELINEATION SAMPLING RESULTS – METHOD 8270
TABLE 3C	JULY 2008 TANK BASIN SOIL DELINEATION SAMPLING RESULTS – MADEP EPH/VPH
TABLE 3D	JULY 2008 TANK BASIN SOIL DELINEATION SAMPLING RESULTS – MADEP EPH/VPH AS COMPARED TO NCDENR MSCCs
TABLE 4	SUMMARY OF 2008 CONFIRMATORY SOIL LABORATORY RESULTS – EPA METHOD 8270
TABLE 5A	SUMMARY OF 2009 CONFIRMATORY SOIL LABORATORY RESULTS - EPA METHOD 8015
TABLE 5B	SUMMARY OF 2009 CONFIRMATORY SOIL LABORATORY RESULTS - EPA METHOD 8260/8270 AND MADEP EPH/VPH
TABLE 6	SUMMARY OF CONFIRMATORY GROUNDWATER LABORATORY RESULTS – EPA METHOD 602, 625, AND MADEP EPH/VPH

LIST OF FIGURES

FIGURE 1	GENERAL LOCATION MAP
FIGURE 2	SITE MAP WITH 1,000 FT. RADIUS WITH WATER SUPPLY WELL SURVEY AND PLACES OF PUBLIC ASSEMBLY
FIGURE 3	FORMER TANK BASIN SOIL ASSESSMENT - 2007 SAMPLE LOCATIONS
FIGURE 4	FUEL LINE AND SAMPLE LOCATIONS FROM SEPTEMBER 2008 REMOVAL
FIGURE 5	FUEL LINE LOCATIONS FROM 2008 UNDERGROUND UTILITY SURVEY
FIGURE 6	FUEL LINE AND SAMPLE LOCATIONS FROM SEPTEMBER 2009 REMOVAL
FIGURE 7	FUEL LINE, EXCAVATION, AND SAMPLE LOCATIONS 2008 TO 2009

D. SITE HISTORY AND CHARACTERIZATION

D.1. LOCATION, OWNERSHIP INFORMATION, AND TANK DESCRIPTION

Site A-12 is located within the amphibious vehicle maintenance facility in the Courthouse Bay area of MCB Camp Lejeune, North Carolina. The location of Site A-12 is shown on Figure 1. The site contained two 10,000 gallon USTs, A12-1 (diesel) and A12-2 (gasoline), along with associated product transfer piping and a dispenser. Approximately 110 feet of product transfer piping was estimated to be between the tank basin and the dispenser located at the bulkhead on the edge of Courthouse Bay.

D.2 HISTORICAL BACKGROUND INFORMATION

D.2.1 UST Removal, December 1992

In December 1992, Jones and Frank removed both USTs, as documented in a Tank Removal Report by Environmental & Regulatory Consultants, Inc., dated August 18, 1993. The report states that groundwater entered the excavated tank basin at approximately four feet below ground surface and free product was detected. No soil samples were collected and the transfer piping was either excavated or rendered unusable, according to their report.

D.2.2 Phase I Limited Site Assessment, May 2008

The North Carolina Department of Environment and Natural Resources (NCDENR) issued a Notice of Regulatory Requirements on June 13, 2007 notifying Camp Lejeune to assess and/or respond to the reported discharge or release from the A-12 UST system (Appendix D). A Phase I Limited Site Assessment (LSA) conducted by CATLIN Engineers and Scientists (CATLIN), dated May 8, 2008, reported that the underground transfer piping was still in place. CATLIN installed a monitoring well (USTA12-MW01) within the former UST pit and several soil samples (SB01 through SB12) were collected along the transfer lines, with one from the former tank pit sidewall (soil sample USTA-12 Basin SW). It was discovered that groundwater was not adversely affected and only minor soil contamination existed along the transfer lines and the sidewall of the tank pit. Soil samples SB03 through SB06, and SB09D along the pipeline contained exceedances TPH DRO above the North Carolina Action Level of 10 mg/kg. In soil sample SB05A, detections of benzo (a) anthracene (1.02 mg/kg), benzo (a) pyrene (1.11 mg/kg), and benzo (b) fluoranthene (1.28 mg/kg) exceeded the Residential Maximum Soil Contaminant Concentrations (MSCC), 0.88 mg/kg, 0.088 mg/kg, and 0.88 mg/kg, respectively. Soil sample USTA-12 Basin SW also exceeded the Residential MSCCs in

benzo(a)anthracene (3.24 mg/kg), benzo(a)pyrene (1.99 mg/kg), and benzo(b)fluoranthene (2.83 mg/kg), as well as an exceedence of Indeno(1,2,3-cd)pyrene (1.13 mg/kg) above the Residential MSCC, 0.88 mg/kg. NCDENR approved CATLIN's recommendation in the LSA to remove the piping and excavate contaminated soils in a letter dated May 28, 2008. In this letter, NCDENR also requested that a monitoring well be placed at the location of soil boring SB05A, since it appeared to be separate source area (Appendix D).

D.2.3 Tank Basin Soil Delineation, July 2008

As a follow-up to the LSA, hand auger borings were advanced by CATLIN personnel on July 31, 2008 around the former tank basin. Three soil samples were collected in order to better delineate the extent of soil contamination previously detected at the site. The soil samples were transported under proper chain of custody protocol to SGS North America, Inc. (SGS) (NC Certification #481) in Wilmington, North Carolina and analyzed for EPA Methods, 8260 + IPE + MTBE, 8270, and MADEP EPH/VPH. The former A-12 UST basin, hand auger borings, and soil sample locations are illustrated on Figure 3.

Soil sample USTA-12 Basin SE, collected from two to four feet deep, was the only sample that revealed compound concentrations above the lowest corresponding NCDENR MSCC. Benzo[a]pyrene was detected at 0.627 milligrams per kilogram (mg/kg), which is above the Residential MSCC of 0.088 mg/kg and Soil to Groundwater (STGW) MSCC of 0.091 mg/kg but below the Industrial/Commercial MSCC of 0.78 mg/kg. No other compounds were detected above the lowest corresponding MSCC. Laboratory analytical results are summarized on Tables 3A through 3D and are also illustrated on Figure 3. The complete laboratory report with chain of custody is included in Appendix F.

E. SUMMARY OF SOIL ASSESSMENT INFORMATION

The previous soil sampling from the LSA and July 2008 sampling event indicated that soil contaminants exist above the Residential MSCCs at sample USTA-12 Basin SW, USTA-12 Basin SE, and above the North Carolina Action Levels along the pipeline, specifically in soil samples SB03 through SB06 and at SB09D.

F. OBJECTIVES OF CORRECTIVE ACTION AT THE SITE

In following with the recommendations from the May 28, 2008 NCDENR letter, the objectives of CATLIN's September 2008 soil and fuel line removal are outlined in the Scope of Work Section of their Work Plan, dated August 29, 2008. Their purpose was to

perform a product line removal and to identify soil and/or groundwater contamination near the removed product line at the former CERCLA site Building A-12 Fueling Area.

The objectives of Rhēa's September 2009 soil and fuel line removal follow the same NCDENR recommendations and are outlined in the Work Plan, dated August 2009. The Work Plan stated that the objective of the project is to remove the fuel lines that remain at the site, remove the soil surrounding the fuel lines and confirm that the remaining soil is below the North Carolina Action Level for TPH DRO (10 mg/kg).

G. SOIL REMEDIATION

G.1 CATLIN'S SEPTEMBER 2008 REMOVAL ACTION

Beginning on September 9, 2008, soil and product line removal actions were conducted by CATLIN personnel and their sub-contactor, P&F Environmental, Inc. (P&F) of Rocky Mount, North Carolina. P&F provided asphalt removal and replacement, soil excavation, loading, transportation, and disposal (Land Application Facility Permit No. SR0500106) services. A private utility locator provided on-site utility location prior to the commencement of all excavation activities.

Two areas within the former tank basin were to be excavated at the southwest and southeast corners at approximately 5 ft. x 5 ft. x 4 ft. deep. The area adjacent to previous soil borings SB03, SB04, SB05 and SB06 was originally proposed to be excavated at approximately 50 ft. x 10 ft. x 4 ft. deep and the area around former soil boring SB09 originally proposed at approximately 5 ft. x 5 ft. x 4 ft. deep.

After beginning soil excavation activities along the fuel line (in the area of previous soil borings SB03, SB04, SB05 and SB06), previously unidentified pipes were discovered. The newly discovered pipes were assumed to be additional fuel lines but no product (or water) was discovered within the piping. Soils were removed from above the newly discovered fuel lines within a portion of the originally proposed excavation limits and loaded directly onto trucks for transportation to the P&F disposal facility. After consulting with Base personnel (acting Camp Lejeune UST Program Manager Johanna Arnold), it was decided to keep removing and disposing of the soils above the newly discovered lines in an attempt to determine if there were any USTs in the vicinity. No additional USTs were discovered in the excavated area.

Soils were excavated at the three areas 5 ft. x 5 ft. x 4 ft. deep as originally proposed. Soils were loaded, transported and accepted for disposal at the P&F facility (see attached manifests in Appendix B). The soil excavation areas are illustrated on Figure 4.

According to the attached weight certifications, four truck loads of soil weighing a total of 86.26 tons were removed from the site. Non-hazardous Waste Manifests document four truck loads of soil being accepted at the P&F disposal facility in Rocky Mount, North Carolina beginning on September 9, 2008, with the last truck arriving for disposal on September 11, 2008 (while the truck was loaded on September 10, 2008 it arrived too late in the day for disposal acceptance) (Appendix B).

Following soil excavation, the private utility locator was again contacted and utilized to further identify the newly discovered fuel line locations beyond the excavation limits. The utility locator physically induced a traceable signal onto each of the uncovered pipes and marked the traceable signal location with spray paint on the surface. CATLIN personnel surveyed the identified fuel line locations utilizing a Trimble® GPS unit. The newly discovered fuel line locations are illustrated on Figure 5.

Due to contractual constraints during field work activities, it was determined to only remove piping (fuel lines) as originally proposed; however, as illustrated on Figure 5, the majority of the piping was discovered in pairs and a set of three adjacent pipes were also discovered. Only two fuel lines along the western excavation limits were removed employing the excavator and a chain. The chain was wrapped around an individual pipe and pulled by the excavator so as to remove the pipe from the ground without completely uncovering the pipe. Two pieces of pipe, each approximately 100 feet long were removed from the site and transported off site by P&F for disposal as bulk steel.

G.2 RHĒA'S SEPTEMBER 2009 REMOVAL ACTION

An underground utility survey was performed by PLS, Inc., on September 8, 2009. The underground utility locations and fuel lines were marked on the surface with marking paint. It should be noted that the fuel lines that were located did not precisely correspond with the fuel line locations that were mapped in October 2008 by CATLIN on Figure 5. Navy storage boxes, located along the bulkhead, were moved by Base personnel on September 9, 2009.

The A-12 fuel line removal and soil excavation team consisted of Rhēa and our subcontractor P&F. Rhēa personnel performed the duties of project manager, site superintendent, health and safety officer and geologist. P&F performed the equipment operation, fuel line and soil removal, disposal of fuel lines and soil, installation of safety barriers and site restoration.

On September 8, 2009, excavation activities began by removing the soil to expose the fuel lines uncovered during CATLIN's original excavation. The grassy area between the

former tank pit and asphalt was excavated down to the depth of the fuel lines in a fan-shaped pit. The fuel lines were labeled A through H in order to distinguish each fuel line set and for sampling purposes (Figure 6). Also, where trenches were dug to expose the fuel line sets, a number was assigned (e.g. T1, T2, T3, etc.). The soil was directly loaded onto dump trucks. The trucks were weighed at the base scales and then continued to P&F's facility.

During the excavation activities, confirmation samples were collected approximately every 10 feet along the bottom of the trenches in the areas directly below the exposed fuel lines. Also during excavation, disposal samples were collected. The sampling methods, locations, and results are discussed in Section H.

The majority of the fuel line piping was removed via trenching. Piping from line sets B, C, D and E were pulled from underneath the sidewalk along the bulkhead. Line sets A and G were pulled due to the fuel lines' proximity to an active fuel dispenser, which is currently supplied from nearby aboveground tanks. The northern terminus of line sets A, G and E were also pulled because of their proximity to a utility pole. Finally, the northern terminus of line set C was pulled because it transected underneath a concrete pad. In each scenario, approximately 10 feet of piping would be pulled underneath the structures. Two trenches were dug to confirm that all remaining lines were removed near the concrete pads for line sets A, B, and C. Confirmatory samples A12-T2-S-AB1 and A12-T1-S-C6 were collected from these trenches.

Excavation activities were completed on September 29, 2009. A total of approximately 1,730 feet of piping and 1,180 tons of material were removed. The soil was disposed of off site by P&F to Speights Chapel Road, Whitakers, NC 27891 (Land Application Facility Permit No. SR0500106). P&F's permit, the non-hazardous waste manifests and weight tickets are included in Appendix B. The fuel line pipe was scrapped at Jacksonville Scrap Iron. The pit and trenches were backfilled with clean silty fine-grained sand from Neuse Sand & Gravel, Inc., located in Kinston, North Carolina. The backfill supplier's certificate and backfill receipts are included in Appendix A.

The Site Superintendent completed summary field reports each day during the construction. The reports covered general daily activities, including times, number of trucks leaving the site, and other pertinent information. The daily field reports were forwarded to EMD and the NAVFAC Remedial Project Manager on a daily basis. The daily field reports are included as Appendix C. Project drawings were marked-up in the field. These drawings included excavation, sample, and utility locations during the implementation of the scope of work and are included as Figures to this report.

Health and safety meetings were conducted daily during the A-12 fuel line removal and were recorded on Daily Safety Meeting Forms. There were no reported accidents or injuries during the site work. Workers were 40-Hour OSHA trained. Applicable Material Safety Data Sheets (MSDSs), worker training certificates and other pertinent health and safety data were on file at CATLIN's Wilmington, NC office during their removal activities and at Rhēa's office trailer located at Lot 203 on Piney Green Road during their removal activities.

The trenches within the asphalt areas were backfilled immediately after confirmatory samples were collected with clean fill so that the trenched areas could be driven across.

A six-inch cap of ABC stone was added to each backfilled trench in the asphalt. The ABC stone was graded to allow for asphalt to be paved and set. The trenches within the asphalt areas were paved on October 12 and 13, 2009. The area between the former tank pit and the asphalt was covered with two inches of topsoil graded and seeded. The site was cleaned and the safety fencing was removed.

H. POST REMEDIATION SAMPLING

H.1 CATLIN'S SEPTEMBER 2008 REMOVAL ACTION SAMPLING AND ANALYSIS

Contaminated soil excavation confirmation samples were collected from the vadose zone along the excavation sidewalls on September 10, 2008 (Figure 4). Grab soil samples were also collected during excavation activities and one composite soil sample was submitted for waste characterization analysis on September 10, 2008. The soil samples were collected while wearing new, disposal nitriflex® gloves and packed into the appropriately labeled, laboratory provided glassware. All soil samples were collected in general accordance with CATLIN Standard Methods of Investigation (provided in the August 29, 2008 Work Plan).

Excavation side wall soil samples were collected at approximately three feet below land surface (bls). CATLIN collected a total of 16 soil samples from the sidewalls of four separate excavations. The samples were collected by hand from undisturbed soils within the excavation sidewalls. The soil samples were transported, along with appropriate chain of custody documentation, to SGS, for analysis. The soil excavation confirmations sidewall samples (16) were submitted for analysis per EPA Method 8270. The composite site soil sample (one) for disposal characterization was submitted for analysis per EPA Method 8260, EPA Method 8270, TPH DRO and GRO by EPA Method 8015, and Toxicity Characteristic Leaching Procedure (TCLP) Metals.

The complete laboratory analytical report is provided in Appendix G. The soil excavation confirmation sample results are summarized on Table 4, and soil disposal characterization sample results were within the P&F disposal permit limits. Copies of the characterization sample results were provided to P&F and Base personnel for review and deemed acceptable for land farm disposal at P&F petroleum disposal permitted facility (Appendix B).

As summarized on Table 4, one sample result (NW@3) was above the Industrial/Commercial MSCC for benzo[a]pyrene. The following soil samples revealed at least one compound (mainly benzo[a]pyrene and dibenzo[a,h]anthracene) concentration above the corresponding Residential MSCCs: #2 East (3'), NW@3 (3'), SE-E (3'), SW-E (3'), and SW-W (3'). Excavation confirmation soil sample locations and summarized results are provided on Figure 4. The complete analytical report and chain of custody documentation is provided in Appendix G.

H.2 RHEA'S SEPTEMBER 2009 REMOVAL ACTION SAMPLING AND ANALYSIS

A total of 43 confirmatory soil samples and two disposal soil samples were collected between September 9 through 24, 2009. Confirmatory samples were intended to be collected in 10 foot increments along the exposed pipe; however, due to inaccessible areas and measurement inaccuracies some samples were collected at slightly greater distances. The samples were labeled to reflect the site name, trench number, type of matrix, and fuel line letter with sample number (e.g. A12-T1-S-C1). All samples were collected using disposable nitrile gloves and Terra Core samplers. Samples were placed in laboratory prepared four-ounce glass jars and 40-milliliter vials. The samples were placed on ice and transported to SGS.

For the disposal samples, six sub-samples were collected and placed into separate four-ounce glass jars and composited by SGS. All samples were analyzed for TPH DRO and GRO. The disposal samples were also analyzed for TCLP metals.

The results of the confirmation sampling are included in Table 5A and 5B and Appendix H. The only confirmatory sample to exceed the North Carolina Action Levels for USTs (10 mg/kg) was A12-T1-S-C2, which contained 14.7 mg/kg TPH DRO. All other confirmatory samples were either below the NC Action Levels or below the detection limit for both TPH DRO and GRO. The area of the sample A12-T1-S-C2 was collected in the same area at a depth of 4.6 feet and the results were below the 10 mg/kg standard. On October 16, 2009, EMD requested that Rhēa resample the A12-T1-S-C2-2 location and analyze the sample for EPA Method 8260, Method 8270, and MADEP EPH/VPH. Rhēa located the sample using a GPS locator and augered to the depth of sample A12-T1-

S-C2-2 and collected and analyzed sample A12-T1-S-C2-3 as requested. The results of sample A12-T1-S-C2-3 are included in Table 5 and all results were BQL.

The results of the disposal samples are summarized in Appendix B and the laboratory results are included in Appendix H. The disposal sample results were presented to P&F and were determined to be acceptable.

H.3 CATLIN AND RHĒA DECEMBER 2009 GROUNDWATER SAMPLING

On November 25, 2009, Rhēa subcontracted CATLIN to install a temporary monitoring well (USTAS12-MW01) in the location of soil sample, A12-T1-S-C2 (Figures 6). A boring was cored using direct push technology and a one-inch diameter temporary monitoring well was installed to a depth of 8 feet bls. On December 1, 2009, CATLIN personnel developed and sampled the well using a low-flow peristaltic pump. The collected sample, A12TW was packed on ice and transported to SGS and was analyzed for EPA Method 602, 625, and MADEP EPH/VPH. On December 1, 2009 the well was pulled and the boring was properly abandoned using bentonite pellets and hydrated in 0.5 foot lifts. Analytical results for A12TW yielded no detections of any analyzed constituent. These analytical results are summarized in Table 6 and are included in Appendix I.

The boring log, well construction details, and well abandonment record are included in Appendix J.

I. CONCLUSIONS AND PETITION FOR SITE CLOSURE

The 2008 Removal Action performed by CATLIN removed 86.26 tons of soil and 100 feet of two parallel fuel lines. The 2009 Removal Action performed by Rhēa, excavated beyond the original CATLIN excavation boundaries and removed a total of 1,180 tons of soil and approximately 650 feet of parallel fuel lines (a total of 1,730 feet of pipe).

Based on the confirmatory analytical results from the 2008 and 2009 fuel line and soil removal actions, the groundwater sampling results from the LSA, and the A12TW groundwater results, Rhēa concludes that the project site meets the criteria for Industrial/Commercial Land Use and Low Risk classification. Based on this classification, the soil confirmatory sample analysis results must be compliant with the Industrial/Commercial MSCCs, and groundwater samples must be compliant with the North Carolina 15A NCAC 2L groundwater standards. The soil confirmatory sample results were compliant with the Industrial/Commercial MSCCs, the groundwater samples

were below the NCAC 2L groundwater standards, and there was no free phase product measured at the site.

It is recommended that this incident be reviewed and considered for “No Further Action” with a Land Use Restriction (LUR).

J. PUBLIC NOTICE

Public notice will be required since soil contamination remains on-site at concentrations in excess of the Residential MSCCs. In addition, a Notice of Residual Petroleum with LUR will be required at the subject site since soil contamination exists in excess of the Residential MSCCs, but below the Industrial/Commercial MSCCs at soil sample locations SE-E, SW-E, and SW-W.

K. LIMITATIONS

The soil samples analyzed as part of these removal actions only provide isolated data points and may not represent conditions at every location in the project area. Analyses and conclusions of this report, being based on interpolation between data points at the project area, may not be completely representative of all site conditions. Conclusions and recommendations of this investigation and report are based on the best available data in an effort to comply with current regulatory requirements.

L. REFERENCES

CATLIN, 2008. “Phase I Limited Site Assessment Report for Building A-12 Fueling Area, MCB Camp Lejeune, NC.” Catlin Engineers and Scientists, May 8, 2008.

CATLIN, 2008. “Workplan/Health and Safety Plan, Soil Assessment Former CERCLA Site A-12, MCB Camp Lejeune, NC.” Catlin Engineers and Scientists, July 11, 2008.

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Environmental & Regulatory Consultants, Inc., 1993. “Tank Removal Report, Marine Corps Base, Building A-12, Camp Lejeune, North Carolina” August 18, 1993.

NCDENR Division of Waste Management UST Section, 2008. “Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement for UST Releases.” North

Carolina Department of Environmental and Natural Resources Division of Waste Management UST Section, March 1, 2007 Version Change 3, Effective December 1, 2008.

Rhēa, 2009. “Work Plan A-12 Fuel Line Removal, MCB Camp Lejeune, NC.” Rhēa Engineers & Consultants, Inc., August 2009.

TABLES

TABLE 1: Site History - UST/AST System and Other Release_InformationRevision Date: 10/23/2009Incident Number and Name: #32486, Building A-12

UST ID Number	Current/Last Contents *	Previous Contents *	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of UST ***	Was release associated with the UST System?
Unknown	Gasoline	NA	10,000	Unknown	Unknown	Unknown	Unknown	(P) 12/18/199	Yes
Unknown	Diesel	NA	10,000	Unknown	Unknown	Unknown	Unknown	(P) 12/18/199	Yes

Add additional records as necessary

Incident Number	Material Released	Date of Release	Description of Release
#32486	fuel	Unknown	possible leak from fuel pipe

Add additional records as necessary

* Gasoline (unleaded or leaded), diesel, used oil, waste oil, aviation fuel, etc., or pesticides, non-halogenated or halogenated solvents, etc.

** Fiberglass (single- or double-walled), steel (single- or double-walled), steel with FRP (single- or double-walled), steel with liner, other, unknown.

*** Currently operational, not in use or temporarily closed (specify date), permanently closed in place (specify date), permanently closed by removal (specify date)

Table 2: Site History - UST/AST Owner/Operator and Other Responsible Party Information

Revision Date: 10/23/2009

Incident Number and Name: #32486, Building A-12

UST ID Number	Unknown		Facility ID Number	Unknown	
Name of Owner			Dates of Operation (mm/dd/yy to mm/dd/yy)		
Commanding Officer, Marine Corps Base Camp Lejeune, NC			Unknown to 12/18/1992		
Street Address					
I&E/EMD/EQB, PSC 20004					
City	State	Zip	Telephone Number		
Camp Lejeune	North Carolina	28542	910-451-5068		
Name of Operator			Dates of Operation (mm/dd/yy to mm/dd/yy)		
same as above					
Street Address					
same as above					
City	State	Zip	Telephone Number		
same as above	same as above		same as above		
Incident Number	#32486				
Name of Other Responsible Party			Dates of Release(s) (mm/dd/yy to mm/dd/yy)		
NA					
Street Address					
City	State	Zip	Telephone Number		

TABLE 3A
July 2008 Tank Basin Soil Delineation Sampling Results
EPA METHOD 8260 + IPE + MTBE

Incident Name and No.: Building A-12, #32486

Sample ID	Contaminant of Concern →		Acetone	Methylene Chloride	All Other Analytes
	Date Collected	Sample Depth (ft. BLS)			
Residential MSCC (mg/kg)			1,564	85	Varies
Industrial/Commercial MSCC (mg/kg)			40,880	763	Varies
STGW MSCC (mg/kg)			2.8	0.02	Varies
USTA-12 Basin SE	7/31/2008	2-4	0.0461 J	<0.0212	BMDL
USTA-12 Basin NE	7/31/2008	2-4	<0.0522	0.00130 J	BMDL
USTA-12 Basin NW	7/31/2008	2-4	0.0431 J	0.0124 J	BMDL
Trip Blank	7/31/2008		<0.0500	0.00120 J	BMDL

All results in milligrams per kilogram (mg/kg).

BMDL = Below Method Detection Limit

J = Estimated concentration, below calibration range and above MDL

ft. BLS = Feet Below Land Surface.

< = Less than method detection limit

MSCC = Maximum Soil Contaminant Concentration

TABLE 3B
July 2008 Tank Basin Soil Delineation Sampling Results
EPA METHOD 8270 + TICS

Incident Name and No.: Building A-12, #32486

Sample ID	Contaminant of Concern →		Acenaphthene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	All Other Analytes
	Date Collected	Sample Depth (ft. BLS)															
Residential MSCC (mg/kg)			940	0.88	0.088	0.88	469	9	88	62	620	620	0.88	313	469	469	Varies
Industrial/Commercial MSCC (mg/kg)			24,000	8	0.78	8	12,264	78	780	1,635	16,400	16,400	8	8,176	12,264	12,264	Varies
STGW MSCC (mg/kg)			8.2	0.34	0.091	1.2	6,700	12	38	4.7	280	44	3.3	0.58	60	290	Varies
USTA-12 Basin SE	7/31/2008	2-4	0.114 J	0.178 J	0.627	0.652	0.078 J	0.107 J	0.210 J	0.057 J	0.549	0.068 J	0.310 J	0.075 J	0.606	0.410	BMDL
USTA-12 Basin NE	7/31/2008	2-4	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	<0.375	BMDL
USTA-12 Basin NW	7/31/2008	2-4	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	BMDL

All results in milligrams per kilogram (mg/kg).
Bold results indicate concentrations above lowest MSCC.
BMDL = Below Method Detection Limit
J = Estimated concentration, below calibration range and above MDL
ft. BLS = Feet Below Land Surface.
< = Less than method detection limit
MSCC = Maximum Soil Contaminant Concentration

TABLE 3C
July 2008 Tank Basin Soil Delineation Sampling Results
MADEP EPH/VPH

Incident Name and No.: Building A-12, #32486

Sample ID	Contaminant of Concern →		C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C11-C22 Aromatics
	Date Collected	Sample Depth (ft. BLS)						
USTA-12 Basin SE	7/31/2008	2-4	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
USTA-12 Basin NE	7/31/2008	2-4	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
USTA-12 Basin NW	7/31/2008	2-4	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0

All results in milligrams per kilogram (mg/kg).

ft. BLS = Feet Below Land Surface.

< = Less than method detection limit

TABLE 3D
July 2008 Tank Basin Soil Delineation Sampling Results
MADEP EPH/VPH AS COMPARED TO NCDENR MSCCs

Incident Name and No.: Building A-12, #32486

Sample ID	Contaminant of Concern →		C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics
	Date Collected	Sample Depth (ft. BLS)				
Residential MSCC (mg/kg)			939	9,386	93,860	469
Industrial/Commercial MSCC (mg/kg)			24,528	245,280	#	12,264
STGW MSCC (mg/kg)			72	3,300	##	34
USTA-12 Basin SE	7/31/2008	2-4	<10.0	<20.0	<10.0	<20.0
USTA-12 Basin NE	7/31/2008	2-4	<10.0	<20.0	<10.0	<20.0
USTA-12 Basin NW	7/31/2008	2-4	<10.0	<20.0	<10.0	<20.0

All results in milligrams per kilogram (mg/kg).

BMDL = Below Method Detection Limit

= Health based level > 100%

= Considered Immobile

ft. BLS = Feet Below Land Surface.

< = Less than method detection limit

MSCC = Maximum Soil Contaminant Concentration

* = The value represents the sum of the reported practical quantitation limit of one fraction and the detected concentration of the other fraction.

TABLE 4
SUMMARY OF 2008 CONFIRMATORY SOIL LABORATORY RESULTS
EPA METHOD 8270

Incident Name and No.: Building A-12, #32486

Sample ID	Contaminant of Concern →	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenzo[a,h]anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	All other analyzed EPA 8270 PAHs
	Date Collected																
Residential MSCC (mg/kg)		940	469	4,600	0.88	0.088	0.88	469	9	88	0.088	620	620	0.88	469	469	Varies
Industrial/Commercial MSCC (mg/kg)		24,000	12,264	122,000	8	0.78	8	12,264	78	780	0.78	16,400	16,400	8	12,264	12,264	Varies
STGW MSCC (mg/kg)		8.2	11	1,000	0.34	0.091	1.2	6,700	12	38	0.17	280	44	3.3	60	290	Varies
9-W (3')	9/10/2008	<0.049	<0.045	<0.044	<0.044	<0.046	<0.045	<0.056	<0.046	<0.031	<0.041	<0.052	<0.050	<0.038	<0.045	<0.044	BMDL
East @ EOP (3')	9/10/2008	<0.050	<0.046	<0.045	<0.045	<0.047	<0.046	<0.057	<0.047	<0.032	<0.042	<0.053	<0.051	<0.039	<0.046	<0.045	BMDL
West @ EOP (3')	9/10/2008	<0.054	<0.050	<0.048	<0.049	<0.051	<0.049	<0.062	<0.051	<0.034	<0.046	<0.057	<0.056	<0.042	<0.050	<0.048	BMDL
#2 East (3')	9/10/2008	0.073 J	<0.051	0.110 J	0.521	0.429	0.645	0.286 J	0.260 J	0.491	0.253 J	1.02	<0.057	0.282 J	0.513	0.828	BMDL
West @ 6 (3')	9/10/2008	<0.056	<0.051	<0.050	0.092 J	0.081 J	0.110 J	<0.064	<0.052	0.077 J	<0.047	0.183 J	<0.057	<0.043	0.132 J	0.139 J	BMDL
NW @ 3 (3')	9/10/2008	0.345 J	<0.049	1.18	2.92	1.65	2.65	0.670	0.743	2.54	0.387	6.09	0.394	0.739	4.31	5.07	BMDL
EN @ 3 (3')	9/10/2008	<0.054	<0.050	<0.048	<0.049	<0.051	<0.049	<0.062	<0.050	<0.034	<0.045	<0.057	<0.055	<0.042	<0.050	<0.048	BMDL
EN @ 3 DUP (3')	9/10/2008	<0.056	<0.051	<0.049	<0.050	<0.052	<0.050	<0.063	<0.052	<0.035	<0.046	<0.058	<0.057	<0.043	<0.051	<0.049	BMDL
SE-N (3')	9/10/2008	<0.052	<0.048	<0.047	<0.047	<0.049	<0.048	<0.060	<0.049	<0.033	<0.044	<0.055	<0.053	<0.040	<0.048	<0.047	BMDL
SE-E (3')	9/10/2008	<0.055	<0.050	<0.049	0.125 J	0.122 J	0.150 J	0.079 J	0.064 J	0.140 J	<0.046	0.218 J	<0.056	0.064 J	0.090 J	0.193 J	BMDL
SE-S (3')	9/10/2008	<0.056	<0.051	<0.050	<0.050	<0.053	<0.051	<0.064	<0.052	<0.035	<0.047	<0.059	<0.057	<0.043	<0.051	<0.050	BMDL
SE-W (3')	9/10/2008	<0.052	<0.048	<0.047	<0.047	<0.049	<0.048	<0.060	<0.049	<0.033	<0.044	<0.055	<0.053	<0.040	<0.048	<0.047	BMDL
SW-N (3')	9/10/2008	<0.053	<0.049	<0.047	<0.048	<0.050	<0.048	<0.060	<0.049	<0.033	<0.044	<0.056	<0.054	<0.041	<0.049	<0.047	BMDL
SW-E (3')	9/10/2008	0.070 J	<0.049	0.095 J	0.287 J	0.280 J	0.353	0.150 J	0.143 J	0.273 J	0.206 J	0.626	0.056 J	0.136 J	0.402	0.490	BMDL
SW-S (3')	9/10/2008	<0.051	<0.046	<0.045	0.083 J	0.086 J	0.126 J	<0.058	<0.047	0.079 J	<0.042	0.129 J	<0.052	<0.039	0.050 J	0.116 J	BMDL
SW-W (3')	9/10/2008	0.064 J	<0.047	0.080 J	0.224 J	0.197 J	0.237 J	0.110 J	0.114 J	0.197 J	0.184 J	0.455	<0.052	0.107 J	0.358	0.368	BMDL
9-E (3')	9/10/2008	<0.051	<0.047	<0.045	<0.046	<0.048	<0.046	<0.058	<0.047	<0.032	<0.043	<0.054	<0.052	<0.039	<0.047	<0.045	BMDL

All results in milligrams per kilogram (mg/kg).
Sample depth provided in parentheses (feet below land surface) as part of Sample ID
Results in bold exceed the Residential MSCC
BMDL = Below Method Detection Limit
< = Less than method detection limit
MSCC = Maximum Soil Contaminant Concentration

TABLE 5A
SUMMARY OF CONFIRMATORY SOIL SAMPLE LABORATORY RESULTS
TOTAL PETROLEUM HYDROCARBONS
A-12 FUEL LINE REMOVAL AND EXCAVATION
MCB CAMP LEJEUNE, NORTH CAROLINA

EPA Method			8015	
Sample ID	Contaminant of Concern →		Total Petroleum Hydrocarbons (TPH) Diesel Range Organics - DRO (mg/kg)	Total Petroleum Hydrocarbons (TPH) Gasoline Range Organics - GRO (mg/kg)
	Date Collected	Sample Depth (Feet)		
Industrial/Commerical MSCCs (mg/kg)			NS	NS
North Carolina Action Levels for USTs			10	10
A12-T7-S-A1	9/11/2009	3.5	<7.92	<6.20
A12-T7-S-A2	9/11/2009	4	<7.63	<5.54
A12-T7-S-A3	9/11/2009	3.5	<7.83	<6.03
A12-T7-S-A4	9/11/2009	4	<7.47	<6.82
A12-T7-S-A5	9/17/2009	3.5	<6.93	<5.10
A12-T7-S-A6	9/17/2009	3	<7.52	<5.65
A12-T7-S-A7	9/17/2009	3.5	<7.58	<5.19
A12-T2-S-B1	9/10/2009	5	<8.13	<5.19
A12-T2-S-B2	9/10/2009	4	<7.92	<4.40
A12-T2-S-B3	9/10/2009	2.5	<7.36	<6.36
A12-T2-S-B4	9/17/2009	3	<7.56	<5.34
A12-T2-S-B5	9/17/2009	3	<6.75	<5.40
A12-T2-S-B6	9/17/2009	4	<7.54	<5.28
A12-T2-S-AB1	9/24/2009	4	<7.57	<5.72
A12-T1-S-C1	9/9/2009	3	<8.20	<5.78
A12-T1-S-C2	9/10/2009	3	14.7	<6.29
A12-T1-S-C2-2	9/15/2009	3.6	<7.47	<5.65
A12-T1-S-C2-3	10/19/2009	4.5	<8.01	<5.76
A12-T1-S-C3	9/10/2009	4	<7.29	<5.39
A12-T1-S-C4	9/14/2009	4	<7.65	<5.96
A12-T1-S-C5	9/15/2009	3	9.03	<5.52
A12-T1-S-C6	9/24/2009	2.5	<7.53	<5.69
A12-T5-S-D1	9/16/2009	2.5	<7.46	<5.66
A12-T5-S-D2	9/16/2009	2.5	<7.10	<7.11
A12-T5-S-D3	9/16/2009	2.5	<7.41	<5.58
A12-T5-S-D4	9/16/2009	2	<7.07	<5.67
A12-T5-S-D5	9/16/2009	2.5	<7.59	<6.19
A12-T4-S-E1	9/10/2009	3.5	<7.54	<5.18
A12-T4-S-E2	9/15/2009	3	<7.63	<6.50
A12-T4-S-E3	9/21/2009	2.5	<7.86	<6.69

TABLE 5A
SUMMARY OF CONFIRMATORY SOIL SAMPLE LABORATORY RESULTS
TOTAL PETROLEUM HYDROCARBONS
A-12 FUEL LINE REMOVAL AND EXCAVATION
MCB CAMP LEJEUNE, NORTH CAROLINA

EPA Method			8015	
Sample ID	Contaminant of Concern →		Total Petroleum Hydrocarbons (TPH) Diesel Range Organics - DRO (mg/kg)	Total Petroleum Hydrocarbons (TPH) Gasoline Range Organics - GRO (mg/kg)
	Date Collected	Sample Depth (Feet)		
Industrial/Commerical MSCCs (mg/kg)			NS	NS
North Carolina Action Levels for USTs			10	10
A12-T4-S-E4	9/21/2009	2.5	<6.81	<5.78
A12-T4-S-E5	9/21/2009	3	<7.51	<5.95
A12-T4-S-E6	9/21/2009	3	<7.24	<5.05
A12-T4-S-E7	9/22/2009	3.5	<7.83	<5.58
A12-T4-S-E8	9/24/2009	3.5	<8.11	<6.06
A12-T3-S-F1	9/10/2009	4	<7.78	<7.01
A12-T3-S-F2	9/10/2009	3	<7.55	<5.75
A12-T6-S-G1	9/11/2009	3	<7.67	<7.53
A12-T6-S-G2	9/11/2009	4	<7.41	<6.06
A12-T6-S-G3	9/11/2009	3.5	<7.13	<6.08
A12-T6-S-G4	9/14/2009	3	<7.31	<4.73
A12-T6-S-G5	9/14/2009	3	<7.95	<5.28
A12-T6-S-G6	9/17/2009	2	<7.09	<5.64
A12-T6-S-G7	9/17/2009	2.5	<7.87	<5.43

All results in milligrams per kilogram (mg/kg).

Sample depth provided in parentheses (feet below land surface) as part of Sample ID

Results in bold exceed the Residential MSCC

BMDL = Below Method Detection Limit

< = Less than method detection limit

MSCC = Maximum Soil Contaminant Concentration

NA = Not Analyzed

NS= No Standard

TABLE 5B
SUMMARY OF CONFIRMATORY SOIL SAMPLE LABORATORY RESULTS
VOLATILES, SEMIVOLATILES, MADEP, AND TCLP METALS
A-12 FUEL LINE REMOVAL AND EXCAVATION
MCB CAMP LEJEUNE, NORTH CAROLINA

EPA Method			8260	8270	EPH	VPH	6010B
Sample ID	Contaminant of Concern		Volatiles (mg/kg)	Semivolatiles (mg/kg)	Extractable Petroleum Hydrocarbons	Volatile Petroleum Hydrocarbons	Toxic Characteristic Leaching Procedure (TCLP) Metals (mg/L)
	Date Collected	Sample Depth (Feet)					
Industrial/Commercial MSCCs (mg/kg)			varies	varies	varies	varies	NS
North Carolina Action Levels for USTs			NS	NS	NS	NS	NS
A12-T1-S-C2-3	10/19/2009	4.5	BMDL	BMDL	BMDL	BMDL	NA

All results in milligrams per kilogram (mg/kg).

Sample depth provided in parentheses (feet below land surface) as part of Sample ID

Results in bold exceed the Residential MSCC

BMDL = Below Method Detection Limit

< = Less than method detection limit

MSCC = Maximum Soil Contaminant Concentration

NA = Not Analyzed

NS= No Standard

TABLE 6
SUMMARY OF CONFIRMATORY GROUNDWATER LABORATORY RESULTS
EPA METHODS 602, 625, AND MADEP - EPH/VPH
A-12 FUEL LINE REMOVAL AND EXCAVATION
MCB CAMP LEJEUNE, NORTH CAROLINA

Analytical Method		602							625	MADEP - EPH/VPH			
Sample ID	Contaminant of Concern →	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	Methyl-tert butyl ether (MTBE)	Diisopropyl ether (DIPE)	Various Constituents	C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics
	Date Collected												
North Carolina 15A NCAC 2L		1	1,000	550	530	21	200	530	Varies	420	4,200	42,000	210
A12TW	12/1/2009	<0.177	<0.313	<0.19	<0.886	<0.29	<0.306	<0.253	BMDL	<100	<200	<100	<200

All results in milligrams per kilogram (µg/L).

Results in bold exceed the NC 15A NCAC 2L groundwater standards

BMDL = Below Method Detection Limit

< = Less than method detection limit

North Carolina 15A NCAC 2L Classification of Water Quality Standards Applicable to the Groundwaters of North Carolina, December 7, 2006

FIGURES

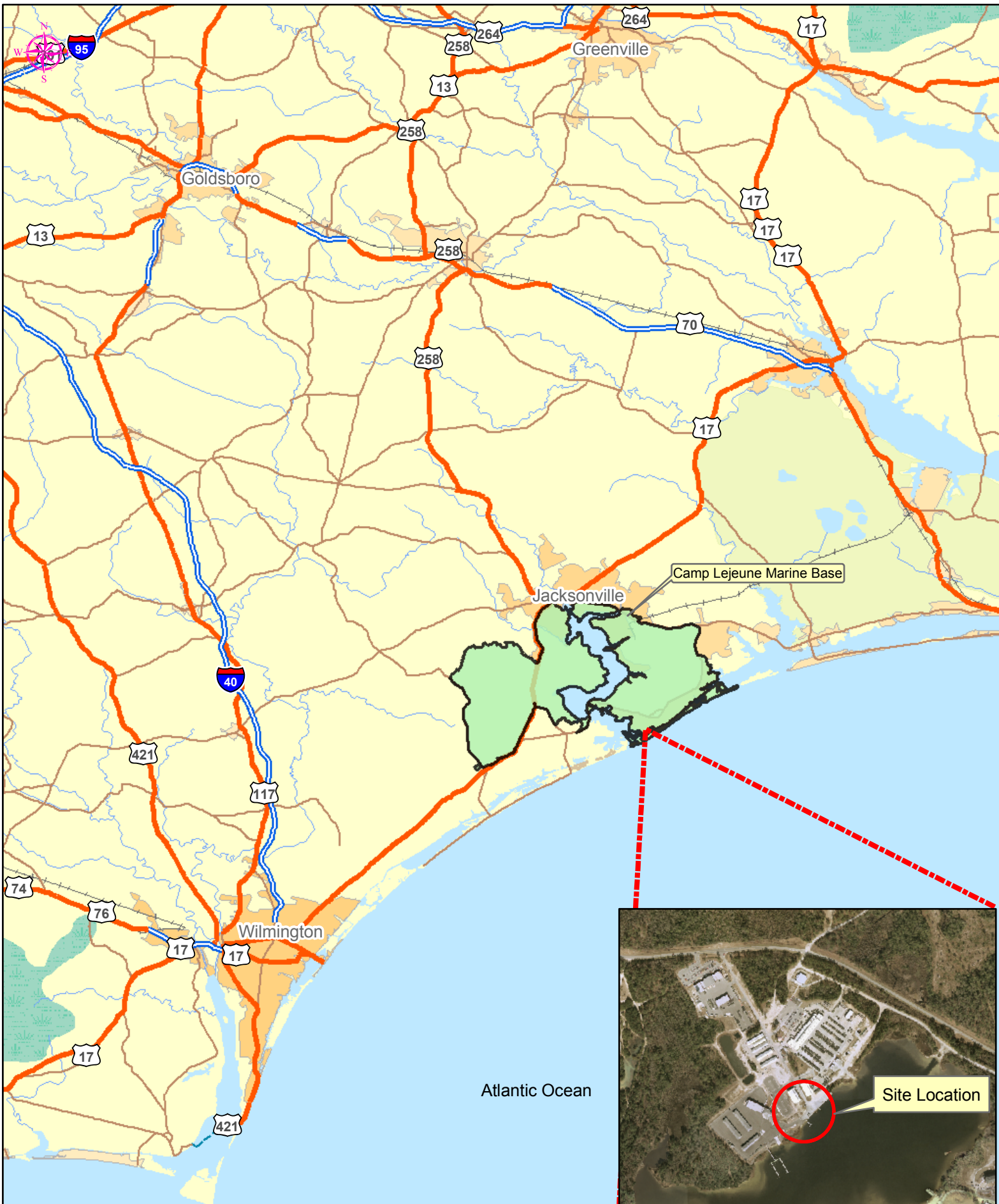
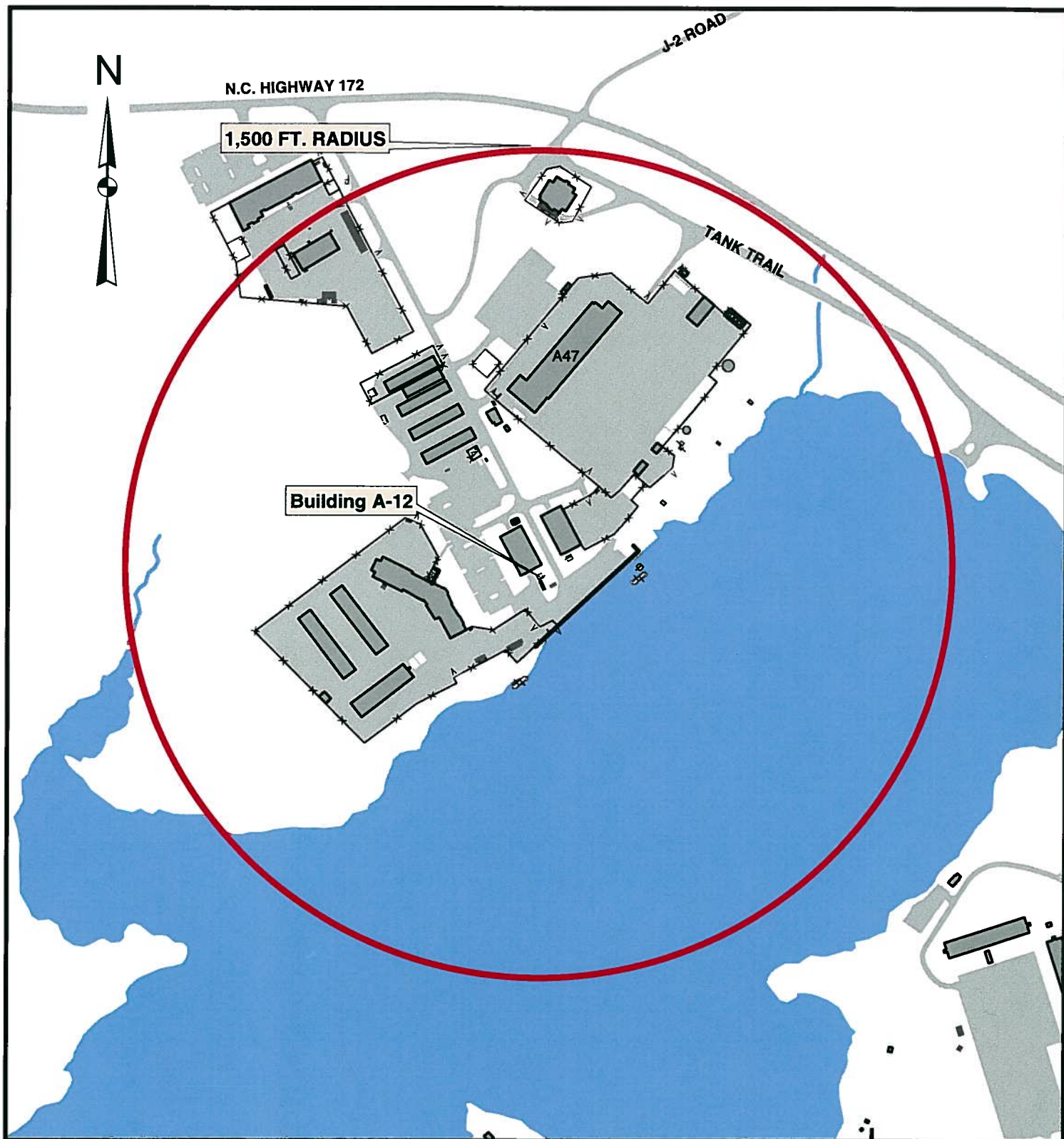


Figure 1
A-12 Fuel Line Removal
MCB Camp Lejeune, North Carolina



500 250 0 500
Feet

Data Sources: Data Layers provided by MCB Camp Lejeune GIS Office.

	PROJECT PHASE I LIMITED SITE ASSESSMENT FOR BUILDING A-12 FUELING AREA MARINE CORPS BASE CAMP LEJEUNE, NC			TITLE SITE MAP WITH 1,500 FT. RADIUS WITH WATER SUPPLY WELL SURVEY AND PLACES OF PUBLIC ASSEMBLY		FIGURE
	JOB NO: 207-048	DATE: APRIL 2008	SCALE: AS SHOWN	DRAWN BY: KAWS	CHECKED BY: MEM	2

PRODUCT LINE REMOVAL
BUILDING A-12 FUELING AREA
MCB CAMP LEJEUNE



LEGEND

SYMBOL	DESCRIPTION
	Hand Auger Soil Sample
	Type II Monitoring Well
	Type III Monitoring Well
	Unknown Well Type
	Fence
	Buildings and Structures
	Demolished Structures
	Slabs
	Roads, Driveways and Parking Lots
	Above Ground Storage Tank

NOTES

- MAP ADAPTED FROM CAMP LEJEUNE GIS DATABASE.
- COMPLETE SITE MONITORING WELL NETWORK NOT SHOWN.



FORMER TANK BASIN
SOIL ASSESSMENT - 2008

FIGURE

3

Job No.:	Date:	Scale:	Drawn By:	Checked By:
208-037	OCT 2009	AS SHOWN	SAC	BA

S:\wpmktg\PROJECT\2008\208-037\FIGURES\208037_A12_Fig3.mxd

SUMMARY OF HAND AUGUR SOIL LABORATORY RESULTS
EPA METHODS 8260, 8270 AND MADEP VPH/EPH

Sample ID	Contaminant of Concern →		EPA 8260	EPA 8270		MADEP VPH/EPH
	Date Collected	Sample Depth (ft. BLS)	All EPA Method 8260 Compounds	Benzofalpyrene	All Other EPA Method 8270 Compounds	All MADEP VPH/EPH Compounds
Residential MSCC (mg/kg)			Varies	0.088	Varies	Varies
Industrial/Commercial MSCC (mg/kg)			Varies	0.78	Varies	Varies
STGW MSCC (mg/kg)			Varies	0.091	Varies	Varies
USTA-12 Basin SE	7/31/2008	2-4	BLMSCC	0.627	BLMSCC	BLMSCC
USTA-12 Basin NE	7/31/2008	2-4	BLMSCC	<0.375	BLMSCC	BLMSCC
USTA-12 Basin NW	7/31/2008	2-4	BLMSCC	<0.350	BLMSCC	BLMSCC

All results in milligrams per kilogram (mg/kg).
ft. BLS = Feet Below Land Surface.
< = Less than method detection limit
MSCC = Maximum Soil Contaminant Concentration
Results in bold exceed the Residential MSCC.
BLMSCC = Below Lowest MSCC
* = Refer to the lab report for a complete list of compounds and analytical results.

PRODUCT LINE REMOVAL
BUILDING A-12 FUELING AREA
MCB CAMP LEJEUNE



LEGEND

SYMBOL	DESCRIPTION
	DPT Soil Sample
	Soil Sample
	Type II Monitoring Well
	Type III Monitoring Well
	Unknown Well Type
	Fence
	Suspected Fuel Lines
	Water Line
	September 2008 Excavation Area
	Buildings and Structures
	Demolished Structures
	Slabs
	Roads, Driveways and Parking Lots
	Above Ground Storage Tank

NOTES

- MAP ADAPTED FROM CAMP LEJEUNE GIS DATABASE.
- COMPLETE SITE MONITORING WELL NETWORK NOT SHOWN.



FUEL LINE AND SAMPLE LOCATIONS
- SEPTEMBER 2008 REMOVAL

FIGURE

4

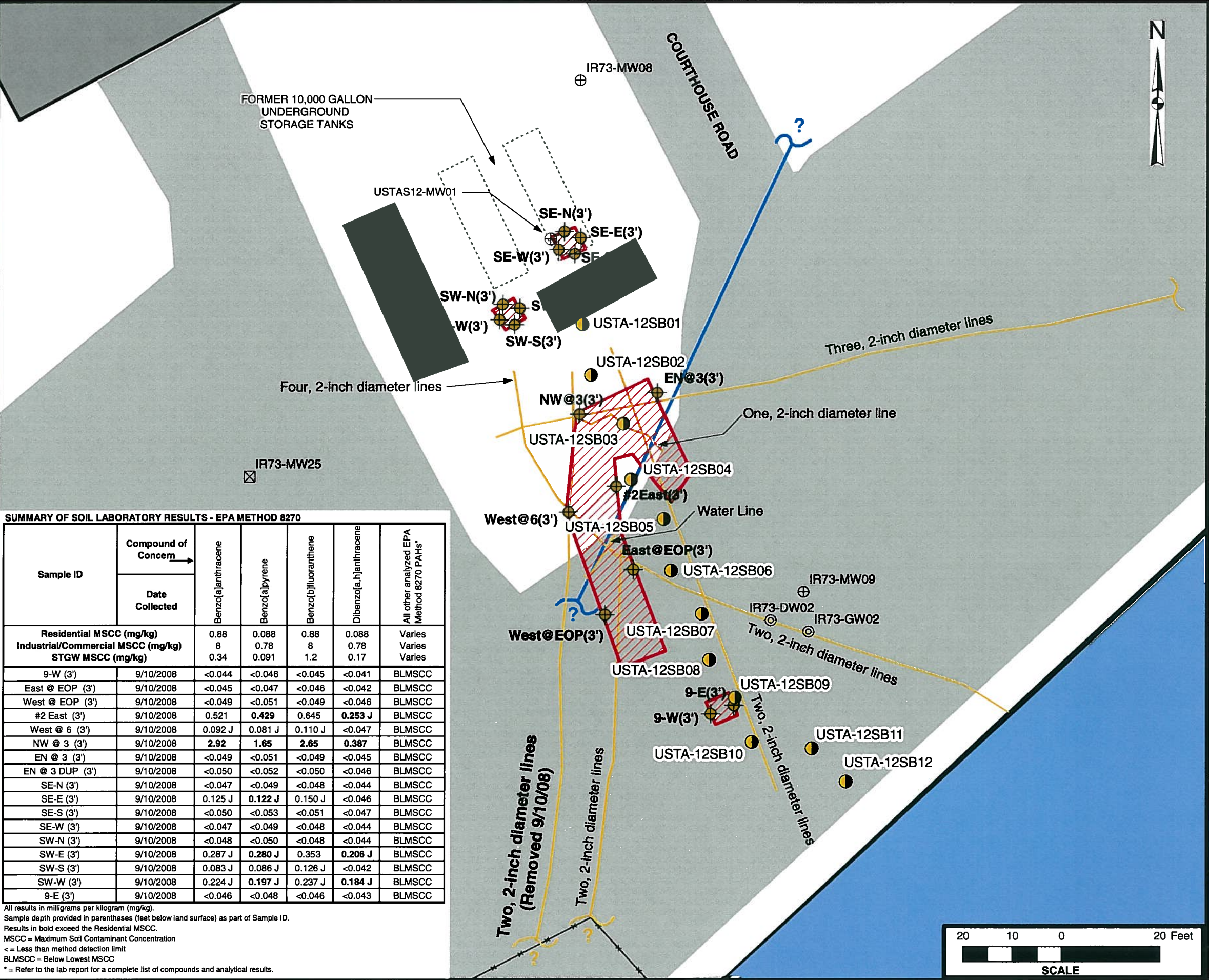
Job No.:	Date:	Scale:	Drawn By:	Checked By:
208-037	OCT 2009	AS SHOWN	SAC	BA

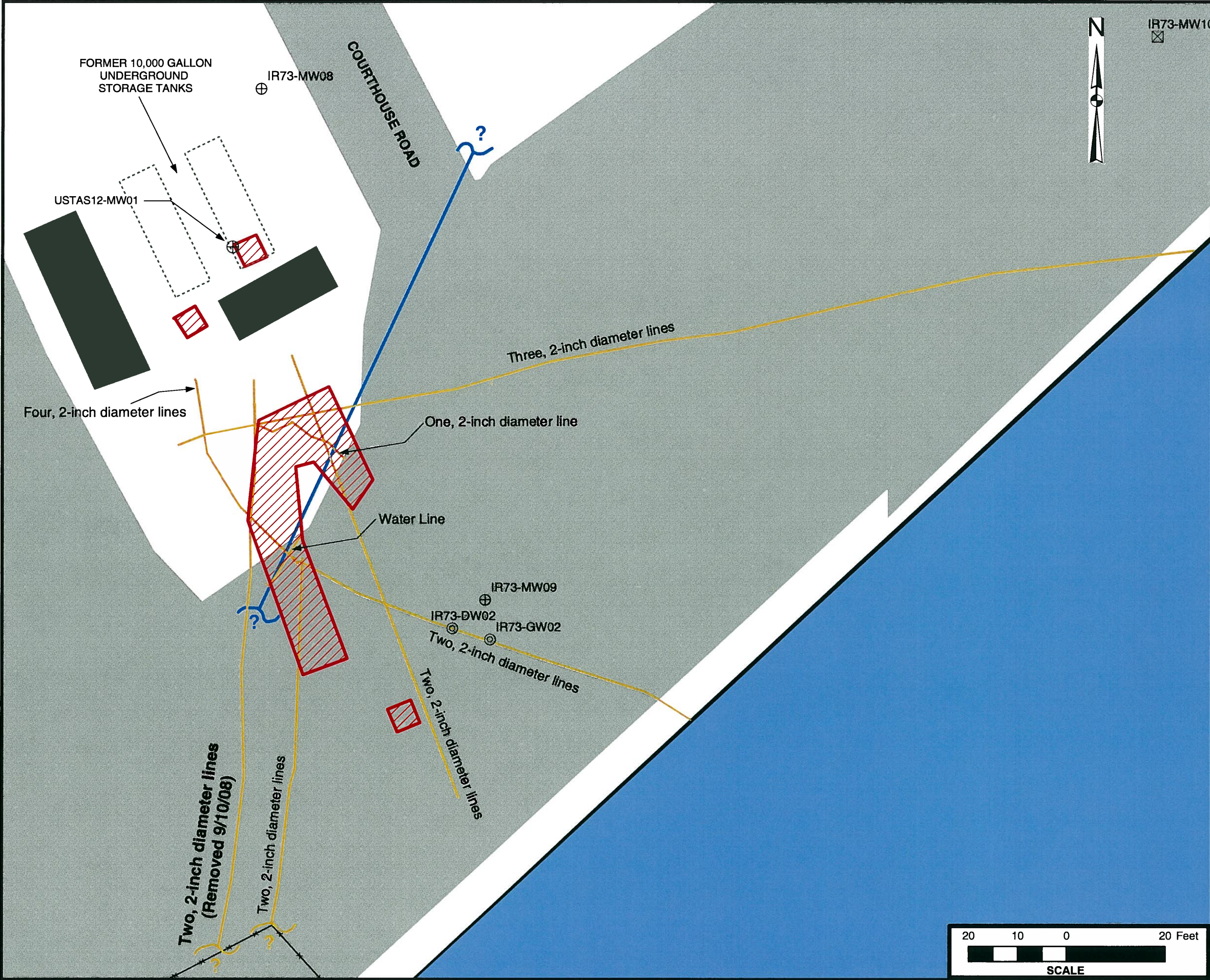
S:\wpmktg\PROJECT\2008\208-037\FIGURES\208037_A12_Fig4.mxd

SUMMARY OF SOIL LABORATORY RESULTS - EPA METHOD 8270

Sample ID	Compound of Concern Date Collected	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Dibenzo[a,h]anthracene	All other analyzed EPA Method 8270 PAHs*
Residential MSCC (mg/kg)		0.88	0.088	0.88	0.088	Varies
Industrial/Commercial MSCC (mg/kg)		8	0.78	8	0.78	Varies
STGW MSCC (mg/kg)		0.34	0.091	1.2	0.17	Varies
9-W (3')	9/10/2008	<0.044	<0.046	<0.045	<0.041	BLMSCC
East @ EOP (3')	9/10/2008	<0.045	<0.047	<0.046	<0.042	BLMSCC
West @ EOP (3')	9/10/2008	<0.049	<0.051	<0.049	<0.046	BLMSCC
#2 East (3')	9/10/2008	0.521	0.429	0.645	0.253 J	BLMSCC
West @ 6 (3')	9/10/2008	0.092 J	0.081 J	0.110 J	<0.047	BLMSCC
NW @ 3 (3')	9/10/2008	2.92	1.65	2.65	0.387	BLMSCC
EN @ 3 (3')	9/10/2008	<0.049	<0.051	<0.049	<0.045	BLMSCC
EN @ 3 DUP (3')	9/10/2008	<0.050	<0.052	<0.050	<0.046	BLMSCC
SE-N (3')	9/10/2008	<0.047	<0.049	<0.048	<0.044	BLMSCC
SE-E (3')	9/10/2008	0.125 J	0.122 J	0.150 J	<0.046	BLMSCC
SE-S (3')	9/10/2008	<0.050	<0.053	<0.051	<0.047	BLMSCC
SE-W (3')	9/10/2008	<0.047	<0.049	<0.048	<0.044	BLMSCC
SW-N (3')	9/10/2008	<0.048	<0.050	<0.048	<0.044	BLMSCC
SW-E (3')	9/10/2008	0.287 J	0.280 J	0.353	0.206 J	BLMSCC
SW-S (3')	9/10/2008	0.083 J	0.086 J	0.126 J	<0.042	BLMSCC
SW-W (3')	9/10/2008	0.224 J	0.197 J	0.237 J	0.184 J	BLMSCC
9-E (3')	9/10/2008	<0.046	<0.048	<0.046	<0.043	BLMSCC

All results in milligrams per kilogram (mg/kg).
Sample depth provided in parentheses (feet below land surface) as part of Sample ID.
Results in bold exceed the Residential MSCC.
MSCC = Maximum Soil Contaminant Concentration
< = Less than method detection limit
BLMSCC = Below Lowest MSCC
* = Refer to the lab report for a complete list of compounds and analytical results.





PRODUCT LINE REMOVAL BUILDING A-12 FUELING AREA MCB CAMP LEJEUNE

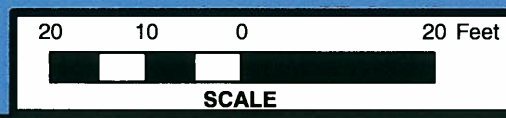


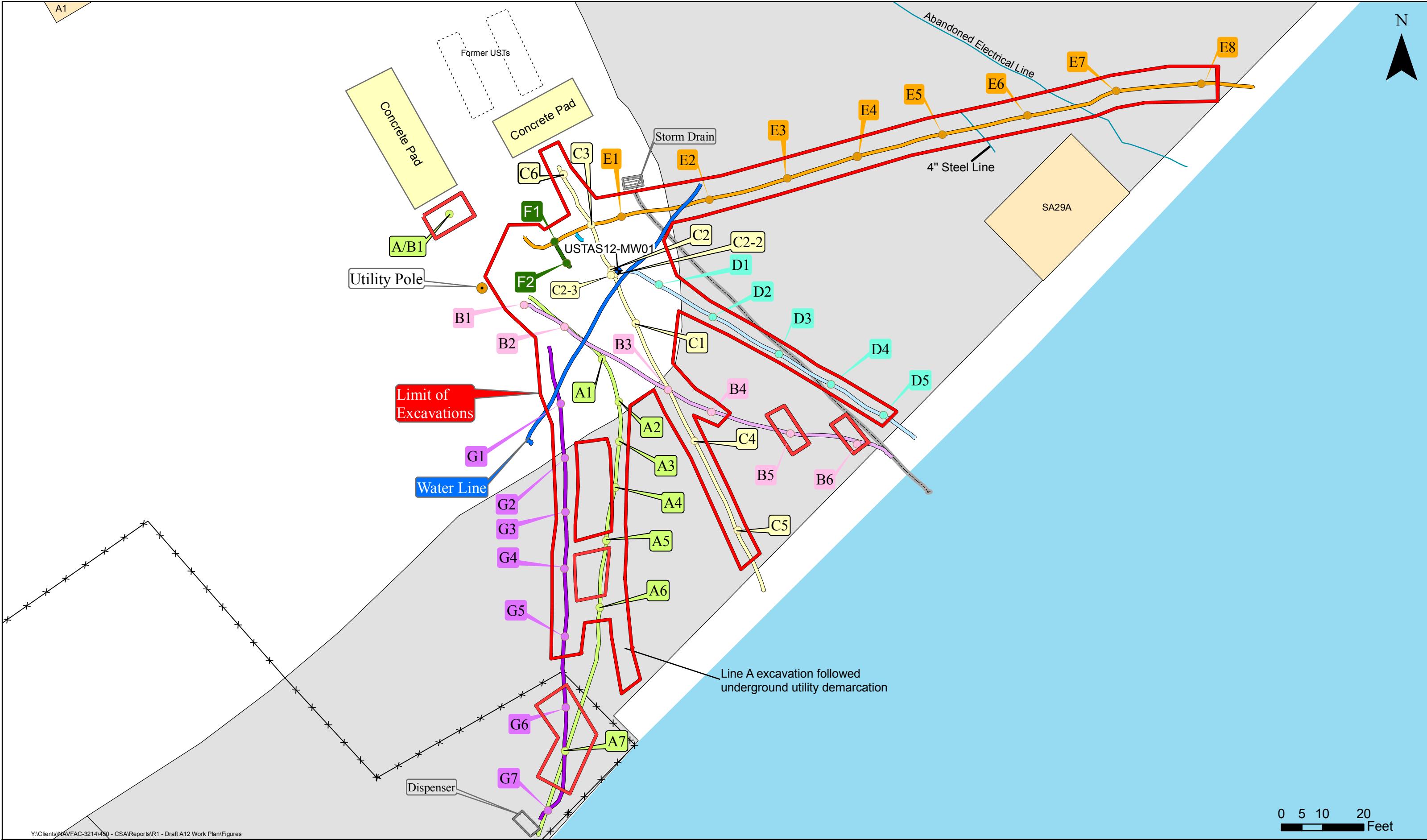
SYMBOL	DESCRIPTION
⊕	Type II Monitoring Well
⊙	Type III Monitoring Well
⊗	Unknown Well Type
---	Fence
Yellow line	Suspected Fuel Lines
Blue line	Water Line
Red hatched area	September 2008 Excavation Area
Black rectangle	Buildings and Structures
Grey rectangle	Demolished Structures
Thin grey line	Slabs
Light grey area	Roads, Driveways and Parking Lots
White rectangle	Above Ground Storage Tank

- ### NOTES
1. MAP ADAPTED FROM CAMP LEJEUNE GIS DATABASE.
 2. COMPLETE SITE MONITORING WELL NETWORK NOT SHOWN.



FUEL LINE LOCATIONS FROM 2008 UNDERGROUND UTILITY SURVEY		FIGURE 5
Job No.: 208-037	Date: OCT 2009	Scale: AS SHOWN
Drawn By: SAC	Checked By: BA	





Y:\Clients\NAVFAC-3214\450 - CSA\Reports\IR1 - Draft A12 Work Plan\Figures

Legend

Water Line	Line F (One 2" Line)	Line C (One 2" Line)	Storm Drain	Sample Location
Line H	Line E (Four 2" Lines)	Line B (Two 2"-Lines)	Abandoned Line	
Line G (Two 2" Lines)	Line D (Two 2" Lines)	Line A (Two 2" Lines)	Monitoring Well	



Figure 6 - Fuel Line Excavation and Sample Locations
September 2009 A-12 Fuel Line Removal
MCB Camp Lejeune, North Carolina

APPENDIX A

SEPTEMBER 2009 BACKFILL INFORMATION

**DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF LAND RESOURCES
LAND QUALITY SECTION**

P E R M I T

for the operation of a mining activity

In accordance with the provisions of G.S. 74-46 through 68, "The Mining Act of 1971," Mining Permit Rule 15A NCAC 5 B, and other applicable laws, rules and regulations

Permission is hereby granted to:

Neuse Sand and Gravel Inc.

Hunter-Outlaw Pit

Lenoir County - Permit No. 54-54

for the operation of a

Sand Mine

which shall provide that the usefulness, productivity and scenic values of all lands and waters affected by this mining operation will receive the greatest practical degree of protection and restoration.

MINING PERMIT EXPIRATION DATE: August 30, 2016



North Carolina Department of Environment and Natural Resources
Division of Land Resources
Land Quality Section

James D. Simons, PG, PE
Director and State Geologist

Michael F. Easley, Governor
William G. Ross Jr., Secretary

August 30, 2006

Mr. N. David Sutton
Neuse Sand and Gravel Inc.
2005 British Road
Kinston, North Carolina 28501

RE: Hunter-Outlaw Pit
Lenoir County
Neuse River Basin

Dear Mr. Sutton:

The application for a mining permit for the above referenced mine site has been found to meet the requirements of G.S. 74-51 of The Mining Act of 1971. As your company already has a blanket bond sufficient to cover this application, I am enclosing the mining permit.

The conditions of Mining Permit No. 54-54 were based primarily upon information supplied in the application with conditions added as necessary to insure compliance with The Mining Act of 1971. This permit expires on August 30, 2016. G.S. 74-65 states that the issuance of a mining permit does not supersede or otherwise affect or prevent the enforcement of any zoning regulation or ordinance duly adopted by an incorporated city or county or by any agency or department of the State of North Carolina.

As a reminder, your permitted acreage at this site is 47.86 acres and the amount of land you are approved to disturb is 44.06 acres.

Please review the permit and contact Ms. Judy Wehner, Assistant State Mining Specialist, at (919) 733-4574 of any objection or questions concerning the terms of the permit.

Sincerely,

Floyd R. Williams, PG, CPG, CPM
State Mining Specialist
Land Quality Section

FRW/jw

Enclosures

cc: Mr. Pat McClain, PE
Ms. Shannon Deaton -WRC, w/enclosures
Mr. Bradley Bennett-DWQ, w/enclosures
Mr. William Gerringer-DOL, Mine and Quarry Bureau, w/o enclosures

1612 Mail Service Center, Raleigh, North Carolina 27699-1612 • 919-733-4574 / FAX: 919-715-8801
512 North Salisbury Street, Raleigh, North Carolina 27604

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57
NEUSE SAND & GRAVEL, INC.
Kinston, N.C. 28504
Phone 527-2449
Fax 527-4341

DATE
9/8/09

60769

PO #		
PIT NAME		
CHECK #	CHARGE	CASH
	/	
SIZE & DESCRIPTION		
S/clay		
NET (TONS)	NO. OF LOADS	
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\$ AMOUNT		

SOLD TO

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CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.
Kinston, N.C. 28504
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Fax 527-4341

DATE
9/8/09

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DATE
9/8/09

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Kinston, N.C. 28504
Phone 527-2449
Fax 527-4341

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Kinston, N.C. 28504
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CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

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CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504

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Fax 527-4341

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CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.
Kinston, N.C. 28504
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Fax 527-4341

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NEUSE SAND & GRAVEL, INC.
Kinston, N.C. 28504
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NEUSE SAND & GRAVEL, INC.
Kinston, N.C. 28504
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Jonny Batchelor

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CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

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Fax 527-4341

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CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.Kinston, N.C. 28504
Phone 527-2449
Fax 527-4341

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CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.Kinston, N.C. 28504
Phone 527-2449
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CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.Kinston, N.C. 28504
Phone 527-2449
Fax 527-4341

DATE

9/21/09

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SIZE & DESCRIPTION

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NET (TONS)

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HAULER-TRUCKER NO.

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PRICE PER LOAD

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CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504
Phone 527-2449
Fax 527-4341

DATE

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PO #

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CHARGE

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SIZE & DESCRIPTION

5/clay

SHIPPED TO

NET (TONS)

28

NO. OF LOADS

HAULER-TRUCKER NO.

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PRICE PER LOAD

RECEIVED BY

B.D.

\$ AMOUNT

CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504
Phone 527-2449
Fax 527-4341

DATE

9/22/09

60794

PO #

PIT NAME

SOLD TO

P & F Env

CHECK #

CHARGE

CASH

SIZE & DESCRIPTION

5/clay

SHIPPED TO

NET (TONS)

28

NO. OF LOADS

HAULER-TRUCKER NO.

102

PRICE PER LOAD

RECEIVED BY

FR

\$ AMOUNT

CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504
Phone 527-2449
Fax 527-4341

DATE

9/24/09

60795

PO #

PIT NAME

SOLD TO

P & F Env

CHECK #

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CASH

SIZE & DESCRIPTION

5/clay

SHIPPED TO

NET (TONS)

28

NO. OF LOADS

HAULER-TRUCKER NO.

102

PRICE PER LOAD

RECEIVED BY

FR

\$ AMOUNT

CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504

Phone 527-2449

Fax 527-4341

DATE

9/22/09

60796

PO #

PIT NAME

SOLD TO

P & F Env

CHECK #

CHARGE

CASH

SIZE & DESCRIPTION

5/4 clay

SHIPPED TO

NET (TONS)

28

NO. OF LOADS

HAULER-TRUCKER NO.

103

PRICE PER LOAD

RECEIVED BY

TT

\$ AMOUNT

CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504

Phone 527-2449

Fax 527-4341

DATE

9/22/09

60797

PO #

PIT NAME

SOLD TO

P & F Env

CHECK #

CHARGE

CASH

SIZE & DESCRIPTION

5/4 clay

SHIPPED TO

NET (TONS)

28

NO. OF LOADS

HAULER-TRUCKER NO.

106

PRICE PER LOAD

RECEIVED BY

BP

\$ AMOUNT

CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504

Phone 527-2449

Fax 527-4341

9/24/09

60798

PIT NAME

SOLD TO

P & F Env

CHECK #

CHARGE

CASH

SIZE & DESCRIPTION

5/4 clay

SHIPPED TO

NET (TONS)

28

NO. OF LOADS

HAULER-TRUCKER NO.

103

PRICE PER LOAD

RECEIVED BY

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\$ AMOUNT

CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504

Phone 527-2449

Fax 527-4341

DATE

9/24/09

60799

PO #

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SOLD TO

P & F Env

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SIZE & DESCRIPTION

S/c lay

SHIPPED TO

NET (TONS)

28

NO. OF LOADS

HAULER-TRUCKER NO.

102

PRICE PER LOAD

RECEIVED BY

FR

\$ AMOUNT

CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504

Phone 527-2449

Fax 527-4341

DATE

9/24/09

60745

PO #

PIT NAME

SOLD TO

P & F Env

CHECK #

CHARGE

CASH

SIZE & DESCRIPTION

S/c lay

SHIPPED TO

NET (TONS)

28

NO. OF LOADS

HAULER-TRUCKER NO.

106

PRICE PER LOAD

RECEIVED BY

BP

\$ AMOUNT

CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504

Phone 527-2449

Fax 527-4341

9/24/09

60746

PIT NAME

SOLD TO

P & F Env

CHECK #

CHARGE

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SIZE & DESCRIPTION

ABC stone

SHIPPED TO

NET (TONS)

25

NO. OF LOADS

HAULER-TRUCKER NO.

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PRICE PER LOAD

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RAD

\$ AMOUNT

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504

Phone 527-2449

Fax 527-4341

DATE

9/24/09

60748

PO #

PIT NAME

SOLD TO

P+F Env

CHECK #

CHARGE

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SIZE & DESCRIPTION

ABC stone

SHIPPED TO

NET (TONS)

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NO. OF LOADS

HAULER-TRUCKER NO.

102

PRICE PER LOAD

RECEIVED BY

FR

\$ AMOUNT

CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504

Phone 527-2449

Fax 527-4341

DATE

9/24/09

60747

PO #

PIT NAME

SOLD TO

P+F Env

CHECK #

CHARGE

CASH

SIZE & DESCRIPTION

ABC stone

SHIPPED TO

NET (TONS)

25

NO. OF LOADS

HAULER-TRUCKER NO.

103

PRICE PER LOAD

RECEIVED BY

TT

\$ AMOUNT

CORPORATE RESOURCES

NEUSE SAND & GRAVEL, INC.

Kinston, N.C. 28504

Phone 527-2449

Fax 527-4341

DATE

10/6/09

60749

PO #

PIT NAME

SOLD TO

P+F Env

CHECK #

CHARGE

CASH

SIZE & DESCRIPTION

ABC Stone

SHIPPED TO

NET (TONS)

25

NO. OF LOADS

HAULER-TRUCKER NO.

106

PRICE PER LOAD

RECEIVED BY

BP

\$ AMOUNT

CORPORATE RESOURCES

Rec'd by

Rec'd by

Morton Trucking, Inc. 212835

121 Garnet Lane • Hwy 17 N. • Jacksonville, NC 28546

Customer's Order No. 1287 Date 9-16 20 09

Job END. comment

Job Location _____

Driver _____ Truck No. 10 C

[illegible]

All claims and returned goods MUST be accompanied by this bill.

Rec'd by

TICKET

Morton Trucking, Inc. 212838

121 Garnet Lane • Hwy 17 N. • Jacksonville, NC 28546

Customer's Order No. 187 Date 9-18 2009

Job Environmental

Job Location _____

Driver _____ Truck No. 106

[illegible]

All claims and returned goods MUST be accompanied by this bill.

Rec'd by

Rec'd by

TICKET

Morton Trucking, Inc. 209353

121 Garnet Lane • Hwy 17 N. • Jacksonville, NC 28546

Customer's
Order No.

P.F.

Date

9-21-29

Job

Job Location

Driver

Truck No.

105

QUAN	DESCRIPTION	PRICE	AMOUNT
18	Tm trucking fuel		
	2 loads/OB		
	charge		

All claims and returned goods MUST be accompanied by this bill.

F.R. TWO LOADS

Rec'd by

TICKET

Morton Trucking, Inc. 213982

121 Garnet Lane • Hwy 17 N. • Jacksonville, NC 28546

Customer's
Order No.

P.F. E.W.

Date

9-24-29

Job

Job Location

Driver

Truck No.

106

QUAN	DESCRIPTION	PRICE	AMOUNT
25	Quad fuel		345.00
	1111		
	4 loads/OB		

All claims and returned goods MUST be accompanied by this bill.

Bryant

Rec'd by

APPENDIX B

DISPOSAL RECORDS – 2008 - 2009

TABLE B-1
SUMMARY OF 2008 WASTE CHARACTERIZATION SOIL LABORATORY RESULTS
EPA METHODS 8260, 8270, 6010, 7470 AND TPH DRO AND GRO

Incident Name and No.: Building A-12, #32486

Sample ID	Contaminant of Concern →	EPA Method 8260 Compounds				EPA Method 8270 Compounds																EPA Methods 6010 and 7470 Compounds						TPH	
	Date Collected	Acetone	n-Butylbenzene	sec-Butylbenzene	All other 8260 Compounds	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	Bis(2-ethylhexyl)phthalate	All other 8270 compounds	Barium	Cadmium	Chromium	Lead	Silver	All other 6010 and 7470 compounds	Diesel Range Organics	Gasoline Range Organics
Line Ex Comp.	9/10/2008	0.0401 J	0.0066	0.00101J	0.081 J	0.081 J	0.071 J	0.071 J	0.192 J	0.168 J	0.229 J	0.128 J	0.094 J	0.151 J	0.363	0.061 J	0.101 J	0.155 J	0.326 J	0.199 J	BMDL	0.386 J	0.0323 J	0.0546 J	0.176	0.0715 J	BMDL	1,650	5.92

All results in milligrams per kilogram (mg/kg).
Refer to the analytical report for a complete list of compounds and method detection limits.
J = Estimated concentration, below calibration range and above method detction limit
TPH = Total Petroleum Hydrocarbons
DRO = Diesel Range Organics
GRO = Gasoline Range Organics
BMDL = Below Method Detection Limit
< = Less than method detection limit

TABLE B-2
SUMMARY OF 2009 DISPOSAL SOIL SAMPLE LABORATORY RESULTS
TOTAL PETROLEUM HYDROCARBONS
A-12 FUEL LINE REMOVAL AND EXCAVATION
MCB CAMP LEJEUNE, NORTH CAROLINA

EPA Method			8015		6010B
Sample ID	Contaminant of Concern →		Total Petroleum Hydrocarbons (TPH) Diesel Range Organics - DRO (mg/kg)	Total Petroleum Hydrocarbons (TPH) Gasoline Range Organics - GRO (mg/kg)	Toxic Characteristic Leaching Procedure (TCLP) Metals (mg/L)
	Date Collected	Sample Depth (Feet)			
Industrial/Commercial MSCCs (mg/kg)			NS	NS	NS
North Carolina Action Levels for USTs			10	10	NS
A12-DISP-W-S-1	9/9/2009	VARIOUS	28.0	<6.61	<0.100
A12-DISP-E-S-2	9/10/2009	VARIOUS	214	22.9	0.119

All results in milligrams per kilogram (mg/kg).

Sample depth provided in parentheses (feet below land surface) as part of Sample ID

Results in bold exceed the Residential MSCC

BMDL = Below Method Detection Limit

< = Less than method detection limit

MSCC = Maximum Soil Contaminant Concentration

NA = Not Analyzed

NS= No Standard



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor
William G. Ross Jr., Secretary

Division of Waste Management
Underground Storage Tank Section

Dexter R. Matthews, Director

December 30, 2005

Mr. Walter Harvey Pridgen, Jr.
Pridgen Farms, Inc.
8549 Mill Branch Road
Rocky Mount, North Carolina 27803

Subject: **Renewal of Permit No. SR0500106**
Dedicated Land Application of Petroleum
Pridgen Farms, Inc.
Dedicated site: Speights Chapel Road, one mile south of NC 33
Edgecombe County

Dear Mr. Pridgen:

In accordance with your permit renewal application (for SR0500106) received November 30, 2005 we are forwarding herewith Permit No. SR0500106, dated December 30, 2005, to Pridgen Farms, Inc. for the operation of the subject Petroleum Contaminated Soil Land Application facility.

This permit shall be effective from the date of issuance until December 30, 2010 and shall be subject to the conditions and limitations as specified therein.

The issuing of this permit does not constitute approval for reimbursement from the LEAKING PETROLEUM UNDERGROUND STORAGE TANK CLEANUP FUNDS (15A NCAC 2P).

If any parts, requirements, or limitations contained in this permit are unacceptable to you, you have the right to request an adjudicatory hearing upon written request within 30 days following receipt of this permit. This request must be in the form of a written petition, conforming to Chapter 150B of North Carolina General Statutes and filed with the Office of Administrative Hearings, P.O. Drawer 27447, Raleigh, North Carolina 27611-7447. Unless such demands are made this permit shall be final and binding.

If you need additional information concerning this matter, please contact John F. Maloy.

Sincerely,

Robert K. Davies, L.G.
UST Section Regional Supervisor
Raleigh Regional Office

cc: Edgecombe County Health Dept.
Raleigh Regional Office SR files/JFM- 1628 Mail Service Center, Raleigh, NC 27699 (919) 571-4700
Linda Smith
Ed Aguirre & Associates, Inc.: P.O. Box 6271, Raleigh, NC 27628

07066

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

09-11-08 07:57 AM

CUSTOMER

P+F Environmental

RANK

SSN

AGENCY

CARRIER/VEHICLE TYPE

VEHICLE #

VEHICLE ID #

PF103

DESTINATION/BLDG. #

Landfill/Whitaker

GBL/DOC # P.O. #

COMMODITY

Soil

SHIPPER

WEIGHMASTER

Kaye Norton

MCBCL 4600/2 (REV 2-95)

S 24080 1b

T 30860 1b

N 43220 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # _____

LOAD # 07066

GENERATOR

ATTN: PE/EMD/EQB
Bldg 12 MCB Camp Lejeune
PSC BOX 20004
Camp Lejeune, NC 28542

PHONE: _____

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

Bldg 12 Line Excavation

Weg. H. Jones

Transporter: P & F Environmental

Gross Weight (lbs.): 74080

Truck #: PF 103

Tare Weight (lbs.): 30860

Truck Tag #/State: ZB 16949

Net Weight (lbs.): 43220

Driver Name (Print): Bryant Bridges

Net Weight (tons): 21.61

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Bridges 9.11.08
Driver Signature Date

Bryant Bridges
Driver Signature Date

Inspected and Accepted By: Russell Pridge

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

WHITE - Invoice

YELLOW - Generator

PINK - Trucker

GOLD - P & F Environmental

07065

WEIGHT CERTIFICATE

P & F Environmental

CUSTOMER

RANK

SSN

AGENCY

CARRIER/VEHICLE TYPE

VEHICLE #

VEHICLE ID #

PF103

DESTINATION/BLDG. #

landfill

GBL/DOC # P.O. #

COMMODITY

Soil

SHIPPER

WEIGHMASTER

Kaye Norton

MCBCL 4600/2 (REV 2-95)

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

09-10-08 07:43 AM

G 85900 1b

T 00 1b

H 85900 1b

09-10-08 11:52 AM

S 30860 1b

F 85900 1b

B 35040 1b

E

07065

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # _____

LOAD # 07065**GENERATOR**

ATTN: P&F/EMD/EQB
 BLDG 12 MCB Camp Lejeune
 PSC Box 20004
 Camp Lejeune, NC 28542

PHONE: 910-451-9114**DESTINATION**

Land Application Facility Permit No. SR0500106
 Speights Chapel Road
 Whitakers, NC 27891

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGATION:

Chris JonesTransporter: P & F EnvironmentalGross Weight (lbs.): 85900Truck #: P&F 103Tare Weight (lbs.): 30860

Truck Tag #/State: _____

Net Weight (lbs.): 55040Driver Name (Print): Franklin RhodesNet Weight (tons): 27.52

I hereby certify that the material stated herein
 was received at the waste origination site listed.

I hereby certify that the material stated herein was
 delivered without incident to the destination listed.

Franklin Rhodes 9-10-08
 Driver Signature Date

Franklin Rhodes 9-10-08
 Driver Signature Date

Inspected and Accepted By: Russell Pridgen

NOTICE TO TRANSPORTER

**TRUCKS WILL NOT BE PERMITTED TO ENTER
 THE FACILITY WITHOUT THIS ENTRANCE TICKET**

WHITE - Invoice

YELLOW - Generator

PINK - Trucker

GOLD - P & F Environmental

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

09-09-08 01:09 PM

CUSTOMER

RANK

SSN

AGENCY

CARRIER/VEHICLE TYPE

VEHICLE #

VEHICLE ID #

DESTINATION/BLDG. #

GBL/DOC # P.O. #

COMMODITY

SHIPPER

WEIGHMASTER

MCBCL 4600/2 (REV 2-95)

P&F Environmental

PF-103

Whitaker's Landfarm

Contaminated Soil

Kaye Norton

3 72580 1b
7 00 1b
N 72580 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # _____

LOAD # 07064

GENERATOR

MCB Lejeune
ATTN: P&F/EMD/EOB
BLDG A-12
PSC BOX 2004
Camp Lejeune, NC 28542
PHONE: 910-451-9114

DESTINATION

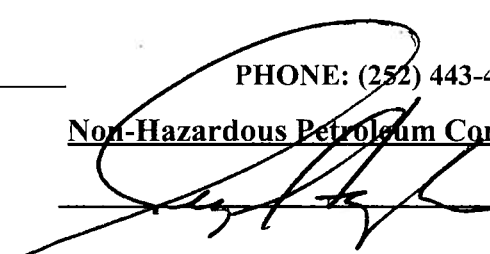
Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:



Transporter: P&F Environmental

Gross Weight (lbs.): 72580

Truck #: PF 103

Tare Weight (lbs.): 30860

Truck Tag #/State: 2B 16949

Net Weight (lbs.): 41720

Driver Name (Print): Franklin Rhodes

Net Weight (tons): 20.86

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes 9-9-08
Driver Signature Date

Franklin Rhodes 9-9-08
Driver Signature Date

Inspected and Accepted By: _____

Russell Priddy

NOTICE TO TRANSPORTER

**TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET**

WHITE - Invoice

YELLOW - Generator

PINK - Trucker

GOLD - P & F Environmental

05-09-08 01:09 PM

RANK

SSN

AGENCY**CARRIER/VEHICLE TYPE**

VEHICLE #

VEHICLE ID #

DESTINATION/BLDG. #

GBL/DOC # P.O. #

COMMODITY

SHIPPER

WEIGHMASTER

MCBCL 4600/2 (REV 2-95)

PF 102

~~1000~~ Whitakers
10000 ham farm

Contaminated Soil

Kaye Norton

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# _____

LOAD # 07063

GENERATOR

ATTN: P&F/EMD/EQS
BLDG A-12
PSC BOX 2004
Camp Lejeune, NC 28542

PHONE: 716-451-9114

DESTINATION

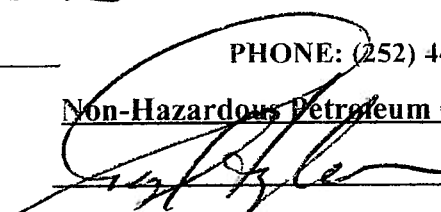
Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:



Transporter: P & F Environmental

Gross Weight (lbs.): 62540

Truck #: PF 102

Tare Weight (lbs.): 30000

Truck Tag #/State: ZB 16886

Net Weight (lbs.): 32540

Driver Name (Print): Bryant Pridgen

Net Weight (tons): 16.27

I hereby certify that the material stated herein was received at the waste origination site listed.

I hereby certify that the material stated herein was delivered without incident to the destination listed.

Bryant Pridgen 9.9.08
Driver Signature Date

Bryant Pridgen 9.9.08
Driver Signature Date

Inspected and Accepted By: _____

Russell Pridgen

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07561

LOAD # 1

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A-12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

UST, Site A-12

Transporter: P & F Environmental

Truck #: PF 106

Truck Tag #/State: ZB 37964

Driver Name (Print): Bryant Bridges

Gross Weight (lbs.): 79360

Tare Weight (lbs.): 23210

Net Weight (lbs.): 56140

Net Weight (tons): 28.07

I hereby certify that the material stated herein
was received at the waste origination site listed.

Bryant Bridges 9.8.09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Bridges 9.8.09
Driver Signature Date

Inspected and Accepted By:

Jan A. Myers, Jr.
Jan A. Myers, Jr.

9/8/2009

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

WHITE - Invoice

YELLOW - Generator

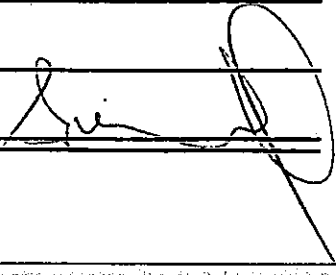
PINK - Trucking

GREEN - P & F Environmental

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P+F ENVIRONMENTAL	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	PF106	
VEHICLE ID #		
DESTINATION/BLDG. #	EMD/A12	
GBL/DOC # P.O. #		
COMMODITY	Contam. Soil	
SHIPPER		
WEIGHMASTER		

MCBCL 4600/2 (REV 2-95)

~~09-08-09 01:46 PM~~

~~G 79340 1b
T 00 1b
N 79340 1b~~

09-08-09 01:47 PM

G 79360 1b
T 23220 1b
N 56140 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # _____

LOAD # 2

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A-12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

UST, Site A-12

Transporter: P & F Environmental

Truck #: PF 102

Truck Tag #/State: 2B 25821

Driver Name (Print): Franklin Rhodes

Gross Weight (lbs.): 84820

Tare Weight (lbs.): 30360

Net Weight (lbs.): 54460

Net Weight (tons): 27.23

I hereby certify that the material stated herein
was received at the waste origination site listed.

Franklin Rhodes
Driver Signature

9-8-09
Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes
Driver Signature

9-8-09
Date

Inspected and Accepted By: Jon A. Wixey, Jr. 9/8/2009

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P+F ENVIRONMENTAL RANK _____
SSN _____ AGENCY _____

CARRIER/VEHICLE TYPE _____

VEHICLE # PF 102

VEHICLE ID # _____

DESTINATION/BLDG. # EMD / A12

GBL/DOC # P.O. # _____

COMMODITY Contam. Soil

SHIPPER _____

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

09-08-09 01:50 PM

G 84820 1b
T 30360 1b
N 54460 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07563

LOAD# 3

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A-12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

UST, Site A-12

Transporter: P & F Environmental

Truck #: PF 103

Truck Tag #/State: 2B 16949

Driver Name (Print): Tim Thorne

Gross Weight (lbs.): 79080

Tare Weight (lbs.): 30800

Net Weight (lbs.): 48280

Net Weight (tons): 24.14

I hereby certify that the material stated herein
was received at the waste origination site listed.

Tim Thorne 9-8-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9-8-09
Driver Signature Date

Inspected and Accepted By: ~~Jon A. Meyers, II~~ 9/8/2009
Jon A. Meyers, II

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER

P + F Environ.

RANK

SSN

AGENCY

CARRIER/VEHICLE TYPE

VEHICLE #

PF 103

VEHICLE ID #

DESTINATION/BLDG. #

EMD

GBL/DOC # P.O. #

COMMODITY

Contam. Soil

SHIPPER

WEIGHMASTER

[Signature]

MCBCL 4600/2 (REV 2-95)

09-08-09 03:01 PM

G 79080 1b

T 30800 1b

N 48280 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07565

LOAD # 4

GENERATOR

MCB Camp Lejeune
Courthouse Bqy Area, Site A-12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

USTs Site A-12

Transporter: P & F Environmental

Truck #: PF 102

Truck Tag #/State: ZB 25821

Driver Name (Print): Franklin Rhodes

Gross Weight (lbs.): 80680

Tare Weight (lbs.): 29980

Net Weight (lbs.): 50700

Net Weight (tons): 25.35

I hereby certify that the material stated herein
was received at the waste origination site listed.

Franklin Rhodes 9-9-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes 9-9-09
Driver Signature Date

Inspected and Accepted By: Jon A. Mayes, II 9/9/2009

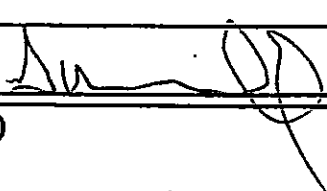
NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P & E ENVIRON	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	PF 102	
VEHICLE ID #		
DESTINATION/BLDG. #	EMD - A-12	
GBL/DOC # P.O. #		
COMMODITY	SOIL	
SHIPPER		
WEIGHMASTER		
MCBCL 4600/2 (REV 2-95)		

09-09-09 10:08 AM

G 80680 1b
T 29980 1b
N 50700 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07566

LOAD # 5

GENERATOR

MCB Camp Lejeune
Canthorse Bay Area, Site A-12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION: Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION: USTs Site A-12

Transporter: P & F Environmental

Gross Weight (lbs.): 81480

Truck #: PF 103

Tare Weight (lbs.): 30520

Truck Tag #/State: ZB 16949

Net Weight (lbs.): 50960

Driver Name (Print): Tim Thorne

Net Weight (tons): 25.48

I hereby certify that the material stated herein
was received at the waste origination site listed.

Tim Thorne 9-9-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9-9-09
Driver Signature Date

Inspected and Accepted By: [Signature] 9/9/2009
Jon A. Myers III

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P+F ENVIRON RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE # PF 103

VEHICLE ID #

DESTINATION/BLDG. # EMD - A12

GBL/DOC # P.O. #

COMMODITY Soil

SHIPPER

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

09-09-09 10:11 AM

G 81480 lb
T 30520 lb
N 50960 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07567

LOAD # 6

GENERATOR

MCB Campbell's
Courthouse Bay Area, Site A-12

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: 252-454-1219

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGATION:

UST, Site A-12

Transporter: P & F Environmental

Gross Weight (lbs.): 74000

Truck #: PF 106

Tare Weight (lbs.): 22840

Truck Tag #/State: ZB 37964

Net Weight (lbs.): 51160

Driver Name (Print): Bryant Pridgen

Net Weight (tons): 25.58

I hereby certify that the material stated herein
was received at the waste origination site listed.

Bryant Pridgen 9.9.09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Pridgen 9.9.09
Driver Signature Date

Inspected and Accepted By:

Jon A. Meyers 9/9/2009

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P4F ENVIR	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	PF 106	
VEHICLE ID #		
DESTINATION/BLDG. #	EMD-A-12	
GBL/DOC # P.O. #		
COMMODITY	Soil	
SHIPPER		
WEIGHMASTER		
MCBCL 4600/2 (REV 2-95)		

09-09-09 10:16 AM

G 74000 lb
T 22840 lb
N 51160 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07571

LOAD # 7

GENERATOR

MCB Camp Lejeune
Courthouse Bay Area, Site A-12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

USTs Site A-12

Transporter: P & F Environmental

Gross Weight (lbs.): 73360

Truck #: PF 106

Tare Weight (lbs.): 22580

Truck Tag #/State: ZB 37964

Net Weight (lbs.): 50780

Driver Name (Print): Franklin Rhodes

Net Weight (tons): 25.39

I hereby certify that the material stated herein
was received at the waste origination site listed.

Franklin Rhodes 9.9.09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes 9-9-09
Driver Signature Date

Inspected and Accepted By: Jon A. Rhodes, II 9/9/2009

NOTICE TO TRANSPORTER

**TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET**

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

R F Environmental
CUSTOMER RANK
SSN AGENCY
CARRIER/VEHICLE TYPE
VEHICLE #
VEHICLE ID # PF 106
DESTINATION/BLDG. # Whitkers NE
GBL/DOC # P.O. #
COMMODITY Soil
SHIPPER
WEIGHMASTER Kayne Norton
MCBCL 4600/2 (REV 2-95)

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

09-09-09 03:11 PM

G 73360 lb
T 22580 lb
N 50780 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07572

LOAD # 8

GENERATOR

MCB Camp Lejeune
Courthouse Bay Area, Site A12

PHONE: 252-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION: Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGATION: UST Site A-12

Transporter: P & F Environmental

Gross Weight (lbs.): 72960

Truck #: PF 106

Tare Weight (lbs.): 22320

Truck Tag #/State: ZB 37964

Net Weight (lbs.): 50640

Driver Name (Print): Franklin Rhodes

Net Weight (tons): 25.32

I hereby certify that the material stated herein
was received at the waste origination site listed.

Franklin Rhodes 9-10-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes 9-10-09
Driver Signature Date

Inspected and Accepted By: Jon A. Hayes, II 9/10/2009
Jon A. Hayes, II

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P + F ENVIRON	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	PF 106	
VEHICLE ID #		
DESTINATION/BLDG. #	EMO - A12	
GBL/DOC # P.O. #		
COMMODITY	SOIL	
SHIPPER		
WEIGHMASTER		

MCBCL 4600/2 (REV 2-95)

09-10-09 08:34 AM

G 72960 lb
T 22320 lb
N 50640 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07577

LOAD # 9

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A-12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

UST Site A-12

Transporter: P & F Environmental

Truck #: PF 103

Truck Tag #/State: ZB 16949

Driver Name (Print): Tim Thorne

Gross Weight (lbs.): 90460

Tare Weight (lbs.): 30180

Net Weight (lbs.): 60280

Net Weight (tons): 30.14

I hereby certify that the material stated herein
was received at the waste origination site listed.

Tim Thorne 9-10-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9-10-09
Driver Signature Date

Inspected and Accepted By:

Jon A. McVey, Jr.
Jon A. McVey, Jr.

9-10-2009

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

50100
THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

CUSTOMER

PF ENVIRON

RANK

SSN

AGENCY

CARRIER/VEHICLE TYPE

VEHICLE #

PF-103

VEHICLE ID #

DESTINATION/BLDG. #

EMP / A 12

GBL/DOC # P.O. #

COMMODITY

SOIL

SHIPPER

WEIGHMASTER

[Signature]

MCBCL 4600/2 (REV 2-95)

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

09-10-09 02:19 PM

G 90460 lb

T 30180 lb

N 60280 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07576

LOAD# 10

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A-12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

UST Site A-12

Transporter: P & F Environmental

Truck #: PF 102

Truck Tag #/State: 2B 25821

Driver Name (Print): Franklin Rhodes

Gross Weight (lbs.): 76,720

Tare Weight (lbs.): 29,540

Net Weight (lbs.): 47,180

Net Weight (tons): 23.59

I hereby certify that the material stated herein
was received at the waste origination site listed.

Franklin Rhodes 9-10-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes 9-10-09
Driver Signature Date

Inspected and Accepted By: Jon A. Myles, JR 9-10-2009

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P + F Environ.	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	PF 102	
VEHICLE ID #		
DESTINATION/BLDG. #	EMD / A12	
GBL/DOC # P.O. #		
COMMODITY	Soil	
SHIPPER		
WEIGHMASTER	<i>[Signature]</i>	

09-10-09 01:54 PM

G 76720 1b
T 29540 1b
N 47180 1b

MCBCL 4600/2 (REV 2-95)

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07575

LOAD # 11

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: 252-454 1219

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

UST Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 66820

Truck #: PF 101

Tare Weight (lbs.): 20240

Truck Tag #/State: ZB 12254 NC

Net Weight (lbs.): 46580

Driver Name (Print): Jason Priddy

Net Weight (tons): 23.29

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Jason Priddy 9-10-09
Driver Signature Date

Jason Priddy 9-10-09
Driver Signature Date

Inspected and Accepted By:

Jon A. Myers, Jr.
Jon A. Myers, Jr.

9-10-2009

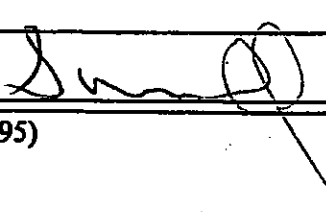
NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P + F ENVIR.	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	PF 101	
VEHICLE ID #		
DESTINATION/BLDG. #	EMD / A-12	
GBL/DOC # P.O. #		
COMMODITY	Soil	
SHIPPER		
WEIGHMASTER		
MCBCL 4600/2 (REV 2-95)		

09-10-09 03:12 PM

G 66820 lb
T 20240 lb
N 46580 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07574

LOAD # 12

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

UST Site A12

Transporter: P & F Environmental

Truck #: P F 106

Truck Tag #/State: 2B 37964

Driver Name (Print): Bryant Pridge

Gross Weight (lbs.): 76700

Tare Weight (lbs.): ~~22040~~ 22040

Net Weight (lbs.): 54660

Net Weight (tons): 27.33

I hereby certify that the material stated herein
was received at the waste origination site listed.

Bryant Pridge 9-10-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Pridge 9-10-09
Driver Signature Date

Inspected and Accepted By: Jon A. Meyers, II 9-10-2009
Jon A. Meyers, II

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P+F ENIRN. RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE # PF106

VEHICLE ID #

DESTINATION/BLDG. # EMD/A-12

GBL/DOC # P.O. #

COMMODITY Soil

SHIPPER

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

09-10-09 03:14 PM

G 76700 lb
T 22040 lb
N 54660 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07580

LOAD # 13

GENERATOR

MCB Camp Lejeune
Courthouse Bay, A-12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106

Speights Chapel Road

Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

USTs - Site A-12

Transporter: P & F Environmental

Truck #: PF 102

Truck Tag #/State: ZB 25821

Driver Name (Print): Franklin Rhodes

Gross Weight (lbs.): 87040

Tare Weight (lbs.): 29880

Net Weight (lbs.): 57160

Net Weight (tons): 28.58

I hereby certify that the material stated herein
was received at the waste origination site listed.

Franklin Rhodes 9.11.09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes 9.11.09
Driver Signature Date

Inspected and Accepted By:

Er. Rhodes 9.11.09

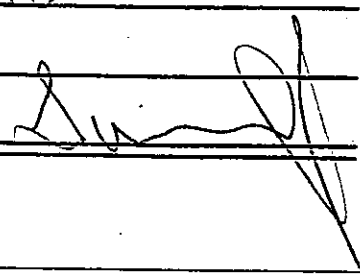
NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	D + F Environ.	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	PF 102	
VEHICLE ID #		
DESTINATION/BLDG. #	EMD A12	
GBL/DOC # P.O. #		
COMMODITY	Soil	
SHIPPER		
WEIGHMASTER		

MCBCL 4600/2 (REV 2-95)

09-11-09 11:22 AM

G 87040 lb
T 29880 lb
N 57160 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07578

LOAD # 14

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

UTS Site A-12

Transporter: P & F Environmental

Truck #: PF 106

Truck Tag #/State: ZB 37964

Driver Name (Print): Bryant Pridgen

Gross Weight (lbs.): 82060

Tare Weight (lbs.): 22240

Net Weight (lbs.): 59820

Net Weight (tons): 29.91

I hereby certify that the material stated herein
was received at the waste origination site listed.

Bryant Pridgen 9.11.09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Pridgen 9.11.09
Driver Signature Date

Inspected and Accepted By: [Signature] 9/11/09

NOTICE TO TRANSPORTER

**TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET**

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P & F Envir. RANK _____
SSN _____ AGENCY _____

CARRIER/VEHICLE TYPE _____

VEHICLE # PF 106
VEHICLE ID # _____

DESTINATION/BLDG. # EMD - A12
GBL/DOC # P.O. # _____

COMMODITY Soil
SHIPPER _____

WEIGHMASTER [Signature]
MCBCL 4600/2 (REV 2-95)

09-11-09 12:07 PM

G 82060 lb
T 22240 lb
N 59820 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07579

LOAD # 15

GENERATOR

MCB Camp Lejeune
Courthouse Bay, A-12

PHONE: 252/454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

USTs, Site A-12

Transporter: P & F Environmental

Gross Weight (lbs.): 85600

Truck #: PF 103

Tare Weight (lbs.): 29760

Truck Tag #/State: ZB 16949

Net Weight (lbs.): 55840

Driver Name (Print): Tim Thorne

Net Weight (tons): 27.92

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9-11-09
Driver Signature Date

Tim Thorne 9-11-09
Driver Signature Date

Inspected and Accepted By: [Signature] 9-11-09

NOTICE TO TRANSPORTER

**TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET**

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

CUSTOMER	P + F enliven.	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	103	
VEHICLE ID #		
DESTINATION/BLDG. #		
GBL/DOC # P.O. #		
COMMODITY	Soil	
SHIPPER		
WEIGHMASTER		

MCBCL 4600/2 (REV 2-95)

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

09-11-09 12:04 PM

G 85600 lb
T 29760 lb
N 55840 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07583

LOAD # 16

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A-12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

UST Site A-12

Transporter: P & F Environmental

Gross Weight (lbs.): 78840

Truck #: PF 102

Tare Weight (lbs.): 29440

Truck Tag #/State: ZB 25821

Net Weight (lbs.): 49400

Driver Name (Print): Franklin Rhodes

Net Weight (tons): 24.72

I hereby certify that the material stated herein
was received at the waste origination site listed.

Franklin Rhodes 9.14.09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes 9.14.09
Driver Signature Date

Inspected and Accepted By:

Jon A. Rhodes 9/14/2009

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER PF ENVIRON. RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE # PF102

VEHICLE ID #

DESTINATION/BLDG. # EMD-A12

GBL/DOC # P.O. #

COMMODITY Soil

SHIPPER

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

09-14-09 12:53 PM

G 78840 1b
T 29440 1b
N 49400 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07584

LOAD # 17

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

USTs Site A12

Transporter: P & F Environmental

Truck #: PF 103

Truck Tag #/State: ZB 16949

Driver Name (Print): Tim Thorne

Gross Weight (lbs.): 86520

Tare Weight (lbs.): 29860

Net Weight (lbs.): 56660

Net Weight (tons): 28.33

I hereby certify that the material stated herein
was received at the waste origination site listed.

Tim Thorne 9.14.09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9-14-09
Driver Signature Date

Inspected and Accepted By:

Jon A. Mayes
Jon A. Mayes

9/14/2009

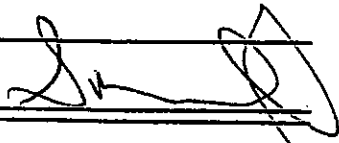
NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P+F Environ.	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	PF 103	
VEHICLE ID #		
DESTINATION/BLDG. #	KMD-A12	
GBL/DOC # P.O. #		
COMMODITY	Soil	
SHIPPER		
WEIGHMASTER		

MCBCL 4600/2 (REV 2-95)

09-14-09 01:28 PM

G 86520 lb
T 29860 lb
N 56660 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07582

LOAD # 18

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 252-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

UST, Site A12

Transporter: P & F Environmental

Truck #: PF 106

Truck Tag #/State: 2B 37964

Driver Name (Print): Bryant Bridger

Gross Weight (lbs.): 75 480

Tare Weight (lbs.): 21 860

Net Weight (lbs.): 53 620

Net Weight (tons): 26.81

I hereby certify that the material stated herein
was received at the waste origination site listed.

Bryant Bridger 9-14-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Bridger 9-14-09
Driver Signature Date

Inspected and Accepted By:

Jon A. Myers 9/14/2009
Jon A. Myers

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER A+F Environ. RANK _____
SSN _____ AGENCY _____

09-14-09 12:56 PM

CARRIER/VEHICLE TYPE _____

G 75480 lb
T 21860 lb
N 53620 lb

VEHICLE # PF106

VEHICLE ID # _____

DESTINATION/BLDG. # EMD - A12

GBL/DOC # P.O. # _____

COMMODITY Soil

SHIPPER _____

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07581

LOAD # 19

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

UTS Site A12

Transporter: P & F Environmental

Truck #: PF 101

Truck Tag #/State: ZB 12254

Driver Name (Print): Jason Pridge

Gross Weight (lbs.): 63540

Tare Weight (lbs.): 20120

Net Weight (lbs.): 43420

Net Weight (tons): 21.71

I hereby certify that the material stated herein
was received at the waste origination site listed.

Jason Pridge 9.14.09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Jason Pridge 9-14-09
Driver Signature Date

Inspected and Accepted By:

Jon A. Hayes, Jr. 9/14/2009

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER POF ENVIRON RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE # PF101

VEHICLE ID #

DESTINATION/BLDG. # EMD A12

GBL/DOC # P.O. #

COMMODITY Soil

SHIPPER

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

09-14-09 01:32 PM

G 63540 1b

T 20120 1b

N 43420 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07588

LOAD # 20

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

UST, Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 78240

Truck #: PF 102

Tare Weight (lbs.): 29040

Truck Tag #/State: ZB 25821

Net Weight (lbs.): 49200

Driver Name (Print): Franklin Rhodes

Net Weight (tons): 24.60

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes 9-15-09
Driver Signature Date

Franklin Rhodes 9-15-09
Driver Signature Date

Inspected and Accepted By: Jon A. Hayes, Jr. 9/15/2009
Jon A. Hayes

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P & F ENVIRON RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE #

102

VEHICLE ID #

DESTINATION/BLDG. #

EMD

GBL/DOC # P.O. #

COMMODITY

Soil

SHIPPER

WEIGHMASTER

[Signature]

MCBCL 4600/2 (REV 2-95)

09-15-09 11:42 AM

G 78240 1b

T 29040 1b

N 49200 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07589

LOAD # 21

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106

Speights Chapel Road

Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

USTs Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 82200

Truck #: PF 103

Tare Weight (lbs.): 29340

Truck Tag #/State: 2B 16949

Net Weight (lbs.): 52860

Driver Name (Print): Tim Thorne

Net Weight (tons): 26.43

I hereby certify that the material stated herein
was received at the waste origination site listed.

Tim Thorne 9-15-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9-15-09
Driver Signature Date

Inspected and Accepted By:

Jan A. Meyers, II

9/15/2009

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P & F Environ. RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE # 103

VEHICLE ID #

DESTINATION/BLDG. # EMD

GBL/DOC # P.O. #

COMMODITY Soil

SHIPPER

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

09-15-09 11:44 AM

G 82200 lb
T 29340 lb
N 52860 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07590

LOAD # 1922

GENERATOR

MCB Camp Lejeune
Courthouse Bay, A12

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: 251-454-1219

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

UST Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 63460

Truck #: PF 101

Tare Weight (lbs.): 20440

Truck Tag #/State: ZB 12254

Net Weight (lbs.): 43020

Driver Name (Print): Jason Bridger

Net Weight (tons): 21.51

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Jason Bridger 9.15.09
Driver Signature Date

Jason Bridger 9.15.09
Driver Signature Date

Inspected and Accepted By:

John A. Mayhew
John A. Mayhew

9/15/2009

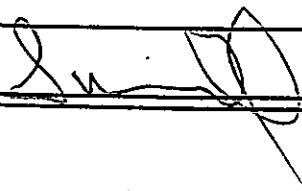
NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P & F Environ.	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	PF101	
VEHICLE ID #		
DESTINATION/BLDG. #	EMD-A1Q	
GBL/DOC # P.O. #		
COMMODITY	Soil	
SHIPPER		
WEIGHMASTER		

MCBCL 4600/2 (REV 2-95)

09-15-09 08:37 AM

G 63460 1b
T 20440 1b
N 43020 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07591

LOAD # 23

GENERATOR

MCB, Camp Lejeune
Courthouse Bay, Site A/D

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

UST Site A/D

Transporter: P & F Environmental

Gross Weight (lbs.): 79940

Truck #: PF 106

Tare Weight (lbs.): 21320

Truck Tag #/State: 2B 37964

Net Weight (lbs.): 58620

Driver Name (Print): Bryant Pridgen

Net Weight (tons): 29.31

I hereby certify that the material stated herein
was received at the waste origination site listed.

Bryant Pridgen 9-15-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Pridgen 9-15-09
Driver Signature Date

Inspected and Accepted By: Jon A. May 23 11

9/15/2009

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P+F Environ. RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE #

VEHICLE ID #

DESTINATION/BLDG. #

GBL/DOC # P.O. #

COMMODITY

SHIPPER

WEIGHMASTER

MCBCL 4600/2 (REV 2-95)

09-15-09 11:51 AM

G 79940 1b

T 21320 1b

N 59620 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07593

LOAD # 24

GENERATOR

MCB Camp Lejeune
Courthouse Bay, A12 site

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

USTs, site A12

Transporter: P & F Environmental

Truck #: PF 106

Truck Tag #/State: ZB 37964

Driver Name (Print): Bryant Bridger

Gross Weight (lbs.): 78460

Tare Weight (lbs.): 21740

Net Weight (lbs.): 56720

Net Weight (tons): 28.36

I hereby certify that the material stated herein
was received at the waste origination site listed.

Bryant Bridger 9-16-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Bridger 9-16-09
Driver Signature Date

Inspected and Accepted By:

Jon A. Kizmas
9/16/2009

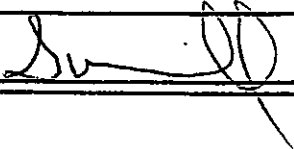
NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	PF ENVIRON	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #		
VEHICLE ID #	PF 106	
DESTINATION/BLDG. #	EMO - A12	
GBL/DOC # P.O. #		
COMMODITY	SOIL	
SHIPPER		
WEIGHMASTER		
MCBCL 4600/2 (REV 2-95)		

09-16-09 01:52 PM

G 78460 lb
T 21740 lb
N 56720 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07594

LOAD # 25

GENERATOR

MCB Camp Lejeune
Courthouse Bay Area Site A12

PHONE: 252-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106

Speights Chapel Road

Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

UST Site A12

Transporter: P & F Environmental

Truck #: PF 102

Truck Tag #/State: ZB 25821

Driver Name (Print): Franklin Rhodes

Gross Weight (lbs.): 74920

Tare Weight (lbs.): 29620

Net Weight (lbs.): 45300

Net Weight (tons): 22.65

I hereby certify that the material stated herein
was received at the waste origination site listed.

Franklin Rhodes 9-16-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes 9-16-09
Driver Signature Date

Inspected and Accepted By:

Jon A. Meyers, Jr.
Jon A. Meyers, Jr.

9/16/2009

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P+F ENVIRON	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	102	
VEHICLE ID #		
DESTINATION/BLDG. #	EMD A12	
GBL/DOC # P.O. #		
COMMODITY	SOIL	
SHIPPER		
WEIGHMASTER		
MCBCL 4600/2 (REV 2-95)		

09-16-09 01:50 PM

G 74920 1b
T 29620 1b
N 45300 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07595

LOAD # 26

GENERATOR

MCB Camp Lejeune
Courthouse Bay Area Site A12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

UST Site A12

Transporter: P & F Environmental

Truck #: PF 103

Truck Tag #/State: ZB 16949

Driver Name (Print): Tim Thorne

Gross Weight (lbs.): 76320

Tare Weight (lbs.): 29780

Net Weight (lbs.): 46540

Net Weight (tons): 23.27

I hereby certify that the material stated herein
was received at the waste origination site listed.

Tim Thorne 9-16-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9-16-09
Driver Signature Date

Inspected and Accepted By: Jan A. Mayasith

9/16/2009

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P & F ENVIRON RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE # PF103

VEHICLE ID #

DESTINATION/BLDG. # EMD-A12

GBL/DOC # P.O. #

COMMODITY SOIL

SHIPPER

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

09-16-09 01:47 PM

G 76320 lb
T 29780 lb
W 46540 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07596

LOAD# 27

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

UST, Site A12

Transporter: P & F Environmental

Truck #: P F 102

Truck Tag #/State: ZB 25821

Driver Name (Print): Franklin Rhodes

Gross Weight (lbs.): 79140

Tare Weight (lbs.): 29380

Net Weight (lbs.): 49760

Net Weight (tons): 24.88

I hereby certify that the material stated herein
was received at the waste origination site listed.

Franklin Rhodes 9-17-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes 9-17-09
Driver Signature Date

Inspected and Accepted By: Cecilia Taylor 9/17/09

NOTICE TO TRANSPORTER

**TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET**

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P+F ENVIRON RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE # PF-102

VEHICLE ID #

DESTINATION/BLDG. # EMD A12

GBL/DOC # P.O. #

COMMODITY Soil

SHIPPER

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

09-17-09 10:29 AM

G 79140 lb
T 29380 lb
N 49760 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07599

LOAD # 28

GENERATOR

MCB Camp Lejeune
Courthouse Bldg, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

UST Site A-12

Transporter: P & F Environmental

Gross Weight (lbs.): 55180

Truck #: PF 105

Tare Weight (lbs.): 20460

Truck Tag #/State: ZB 35517

Net Weight (lbs.): 34720

Driver Name (Print): Jerry Batchelor

Net Weight (tons): 17.36

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Jerry Batchelor 9.17.09
Driver Signature Date

Jerry Batchelor 9.17.09
Driver Signature Date

Inspected and Accepted By: George Taylor 9/17/09

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P+F ENVIRON RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE # PF 105

VEHICLE ID #

DESTINATION/BLDG. # A12

GBL/DOC # P.O. #

COMMODITY Soil

SHIPPER

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

09-17-09 10:56 AM

G 55180 lb
T 20460 lb
N 34720 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07598

LOAD # 29

GENERATOR

MCB Camp Lejeune
Carthorse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION: Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION: USTs Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 86240

Truck #: PF 103

Tare Weight (lbs.): 29420

Truck Tag #/State: ZB 16949

Net Weight (lbs.): 56820

Driver Name (Print): Tim Thorne

Net Weight (tons): 28.41

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9-17-09
Driver Signature Date

Tim Thorne 9-17-09
Driver Signature Date

Inspected and Accepted By: George L. Tafa for 70590717

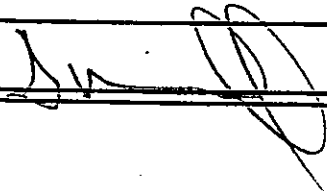
NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	POF ENVIROM	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	PF 103	
VEHICLE ID #		
DESTINATION/BLDG. #	SOIL A12	
GBL/DOC # P.O. #		
COMMODITY	S	
SHIPPER		
WEIGHMASTER		

MCBCL 4600/2 (REV 2-95)

09-17-09 10:19 AM

G 86240 lb
T 29420 lb
N 56820 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07597

LOAD # 30

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

UST Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 78400

Truck #: PF 106

Tare Weight (lbs.): 21360

Truck Tag #/State: ZB 37964

Net Weight (lbs.): 57040

Driver Name (Print): Bryant Bridger

Net Weight (tons): 28.52

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Bridger 9.17.09
Driver Signature Date

Bryant Bridger 9.17.09
Driver Signature Date

Inspected and Accepted By: Gary L. Taylor 2009.09.17

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P+F Environ RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE # 106

VEHICLE ID #

DESTINATION/BLDG. # EMD-A12

GBL/DOC # P.O. #

COMMODITY SOIL

SHIPPER

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

09-17-09 10:50 AM

G 78400 1b

T 21360 1b

N 57040 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07603

LOAD # 31

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1291

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION: Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION: USTs, Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 81780

Truck #: PF 106

Tare Weight (lbs.): 21740

Truck Tag #/State: ZB 37964

Net Weight (lbs.): 60040

Driver Name (Print): Bryant Bridger

Net Weight (tons): 30.02

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Bridger 9.18.09
Driver Signature Date

Bryant Bridger 9.18.09
Driver Signature Date

Inspected and Accepted By: Cecelia Taylor 20090918

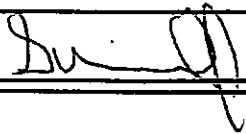
NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P + F Environ	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	106	
VEHICLE ID #		
DESTINATION/BLDG. #	A 12	
GBL/DOC # P.O. #		
COMMODITY	Soil	
SHIPPER		
WEIGHMASTER		

MCBCL 4600/2 (REV 2-95)

09-18-09 08:39 AM

G 81780 1b
T 21740 1b
N 60040 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07601

LOAD # 32

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

USTs, Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 77080

Truck #: PF 102

Tare Weight (lbs.): 29080

Truck Tag #/State: 2B 25821

Net Weight (lbs.): 48000

Driver Name (Print): Franklin Rhodes

Net Weight (tons): 24

I hereby certify that the material stated herein was received at the waste origination site listed.

I hereby certify that the material stated herein was delivered without incident to the destination listed.

Franklin Rhodes 9-18-09
Driver Signature Date

Franklin Rhodes 9-18-09
Driver Signature Date

Inspected and Accepted By: George L. Taylor 9-18-09

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P + F ENVIRON RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE # 102

VEHICLE ID #

DESTINATION/BLDG. # A-12

GBL/DOC # P.O. #

COMMODITY SOIL

SHIPPER

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

09-18-09 09:35 AM

G 77080 lb
T 29080 lb
N 48000 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07602

LOAD # 33

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-129

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

UST Site A12

Transporter: P & F Environmental

Truck #: PF 103

Truck Tag #/State: ZB 16949

Driver Name (Print): Tim Thorne

Gross Weight (lbs.): 82860

Tare Weight (lbs.): 29680

Net Weight (lbs.): 53180

Net Weight (tons): 26.59

I hereby certify that the material stated herein
was received at the waste origination site listed.

Tim Thorne 9-18-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9-18-09
Driver Signature Date

Inspected and Accepted By:

George L. Taylor 20090518

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P+F Environ	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	103	
VEHICLE ID #		
DESTINATION/BLDG. #	A-12	
GBL/DOC # P.O. #		
COMMODITY	Soil	
SHIPPER		
WEIGHMASTER	Jim [Signature]	

MCBCL 4600/2 (REV 2-95)

09-18-09 08:27 AM

G 82860 lb
T 29680 lb
N 53180 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07605

LOAD # 34

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION: Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGATION: USTs, Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 80860

Truck #: PF 103

Tare Weight (lbs.): 29340

Truck Tag #/State: 2B 16949

Net Weight (lbs.): 51520

Driver Name (Print): Tim Thorne

Net Weight (tons): 25.76

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9-21-09
Driver Signature Date

Tim Thorne 9-21-09
Driver Signature Date

Inspected and Accepted By:

George L. Taper 9/21/09
Jared Bridger

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

P&F Environmental	
CUSTOMER	RANK
SSN	AGENCY
CARRIER/VEHICLE TYPE	
VEHICLE #	
VEHICLE ID # 103	
DESTINATION/BLDG. # A12	
GBL/DOC # P.O. #	
COMMODITY	Soil
SHIPPER	
WEIGHMASTER Kaye Norton	
MCBCL 4600/2 (REV 2-95)	

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

09-21-09 10:37 AM

G 80860 lb
T 29340 lb
N 51520 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07606

LOAD # 35

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION: Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION: USTs, Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 77640

Truck #: P F 102

Tare Weight (lbs.): 29440

Truck Tag #/State: 2B 25821

Net Weight (lbs.): 45200

Driver Name (Print): Franklin Rhodes

Net Weight (tons): 22.60

I hereby certify that the material stated herein
was received at the waste origination site listed.

Franklin Rhodes 9-21-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes 9-21-09
Driver Signature Date

Inspected and Accepted By:

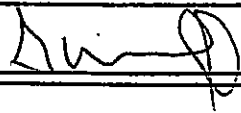
George L. Taylor

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

CUSTOMER	P + F Enyiron	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	102	
VEHICLE ID #		
DESTINATION/BLDG. #	EMD - A12	
GBL/DOC # P.O. #		
COMMODITY	Soil	
SHIPPER		
WEIGHMASTER		

MCBCL 4600/2 (REV 2-95)

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

09-21-09 10:40 AM

G 74640 1b
T 29440 1b
N 45200 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07605

LOAD # 36

GENERATOR

MCB Camp Lejeune
Courthouse Bldg, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

UST5 Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 80580

Truck #: PF 106

Tare Weight (lbs.): 21320

Truck Tag #/State: 2B 37964

Net Weight (lbs.): 59260

Driver Name (Print): Bryant Bridger

Net Weight (tons): 29.63

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Bridger 9.21.09
Driver Signature Date

Bryant Bridger 9.21.09
Driver Signature Date

Inspected and Accepted By: George Taylor 20090912

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P & F Environ RANK _____
SSN _____ AGENCY _____

09-21-09 10:46 AM

CARRIER/VEHICLE TYPE _____

G 80580 1b
T 21320 1b
N 59260 1b

VEHICLE # PF 106

VEHICLE ID # _____

DESTINATION/BLDG. # A 12

GBL/DOC # P.O. # _____

COMMODITY Soil

SHIPPER _____

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07608

LOAD # 37

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

USTS, A-12

Transporter: P & F Environmental

Gross Weight (lbs.): 53900

Truck #: PF 105

Tare Weight (lbs.): 20880

Truck Tag #/State: ZB 35517

Net Weight (lbs.): 33020

Driver Name (Print): Jerry Batchelor

Net Weight (tons): 16.51

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Jerry Batchelor 9.22.09
Driver Signature Date

Jerry Batchelor 9.22.09
Driver Signature Date

Inspected and Accepted By:

Gregory L Taylor 20090922

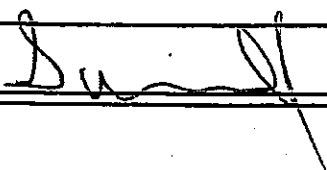
NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P + F ENVIRON	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	105	
VEHICLE ID #		
DESTINATION/BLDG. #	A12	
GBL/DOC # P.O. #		
COMMODITY	SOIL	
SHIPPER		
WEIGHMASTER		
MCBCL 4600/2 (REV 2-95)		

09-22-09 10:54 AM

G 53900 lb
T 20880 lb
N 33020 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07609

LOAD # 38

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION: Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION: USTS, Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 71480

Truck #: PF 106

Tare Weight (lbs.): 21060

Truck Tag #/State: 2B 37964

Net Weight (lbs.): 50420

Driver Name (Print): Bryant Pridgen

Net Weight (tons): 25.21

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Pridgen 9-22-09
Driver Signature Date

Bryant Pridgen 9-22-09
Driver Signature Date

Inspected and Accepted By: George L Taylor 9-22-09
Bryant Pridgen

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P+F Environ RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE #

VEHICLE ID #

DESTINATION/BLDG. #

GBL/DOC # P.O. #

COMMODITY

SHIPPER

WEIGHMASTER

MCBCL 4600/2 (REV 2-95)

09-22-09 10:46 AM

G 71480 1b
T 21060 1b
N 50420 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07610

LOAD # 39

GENERATOR

MCB Camp Lejeune
Courthouse Bldg, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

USTs, Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 75880

Truck #: PF 102

Tare Weight (lbs.): 29160

Truck Tag #/State: ZB 25821

Net Weight (lbs.): 46720

Driver Name (Print): Franklin Rhoder

Net Weight (tons): 23.36

I hereby certify that the material stated herein
was received at the waste origination site listed.

Franklin Rhoder 9-22-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhoder 9-22-09
Driver Signature Date

Inspected and Accepted By: George L. Taylor

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

CUSTOMER <i>T</i>	RANK
SSN	AGENCY
CARRIER/VEHICLE TYPE	
VEHICLE #	<i>102</i>
VEHICLE ID #	
DESTINATION/BLDG. #	
GBL/DOC # P.O. #	
COMMODITY	
SHIPPER	
WEIGHMASTER <i>[Signature]</i>	

MCBCL 4600/2 (REV 2-95)

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

09-22-09 10:42 AM

G 75880 lb
T 29160 lb
N 46720 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07611

LOAD # 40

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

USTs, Camp Lejeune, Site A12

Transporter: P & F Environmental

Truck #: PF 103

Truck Tag #/State: 2B 16949

Driver Name (Print): Tim Thorne

Gross Weight (lbs.): 82440

Tare Weight (lbs.): 29080

Net Weight (lbs.): 53360

Net Weight (tons): 26.68

I hereby certify that the material stated herein
was received at the waste origination site listed.

Tim Thorne 9-22-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9-22-09
Driver Signature Date

Inspected and Accepted By:

George L. Taylor 20090922
Jared Bridger

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER P. F. Envir RANK _____
SSN _____ AGENCY _____

CARRIER/VEHICLE TYPE _____

VEHICLE # 103

VEHICLE ID # _____

DESTINATION/BLDG. # A12

GBL/DOC # P.O. # _____

COMMODITY Soil

SHIPPER _____

WEIGHMASTER [Signature]

MCBCL 4600/2 (REV 2-95)

09-22-09 10:37 AM

G 82440 lb
T 29080 lb
N 53360 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07614

LOAD # 41

GENERATOR

MCA Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

USTs Site A12

Transporter: P & F Environmental

Truck #: PF 105

Truck Tag #/State: 2B 35517

Driver Name (Print): Jerry Batchelor

Gross Weight (lbs.): 57300

Tare Weight (lbs.): 20320

Net Weight (lbs.): 36980

Net Weight (tons): 18.49

I hereby certify that the material stated herein
was received at the waste origination site listed.

Jerry Batchelor 9-24-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Jerry Batchelor 9-24-09
Driver Signature Date

Inspected and Accepted By: Jan A. Myer 9-24-2009
Jan A. Myer

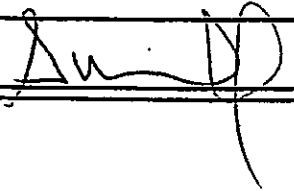
NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P + F ERVIRON	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	PF 105	
VEHICLE ID #		
DESTINATION/BLDG. #	A 12	
GBL/DOC # P.O. #		
COMMODITY	SOIL	
SHIPPER		
WEIGHMASTER		

MCBCL 4600/2 (REV 2-95)

09-24-09 11:04 AM

G 57300 lb
T 20320 lb
N 36980 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07616

LOAD # 42

GENERATOR

MCB Camp Lejeune
Courthouse Bay Site A12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106

Speights Chapel Road

Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

USTs Site A12

Transporter: P & F Environmental

Truck #: DF 102

Truck Tag #/State: 2B 25821

Driver Name (Print): Franklin Rhodes

Gross Weight (lbs.): 82480

Tare Weight (lbs.): 29380

Net Weight (lbs.): 53100

Net Weight (tons): 26.55

I hereby certify that the material stated herein
was received at the waste origination site listed.

Franklin Rhodes 9-24-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhodes 9-24-09
Driver Signature Date

Inspected and Accepted By:

Jon A. Myers II

9-24-2009

Janet Bridger

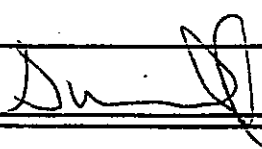
NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	PoF Environ.	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	AF 102	
VEHICLE ID #		
DESTINATION/BLDG. #	A 12	
GBL/DOC # P.O. #		
COMMODITY	Soil	
SHIPPER		
WEIGHMASTER		
MCBCL 4600/2 (REV 2-95)		

09-24-09 10:32 AM

G 82480 1b
T 29380 1b
N 53100 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804

Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07615

LOAD # 43

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

WASTE DESCRIPTION:

WASTE ORIGINATION:

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

Non-Hazardous Petroleum Contaminated Soil

USTs Site A12

Transporter: P & F Environmental

Truck #: PF 103

Truck Tag #/State: ZB 16949

Driver Name (Print): Tim Thorne

Gross Weight (lbs.): 76720

Tare Weight (lbs.): 29240

Net Weight (lbs.): 47080

Net Weight (tons): 2354

I hereby certify that the material stated herein
was received at the waste origination site listed.

Tim Thorne 9-24-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9-24-09
Driver Signature Date

Inspected and Accepted By:

Jon A. Hayes III

9-24-2009

James Ridge

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

CUSTOMER

P+F ENVIRON

RANK

SSN

AGENCY

CARRIER/VEHICLE TYPE

VEHICLE #

PF 103

VEHICLE ID #

DESTINATION/BLDG. #

A12

GBL/DOC # P.O. #

COMMODITY

Soil

SHIPPER

WEIGHMASTER

[Signature]

MCBCL 4600/2 (REV 2-95)

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

09-24-09 10:16 AM

G 76720 1b
T 29640 1b
N 47080 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07617

LOAD # 44

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION:

Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION:

USTS Site A12

Transporter: P & F Environmental

Truck #: PF 106

Truck Tag #/State: ZB 37964

Driver Name (Print): Bryant Bridger

Gross Weight (lbs.): 83180

Tare Weight (lbs.): 21320

Net Weight (lbs.): 61860

Net Weight (tons): 30.93

I hereby certify that the material stated herein
was received at the waste origination site listed.

Bryant Bridger 9-24-09
Driver Signature Date

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Bryant Bridger 9-24-09
Driver Signature Date

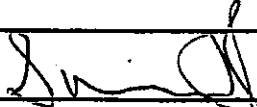
Inspected and Accepted By: Jon A. Kizys III
9-24-2009

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

CUSTOMER	P+F ENVIRON	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	PF 196	
VEHICLE ID #		
DESTINATION/BLDG. #	A12	
GBL/DOC # P.O. #		
COMMODITY	SOIL	
SHIPPER		
WEIGHMASTER		
MCBCL 4600/2 (REV 2-95)		

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

09-24-09 11:07 AM

G 83180 lb
T 21320 lb
N 61860 lb

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL# 07619

LOAD # 45

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION: Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION: USTs Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 87980

Truck #: PF 103

Tare Weight (lbs.): 29320

Truck Tag #/State: ZB 16949

Net Weight (lbs.): 58640

Driver Name (Print): Tim Thorne

Net Weight (tons): 29.32

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Tim Thorne 9.25.09
Driver Signature Date

Tim Thorne 9-25-09
Driver Signature Date

Inspected and Accepted By: Jon A. Meyers, II

9/25/2009 James Priddy

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

CUSTOMER	P + F	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	103	
VEHICLE ID #		
DESTINATION/BLDG. #	A-12	
GBL/DOC # P.O. #		
COMMODITY	Soil	
SHIPPER		
WEIGHMASTER		

MCBCL 4600/2 (REV 2-95)

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

09-25-09 09:10 AM

G 87960 1b
T 00 1b
N 87980 1b

09-25-09 09:11 AM

G 87960 1b
T 29320 1b
N 58640 1b

P & F Environmental

4352 N. Old Carriage Road • Rocky Mount, NC 27804
Phone: (252) 443-4083 • Fax: (252) 443-4104

NON-HAZARDOUS WASTE MANIFEST

APPROVAL # 07618

LOAD # 46

GENERATOR

MCB Camp Lejeune
Courthouse Bay, Site A12

PHONE: 251-454-1219

DESTINATION

Land Application Facility Permit No. SR0500106
Speights Chapel Road
Whitakers, NC 27891

PHONE: (252) 443-4083

WASTE DESCRIPTION: Non-Hazardous Petroleum Contaminated Soil

WASTE ORIGINATION: USTs Site A12

Transporter: P & F Environmental

Gross Weight (lbs.): 82560

Truck #: PF 102

Tare Weight (lbs.): 29060

Truck Tag #/State: ZB 25821

Net Weight (lbs.): 53500

Driver Name (Print): Franklin Rhoder

Net Weight (tons): 26.75

I hereby certify that the material stated herein
was received at the waste origination site listed.

I hereby certify that the material stated herein was
delivered without incident to the destination listed.

Franklin Rhoder 9.25.09
Driver Signature Date

Franklin Rhoder 9.25.09
Driver Signature Date

Inspected and Accepted By: Jon A. Pryor, II

9/25/2009 Janet Bridger

NOTICE TO TRANSPORTER

TRUCKS WILL NOT BE PERMITTED TO ENTER
THE FACILITY WITHOUT THIS ENTRANCE TICKET

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

CUSTOMER	P.F.	RANK
SSN		AGENCY
CARRIER/VEHICLE TYPE		
VEHICLE #	102	
VEHICLE ID #		
DESTINATION/BLDG. #	A-12	
GBL/DOC # P.O. #		
COMMODITY	SOIL	
SHIPPER		
WEIGHMASTER	<i>[Signature]</i>	

MCBCL 4600/2 (REV 2-95)

09-25-09 09:14 AM

G 82560 lb
T 29060 lb
N 53500 lb

APPENDIX C

REMOVAL ACTION FIELD NOTES AND SAMPLE LOGS



DAILY ACTIVITIES LOG

CATLIN PROJECT:	FORMER CERCLA SITE A-12	DAY: THURSDAY	DATE: 3/11/08
CATLIN PROJECT #:	207-048 205-077	WEATHER: 80's-90's, SUNNY, HOT	
CLIENT'S NAME:	DOD	REPORT BY: DIMITRI TAUBERT	
SUBCONTRACTORS:		CATLIN CREW:	

[illegible]

EQUIPMENT	USED	EQUIPMENT	USED	EQUIPMENT	USED	OTHER EQUIP. USED
D.O. Meter		YSI		GPS Unit	1	
Generator		Redi-Flo Pump		Bailers		
Slug Test Equipment		Geopump		Sampling Supplies	1	
pH/Temp. Meter		Conductivity Pen		Tubing		
PID/FID Meter	1	Water Level Indicator		PPE Level C or D	1	

Approval of data for final report can only be made by CATLIN Engineers and Scientists and cannot be conveyed on this form.
This is a field copy and is subject to review and revision.



CATLIN PROJECT:	FORMER CERCLA SITE A-12	LOGGED BY:	DT
CATLIN PROJECT # :	~~207-048~~ 245077	DATE:	31 JUL 08
CLIENT'S NAME:	DOD	DAY:	THURSDAY
		WEATHER:	

[illegible]



DAILY ACTIVITIES LOG

CATLIN PROJECT: Former CERCLA Site A-12		DAY: <u>Tuesday</u>	DATE: <u>9/9</u>
CATLIN PROJECT #: 208-037		WEATHER:	
CLIENT'S NAME: DOD		REPORT BY: <u>Ben Azhba</u>	
SUBCONTRACTORS: <u>P&F</u>		CATLIN CREW:	

TIME		ACTIVITY	
START	STOP	VEHICLE #	START ODOMETER
6:35	7:35	35	82644
			END ODOMETER: 82685
		Bryant & P&F personnel on-site	
		- Tailgate H&S meeting	
		Issues: Overhead power, underground utilities (marked BYPLS - conduit & SS)	
		Apparently new asphalt - old marks & DPT	
		Borings not obvious	
		- historic Hand Auger Borings obvious	
		Mark 5'x5' area around SE corner	
		Mark an excavation limits south of former	
		USTs (~13') & 10' wide along line (to be removed)	
~9:30		Additional lines uncovered - call Mike	
		- wait for Johanna	
~10:00		Johanna & Bruce Reed on-site	
		↳ look for tank & remove if found but only remove line & soil as planned	
		- Not sure where 5'x5' excavation in asphalt should be - Call to MEM & Steve Tyler	
		- found a few possible abandoned DPT borings but they are 5 to 15 away from recently identified line	
		- Found white "X" - that may mark former line location where previous assessment soil samples were collected → also see some white dots	
		- Excavate near white "X" → HIT water line (unmarked)	
		VEHICLE #	START ODOMETER
			END ODOMETER

EQUIPMENT	USED	EQUIPMENT	USED	EQUIPMENT	USED	OTHER EQUIP. USED
D.O. Meter		YSI		GPS Unit		
Generator		Redi-Flo Pump		Bailers		
Slug Test Equipment		Geopump		Sampling Supplies		
pH/Temp. Meter		Conductivity Pen		Tubing		
PID/FID Meter		Water Level Indicator		PPE Level C or D		

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This is a field copy and is subject to review and revision.

acc 4/10 1750

ITN
RE/END
EQB
6/26/12
mcb
PSC/SC
2004
26542



DAILY ACTIVITIES LOG

CATLIN PROJECT: Former CERCLA Site A-12		DAY: <i>Wednesday</i> DATE: <i>9.10.08</i>
CATLIN PROJECT #: 208-037		WEATHER:
CLIENT'S NAME: DOD		REPORT BY: <i>Ben Ashba</i>
SUBCONTRACTORS:		CATLIN CREW:

TIME		ACTIVITY	
START	STOP	VEHICLE #:	START ODOMETER: END ODOMETER:
635		35	82750 82789
		Photo site features & review notes & historical/field work notes	
	27	P&F on site - H&SEI tried to ID Unknown site wells - cut asphalt around former SB(DPT) 09	
		Excavate @ SE & SW corner of former UST Basin 5'X5'	
		SW EX TO $\approx$ 4'	
		SE EX TO $\approx$ 5'	
		Samples @ $\approx$ 3' BLS	
830		SE-N (3')	SW-N (3') 900
835		SE-E (3')	SW-E (3') 905
840		SE-S (3')	SW-S (3') 910
845		SE-W (3')	SE-W (3') 915
$\approx$ 930		Johanna Stopped BY	
		MEM may want to	
		→ Brynn Ashton - "Big Boss" - 910-451-9385	
		Bob Lowder - IR Head	
		Bruce Markwick - UST Manager - 451-9660	
		"	
		Excavate @ previous SB/DPT-09 Boring $\approx$ 4' BLS	
1030		~~9-N (3')~~	N&S Sidewall samples not submitted (only 2 in workplan)
1035		9-E (3')	
1040		~~9-S (3')~~	
1045		9-W (3')	
		Begin GPSing site	
1130		MEM on site	
		VEHICLE #:	START ODOMETER: END ODOMETER:

EQUIPMENT	USED	EQUIPMENT	USED	EQUIPMENT	USED	OTHER EQUIP. USED
D.O. Meter		YSI		GPS Unit		
Generator		Redi-Flo Pump		Bailers		
Slug Test Equipment		Geopump		Sampling Supplies		
pH/Temp. Meter		Conductivity Pen		Tubing		
PID/FID Meter		Water Level Indicator		PPE Level C or D		

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DAILY ACTIVITIES LOG

CATLIN PROJECT:	Former CERCLA Site A-12	DAY: <i>Wednesday</i>	DATE: <i>9.10.08</i>
CATLIN PROJECT #:	208-037	WEATHER:	
CLIENT'S NAME:	DOD	REPORT BY:	<i>Ben Ashken</i>
SUBCONTRACTORS:	<i>RAF & PLS</i>	CATLIN CREW:	

TIME		ACTIVITY	
START	STOP	VEHICLE #:	START ODOMETER: END ODOMETER:
	1100		Go over site w/ MEM Call Phil (PLS) & see if he can "sound" lines & identify - yep. will send over his guy - 1D lines w/ paint & GPS locations - photograph
	1330		Lightning - Excavating @ ~ SB 07 & 07 (asphalt) Collect excavation confirmation Side wall Samples
	1350		Line Ex Camp
	1400		East @ EOP (3')
	1405		West @ EOP (3')
	1410		#2 East (3')
	1415		West @ 6 (3')
	1430		NW @ 3 (3')
	1435		EN @ 3 (3')

EQUIPMENT	USED	EQUIPMENT	USED	EQUIPMENT	USED	OTHER EQUIP. USED
D.O. Meter		YSI		GPS Unit		
Generator		Redi-Flo Pump		Bailers		
Slug Test Equipment		Geopump		Sampling Supplies		
pH/Temp. Meter		Conductivity Pen		Tubing		
PID/FID Meter		Water Level Indicator		PPE Level C or D		

Approval of data for final report can only be made by CATLIN Engineers and Scientists and cannot be conveyed on this form.
This is a field copy and is subject to review and revision.

- Arrived at office trailer at 7:00, left at 8:00 to meet Phil with PLS locating service to locate all utilities and lines.
- Arrived on site at 8:15, P & F Environmental was already on site with all equipment and trucks. I called Erica to let her know that P & F are here at the site and ready to go. She told me to wait for Phil and to go ahead and get P & F personnel to read the work plan. She also said that we would not be using metal traffic plates, but use temporary backfill instead.
- Gave the draft work plan to P & F personnel to read and sign, Bryant left to get trucks, I called Phil to see if he was still coming to the site today, I talked with Mike Zaroske, maintenance manager, US Navy, about moving the storage boxes. He said the earliest will be tomorrow morning.
- 9:30, Phil arrived on site to locate utility lines and fuel pipes. I went into the MARSOC building to get entry into their fenced area. Used Catlin's site map to get a general idea on fuel line locations for marking purposes. Phil left the site around 11:00. I talked to Erica about beginning today or waiting until tomorrow. We decided to uncover the fuel lines which Catlin marked within the grassy area.
- 11:30 to 12:00, P& F began mobilizing and excavating. Bryant told me that the base scales would be closed at 15:00. I said that would be fine because I needed to pick up booms and sample bottles in Wilmington. I called Rick Miles with Southeast Response to order booms. A total of 3 trucks were loaded, one dump truck size and two tractor trailers. Several fuel lines were sketched and on 2" PVC water line was uncovered. One fuel line from set E contained water, which dripped out.
- After trucks left Bobby with P & F continued to excavate to uncover the fuel lines. Soil was kept within the excavation. Bobby told me that the trucks were coming back today with backfill and were going to get loaded again. I called Erica, she told me that the sample bottles from SGS would be delivered to the office trailer. I called Bryant and questioned the base scale closing time. He said that they would just keep the trucks full until tomorrow. I told him that the backfill would need to cover with 6 mm plastic and weighted with sandbags. He said that they would just keep the backfill in the trucks.
- I went to pick Ben up from the office trailer, but he had to go back for work. Got back on site and helped Bobby put fencing up around the excavation.
- 5:30, I went back to pick Ben up from the office trailer. We got to the site at 6:00 to find P & F personnel just leaving. We left the site.

- Arrived at office trailer at 7:00 to drop Ben off and pick up sample bottles.
- Arrived on site at 7:30, P & F Environmental was already on site and had taken the fencing down. I conducted the tailgate meeting.
- P & F started to unload backfill and fill their trucks, 3 in total, with excavated material. The Navy started moving the storage boxes at 8:30. Bryant asked me if we could get a vacuum truck to remove some puddles of standing water within the excavation. I called Ben to get the vac truck. I told Bryant that his guys need to wear a hard hat around the equipment and within the pit.
- Ben and John arrived on site at 8:45 and vacuumed approximately 300 gallons of water.
- 3 trucks were direct loaded with excavation material, more fuel lines were exposed. The trucks left at 9:30. Ben and John left at 10:00. I called Erica to let her know about the newly uncovered lines. She told me to call Phil if need be to get a more accurate location on the lines. I called Phil and he was at New River A.S. and said he would get to us next.
- I made a sketch of the excavation and headed to the office trailer at 11:00 to email sketch and permit. Bobby from P & F said he would start cutting the asphalt while I was gone.
- Arrived back on site at 12:30, Bobby had already cut and ripped up asphalt along pipeline set C halfway to the bulkhead.
- The trucks arrived at 1:30 with no backfill. Asked Bryant if he planned on storing the piping in one of the trucks. He said that he would take it last.
- Started excavating along pipeline set C. It was discovered that some residual product was still within the pipe. Bent the pipe upwards to stop product from dripping out. Put absorbent pads down and within the pipe.
- Phil arrived onsite at 2:00 and set up on the exposed lines to locate. He left at 2:30.
- 1 truck left with backfill at 3:00. I called Linda McWirtter with SGS to ask if I could just collect disposal samples in jars and have the lab mix for GRO. She said she would get back with me. I collected sample, A12-T1-S-C1 at 3:00, and grabbed the composite samples for disposal along the western side of the excavation.
- Bobby ruptured the PVC water line at 3:30 when he was removing some dirt along the southwestern side of the pit. The line Set G was within the wall and not readily exposed. I immediately called Emergency Maintenance. He said that someone would be out there soon.
- The Maintenance man arrived at 4:10 to shut off water valve. I called Ben to bring the vac truck down so that we could expose the water line and P & F could fix it.
- 4:30 to 5:15 was spent vacuuming out the pit and mending the water line. I asked Ben if he could come back after he disposed of the water. He believed that the facility was closed but he would check. P& F put up the fence around the excavation. I asked Bryant if he was going to cover his backfill. He said “not now, we have to deal with the waterline.”

- Left site at 5:30.

- Arrived on site at 7:15, P & F Environmental (only Bryant and Bobby) was already on site and had taken the fencing down. We discussed our plan of attack. We had our tailgate meeting. I reminded everyone that if they are in the pit or around the site, they need to have a hard hat on.
- John arrived on site at 7:25 to vacuum out the pit. He came back for a total of 4 loads (800 gallons each). P & F started cutting more asphalt in the direction of the fuel lines.
- Bryant, on loaded truck (no.8), and I left the site at 8:00. I went to the office trailer to send reports and photos.
- I arrived back on site at 10:00 and put the booms up near the bulkhead. I signed us in at MARSOC. I decided that clearing the pit and sampling it would be the best approach for the weekend. Erica ok'd that idea.
- P&F started to cut and remove pipes. Got the bottom of the pit graded and exposed.
- I started sampling at 12:30. The FID meter was out of Hydrogen and was not used. I collected a total of 8 confirmatory samples and 1 disposal (composite) sample.
- We started to excavate halfway along line sets G and A. Bryant cut saw stopped working and those lines were left in place.
- 4 of Bryants trucks left at 3:45. I place the hay bales down along the bulkhead. I signed us out at MARSOC. I left the site at 3:50 and went to the office trailer. Bobby from P & F was still on site cleaning up and fencing off the excavationl
- I arrived at SGS lab at 5:05 to drop off samples.

- Arrived on site at 6:45, P & F were already onsite loading piping into one of the dump trucks. Backfill was covered properly. Minor water accumulation was in the pit with some visible sheen. I called Ben to ask if the vac truck would be available to collect this water.
- I left the site for the office trailer at 7:15, to send reports, get hydrogen for the FID, and get ice.
- Arrived back at the site at 8:05, I conducted the tailgate meeting. Told Byrant that we would start going down the line sets A and G. They loaded another dump truck with the asphalt. No manifests were filled out for the piping or the asphalt.
- I signed in at MARSOC at 8:25.
- SGS called me at 8:50 about a discrepancy in my numbering on a sample bottle.
- Started excavating the trenches in line set A and G.
- Dave, Nick, and Ben arrived on site at 11:15. I explained the background and our progress of the site to Dave and Nick. I told them that additional piping had been discovered from our excavation. I explained that line sets were near a light pole and this was a safety issue. Dave said that in places such as this some sections of piping could remain in the ground. Dave said that the progress at the site looked good. They left the site at 11:45.
- I started to sample along line sets A and G. P & F loaded at total of 3 trucks of excavated material which left the site at 12:00. Byrant said they would not be back. Bobby would remain on site to backfill the trenches and secure the site.
- Ben arrived with the vac truck at 1:30, we vacuumed out ~500 gallons of water and sheen.
- I signed out at MARSOC at 2:30, I went to pick Ben up at the office trailer, filled out the Chain of Custody for the samples, left at 3:30.
- Arrived at SGS at 4:30 and dropped Ben off at Catlin.

- Dropped Ben at the office trailer at 7:00, I arrived on site at 7:30, P & F were already on site and excavated half way down line set C towards the bulkhead. I conducted the tailgate meeting. I collected a sample along line set C, then the trench was backfilled for traffic purposes.
- 8:05, I called Linda with SGS to make sure that she calls me about the samples. She said that the results of the GRO were BDL on the partial set of results she sent on Friday. She said that anything that arrives after 3:00pm wouldn't be ran to the next morning.
- P&F started removing asphalt from line sets A and G. I signed in at MARSOC at 8:40. Bryant asked if we could vac out the pit, so it could be backfilled. He said he wouldn't backfill if there is water in the pit.
- P&F brought 3 loads of backfill, then line set G was excavated to the fence. I collected the samples from the trench. As I was collected the samples, P&F started excavating along line set A. Bobby hit the underground power to the light pole @11:20. The trench was excavated, but no lines were discovered. The lines apparently veer out of the line that was cut by the saw.
- 3 trucks left (Loads 16, 17, 18). I had Bobby backfill the trench on line set G and A. Bobby left to pick Bryant at 12:05. They came back at 12:30. Bryant needed me to rewrite manifest 17 because he wrote something wrong on it.
- I left the site to pick up some water at 12:45 and came back at 1:00. I went into the MARSOC building to sign out and get a maintenance number for the power to the light pole. I got the Emergency Maintenance number and called it. The man said that I need to have an AROIC officer call him to start the process of repair. I called Erica, she said to call Thomas Burton. I called Thomas, but left message. Ben arrived on site. I got Nick Shultz's number from Ben. Nick said he would talk to Thomas.
- Ben and I left the site at 3:15 to drop samples off at lab. I called Nick back to make sure that if he didn't talk to Thomas that he would need to call Emergency Maintenance.
- Randy Acosta called me ~4:00. He said that it's the subcontractor's job to get the power fixed. He said that he would send out an email letting everyone know this.
- Arrived at the lab at 4:15. I called Erica and told her about Randy's call. She asked me to call Bob Sellers to see if he could fix the power. I called Bob and he said if it was ok with Erica and Ben, he would be there first thing in the morning.

- Ben dropped me off at the site at 6:50. P&F were already onsite and had dug out the rest of line set C. I said remove the remaining pipe, but to leave the dirt in place near the bulkhead. Bob Sellers was already on site. I showed him the broken light pole power line. Bob and I walked to the MARSOC building, I signed in and Bob walked with MARSOC personnel to find the breaker box. One truck was filled (Load 19). I took a sample from line set C.
- Started breaking the asphalt within the fenced area of line sets A and G.
- Randy and Kerry arrived at the site at 8:00. I showed Randy the broken power line. He said to make sure power was off to pole. He noticed that the access plate was already removed from the light pole. I told him that it was not there when we started the job. He said to make sure that warning tape was replaced over the power line in the hole. I gave Randy and Kerry a general overview of the site. They left the site at 8:40.
- Started to work on line set E. Bryant came back to site and said Mel wanted me to call him. I called Mel and left him a message. Then Ben called me and told me to call Mel. Mel and Dave called at 9:10 and were asking about the broken power line. They wanted daily progress reports. Mel said we need to have a conference call with Erica, Dave, Bryant, and myself at 1:00.
- I called EMD to request a vac truck. P&F started uncovering the storm drain and water line within line set E with shovels. They continued to excavate the line set. Loads 20,21,22 left at 11:00.
- EMD vac truck arrived at 10:30. Vacuumed ~1,200-gallons of water from the pit. EMD vac truck left at 11:20.
- I took a sample from line set E. Bobby from P&F backfilled the trenches from line set E and C.
- The dirt from the sample A12-T1-S-C2 (14.7 mg/kg DRO) was overexcavated and a second sample A12-T1-S-C2-2 was collected from beneath.
- Telecon with Mel, Dave, Erica, Bryant, and myself at 1:00. Mel started asking about the broken water line from 09/09/09. He wanted pictures of the line. He wanted everyone to make sure that he or Dave gets called immediately when accidents happen on site. Mel and Dave asked about the power line. Mel said he wanted repaired by the end of the day. Dave said to make sure that no one would be injured by the light source being "out". I told them that Bob was digging to find the conduit and should be able to fix the line provided that nothing hindered him. Mel wanted daily reports and photos of the site.
- I located the sample locations with the GPS.
- I asked Bob if he needed anything and I left the site at 2:45 to get him something to drink. I arrived back at the site at 3:00 and Ben had arrived on site to pick me up.
- Bob fixed the power to the light at 3:45 and then left the site. I signed us out at MARSOC.
- I called Bryant and asked if he was coming back and he said he was. I told him I needed to get the samples to the lab. Bobby from P&F started securing the site.
- Ben and I left the site at 4:00 and arrived at the lab at 5:00.

- Ben dropped me off at the site at 7:00. John came by to pick up the FID meter. Bobby from P&F was here. The end of the lines A and C, and first part of line E had already been backfilled. Bobby was backfilling the southwest portion of the pit. I conducted the trailer meeting with Bobby.
- Bobby and I started uncovering line sets B and D. The line sets veered off there projection.
- Bryant and the trucks arrived at 8:00 with 3 loads of backfill. Bobby started cutting the new projections for line sets B and D. I tried to GPS in the line sets.
- I called EMD at 9:20 to see if the vac truck could come back out to get the remaining water.
- I called to Toby at Rhea to ask the procedure to GPS in lines. (at 9:50)
- I called Erica to ask if we need to have the water line inspected. She said no, but to make sure Bryant and I are comfortable with it. I asked her if P&F need to pick up caps for some of the fuel lines. (@10:00)
- 3 trucks of backfill arrived around 10:30. Bobby started excavating down line D. I collected samples. Bobby excavated part of set B and the lines appeared to veer in a more southeasterly projection towards the bulkhead (towards line set D at the bulkhead). This projection of line set B crossed through several monitoring wells.
- Bob Sellers arrived on site at 11:15 to put warning tape over the repaired power line within the hole. I signed in at MARSOC at 11:20.
- Bobby finished line set D to the bulkhead. The lines appeared to have been cut when the stormwater drain was emplaced. The remaining lines were pulled from underneath the sidewalk on the bulkhead. Approximately 5 ft of one line remains under the sidewalk.
- The trucks left at 1:00 with excavated material. I advised Bobby to cut two patches that were clear of the monitoring wells which will give us access to line set B. A patch was cut an excavated near the bulkhead just west of line set D and the stormdrain.
- Bobby started cleanup and secure the site. I signed out at MARSOC at 3:50. Left site at 4:00. Bryant was coming back to site at 5:00.
- Arrived at SGS at 5:00.

- Arrived on site at 6:50. P&F already onsite with 3 loads of backfill. They were working on excavating the cut patches of line set B (Found the fuel lines). Pulled the pipe out of each pit. Bobby excavated out more material, and I collected my samples from each pit. I called George at EMD to request a vac truck.
- Tim from P&F started backfilling each pit on line set B. Bobby started excavating on the new cut of line set A (Did not discover any lines). Cut patches perpendicular to the trench to locate the lines due to the amount of monitoring wells in the area. (Found the fuel lines of set A).
- EMD vac truck arrived at 9:15 and vacuumed out approximately 100 gallons of water from the main pit. Vac left at 9:30.
- P&F trucks left at 9:45 with four loads (Loads 27, 28, 28, 29), one with asphalt. Bobby started backfilling the main pit.
- I went to MARSOC to get the gate opened. Bobby started excavating and pulling pipes in line set A. I took my samples.
- (12:00 – 3:00) Bobby went within the fenced area of MARSOC to excavated line sets A and G. Discovered buried wood debris in this area. Uncovered the power line with a shovel. Located both set of lines. Cut and pulled lines from under the fence and power line. Bobby and I opened the dispenser box. I discovered that the only lines coming into the dispenser were the new set from the AGSTs within the MARSOC compound. The lines of A and G were pulled which led to the dispenser. Bobby excavated out the patches and I took samples.
- Trucks arrived back at the site at 3:00 with backfill. Line set A was backfill outside and inside the fenced area. Line set G was backfill in the fenced area.
- I talked with P&F about tomorrow's plan of attack. I left to deliver the samples at 4:00.
- Arrived at SGS at 5:00.

- Arrived on site at 6:30. P&F had just arrived as well. Bryant told me that the weather was calling for rain today and the base scales and backfill pit close at 12:00 today. He suggested that we wait until Monday to excavate line set E. He had 3 trucks already loaded with backfill from yesterday and they would not be back in time to get excavated material from line set E to the scales today.
- The 3 trucks (Loads 31, 32, 33 (One with asphalt)) left the site at 7:00.
- Bobby cut the remaining asphalt on line set E to the bulkhead.
- I called Erica at 8:30 to tell her the schedule (May need Monday and Tuesday of next week to finish the site). She said ok. She had questions about the site (How much line would be left in the ground? Would the pit be open through the weekend?) I said the majority of all pipes will be removed. The areas inaccessible, the lines were pulled. Some may areas may have <five feet of pipe left especially near the concrete sidewalk on the bulkhead. I told her all areas would be backfilled before the weekend.
- Bobby pulled one line from line set H out from the pit sidewall towards building A1. Approximately 12 feet of pipe was removed.
- Bobby began cleaning the site. Erica called me at 11:30 and asked if I could take panoramic pictures of the site and to go up courthouse road and take pictures of another site.
- The trucks arrived back at the site at 12:30 with three loads of backfill. The pit was backfilled along with other areas to touchup.
- I left the site at 1:00 to go back to the office trailer and type the daily reports.
- Left office trailer at 3:00, arrived at SGS with Ben at 4:00 (I had no samples to deliver).

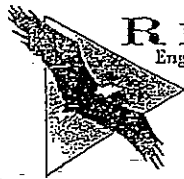
- Arrived on site at 7:00. I started putting barrier cones up along line set E. P&F arrived 7:30 and I conducted the tailgate meeting.
- P&F removed asphalt and crush and run on line set E.
- P&F started the excavation of the lines and soil. 3 trucks (Loads 34, 35, 36 (one had a load of asphalt) left at 10:00. One load of backfill was brought to the site.
- I collected my samples.
- Bobby compiled pipes and put in backfill. Started cleaning out other lines sets for crush and run.
- I left site to go to office trailer at 1:00 for some materials. Arrived back onsite at 1:30.
- Trucks came back at 2:30, 2 with backfill and one with crush and run.
- P&F refueled the equipment and then continued backfilling.
- P&F excavated more along line set E. I collected another sample.
- I left the site at 4:00.
- I arrived a SGS at 5:00.

- Arrived on site at 7:00 (slight rain). P&F were already on site. Bryant informed me that they broke an abandoned power line. He showed me the circuit box with no switches or fuses. He also said that we would need to call the EMD vac truck for a small area of line set E.
- I took Ben and Tim to the office trailer and called George at EMD at 7:35. George said he would try to work us in.
- I called Erica at 8:30 to inform her of the broken power line. She said she was going to go into a meeting and would call me back. I asked Bob if could come to the site and look at the circuit breaker.
- Vac truck arrived at 8:30 and left at 9:15. The truck filled to 3/4ths full. Bryant showed me another line that they had come across which crisscrossed the fuel lines.
- P&F excavated more material. 4 trucks left at 10:00 (Loads 37, 38, 39, 40).
- I went to office trailer at 10:30 to get contact's telephone #'s. Arrived back at the site at 11:30. Bobby was cleaning the site and getting lines ready for crush and run. (Raining)
- Erica called me after her meeting. She said she would call Mel and I would call Randy.
- I called Randy at 12:15 and told him the information regarding the abandoned power line. He said to leave it in place and don't worry with repairing it.
- Mel called me at 12:24 and I told him the information regarding the abandoned power line. He said remove what we can, but do not disturb the asphalt. I told him about the other line within line set E, which we will leave. He said that is fine, but document and show lines on an as-built.
- Raining from 12:40 to 3:00 very hard, some lighting.
- I talked to Erica at 3:00. She said she would drop by the site tomorrow.
- P&F arrived back on site 3:20. They began to secure the site.
- I left for the office trailer at 4:10. Picked Ben and Tim up and left at 4:30.

- Arrived at office trailer at 7:00, filled vehicle with gas. Arrived onsite at 7:40 (Heavy Rain). P&F were already on site.
- EMD arrived at the site at 8:00, began to vac out pit on line set E. Erica arrived at 8:15. I showed Erica around the site. She suggested I pick up silt fencing from the office trailer. She left the site at 8:45. EMD emptied the vac truck and came back to the site. The rain was heavy, so we discontinued the vac truck.
- I called off the day due to heavy day. I suggested to Bryant that he should move to excavator from near the bulkhead to the grassy area. P&F cleaned the site.
- Bryant had two asphalt contractors show at the site for repaving estimates.
- I left the site at 10:00 for the office trailer.
- Called EMD at 1:30 and asked if they could come back tomorrow morning.
- Arrived at the site at 3:00 with Ben (Stopped raining). Put silt fencing around the main pit area. I noticed that EMD had already come to the site and vacuumed out the line set E pit.
- I left the site at 4:00.

- Arrived at office trailer at 6:45 dropped Ben off, Arrived on site at 7:15 and set out a safety cone barrier at the end of line set E. P&F arrived at 7:20. I conducted the tailgate meeting at 7:30.
- EMD called at 7:40 and I told them that we did not need them. Continued to excavate the rest of line set E. P&F removed 2 truck loads of clean backfill from the line set E because it saturated. I questioned Bryant for this action and he said that it would set right.
- Bryant asked me to call EMD and have some remaining water pumped out of the pit on line set E. I said no. I had already waived off EMD and there was no more than 6 inches of water. I said spread the water out it not enough to justify EMD coming back out here.
- 4 trucks left the site at 10:00 (Loads 41, 42, 43, 44).
- Bobby tried to pull the rest of the lines from set E from underneath the sidewalk on the bulkhead. Only one of the four came free and we retrieved approximately 10 to 12 feet of pipe. The rest of the pipe must have been encased in concrete and approximately 2 feet broke off of the remaining three. (Three 8' sections remain in the ground.
- Bobby backfilled the some of this line set. He then started putting rock on line set G. The crush and run had pieces of asphalt, wire, and silt fencing fabric within it (I wonder if this was the crush and run P&F were so careful to remove from line set E on Monday).
- Bobby started excavating in front of the concrete pads. To find and remove any remaining pipes. The large concrete pad did not contain any more fuel lines; however, one conduit pipe was discovered and removed. The concrete pad appears to be about 2.5' below the ground surface. Another square piece of concrete was discovered (2'x2'x1'). I took a soil sample and had Bobby backfill the area with the same material (There was no petroleum odor at all).
- Bobby dug in front of the smaller concrete pad along line set C, no more pipes were found (since they were removed earlier). A petroleum odor was noticed and the soil was removed and backfill with clean backfill.
- Trucks arrived back at the site at 2:45 with backfill and crush and run.
- I picked Ben up at 3:00 from the office trailer. Left the site at 4:00.
- Arrived at SGS at 5:00.

- Arrived at office trailer at 7:00 started working on Thursday's field report. Arrived onsite at 7:50. P&F were already on site. Line set E had already been completely backfilled and with a crush and run cap, and graded.
- P&F had two loads to take out (Loads 45&46).
- Bobby started grading the line sets. Tim loaded one dump truck with debris and another with the fuel lines.
- I talked to Bryant and he said that the backfill was coming from Morton. He said that they would finish the grading and secure the graded areas.
- Tim started grading the main excavation area.
- I left the site at 12:00 to pick Ben up. Finished Thursday's field report and sent it to Erica.
- Filled the car with gas, and went to lunch.
- Arrived back at the site at 2:30 to inspect the fencing and grading.
- Left the site at 3:00
- Arrived at SGS at 4:00 with Ben's samples.



RHEA
Engineers & Consultants, Inc.

FIGURE 5

SOIL SAMPLE FIELD COLLECTION REPORT

Project Name	<u>A-12 Fuel Line Removal</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/9/09</u>	Time Collected	<u>See Below 15:00</u>
Collected By	<u>KR</u>		
<u>Rhea Engineers & Consultants, Inc.</u>			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>AQ-T1-C1</u>	<u>3'</u>	<u>Light gray fine grained silty sand</u>

Sampling Method

Composite Sample?

Y ☐

N ☒

Composite Sample I.D. No.

Describe Compositing

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers

3

Date Received by Lab

9/10/09

Laboratory

565

Weather Conditions

80°s Partly cloudy

Remarks

0.0 ppm on FID

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

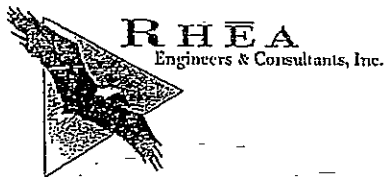


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A-12-</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/9/09</u>	Time Collected	<u>See Below</u>
Collected By	<u>RL</u>		
Rhëa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-Disp-W-S-1A</u>	<u>2'</u>	<u>Tan fine grained silty sand</u> <u>15:15</u>
<u>A12-Disp-W-S-1B</u>	<u>2'</u>	<u>Dark brown fine grained silty sand</u> <u>15:17</u>
<u>A12-Disp-W-S-1C</u>	<u>1'</u>	<u>Dark brown gravelly fine grained sand</u> <u>15:19</u>
<u>A12-Disp-W-S-1D</u>	<u>1'</u>	<u>Brown gravelly fine grained sand</u> <u>15:21</u>
<u>A12-Disp-W-S-1E</u>	<u>2'</u>	<u>Dark brown fine grained sand</u> <u>15:23</u>
<u>A12-Disp-W-S-1F</u>	<u>1'</u>	<u>Dark gray gravelly fine grained sand</u> <u>15:25</u>

Sampling Method Terra CoreComposite Sample? ☒ Y ☐ NComposite Sample I.D. No. 1A, 11

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
_____	_____	Y ☐	N ☐	Y ☐	N ☐
_____	_____	Y ☐	N ☐	Y ☐	N ☐
_____	_____	Y ☐	N ☐	Y ☐	N ☐
_____	_____	Y ☐	N ☐	Y ☐	N ☐

Number of Containers 6Date Received by Lab 9/10/09Laboratory 565Weather Conditions 30° Partly Cloudy

Remarks _____

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

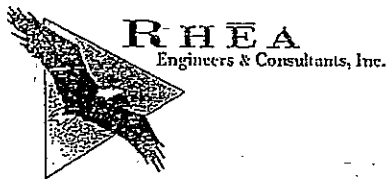


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A-12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>09/10/09</u>	Time Collected	<u>See Below</u>
Collected By	<u>[Signature]</u>		
Rhêa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)	
A12-Disp-E-5-2A	1.5'	Dark brown fine silty sand (Damp)	10:50
A12-Disp-E-5-2B	1.5'	Dark brown fine silty sand (Damp)	10:52
A12-Disp-E-5-2C	1.5'	Dark brown fine silty sand some gravel (Damp)	10:54
A12-Disp-E-5-2D	1.5'	(Dark brown fine silty sand (Damp)	10:56
A12-Disp-E-5-2E	1'	Tan fine silty sand (Damp)	10:58
A12-Disp-E-5-2F	1'	Light brown fine silty sand (Damp)	11:00

Sampling Method Terra CoreComposite Sample? ☒ Y ☐ N

Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED

Type ⁽²⁾	Volume	Per Sample?	Per Composite?
_____	_____	Y ☐ N ☐	Y ☐ N ☐
_____	_____	Y ☐ N ☐	Y ☐ N ☐
_____	_____	Y ☐ N ☐	Y ☐ N ☐
_____	_____	Y ☐ N ☐	Y ☐ N ☐

Number of Containers 6Date Received by Lab 9/10/09Laboratory SGSWeather Conditions 80° CloudyRemarks Damp from flooding of the pit

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

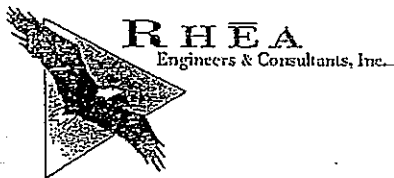


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/10/09</u>	Time Collected	<u>See Below 14:50</u>
Collected By	<u>GL</u>		
Rhea Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T4-S-E1</u>	<u>2.5'</u>	<u>Light gray very fine silty sand</u>

Sampling Method Terra CoreComposite Sample? Y ☐ N ☒

Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3Date Received by Lab 9/10/09Laboratory 565Weather Conditions 80° CloudyRemarks FTD did not work

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

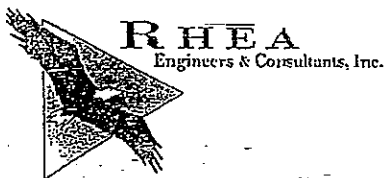


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/10/09</u>	Time Collected	<u>See Below 14:20</u>
Collected By	<u>RL</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-B-S-F1</u>	<u>4'</u>	<u>Brown fine grained silty sand (H:20)</u>

Sampling Method Terra CoreComposite Sample? Y ☐ N ☒

Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3Date Received by Lab 9/10/09Laboratory 565Weather Conditions 80° CloudyRemarks FID did not work

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

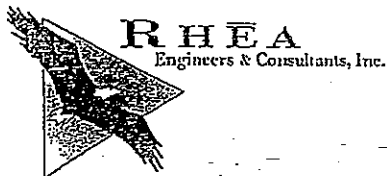


FIGURE 5

SOIL SAMPLE FIELD COLLECTION REPORT

Project Name <u>A12</u>	Project No. <u>3214-450</u>
Date Collected <u>9/10/09</u>	Time Collected <u>See Below</u>
Collected By <u>RH</u> Rhea Engineers & Consultants, Inc.	

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-TJ-S-B1</u>	<u>5'</u>	<u>Dark brown finegrained silty sand (13:30)</u>

Sampling Method Terra Core

Composite Sample? ☐ Y ☒ N

Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED

Type ⁽²⁾	Volume	Per Sample?	Per Composite?
		Y ☐ N ☐	Y ☐ N ☐
		Y ☐ N ☐	Y ☐ N ☐
		Y ☐ N ☐	Y ☐ N ☐
		Y ☐ N ☐	Y ☐ N ☐

Number of Containers 3

Date Received by Lab 9/10/09

Laboratory 565

Weather Conditions 80° Cloudy

Remarks FID Did not work

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

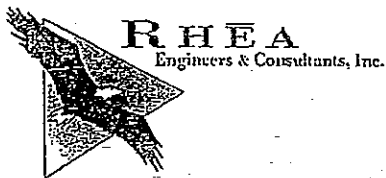


FIGURE 5

SOIL SAMPLE FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/10/09</u>	Time Collected	<u>See Below</u>
Collected By	<u>KR-</u>	Rhēa Engineers & Consultants, Inc.	

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T2-S-B2</u>	<u>4'</u>	<u>Tan to light brown very fine silty sand (13:35)</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/10/09 Laboratory 565

Weather Conditions 80's Cloudy

Remarks FID did not work

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

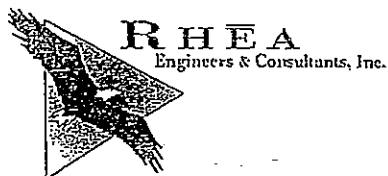


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A-12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/11/09</u>	Time Collected	<u>See Below 10:52</u>
Collected By	<u>KL</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T6-S-2</u>	<u>4'</u>	<u>Tan very fine silty sand</u>

Sampling Method Terra CoreComposite Sample? Y ☐ N ☒

Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3Date Received by Lab 9/1/09Laboratory 565Weather Conditions 80°s Partly cloudyRemarks 0.0 on the FID

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

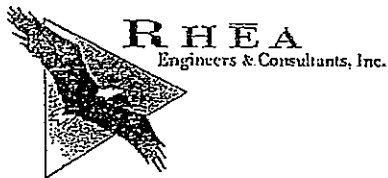


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A-12</u>	Project No.	<u>3217-450</u>
Date Collected	<u>9/11/09</u>	Time Collected	<u>See Below 11:05</u>
Collected By	<u>[Signature]</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T6-S-63</u>	<u>3.5'</u>	<u>Tan very fine silt, sand</u>

Sampling Method

Terra Core

Composite Sample?

Y ☐ N ☒

Composite Sample I.D. No.

Describe Compositing

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers

3

Date Received by Lab

9/11/09

Laboratory

565

Weather Conditions

80° partly cloudy

Remarks

0.0 on FID

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

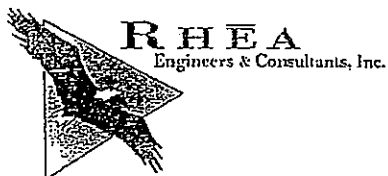


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/11/09</u>	Time Collected	<u>See Below 11:20</u>
Collected By	<u>[Signature]</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T7-S-A1</u>	<u>3.5'</u>	<u>Light gray very fine silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/11/09 Laboratory SGS

Weather Conditions 80° Partly Cloudy

Remarks 0.0 ppm FID

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

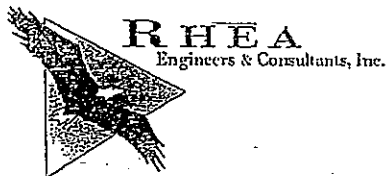


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/11/09</u>	Time Collected	<u>See Below 11:30</u>
Collected By	<u>KE</u>		
Rhēa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T7-S-A2</u>	<u>4'</u>	<u>Tan very fine grained silty sand</u>

Sampling Method	<u>Terra Core</u>	
Composite Sample?	☐ Y ☒ N	Composite Sample I.D. No. _____
Describe Compositing	_____	

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers	<u>3</u>	
Date Received by Lab	<u>9/11/09</u>	Laboratory <u>SGS</u>
Weather Conditions	<u>80° Partly cloudy</u>	
Remarks	<u>0.0 ppm on FID</u>	

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

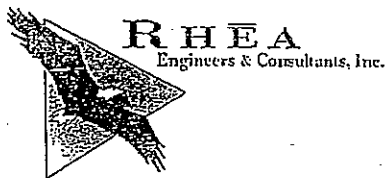


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/11/09</u>	Time Collected	<u>See Below 11:42</u>
Collected By	<u>KE</u>		
Rhēa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-7-S-A3</u>	<u>3.5'</u>	<u>Brown fine grained silty sand</u>

Sampling Method Terra CoreComposite Sample? Y ☐ NX ☒

Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED

Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3Date Received by Lab 9/11/09Laboratory SGSWeather Conditions 80's Partly CloudyRemarks 0.0 PPM on FID

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.



FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/11/09</u>	Time Collected	<u>See Below 11:50</u>
Collected By	<u>[Signature]</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T7.5-A1</u>	<u>4'</u>	<u>Light gray fine grained silty sand</u>

Sampling Method Terra CoreComposite Sample? ☐ Y ☒ N

Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED

Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3Date Received by Lab 9/11/09Laboratory SGSWeather Conditions 80° - ~~Partly~~ Partly CloudyRemarks Q. Oppm on the PID

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

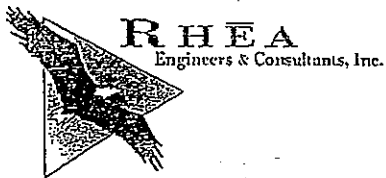


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/14/09</u>	Time Collected	<u>See Below 7:55</u>
Collected By	<u>KR.</u>		
Rhea Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T1-S-C4</u>	<u>4'</u>	<u>Light gray fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/14/09 Laboratory 565

Weather Conditions 80° Sunny

Remarks 0.0 on FID, some odor

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

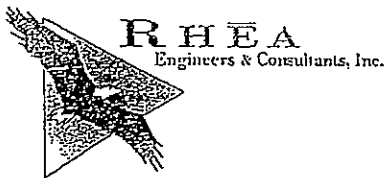


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/14/09</u>	Time Collected	<u>See Below 11:30</u>
Collected By	<u>GE</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T6-S-64</u>	<u>3'</u>	<u>Dark brown fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/14/09 Laboratory 565

Weather Conditions 80° Sunny

Remarks OO on FID

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

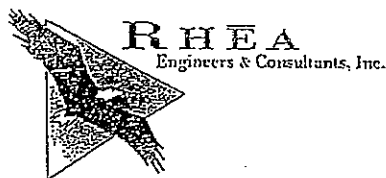


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/14/09</u>	Time Collected	<u>See Below 11:40</u>
Collected By	<u>[Signature]</u>		
Rhēa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-TG-5-65</u>	<u>3'</u>	<u>Dark brown fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/14/09 Laboratory SGS

Weather Conditions 80's & Sunny

Remarks O.O. on the FID

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

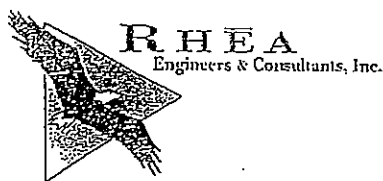


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/15/09</u>	Time Collected	<u>See Below 7:30</u>
Collected By	<u>KE</u>		

Rhea Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T1-S-C5</u>	<u>3'</u>	<u>Light gray fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

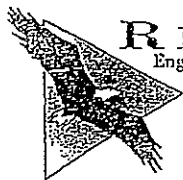
Number of Containers 3

Date Received by Lab 9/15/09 Laboratory 565

Weather Conditions 80°s Sunny

Remarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.



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FIGURE 5

SOIL SAMPLE FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/15/09</u>	Time Collected	<u>See Below 11:45</u>
Collected By	<u>RR</u>		

Rhea Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T1-S-C2</u>	<u>3.6'</u>	<u>Light gray fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

Type ⁽²⁾	Volume	SAMPLE TYPES COLLECTED			
		Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/15/09 Laboratory 565

Weather Conditions 80's Sunny

Remarks No FID meter, Sample was collected about a half a foot down from
A12-T1-S-C2

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

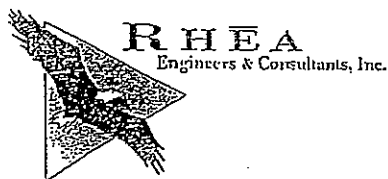


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/15/09</u>	Time Collected	<u>See Below</u> <u>11:05</u>
Collected By	<u>[Signature]</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T4-S-E2</u>	<u>3'</u>	<u>Light gray fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/15/09 Laboratory 565

Weather Conditions 80° Sunny

Remarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

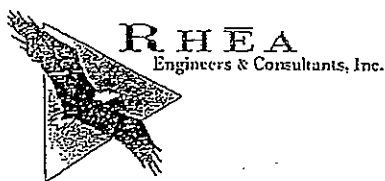


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/16/09</u>	Time Collected	<u>See Below 10:40</u>
Collected By	<u>Rhēa Engineers & Consultants, Inc.</u>		

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-TS-5-D1</u>	<u>2.5'</u>	<u>Light gray fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

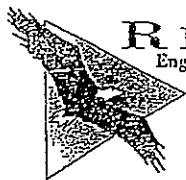
Number of Containers 3

Date Received by Lab 9/16/09 Laboratory SGS

Weather Conditions 80° Sunny

Remarks No FID Meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.



SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/16/09</u>	Time Collected	<u>See Below 10:50</u>
Collected By	<u>KE</u>		
Rhēa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T5-S-D2</u>	<u>2.5'</u>	<u>Tan finegrained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/16/09 Laboratory 565

Weather Conditions 80° Sunny

Remarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

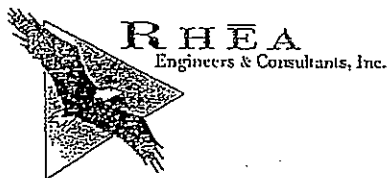


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/16/09</u>	Time Collected	<u>See Below 11:15</u>
Collected By	<u>[Signature]</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-75-5-D3</u>	<u>2.5</u>	<u>Tan fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/16/09 Laboratory SGS

Weather Conditions 80°r Sunny

Remarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.



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FIGURE 5

SOIL SAMPLE FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3217-450</u>
Date Collected	<u>9/16/09</u>	Time Collected	<u>See Below 12:25</u>
Collected By	<u>[Signature]</u>		
Rhëa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

[Empty box for location sketch]

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T5-S-04</u>	<u>2'</u>	<u>Tan fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/16/09 Laboratory JGS

Weather Conditions 80° Sunny

Remarks No FID note

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

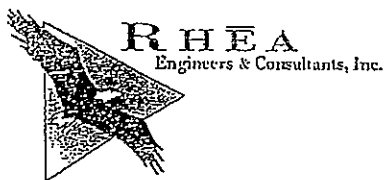


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/16/09</u>	Time Collected	<u>See Below 12:35</u>
Collected By	<u>KE</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-TS-S-DS</u>	<u>2.5'</u>	<u>Dark gray fine grained silty sand</u>

Sampling Method Terra CoreComposite Sample? Y ☐ N ☒

Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3Date Received by Lab 9/16/09Laboratory SGSWeather Conditions 80's SunnyRemarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

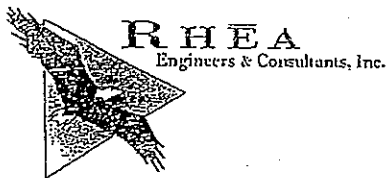


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/17/09</u>	Time Collected	<u>See Below 7:35</u>
Collected By	<u>KE</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-J2-5-B4</u>	<u>3'</u>	<u>Light gray fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/17/09 Laboratory 565

Weather Conditions 70's cloudy

Remarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

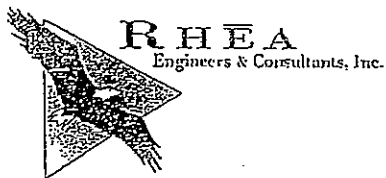


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/17/09</u>	Time Collected	<u>See Below 7:50</u>
Collected By	<u>[Signature]</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T2-D5-B5</u>	<u>3'</u>	<u>Light Grey fine grained silty sand</u>

Sampling Method Terra CoreComposite Sample? Y ☐ N ☒

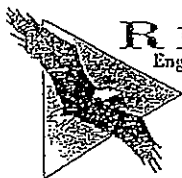
Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3Date Received by Lab 9/17/09Laboratory SGSWeather Conditions 70's CloudyRemarks No FID Mtr

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.



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FIGURE 5

SOIL SAMPLE FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/17/09</u>	Time Collected	<u>See Below 7:55</u>
Collected By	<u>GE</u>		
Rhëa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-Td-S-B6</u>	<u>4'</u>	<u>Light gray fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? ☐ Y ☒ N Composite Sample I.D. No. _____

Describe Compositing _____

Type ⁽²⁾	Volume	SAMPLE TYPES COLLECTED			
		Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/17/09 Laboratory SGS

Weather Conditions 70.5 Cloudy

Remarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

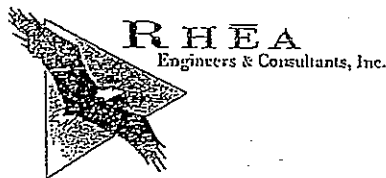


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/17/09</u>	Time Collected	<u>See Below</u> ~~8:00~~ <u>11:00</u>
Collected By	<u>[Signature]</u>		

Rhêa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T7-S-A5</u>	<u>3.5'</u>	<u>Tan fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/17/09 Laboratory SGS

Weather Conditions 70°r Cloudy

Remarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

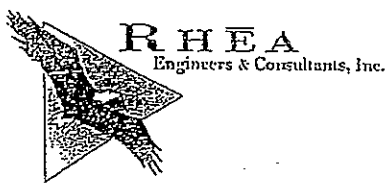


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-950</u>
Date Collected	<u>9/17/09</u>	Time Collected	<u>See Below 11:10</u>
Collected By	<u>[Signature]</u>		

Rhea Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T7-S-A6</u>	<u>3'</u>	<u>Tan fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/17/09 Laboratory SGS

Weather Conditions 70° Cloudy

Remarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

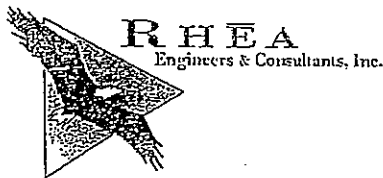


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12-T7-S-A7</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/17/09</u>	Time Collected	<u>See Below 14:25</u>
Collected By	<u>Rh</u>		

Rhea Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T7-S-A7</u>	<u>3.5'</u>	<u>Dark brown silty clayey sand, some areas of greenish blue clay</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

Type ⁽²⁾	Volume	SAMPLE TYPES COLLECTED			
		Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/1/09 Laboratory JGS

Weather Conditions 70's Cloudy

Remarks No PID, some odor

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

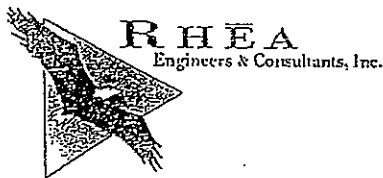


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/17/09</u>	Time Collected	<u>See Below 11:40</u>
Collected By	<u>KE</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T6-S-66</u>	<u>2'</u>	<u>Dark brown fine grained silty sand</u>

Sampling Method Terra CoreComposite Sample? Y ☐ N ☒

Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3Date Received by Lab 9/1/09Laboratory 565Weather Conditions 20°s CloudyRemarks No FID, some odor

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

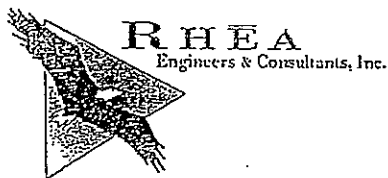


FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/17/09</u>	Time Collected	<u>See Below ~~13:00~~ 14:50</u>
Collected By	<u>RH</u>		

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SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T6-S-67</u>	<u>2.5'</u>	<u>Brown fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

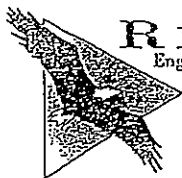
Number of Containers 3

Date Received by Lab 9/1/09 Laboratory _____

Weather Conditions 70°r Cloudy

Remarks No FID, some odor

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.



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FIGURE 5

SOIL SAMPLE FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/21/09</u>	Time Collected	<u>See Below 10:10</u>
Collected By	<u>KL-</u>		
Rhēa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T4-S-E3</u>	<u>2.5'</u>	<u>Light gray fine grained silty sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/21/09 Laboratory S65

Weather Conditions 70's Sunny

Remarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.



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FIGURE 5

SOIL SAMPLE FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/21/09</u>	Time Collected	<u>See Below 10:30</u>
Collected By	<u>KL</u>		
Rhëa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T4-S-E5</u>	<u>3'</u>	<u>Tan fine-grained silty sand</u>

Sampling Method Terra Core

Composite Sample? ☐ Y ☒ N

Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/21/09

Laboratory 565

Weather Conditions 70's Sunny

Remarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.



**SOIL SAMPLE
FIELD COLLECTION REPORT**

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/21/09</u>	Time Collected	<u>See Below 15:40</u>
Collected By	<u>KE</u>		
Rhēa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T4-S-E6</u>	<u>3'</u>	<u>light brown clayey fine grained sand</u>

Sampling Method Terra Core

Composite Sample? Y ☐ N ☒ Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/21/09 Laboratory 56.5

Weather Conditions 70°s Sunny

Remarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.



FIGURE 5

SOIL SAMPLE
FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/22/09</u>	Time Collected	<u>See Below 09:50</u>
Collected By	<u>RE</u>		

Rhēa Engineers & Consultants, Inc.

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T4-S-E7</u>	<u>3.5'</u>	<u>Tan fine grained silty sand</u>

Sampling Method	<u>Terra Core</u>	
Composite Sample?	<u>Y</u> ☐ <u>N</u> ☒	Composite Sample I.D. No. _____
Describe Compositing	_____	

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers	<u>3</u>		
Date Received by Lab	<u>9/24/09</u>	Laboratory	<u>SG5</u>
Weather Conditions	<u>80°s rainy</u>		
Remarks	<u>No FID meter</u>		

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.



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FIGURE 5

SOIL SAMPLE FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/24/09</u>	Time Collected	<u>See Below 10:55</u>
Collected By	<u>Rhēa</u>		
Rhēa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T4-S-E8</u>	<u>3.5'</u>	<u>Tan fine grained silt/sand</u>

Sampling Method Terra Core

Composite Sample? ☐ Y ☒ N Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/24/09 Laboratory SGS

Weather Conditions 80°s clear

Remarks No FID meter

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.



**SOIL SAMPLE
FIELD COLLECTION REPORT**

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/24/09</u>	Time Collected	<u>See Below 13:40</u>
Collected By	<u>[Signature]</u>		
Rhēa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

[Blank area for location sketch]

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T2-S-AB1</u>	<u>4'</u>	<u>Light gray fine grained silty sand</u>

Sampling Method

Composite Sample? Y ☐ N ☐

Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED

Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers

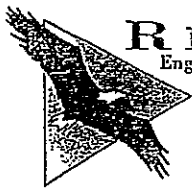
Date Received by Lab

Laboratory

Weather Conditions

Remarks

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.



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FIGURE 5

SOIL SAMPLE FIELD COLLECTION REPORT

Project Name	<u>A12</u>	Project No.	<u>3214-450</u>
Date Collected	<u>9/24/09</u>	Time Collected	<u>See Below 14:05</u>
Collected By	<u>EE</u>		
Rhēa Engineers & Consultants, Inc.			

SAMPLE(S) LOCATION SKETCH (use reverse if necessary)

Blank area for sample location sketch.

Sample I.D. No.	Depth of Sample	Soil Description (Color, Composition, Staining, Odor, Field Measurements ⁽¹⁾)
<u>A12-T1-S-C6</u>	<u>2.5'</u>	<u>Tan ^{fine to} medium grained sand</u>

Sampling Method Terra Core

Composite Sample? ☐ Y ☒ N Composite Sample I.D. No. _____

Describe Compositing _____

SAMPLE TYPES COLLECTED					
Type ⁽²⁾	Volume	Per Sample?		Per Composite?	
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐
		Y ☐	N ☐	Y ☐	N ☐

Number of Containers 3

Date Received by Lab 9/24/09 Laboratory 565

Weather Conditions 80°s clear

Remarks No FID ester

1. Organic vapor analysis, pocket penetrometer, etc.
2. Metals, VOA, organics, etc.

APPENDIX D

NOTICE OF REGULATORY REQUIREMENTS AND REVIEW OF LSA

**State of North Carolina
Department of Environment
and Natural Resources
Wilmington Regional Office
Division of Waste Management
UST Section**



**Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director**

May 28, 2008

Commanding Officer
Attn: I&E/EMD/EQB, Dr. Johanna Arnold-
UST Program Mgr., Bldg. 12
PSC Box 20004
MCB Camp Lejeune, NC 28542-0004

Subject: Review of Report Entitled Phase I
Limited Site Assessment Report
USMC Camp Lejeune
Bldg. A-12/SA-30-1,2
NC Highway 172: Courthouse Bay
Area, Camp Lejeune, Onslow Co.
Incident No. 32486
Risk: Unconfirmed

Dear Dr. Arnold:

Thank you for submitting the subject report to this office on May 14, 2008. The UST Section has reviewed this report and offers the following comments:

- The recommendations within the report are satisfactory. The planned soil excavation should be performed as soon as possible, but in no case later than November 1, 2008. Please notify us 48 hours in advance of the excavation date and time.
- Since SB-05 is a separate source area than the underground tank area, a monitoring well is required to be constructed at the SB-05 area per 15A NCAC 02L .0405(6)(a). Therefore, this report will not be formally approved until the rule is satisfied. Also, the risk of this incident can not be established until the Division receives this information..

If you have any questions concerning this letter, please contact me at (910) 796-7400.

Sincerely,

Bruce Reed

Hydrogeologist II

Cc: WiRO-UST

s:\bruce\arnolda\2sa30



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor
William G. Ross Jr., Secretary

Division of Waste Management
Underground Storage Tank Section

Dexter R. Matthews, Director

June 13, 2007

Commanding Officer
Attn: I&E/EMD/EQB A. Smith, Bldg. 12
Marine Corps Base
PSC Box 20004
Camp Lejeune, NC 28542-0004

Re: Notice of Regulatory Requirements
15A NCAC 2L .0404 and 2L .0405
Risk-based Assessment and Corrective Action
for Petroleum Underground Storage Tanks

USMC Camp Lejeune Bldg. A-12/SA-30-1,2
Courthouse Road
Camp Lejeune, Onslow County
Incident Number: TBD
Risk Classification: Unconfirmed
Ranking: Unknown

Dear Mr. Smith:

Information received by this office on October 5, 1993 confirms a release or discharge from a petroleum underground storage tank (UST) system at the above-referenced location. Records indicate that the USMC is the owner or operator of this UST system. Therefore, as a responsible party, the USMC must comply with the initial response and abatement action requirements of Title 15A NCAC 2L .0404 and, if applicable, the assessment and reporting requirements of Title 15A NCAC 2L .0405, within the timeframes specified in the rules.

Because a release or discharge has been confirmed, a Licensed Geologist or a Professional Engineer, certified by the State of North Carolina, is required to prepare and certify all reports submitted to the Department in accordance with Title 15A NCAC 2L .0103(e) and 2L .0111(b).

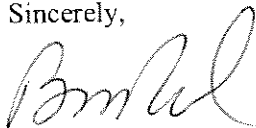
Please note that before you sell, transfer, or request a "No Further Action" determination for a property that has not been remediated to below "unrestricted use" standards, you must file a Notice of Residual Petroleum ("Notice") with the Register of Deeds in the county where the property is located (NCGS 143B-279.9 and 143B-279.11).

Failure to comply with the State's rules in the manner and time specified may result in the assessment of civil penalties and/or the use of other enforcement mechanisms.

If you have any questions regarding trust fund eligibility or reimbursement from the Commercial or Noncommercial Leaking Petroleum Underground Storage Tank Cleanup Funds, please contact the

UST Section Trust Fund Branch at (919) 733-8486. If you have any questions regarding the actions that must be taken or the rules mentioned in this letter, please contact me at the address or telephone number listed below.

Sincerely,



Bruce Reed
Hydrogeologist II
Wilmington Regional Office

cc: George O'Daniel, Onslow County Health Department
WiRO-UST

UST Regional Offices

Asheville (ARO) – 2090 US Highway 70, Swannanoa, NC 28778 **(828) 296-4500**

Fayetteville (FAY) – 225 Green Street, Suite 714, Systel Building, Fayetteville, NC 28301 **(910) 486-1541**

Mooresville (MOR) – 610 East Center Avenue, Suite 301, Mooresville, NC 28115 **(704) 663-1699**

Raleigh (RRO) – 1628 Mail Service Center, Raleigh, NC 27699 **(919) 791-4200**

Washington (WAS) – 943 Washington Square Mall, Washington, NC 27889 **(252) 946-6481**

Wilmington (WIL) – 127 Cardinal Drive Extension, Wilmington, NC 28405 **(910) 796-7215**

Winston-Salem (WS) – 585 Waughtown Street, Winston-Salem, NC 27107 **(336) 771-4600**

Guilford County Environmental Health, 1203 Maple Street, Greensboro, NC 27405, **(336) 641-3771**

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APPENDIX E

PHOTOGRAPHS



Photograph 1: A view towards the northeast looking at the exposed 2 inch PVC pressurized water line.



Photograph 2: A view towards the southwest looking at several exposed line sets within the pit.



Photograph 3: A view towards the southeast looking at the initial excavation of line set E. Note the storm drain line which lies below the fuel lines.



Photograph 4: A view towards the southwest looking at the excavation of line set A. The original trench is to the left; however, the line set curved and perpendicular trenches had to be cut to retrieve the line due to monitoring wells in the area.



Photograph 5: A view towards the southwest looking at the initial excavation pit being backfilled with clean silty fine-grained sand.



Photograph 6: A view towards the southeast looking at the final excavation of line set E towards the bulkhead.



Photograph 7: Asphalt pavement looking toward the New River.



Photograph 8: Seed and mulch of grass area

APPENDIX F

AUGUST 2008 SOIL SAMPLING LABORATORY DATA



Ms. Shari Thompson
Richard Catlin & Associates
220 Old Dairy Rd.
Wilmington NC 28405

Report Number: G128-2220

Client Project: Former Cercla Site A-12

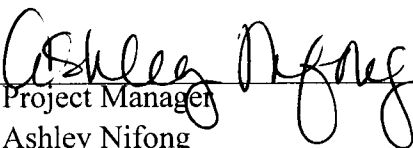
Dear Ms. Thompson:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call SGS at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS Environmental Services for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS Environmental Services, Inc.

 
Project Manager Date
Ashley Nifong



Case Narrative

Catlin Engineers and Scientists

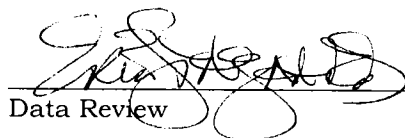
SGS Project: **G128-2220**

Project Name: **Former Cercla Site A-12**

SGS Environmental Services Inc.

August 8, 2008

- Three soil samples and a trip blank were accepted into the laboratory on July 31, 2008 at 1515 for analyses as indicated on the chain of custody. The samples were received in good condition, within temperature and holding time limits.
- All extractions and analyses were completed within holding time.
- Methylene Chloride was detected in the associated trip blank below the reporting limit, but above the method detection limit. It was also detected at a similar level in samples BASIN NE and BASIN NW (G128-2220-2A and -3A). This compound is a common laboratory solvent and its detection in the samples may be attributed to the background concentration found in the trip blank.

 _____ Date 8/8/8

Data Review



List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.

2) Uncertainty for all reported data is less than or equal to 30 percent.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTA-12 BASIN SE
Client Project ID: Former Cercla Site A-12
Lab Sample ID G128-2220-1A
Lab Project ID: G128-2220
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 07-31-2008 11:20
Date Received: 7/31/2008
Matrix: Soil
Sample Amount: 5.46 g
%Solids: 86.1

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.0461	0.0531	0.00734	1	8/6/2008	J
Benzene	BQL	0.00531	0.00114	1	8/6/2008	
Bromobenzene	BQL	0.00531	0.00109	1	8/6/2008	
Bromochloromethane	BQL	0.00531	0.00183	1	8/6/2008	
Bromodichloromethane	BQL	0.00531	0.00105	1	8/6/2008	
Bromoform	BQL	0.00531	0.00106	1	8/6/2008	
Bromomethane	BQL	0.00531	0.00112	1	8/6/2008	
2-Butanone	BQL	0.0266	0.00577	1	8/6/2008	
n-Butylbenzene	BQL	0.00531	0.00101	1	8/6/2008	
sec-Butylbenzene	BQL	0.00531	0.00107	1	8/6/2008	
tert-Butylbenzene	BQL	0.00531	0.00119	1	8/6/2008	
Carbon disulfide	BQL	0.00531	0.00285	1	8/6/2008	
Carbon tetrachloride	BQL	0.00531	0.00108	1	8/6/2008	
Chlorobenzene	BQL	0.00531	0.00126	1	8/6/2008	
Chloroethane	BQL	0.00531	0.00169	1	8/6/2008	
Chloroform	BQL	0.00531	0.00127	1	8/6/2008	
Chloromethane	BQL	0.00531	0.00120	1	8/6/2008	
2-Chlorotoluene	BQL	0.00531	0.00107	1	8/6/2008	
4-Chlorotoluene	BQL	0.00531	0.00133	1	8/6/2008	
Dibromochloromethane	BQL	0.00531	0.00147	1	8/6/2008	
1,2-Dibromo-3-chloropropane	BQL	0.0266	0.00154	1	8/6/2008	
Dibromomethane	BQL	0.00531	0.00160	1	8/6/2008	
1,2-Dibromoethane (EDB)	BQL	0.00531	0.00120	1	8/6/2008	
1,2-Dichlorobenzene	BQL	0.00531	0.00137	1	8/6/2008	
1,3-Dichlorobenzene	BQL	0.00531	0.00136	1	8/6/2008	
1,4-Dichlorobenzene	BQL	0.00531	0.00112	1	8/6/2008	
trans-1,4-Dichloro-2-butene	BQL	0.0266	0.00147	1	8/6/2008	
1,1-Dichloroethane	BQL	0.00531	0.00113	1	8/6/2008	
1,1-Dichloroethene	BQL	0.00531	0.00157	1	8/6/2008	
1,2-Dichloroethane	BQL	0.00531	0.00140	1	8/6/2008	
cis-1,2-Dichloroethene	BQL	0.00531	0.00136	1	8/6/2008	
trans-1,2-dichloroethene	BQL	0.00531	0.00120	1	8/6/2008	
1,2-Dichloropropane	BQL	0.00531	0.00125	1	8/6/2008	
1,3-Dichloropropane	BQL	0.00531	0.00119	1	8/6/2008	
2,2-Dichloropropane	BQL	0.00531	0.00127	1	8/6/2008	
1,1-Dichloropropene	BQL	0.00531	0.00167	1	8/6/2008	
cis-1,3-Dichloropropene	BQL	0.00531	0.00089	1	8/6/2008	
trans-1,3-Dichloropropene	BQL	0.00531	0.00102	1	8/6/2008	
Dichlorodifluoromethane	BQL	0.00531	0.00140	1	8/6/2008	
Diisopropyl ether (DIPE)	BQL	0.00531	0.00120	1	8/6/2008	
Ethylbenzene	BQL	0.00531	0.00092	1	8/6/2008	
Hexachlorobutadiene	BQL	0.00531	0.00104	1	8/6/2008	
2-Hexanone	BQL	0.00531	0.00344	1	8/6/2008	
Iodomethane	BQL	0.00531	0.00115	1	8/6/2008	

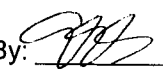
**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTA-12 BASIN SE
Client Project ID: Former Cercla Site A-12
Lab Sample ID G128-2220-1A
Lab Project ID: G128-2220
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 07-31-2008 11:20
Date Received: 7/31/2008
Matrix: Soil
Sample Amount: 5.46 g
%Solids: 86.1

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.00531	0.00094	1	8/6/2008	
4-Isopropyltoluene	BQL	0.00531	0.00114	1	8/6/2008	
Methylene chloride	BQL	0.0212	0.00126	1	8/6/2008	
4-Methyl-2-pentanone	BQL	0.00531	0.00492	1	8/6/2008	
Methyl-tert-butyl ether (MTBE)	BQL	0.00531	0.00118	1	8/6/2008	
Naphthalene	BQL	0.00531	0.00090	1	8/6/2008	
n-Propyl benzene	BQL	0.00531	0.00134	1	8/6/2008	
Styrene	BQL	0.00531	0.00117	1	8/6/2008	
1,1,1,2-Tetrachloroethane	BQL	0.00531	0.00108	1	8/6/2008	
1,1,2,2-Tetrachloroethane	BQL	0.00531	0.00120	1	8/6/2008	
Tetrachloroethene	BQL	0.00531	0.00097	1	8/6/2008	
Toluene	BQL	0.00531	0.00106	1	8/6/2008	
1,2,3-Trichlorobenzene	BQL	0.00531	0.00110	1	8/6/2008	
1,2,4-Trichlorobenzene	BQL	0.00531	0.00109	1	8/6/2008	
Trichloroethene	BQL	0.00531	0.00101	1	8/6/2008	
1,1,1-Trichloroethane	BQL	0.00531	0.00120	1	8/6/2008	
1,1,2-Trichloroethane	BQL	0.00531	0.00174	1	8/6/2008	
Trichlorofluoromethane	BQL	0.00531	0.00109	1	8/6/2008	
1,2,3-Trichloropropane	BQL	0.00531	0.00132	1	8/6/2008	
1,2,4-Trimethylbenzene	BQL	0.00531	0.00134	1	8/6/2008	
1,3,5-Trimethylbenzene	BQL	0.00531	0.00121	1	8/6/2008	
Vinyl chloride	BQL	0.00531	0.00144	1	8/6/2008	
m-,p-Xylene	BQL	0.0106	0.00204	1	8/6/2008	
o-Xylene	BQL	0.00531	0.00103	1	8/6/2008	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	0.05	0.06	120
Toluene-d8	0.05	0.0475	95
4-Bromofluorobenzene	0.05	0.0368	74

Comments:**Flags:**Analyst: Reviewed By: 

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTA-12 BASIN NE
Client Project ID: Former Cercla Site A-12
Lab Sample ID G128-2220-2A
Lab Project ID: G128-2220
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 07-31-2008 12:10
Date Received: 7/31/2008
Matrix: Soil
Sample Amount: 5.96 g
%Solids: 80.3

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	0.0522	0.00722	1	8/6/2008	
Benzene	BQL	0.00522	0.00112	1	8/6/2008	
Bromobenzene	BQL	0.00522	0.00108	1	8/6/2008	
Bromochloromethane	BQL	0.00522	0.00180	1	8/6/2008	
Bromodichloromethane	BQL	0.00522	0.00104	1	8/6/2008	
Bromoform	BQL	0.00522	0.00104	1	8/6/2008	
Bromomethane	BQL	0.00522	0.00110	1	8/6/2008	
2-Butanone	BQL	0.0261	0.00567	1	8/6/2008	
n-Butylbenzene	BQL	0.00522	0.00100	1	8/6/2008	
sec-Butylbenzene	BQL	0.00522	0.00106	1	8/6/2008	
tert-Butylbenzene	BQL	0.00522	0.00117	1	8/6/2008	
Carbon disulfide	BQL	0.00522	0.00280	1	8/6/2008	
Carbon tetrachloride	BQL	0.00522	0.00107	1	8/6/2008	
Chlorobenzene	BQL	0.00522	0.00124	1	8/6/2008	
Chloroethane	BQL	0.00522	0.00166	1	8/6/2008	
Chloroform	BQL	0.00522	0.00125	1	8/6/2008	
Chloromethane	BQL	0.00522	0.00118	1	8/6/2008	
2-Chlorotoluene	BQL	0.00522	0.00106	1	8/6/2008	
4-Chlorotoluene	BQL	0.00522	0.00131	1	8/6/2008	
Dibromochloromethane	BQL	0.00522	0.00144	1	8/6/2008	
1,2-Dibromo-3-chloropropane	BQL	0.0261	0.00151	1	8/6/2008	
Dibromomethane	BQL	0.00522	0.00158	1	8/6/2008	
1,2-Dibromoethane (EDB)	BQL	0.00522	0.00118	1	8/6/2008	
1,2-Dichlorobenzene	BQL	0.00522	0.00135	1	8/6/2008	
1,3-Dichlorobenzene	BQL	0.00522	0.00134	1	8/6/2008	
1,4-Dichlorobenzene	BQL	0.00522	0.00110	1	8/6/2008	
trans-1,4-Dichloro-2-butene	BQL	0.0261	0.00144	1	8/6/2008	
1,1-Dichloroethane	BQL	0.00522	0.00111	1	8/6/2008	
1,1-Dichloroethene	BQL	0.00522	0.00155	1	8/6/2008	
1,2-Dichloroethane	BQL	0.00522	0.00138	1	8/6/2008	
cis-1,2-Dichloroethene	BQL	0.00522	0.00134	1	8/6/2008	
trans-1,2-dichloroethene	BQL	0.00522	0.00118	1	8/6/2008	
1,2-Dichloropropane	BQL	0.00522	0.00123	1	8/6/2008	
1,3-Dichloropropane	BQL	0.00522	0.00117	1	8/6/2008	
2,2-Dichloropropane	BQL	0.00522	0.00125	1	8/6/2008	
1,1-Dichloropropene	BQL	0.00522	0.00164	1	8/6/2008	
cis-1,3-Dichloropropene	BQL	0.00522	0.00087	1	8/6/2008	
trans-1,3-Dichloropropene	BQL	0.00522	0.00101	1	8/6/2008	
Dichlorodifluoromethane	BQL	0.00522	0.00138	1	8/6/2008	
Diisopropyl ether (DIPE)	BQL	0.00522	0.00118	1	8/6/2008	
Ethylbenzene	BQL	0.00522	0.00091	1	8/6/2008	
Hexachlorobutadiene	BQL	0.00522	0.00102	1	8/6/2008	
2-Hexanone	BQL	0.00522	0.00338	1	8/6/2008	
Iodomethane	BQL	0.00522	0.00113	1	8/6/2008	

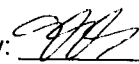
**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTA-12 BASIN NE
Client Project ID: Former Cercla Site A-12
Lab Sample ID G128-2220-2A
Lab Project ID: G128-2220
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 07-31-2008 12:10
Date Received: 7/31/2008
Matrix: Soil
Sample Amount: 5.96 g
%Solids: 80.3

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.00522	0.00093	1	8/6/2008	
4-Isopropyltoluene	BQL	0.00522	0.00112	1	8/6/2008	
Methylene chloride	0.00130	0.0209	0.00124	1	8/6/2008	J
4-Methyl-2-pentanone	BQL	0.00522	0.00484	1	8/6/2008	
Methyl-tert-butyl ether (MTBE)	BQL	0.00522	0.00116	1	8/6/2008	
Naphthalene	BQL	0.00522	0.00089	1	8/6/2008	
n-Propyl benzene	BQL	0.00522	0.00132	1	8/6/2008	
Styrene	BQL	0.00522	0.00115	1	8/6/2008	
1,1,1,2-Tetrachloroethane	BQL	0.00522	0.00107	1	8/6/2008	
1,1,2,2-Tetrachloroethane	BQL	0.00522	0.00118	1	8/6/2008	
Tetrachloroethene	BQL	0.00522	0.00096	1	8/6/2008	
Toluene	BQL	0.00522	0.00104	1	8/6/2008	
1,2,3-Trichlorobenzene	BQL	0.00522	0.00109	1	8/6/2008	
1,2,4-Trichlorobenzene	BQL	0.00522	0.00108	1	8/6/2008	
Trichloroethene	BQL	0.00522	0.00100	1	8/6/2008	
1,1,1-Trichloroethane	BQL	0.00522	0.00118	1	8/6/2008	
1,1,2-Trichloroethane	BQL	0.00522	0.00171	1	8/6/2008	
Trichlorofluoromethane	BQL	0.00522	0.00108	1	8/6/2008	
1,2,3-Trichloropropane	BQL	0.00522	0.00130	1	8/6/2008	
1,2,4-Trimethylbenzene	BQL	0.00522	0.00132	1	8/6/2008	
1,3,5-Trimethylbenzene	BQL	0.00522	0.00119	1	8/6/2008	
Vinyl chloride	BQL	0.00522	0.00142	1	8/6/2008	
m-,p-Xylene	BQL	0.0104	0.00201	1	8/6/2008	
o-Xylene	BQL	0.00522	0.00101	1	8/6/2008	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	0.05	0.0546	109
Toluene-d8	0.05	0.0475	95
4-Bromofluorobenzene	0.05	0.0416	83

Comments:**Flags:**Analyst: Reviewed By: 

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTA-12 BASIN NW
Client Project ID: Former Cercla Site A-12
Lab Sample ID G128-2220-3A
Lab Project ID: G128-2220
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 07-31-2008 12:40
Date Received: 7/31/2008
Matrix: Soil
Sample Amount: 5.30 g
%Solids: 85.7

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.0431	0.0550	0.00759	1	8/6/2008	J
Benzene	BQL	0.00550	0.00118	1	8/6/2008	
Bromobenzene	BQL	0.00550	0.00113	1	8/6/2008	
Bromochloromethane	BQL	0.00550	0.00189	1	8/6/2008	
Bromodichloromethane	BQL	0.00550	0.00109	1	8/6/2008	
Bromoform	BQL	0.00550	0.00110	1	8/6/2008	
Bromomethane	BQL	0.00550	0.00115	1	8/6/2008	
2-Butanone	BQL	0.0275	0.00597	1	8/6/2008	
n-Butylbenzene	BQL	0.00550	0.00105	1	8/6/2008	
sec-Butylbenzene	BQL	0.00550	0.00111	1	8/6/2008	
tert-Butylbenzene	BQL	0.00550	0.00123	1	8/6/2008	
Carbon disulfide	BQL	0.00550	0.00295	1	8/6/2008	
Carbon tetrachloride	BQL	0.00550	0.00112	1	8/6/2008	
Chlorobenzene	BQL	0.00550	0.00131	1	8/6/2008	
Chloroethane	BQL	0.00550	0.00175	1	8/6/2008	
Chloroform	BQL	0.00550	0.00132	1	8/6/2008	
Chloromethane	BQL	0.00550	0.00124	1	8/6/2008	
2-Chlorotoluene	BQL	0.00550	0.00111	1	8/6/2008	
4-Chlorotoluene	BQL	0.00550	0.00137	1	8/6/2008	
Dibromochloromethane	BQL	0.00550	0.00152	1	8/6/2008	
1,2-Dibromo-3-chloropropane	BQL	0.0275	0.00159	1	8/6/2008	
Dibromomethane	BQL	0.00550	0.00166	1	8/6/2008	
1,2-Dibromoethane (EDB)	BQL	0.00550	0.00124	1	8/6/2008	
1,2-Dichlorobenzene	BQL	0.00550	0.00142	1	8/6/2008	
1,3-Dichlorobenzene	BQL	0.00550	0.00141	1	8/6/2008	
1,4-Dichlorobenzene	BQL	0.00550	0.00115	1	8/6/2008	
trans-1,4-Dichloro-2-butene	BQL	0.0275	0.00152	1	8/6/2008	
1,1-Dichloroethane	BQL	0.00550	0.00117	1	8/6/2008	
1,1-Dichloroethene	BQL	0.00550	0.00163	1	8/6/2008	
1,2-Dichloroethane	BQL	0.00550	0.00145	1	8/6/2008	
cis-1,2-Dichloroethene	BQL	0.00550	0.00141	1	8/6/2008	
trans-1,2-dichloroethene	BQL	0.00550	0.00124	1	8/6/2008	
1,2-Dichloropropane	BQL	0.00550	0.00130	1	8/6/2008	
1,3-Dichloropropane	BQL	0.00550	0.00123	1	8/6/2008	
2,2-Dichloropropane	BQL	0.00550	0.00132	1	8/6/2008	
1,1-Dichloropropene	BQL	0.00550	0.00173	1	8/6/2008	
cis-1,3-Dichloropropene	BQL	0.00550	0.00092	1	8/6/2008	
trans-1,3-Dichloropropene	BQL	0.00550	0.00106	1	8/6/2008	
Dichlorodifluoromethane	BQL	0.00550	0.00145	1	8/6/2008	
Diisopropyl ether (DIPE)	BQL	0.00550	0.00124	1	8/6/2008	
Ethylbenzene	BQL	0.00550	0.00095	1	8/6/2008	
Hexachlorobutadiene	BQL	0.00550	0.00107	1	8/6/2008	
2-Hexanone	BQL	0.00550	0.00356	1	8/6/2008	
Iodomethane	BQL	0.00550	0.00119	1	8/6/2008	

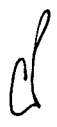
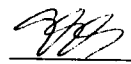
**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: USTA-12 BASIN NW
Client Project ID: Former Cercla Site A-12
Lab Sample ID G128-2220-3A
Lab Project ID: G128-2220
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 07-31-2008 12:40
Date Received: 7/31/2008
Matrix: Soil
Sample Amount: 5.30 g
%Solids: 85.7

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.00550	0.00098	1	8/6/2008	
4-Isopropyltoluene	BQL	0.00550	0.00118	1	8/6/2008	
Methylene chloride	0.0124	0.0220	0.00131	1	8/6/2008	J
4-Methyl-2-pentanone	BQL	0.00550	0.00509	1	8/6/2008	
Methyl-tert-butyl ether (MTBE)	BQL	0.00550	0.00122	1	8/6/2008	
Naphthalene	BQL	0.00550	0.00093	1	8/6/2008	
n-Propyl benzene	BQL	0.00550	0.00138	1	8/6/2008	
Styrene	BQL	0.00550	0.00121	1	8/6/2008	
1,1,1,2-Tetrachloroethane	BQL	0.00550	0.00112	1	8/6/2008	
1,1,2,2-Tetrachloroethane	BQL	0.00550	0.00124	1	8/6/2008	
Tetrachloroethene	BQL	0.00550	0.00101	1	8/6/2008	
Toluene	BQL	0.00550	0.00110	1	8/6/2008	
1,2,3-Trichlorobenzene	BQL	0.00550	0.00114	1	8/6/2008	
1,2,4-Trichlorobenzene	BQL	0.00550	0.00113	1	8/6/2008	
Trichloroethene	BQL	0.00550	0.00105	1	8/6/2008	
1,1,1-Trichloroethane	BQL	0.00550	0.00124	1	8/6/2008	
1,1,2-Trichloroethane	BQL	0.00550	0.00180	1	8/6/2008	
Trichlorofluoromethane	BQL	0.00550	0.00113	1	8/6/2008	
1,2,3-Trichloropropane	BQL	0.00550	0.00136	1	8/6/2008	
1,2,4-Trimethylbenzene	BQL	0.00550	0.00138	1	8/6/2008	
1,3,5-Trimethylbenzene	BQL	0.00550	0.00125	1	8/6/2008	
Vinyl chloride	BQL	0.00550	0.00149	1	8/6/2008	
m-,p-Xylene	BQL	0.0110	0.00211	1	8/6/2008	
o-Xylene	BQL	0.00550	0.00107	1	8/6/2008	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	0.05	0.0606	121
Toluene-d8	0.05	0.0469	94
4-Bromofluorobenzene	0.05	0.0316	63

Comments:**Flags:**Analyst: Reviewed By: 

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: Trip Blank (Not on COC)
Client Project ID: Former Cercla Site A-12
Lab Sample ID: G128-2220-4A
Lab Project ID: G128-2220
Report Basis: 0.0

Analyzed By: MJC
Date Collected: 07-31-2008 00:00
Date Received: 7/31/2008
Matrix: Soil
Sample Amount: 5 g
%Solids: 100.0

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	0.0500	0.00691	1	8/6/2008	
Benzene	BQL	0.00500	0.00107	1	8/6/2008	
Bromobenzene	BQL	0.00500	0.00103	1	8/6/2008	
Bromochloromethane	BQL	0.00500	0.00172	1	8/6/2008	
Bromodichloromethane	BQL	0.00500	0.00099	1	8/6/2008	
Bromoform	BQL	0.00500	0.00100	1	8/6/2008	
Bromomethane	BQL	0.00500	0.00105	1	8/6/2008	
2-Butanone	BQL	0.0250	0.00543	1	8/6/2008	
n-Butylbenzene	BQL	0.00500	0.00096	1	8/6/2008	
sec-Butylbenzene	BQL	0.00500	0.00101	1	8/6/2008	
tert-Butylbenzene	BQL	0.00500	0.00112	1	8/6/2008	
Carbon disulfide	BQL	0.00500	0.00268	1	8/6/2008	
Carbon tetrachloride	BQL	0.00500	0.00102	1	8/6/2008	
Chlorobenzene	BQL	0.00500	0.00119	1	8/6/2008	
Chloroethane	BQL	0.00500	0.00159	1	8/6/2008	
Chloroform	BQL	0.00500	0.00120	1	8/6/2008	
Chloromethane	BQL	0.00500	0.00113	1	8/6/2008	
2-Chlorotoluene	BQL	0.00500	0.00101	1	8/6/2008	
4-Chlorotoluene	BQL	0.00500	0.00125	1	8/6/2008	
Dibromochloromethane	BQL	0.00500	0.00138	1	8/6/2008	
1,2-Dibromo-3-chloropropane	BQL	0.0250	0.00145	1	8/6/2008	
Dibromomethane	BQL	0.00500	0.00151	1	8/6/2008	
1,2-Dibromoethane (EDB)	BQL	0.00500	0.00113	1	8/6/2008	
1,2-Dichlorobenzene	BQL	0.00500	0.00129	1	8/6/2008	
1,3-Dichlorobenzene	BQL	0.00500	0.00128	1	8/6/2008	
1,4-Dichlorobenzene	BQL	0.00500	0.00105	1	8/6/2008	
trans-1,4-Dichloro-2-butene	BQL	0.0250	0.00138	1	8/6/2008	
1,1-Dichloroethane	BQL	0.00500	0.00106	1	8/6/2008	
1,1-Dichloroethene	BQL	0.00500	0.00148	1	8/6/2008	
1,2-Dichloroethane	BQL	0.00500	0.00132	1	8/6/2008	
cis-1,2-Dichloroethene	BQL	0.00500	0.00128	1	8/6/2008	
trans-1,2-dichloroethene	BQL	0.00500	0.00113	1	8/6/2008	
1,2-Dichloropropane	BQL	0.00500	0.00118	1	8/6/2008	
1,3-Dichloropropane	BQL	0.00500	0.00112	1	8/6/2008	
2,2-Dichloropropane	BQL	0.00500	0.00120	1	8/6/2008	
1,1-Dichloropropene	BQL	0.00500	0.00157	1	8/6/2008	
cis-1,3-Dichloropropene	BQL	0.00500	0.00083	1	8/6/2008	
trans-1,3-Dichloropropene	BQL	0.00500	0.00096	1	8/6/2008	
Dichlorodifluoromethane	BQL	0.00500	0.00132	1	8/6/2008	
Diisopropyl ether (DIPE)	BQL	0.00500	0.00113	1	8/6/2008	
Ethylbenzene	BQL	0.00500	0.00087	1	8/6/2008	
Hexachlorobutadiene	BQL	0.00500	0.00098	1	8/6/2008	
2-Hexanone	BQL	0.00500	0.00324	1	8/6/2008	
Iodomethane	BQL	0.00500	0.00108	1	8/6/2008	

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: Trip Blank (Not on COC)
Client Project ID: Former Cercla Site A-12
Lab Sample ID: G128-2220-4A
Lab Project ID: G128-2220
Report Basis: 0.0

Analyzed By: MJC
Date Collected: 07-31-2008 00:00
Date Received: 7/31/2008
Matrix: Soil
Sample Amount: 5 g
%Solids: 100.0

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.00500	0.00089	1	8/6/2008	
4-Isopropyltoluene	BQL	0.00500	0.00107	1	8/6/2008	
Methylene chloride	0.00120	0.0200	0.00119	1	8/6/2008	J
4-Methyl-2-pentanone	BQL	0.00500	0.00463	1	8/6/2008	
Methyl-tert-butyl ether (MTBE)	BQL	0.00500	0.00111	1	8/6/2008	
Naphthalene	BQL	0.00500	0.00085	1	8/6/2008	
n-Propyl benzene	BQL	0.00500	0.00126	1	8/6/2008	
Styrene	BQL	0.00500	0.00110	1	8/6/2008	
1,1,1,2-Tetrachloroethane	BQL	0.00500	0.00102	1	8/6/2008	
1,1,2,2-Tetrachloroethane	BQL	0.00500	0.00113	1	8/6/2008	
Tetrachloroethene	BQL	0.00500	0.00092	1	8/6/2008	
Toluene	BQL	0.00500	0.00100	1	8/6/2008	
1,2,3-Trichlorobenzene	BQL	0.00500	0.00104	1	8/6/2008	
1,2,4-Trichlorobenzene	BQL	0.00500	0.00103	1	8/6/2008	
Trichloroethene	BQL	0.00500	0.00095	1	8/6/2008	
1,1,1-Trichloroethane	BQL	0.00500	0.00113	1	8/6/2008	
1,1,2-Trichloroethane	BQL	0.00500	0.00164	1	8/6/2008	
Trichlorofluoromethane	BQL	0.00500	0.00103	1	8/6/2008	
1,2,3-Trichloropropane	BQL	0.00500	0.00124	1	8/6/2008	
1,2,4-Trimethylbenzene	BQL	0.00500	0.00126	1	8/6/2008	
1,3,5-Trimethylbenzene	BQL	0.00500	0.00114	1	8/6/2008	
Vinyl chloride	BQL	0.00500	0.00136	1	8/6/2008	
m-,p-Xylene	BQL	0.0100	0.00192	1	8/6/2008	
o-Xylene	BQL	0.00500	0.00097	1	8/6/2008	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	0.05	0.0602	120
Toluene-d8	0.05	0.0484	97
4-Bromofluorobenzene	0.05	0.0426	85

Comments:**Flags:**Analyst: Reviewed By: 

**VPH (Aliphatics/Aromatics) Laboratory Reporting Form**Client Name: Richard Catlin & AssociatesProject Name: Former Cercla Site A-12

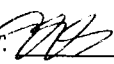
Sample Information	
Sample Identification	USTA-12 BASIN SE
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	07/31/08
Date Received	07/31/08
Date Extracted	08/04/08
Date Analyzed	08/07/08 01:07 - 08/07/08 01:07
Dry Weight	86.1
Dilution Factor	1 - 1

Analytical Results			
Analyte	Result mg/Kg	Report Limit mg/Kg	Flags
C ₅ -C ₈ Aliphatics**	BQL	10.0	
C ₉ -C ₁₂ Aliphatics**	BQL	10.0	
C ₉ -C ₁₀ Aromatics**	BQL	10.0	
	Percent Recovery	Flags	Limits Lower Upper
Surrogate % Recovery - PID	97.8		70 130
Surrogate % Recovery - FID	102		70 130

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: G128-2220-1e	Lab Info: G128-2220-1e
FID Info: VP080608/037F0101.D	PID Info: VP080608/037R0101.D

Reviewed By: 

**VPH (Aliphatics/Aromatics) Laboratory Reporting Form**Client Name: Richard Catlin & AssociatesProject Name: Former Cercla Site A-12

Sample Information	
Sample Identification	USTA-12 BASIN NE
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	07/31/08
Date Received	07/31/08
Date Extracted	08/04/08
Date Analyzed	08/07/08 01:33 - 08/07/08 01:33
Dry Weight	80.3
Dilution Factor	1 - 1

Analytical Results			
Analyte	Result mg/Kg	Report Limit mg/Kg	Flags
C ₅ -C ₈ Aliphatics**	BQL	10.0	
C ₉ -C ₁₂ Aliphatics**	BQL	10.0	
C ₉ -C ₁₀ Aromatics**	BQL	10.0	
	Percent Recovery	Flags	Limits Lower Upper
	Surrogate % Recovery - PID	93.5	70 130
	Surrogate % Recovery - FID	98.0	70 130

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: G128-2220-2e	Lab Info: G128-2220-2e
FID Info: VP080608/038F0101.D	PID Info: VP080608/038R0101.D

Reviewed By:

**VPH (Aliphatics/Aromatics) Laboratory Reporting Form**Client Name: Richard Catlin & AssociatesProject Name: Former Cercla Site A-12

Sample Information	
Sample Identification	USTA-12 BASIN NW
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	07/31/08
Date Received	07/31/08
Date Extracted	08/04/08
Date Analyzed	08/07/08 02:00 - 08/07/08 02:00
Dry Weight	85.7
Dilution Factor	1 - 1

Analytical Results				
Analyte	Result mg/Kg	Report Limit mg/Kg	Flags	
C ₅ -C ₈ Aliphatics**	BQL	10.0		
C ₉ -C ₁₂ Aliphatics**	BQL	10.0		
C ₉ -C ₁₀ Aromatics**	BQL	10.0		
	Percent Recovery	Flags	Limits Lower Upper	
Surrogate % Recovery - PID	88.5		70	130
Surrogate % Recovery - FID	93.6		70	130

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: G128-2220-3e	Lab Info: G128-2220-3e
FID Info: VP080608/039F0101.D	PID Info: VP080608/039R0101.D

Reviewed By:

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 07/25/08

PID Initial Calibration Date: 07/25/08

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C ₅ -C ₈ Aliphatics	2.02	0.175	6.42	0.557	100	10
C ₉ -C ₁₂ Aliphatics	1.51	0.118	4.80	0.375	100	10
C ₉ -C ₁₀ Aromatics	0.902	0.132	2.87	0.420	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C ₅ -C ₈ Aliphatics	10	0.8	6.76	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₂ Aliphatics	10	0.8	1.00	Linear Regression
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₀ Aromatics	10	0.8	15.66	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		

Calibration Check Date: 08/06/08

Filename: VP080608/002F0101.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C ₅ -C ₈ Aliphatics	200	16	21.7	±25%
C ₉ -C ₁₂ Aliphatics	200	16	7.3	±25%
C ₉ -C ₁₀ Aromatics	200	16	16.2	±25%

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTA-12 BASIN SE
Client Project ID: Former Cercla Site A-12
Lab Sample ID: G128-2220-1G
Lab Project ID: G128-2220
Report Basis: Dry weight

Analyzed By: DES
Date Collected: 7/31/2008 11:20
Date Received: 7/31/2008
Date Extracted: 8/1/2008
Matrix: Soil
% Solids: 86.05

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	0.114	0.356	0.055	1	8/4/2008	J
Acenaphthylene	BQL	0.356	0.050	1	8/4/2008	
Anthracene	BQL	0.356	0.049	1	8/4/2008	
Benzo[a]anthracene	0.178	0.356	0.049	1	8/4/2008	J
Benzo[a]pyrene	0.627	0.356	0.051	1	8/4/2008	
Benzo[b]fluoranthene	0.652	0.356	0.050	1	8/4/2008	
Benzo[g,h,i]perylene	0.078	0.356	0.062	1	8/4/2008	J
Benzo[k]fluoranthene	0.107	0.356	0.051	1	8/4/2008	J
Benzoic Acid	BQL	0.713	0.440	1	8/4/2008	
Bis(2-chloroethoxy)methane	BQL	0.356	0.052	1	8/4/2008	
Bis(2-chloroethyl)ether	BQL	0.356	0.072	1	8/4/2008	
Bis(2-chloroisopropyl)ether	BQL	0.356	0.057	1	8/4/2008	
Bis(2-ethylhexyl)phthalate	BQL	0.356	0.055	1	8/4/2008	
4-bromophenyl phenyl ether	BQL	0.356	0.063	1	8/4/2008	
Butylbenzylphthalate	BQL	0.356	0.053	1	8/4/2008	
2-Chloronaphthalene	BQL	0.356	0.050	1	8/4/2008	
2-Chlorophenol	BQL	0.356	0.045	1	8/4/2008	
4-Chloro-3-methylphenol	BQL	0.356	0.052	1	8/4/2008	
4-Chloroaniline	BQL	1.78	0.058	1	8/4/2008	
4-Chlorophenyl phenyl ether	BQL	0.356	0.052	1	8/4/2008	
Chrysene	0.210	0.356	0.034	1	8/4/2008	J
Dibenzo[a,h]anthracene	BQL	0.356	0.046	1	8/4/2008	
Dibenzofuran	0.057	0.356	0.050	1	8/4/2008	J
Di-n-Butylphthalate	BQL	0.356	0.052	1	8/4/2008	
1,2-Dichlorobenzene	BQL	0.356	0.060	1	8/4/2008	
1,3-Dichlorobenzene	BQL	0.356	0.058	1	8/4/2008	
1,4-Dichlorobenzene	BQL	0.356	0.052	1	8/4/2008	
3,3'-Dichlorobenzidine	BQL	0.713	0.059	1	8/4/2008	
2,4-Dichlorophenol	BQL	0.356	0.039	1	8/4/2008	
Diethylphthalate	BQL	0.356	0.048	1	8/4/2008	
Dimethylphthalate	BQL	0.356	0.055	1	8/4/2008	
2,4-Dimethylphenol	BQL	0.356	0.065	1	8/4/2008	
Di-n-octylphthalate	BQL	0.356	0.055	1	8/4/2008	
4,6-Dinitro-2-methylphenol	BQL	1.78	0.042	1	8/4/2008	
2,4-Dinitrophenol	BQL	1.78	0.046	1	8/4/2008	
2,4-Dinitrotoluene	BQL	0.356	0.054	1	8/4/2008	
2,6-Dinitrotoluene	BQL	0.356	0.059	1	8/4/2008	
Diphenylamine *	BQL	0.356	0.045	1	8/4/2008	
Fluoranthene	0.549	0.356	0.057	1	8/4/2008	
Fluorene	0.068	0.356	0.056	1	8/4/2008	J
Hexachlorobenzene	BQL	0.356	0.077	1	8/4/2008	
Hexachlorobutadiene	BQL	0.356	0.065	1	8/4/2008	
Hexachlorocyclopentadiene	BQL	0.713	0.070	1	8/4/2008	
Hexachloroethane	BQL	0.356	0.056	1	8/4/2008	
Indeno(1,2,3-c,d)pyrene	0.310	0.356	0.042	1	8/4/2008	J
Isophorone	BQL	0.356	0.052	1	8/4/2008	
2-Methylnaphthalene	BQL	0.356	0.058	1	8/4/2008	

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTA-12 BASIN SE
Client Project ID: Former Cercla Site A-12
Lab Sample ID: G128-2220-1G
Lab Project ID: G128-2220
Report Basis: Dry weight

Analyzed By: DES
Date Collected: 7/31/2008 11:20
Date Received: 7/31/2008
Date Extracted: 8/1/2008
Matrix: Soil
% Solids: 86.05

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
2-Methylphenol	BQL	0.356	0.055	1	8/4/2008	
3- & 4-Methylphenol	BQL	0.356	0.046	1	8/4/2008	
Naphthalene	0.075	0.356	0.050	1	8/4/2008	J
2-Nitroaniline	BQL	0.356	0.048	1	8/4/2008	
3-Nitroaniline	BQL	1.78	0.052	1	8/4/2008	
4-Nitroaniline	BQL	1.78	0.048	1	8/4/2008	
Nitrobenzene	BQL	0.356	0.047	1	8/4/2008	
2-Nitrophenol	BQL	0.356	0.052	1	8/4/2008	
4-Nitrophenol	BQL	1.78	0.062	1	8/4/2008	
N-Nitrosodi-n-propylamine	BQL	0.356	0.057	1	8/4/2008	
Pentachlorophenol	BQL	1.78	0.033	1	8/4/2008	
Phenanthrene	0.606	0.356	0.050	1	8/4/2008	
Phenol	BQL	0.356	0.049	1	8/4/2008	
Pyrene	0.410	0.356	0.049	1	8/4/2008	
1,2,4-Trichlorobenzene	BQL	0.356	0.064	1	8/4/2008	
2,4,5-Trichlorophenol	BQL	0.356	0.053	1	8/4/2008	
2,4,6-Trichlorophenol	BQL	0.356	0.032	1	8/4/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8	80
2-Fluorophenol	10	9.1	91
Nitrobenzene-d5	10	9.1	91
Phenol-d6	10	9.4	94
2,4,6-Tribromophenol	10	7.6	76
4-Terphenyl-d14	10	8.6	86

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By:

**Results of Library Search for Semivolatile Compounds**
by GCMS

Client Sample ID: USTA-12 BASIN SE
Client Project ID: Former Cercla Site A-12
Lab Sample ID: G128-2220-1G
Lab Project ID: G128-2220
Sample Wt/Vol: 32.62 g
Dilution: 1

Analyzed By: DES
Date Collected: 7/31/2008 11:20
Date Received: 7/31/2008
Date Extracted: 8/1/2008
Date Analyzed: 8/4/2008
Matrix: Soil
% Solids: 86.1

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/KG)
1	No library search compounds detected.				
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTA-12 BASIN NE
Client Project ID: Former Cercla Site A-12
Lab Sample ID: G128-2220-2G
Lab Project ID: G128-2220
Report Basis: Dry weight

Analyzed By: DES
Date Collected: 7/31/2008 12:10
Date Received: 7/31/2008
Date Extracted: 8/1/2008
Matrix: Soil
% Solids: 80.3

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.375	0.057	1	8/4/2008	
Acenaphthylene	BQL	0.375	0.053	1	8/4/2008	
Anthracene	BQL	0.375	0.051	1	8/4/2008	
Benzo[a]anthracene	BQL	0.375	0.051	1	8/4/2008	
Benzo[a]pyrene	BQL	0.375	0.054	1	8/4/2008	
Benzo[b]fluoranthene	BQL	0.375	0.052	1	8/4/2008	
Benzo[g,h,i]perylene	BQL	0.375	0.065	1	8/4/2008	
Benzo[k]fluoranthene	BQL	0.375	0.053	1	8/4/2008	
Benzoic Acid	BQL	0.750	0.463	1	8/4/2008	
Bis(2-chloroethoxy)methane	BQL	0.375	0.055	1	8/4/2008	
Bis(2-chloroethyl)ether	BQL	0.375	0.076	1	8/4/2008	
Bis(2-chloroisopropyl)ether	BQL	0.375	0.060	1	8/4/2008	
Bis(2-ethylhexyl)phthalate	BQL	0.375	0.057	1	8/4/2008	
4-bromophenyl phenyl ether	BQL	0.375	0.066	1	8/4/2008	
Butylbenzylphthalate	BQL	0.375	0.056	1	8/4/2008	
2-Chloronaphthalene	BQL	0.375	0.052	1	8/4/2008	
2-Chlorophenol	BQL	0.375	0.048	1	8/4/2008	
4-Chloro-3-methylphenol	BQL	0.375	0.055	1	8/4/2008	
4-Chloroaniline	BQL	1.88	0.061	1	8/4/2008	
4-Chlorophenyl phenyl ether	BQL	0.375	0.055	1	8/4/2008	
Chrysene	BQL	0.375	0.036	1	8/4/2008	
Dibenzo[a,h]anthracene	BQL	0.375	0.048	1	8/4/2008	
Dibenzofuran	BQL	0.375	0.053	1	8/4/2008	
Di-n-Butylphthalate	BQL	0.375	0.055	1	8/4/2008	
1,2-Dichlorobenzene	BQL	0.375	0.063	1	8/4/2008	
1,3-Dichlorobenzene	BQL	0.375	0.061	1	8/4/2008	
1,4-Dichlorobenzene	BQL	0.375	0.054	1	8/4/2008	
3,3'-Dichlorobenzidine	BQL	0.750	0.062	1	8/4/2008	
2,4-Dichlorophenol	BQL	0.375	0.041	1	8/4/2008	
Diethylphthalate	BQL	0.375	0.050	1	8/4/2008	
Dimethylphthalate	BQL	0.375	0.058	1	8/4/2008	
2,4-Dimethylphenol	BQL	0.375	0.068	1	8/4/2008	
Di-n-octylphthalate	BQL	0.375	0.058	1	8/4/2008	
4,6-Dinitro-2-methylphenol	BQL	1.88	0.045	1	8/4/2008	
2,4-Dinitrophenol	BQL	1.88	0.049	1	8/4/2008	
2,4-Dinitrotoluene	BQL	0.375	0.057	1	8/4/2008	
2,6-Dinitrotoluene	BQL	0.375	0.062	1	8/4/2008	
Diphenylamine *	BQL	0.375	0.047	1	8/4/2008	
Fluoranthene	BQL	0.375	0.060	1	8/4/2008	
Fluorene	BQL	0.375	0.059	1	8/4/2008	
Hexachlorobenzene	BQL	0.375	0.081	1	8/4/2008	
Hexachlorobutadiene	BQL	0.375	0.068	1	8/4/2008	
Hexachlorocyclopentadiene	BQL	0.750	0.073	1	8/4/2008	
Hexachloroethane	BQL	0.375	0.059	1	8/4/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.375	0.044	1	8/4/2008	
Isophorone	BQL	0.375	0.055	1	8/4/2008	
2-Methylnaphthalene	BQL	0.375	0.061	1	8/4/2008	

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTA-12 BASIN NE
Client Project ID: Former Cercla Site A-12
Lab Sample ID: G128-2220-2G
Lab Project ID: G128-2220
Report Basis: Dry weight

Analyzed By: DES
Date Collected: 7/31/2008 12:10
Date Received: 7/31/2008
Date Extracted: 8/1/2008
Matrix: Soil
% Solids: 80.3

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
2-Methylphenol	BQL	0.375	0.057	1	8/4/2008	
3- & 4-Methylphenol	BQL	0.375	0.049	1	8/4/2008	
Naphthalene	BQL	0.375	0.053	1	8/4/2008	
2-Nitroaniline	BQL	0.375	0.050	1	8/4/2008	
3-Nitroaniline	BQL	1.88	0.055	1	8/4/2008	
4-Nitroaniline	BQL	1.88	0.050	1	8/4/2008	
Nitrobenzene	BQL	0.375	0.050	1	8/4/2008	
2-Nitrophenol	BQL	0.375	0.055	1	8/4/2008	
4-Nitrophenol	BQL	1.88	0.065	1	8/4/2008	
N-Nitrosodi-n-propylamine	BQL	0.375	0.060	1	8/4/2008	
Pentachlorophenol	BQL	1.88	0.035	1	8/4/2008	
Phenanthrene	BQL	0.375	0.053	1	8/4/2008	
Phenol	BQL	0.375	0.051	1	8/4/2008	
Pyrene	BQL	0.375	0.051	1	8/4/2008	
1,2,4-Trichlorobenzene	BQL	0.375	0.068	1	8/4/2008	
2,4,5-Trichlorophenol	BQL	0.375	0.056	1	8/4/2008	
2,4,6-Trichlorophenol	BQL	0.375	0.033	1	8/4/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.8	98
2-Fluorophenol	10	9.9	99
Nitrobenzene-d5	10	10.1	101
Phenol-d6	10	10.3	103
2,4,6-Tribromophenol	10	8.4	84
4-Terphenyl-d14	10	10.7	107

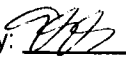
Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

**Results of Library Search for Semivolatile Compounds**
by GCMS

Client Sample ID: USTA-12 BASIN NE
Client Project ID: Former Cercla Site A-12
Lab Sample ID: G128-2220-2G
Lab Project ID: G128-2220
Sample Wt/Vol: 33.19 g
Dilution: 1

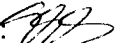
Analyzed By: DES
Date Collected: 7/31/2008 12:10
Date Received: 7/31/2008
Date Extracted: 8/1/2008
Date Analyzed: 8/4/2008
Matrix: Soil
% Solids: 80.3

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/KG)
1	No library search compounds detected.				
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTA-12 BASIN NW
Client Project ID: Former Cercla Site A-12
Lab Sample ID: G128-2220-3G
Lab Project ID: G128-2220
Report Basis: Dry weight

Analyzed By: DES
Date Collected: 7/31/2008 12:40
Date Received: 7/31/2008
Date Extracted: 8/1/2008
Matrix: Soil
% Solids: 85.67

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.350	0.054	1	8/4/2008	
Acenaphthylene	BQL	0.350	0.049	1	8/4/2008	
Anthracene	BQL	0.350	0.048	1	8/4/2008	
Benzo[a]anthracene	BQL	0.350	0.048	1	8/4/2008	
Benzo[a]pyrene	BQL	0.350	0.050	1	8/4/2008	
Benzo[b]fluoranthene	BQL	0.350	0.049	1	8/4/2008	
Benzo[g,h,i]perylene	BQL	0.350	0.061	1	8/4/2008	
Benzo[k]fluoranthene	BQL	0.350	0.050	1	8/4/2008	
Benzoic Acid	BQL	0.700	0.432	1	8/4/2008	
Bis(2-chloroethoxy)methane	BQL	0.350	0.052	1	8/4/2008	
Bis(2-chloroethyl)ether	BQL	0.350	0.071	1	8/4/2008	
Bis(2-chloroisopropyl)ether	BQL	0.350	0.056	1	8/4/2008	
Bis(2-ethylhexyl)phthalate	BQL	0.350	0.054	1	8/4/2008	
4-bromophenyl phenyl ether	BQL	0.350	0.062	1	8/4/2008	
Butylbenzylphthalate	BQL	0.350	0.052	1	8/4/2008	
2-Chloronaphthalene	BQL	0.350	0.049	1	8/4/2008	
2-Chlorophenol	BQL	0.350	0.045	1	8/4/2008	
4-Chloro-3-methylphenol	BQL	0.350	0.051	1	8/4/2008	
4-Chloroaniline	BQL	1.75	0.057	1	8/4/2008	
4-Chlorophenyl phenyl ether	BQL	0.350	0.052	1	8/4/2008	
Chrysene	BQL	0.350	0.034	1	8/4/2008	
Dibenzo[a,h]anthracene	BQL	0.350	0.045	1	8/4/2008	
Dibenzofuran	BQL	0.350	0.049	1	8/4/2008	
Di-n-Butylphthalate	BQL	0.350	0.051	1	8/4/2008	
1,2-Dichlorobenzene	BQL	0.350	0.059	1	8/4/2008	
1,3-Dichlorobenzene	BQL	0.350	0.057	1	8/4/2008	
1,4-Dichlorobenzene	BQL	0.350	0.051	1	8/4/2008	
3,3'-Dichlorobenzidine	BQL	0.700	0.058	1	8/4/2008	
2,4-Dichlorophenol	BQL	0.350	0.038	1	8/4/2008	
Diethylphthalate	BQL	0.350	0.047	1	8/4/2008	
Dimethylphthalate	BQL	0.350	0.054	1	8/4/2008	
2,4-Dimethylphenol	BQL	0.350	0.063	1	8/4/2008	
Di-n-octylphthalate	BQL	0.350	0.054	1	8/4/2008	
4,6-Dinitro-2-methylphenol	BQL	1.75	0.042	1	8/4/2008	
2,4-Dinitrophenol	BQL	1.75	0.046	1	8/4/2008	
2,4-Dinitrotoluene	BQL	0.350	0.053	1	8/4/2008	
2,6-Dinitrotoluene	BQL	0.350	0.058	1	8/4/2008	
Diphenylamine *	BQL	0.350	0.044	1	8/4/2008	
Fluoranthene	BQL	0.350	0.056	1	8/4/2008	
Fluorene	BQL	0.350	0.055	1	8/4/2008	
Hexachlorobenzene	BQL	0.350	0.076	1	8/4/2008	
Hexachlorobutadiene	BQL	0.350	0.064	1	8/4/2008	
Hexachlorocyclopentadiene	BQL	0.700	0.068	1	8/4/2008	
Hexachloroethane	BQL	0.350	0.055	1	8/4/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.350	0.041	1	8/4/2008	
Isophorone	BQL	0.350	0.051	1	8/4/2008	
2-Methylnaphthalene	BQL	0.350	0.057	1	8/4/2008	

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: USTA-12 BASIN NW
Client Project ID: Former Cercla Site A-12
Lab Sample ID: G128-2220-3G
Lab Project ID: G128-2220
Report Basis: Dry weight

Analyzed By: DES
Date Collected: 7/31/2008 12:40
Date Received: 7/31/2008
Date Extracted: 8/1/2008
Matrix: Soil
% Solids: 85.67

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
2-Methylphenol	BQL	0.350	0.054	1	8/4/2008	
3- & 4-Methylphenol	BQL	0.350	0.046	1	8/4/2008	
Naphthalene	BQL	0.350	0.049	1	8/4/2008	
2-Nitroaniline	BQL	0.350	0.047	1	8/4/2008	
3-Nitroaniline	BQL	1.75	0.052	1	8/4/2008	
4-Nitroaniline	BQL	1.75	0.047	1	8/4/2008	
Nitrobenzene	BQL	0.350	0.047	1	8/4/2008	
2-Nitrophenol	BQL	0.350	0.051	1	8/4/2008	
4-Nitrophenol	BQL	1.75	0.061	1	8/4/2008	
N-Nitrosodi-n-propylamine	BQL	0.350	0.056	1	8/4/2008	
Pentachlorophenol	BQL	1.75	0.032	1	8/4/2008	
Phenanthrene	BQL	0.350	0.049	1	8/4/2008	
Phenol	BQL	0.350	0.048	1	8/4/2008	
Pyrene	BQL	0.350	0.048	1	8/4/2008	
1,2,4-Trichlorobenzene	BQL	0.350	0.063	1	8/4/2008	
2,4,5-Trichlorophenol	BQL	0.350	0.052	1	8/4/2008	
2,4,6-Trichlorophenol	BQL	0.350	0.031	1	8/4/2008	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.5	95		
2-Fluorophenol		10	9.3	93		
Nitrobenzene-d5		10	9.8	98		
Phenol-d6		10	9.5	95		
2,4,6-Tribromophenol		10	7.9	79		
4-Terphenyl-d14		10	10.4	104		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

**Results of Library Search for Semivolatile Compounds**
by GCMS

Client Sample ID: USTA-12 BASIN NW
Client Project ID: Former Cercla Site A-12
Lab Sample ID: G128-2220-3G
Lab Project ID: G128-2220
Sample Wt/Vol: 33.35 g
Dilution: 1

Analyzed By: DES
Date Collected: 7/31/2008 12:40
Date Received: 7/31/2008
Date Extracted: 8/1/2008
Date Analyzed: 8/4/2008
Matrix: Soil
% Solids: 85.7

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/KG)
1	Unknown	10.79			1400
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

**EPH (Aliphatics/Aromatics) Laboratory Reporting Form**Client Name: Richard Catlin & AssociatesProject Name: Former Cercla Site A-12

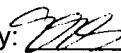
Sample Information	
Sample Identification	USTA-12 BASIN SE
Sample Matrix	SOIL
Date Collected	07/31/08
Date Received	07/31/08
Date Extracted	08/01/08
Date Analyzed	08/06/08 01:06 - 08/06/08 01:06
Dry Weight	86.1
Dilution Factor	1 - 1
Initial weight (g)	12.68
Final Volume (mL)	1.0

Analytical Results			
Analytes**	Result mg/Kg	Report Limit mg/Kg	Flags
C9-C18 Aliphatics	BQL	10.0	
C19-C36 Aliphatics	BQL	10.0	
C11-C22 Aromatics	BQL	10.0	

Surrogates	Percent Recovery	Flags	Limits	
			Lower	Upper
Aliphatic (tricosane)	106		40	140
Aromatic (ortho-terphenyl)	101		40	140

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: G128-2220-1H	Lab Info: G128-2220-1H
Aliphatic: EP080508/030F1501.D	Aromatic: EP080508/030F1501.D

Reviewed By: 

**EPH (Aliphatics/Aromatics) Laboratory Reporting Form**Client Name: Richard Catlin & AssociatesProject Name: Former Cercla Site A-12

Sample Information	
Sample Identification	USTA-12 BASIN NE
Sample Matrix	SOIL
Date Collected	07/31/08
Date Received	07/31/08
Date Extracted	08/01/08
Date Analyzed	08/06/08 01:34 - 08/06/08 01:34
Dry Weight	80.3
Dilution Factor	1 - 1
Initial weight (g)	12.78
Final Volume (mL)	1.0

Analytical Results			
Analytes**	Result mg/Kg	Report Limit mg/Kg	Flags
C9-C18 Aliphatics	BQL	10.0	
C19-C36 Aliphatics	BQL	10.0	
C11-C22 Aromatics	BQL	10.0	

Surrogates	Percent Recovery	Flags	Limits	
			Lower	Upper
Aliphatic (tricosane)	105		40	140
Aromatic (ortho-terphenyl)	99.0		40	140

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: G128-2220-2H	Lab Info: G128-2220-2H
Aliphatic: EP080508/031F1601.D	Aromatic: EP080508/031F1601.D

Reviewed By:

**EPH (Aliphatics/Aromatics) Laboratory Reporting Form**Client Name: Richard Catlin & AssociatesProject Name: Former Cercla Site A-12

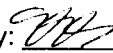
Sample Information	
Sample Identification	USTA-12 BASIN NW
Sample Matrix	SOIL
Date Collected	07/31/08
Date Received	07/31/08
Date Extracted	08/01/08
Date Analyzed	08/06/08 02:03 - 08/06/08 02:03
Dry Weight	85.7
Dilution Factor	1 - 1
Initial weight (g)	13.23
Final Volume (mL)	1.0

Analytical Results			
Analytes**	Result mg/Kg	Report Limit mg/Kg	Flags
C9-C18 Aliphatics	BQL	10.0	
C19-C36 Aliphatics	BQL	10.0	
C11-C22 Aromatics	BQL	10.0	

Surrogates	Percent Recovery	Flags	Limits	
			Lower	Upper
Aliphatic (tricosane)	100		40	140
Aromatic (ortho-terphenyl)	95.0		40	140

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: G128-2220-3H	Lab Info: G128-2220-3H
Aliphatic: EP080508/032F1701.D	Aromatic: EP080508/032F1701.D

Reviewed By: 

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 07/28/08

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(02/15/08) (µg/L)	(02/11/08) (mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C9-C18 Aliphatics	1.66	0.274	5.28	0.871	100	10
C19-C36 Aliphatics	2.79	0.201	8.87	0.639	100	10
C11-C22 Aromatics	2.64	0.110	8.40	0.350	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	200	33.3	11.96	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C ₁₉ -C ₃₆ Aliphatics	200	33.3	7.13	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C ₁₁ -C ₂₂ Aromatics	200	33.3	3.01	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		

Calibration Check Date: 08/06/08
08/06/08

FileNames: ep080608/001f0101.d
ep080608/002f0201.d

Calibration Check

Range	Levels		%Difference if CF %Drift if LR	Limits
	(µg/L)	(mg/Kg)		
C9-C18 Aliphatics	100	16.7	9.8	±25%
C19-C36 Aliphatics	100	16.7	9.4	±25%
C11-C22 Aromatics	100	16.7	-9.8	±25%

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit

RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 07/28/08

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(02/15/08) (µg/L)	(02/11/08) (mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C9-C18 Aliphatics	1.66	0.274	5.28	0.871	100	10
C19-C36 Aliphatics	2.79	0.201	8.87	0.639	100	10
C11-C22 Aromatics	2.64	0.110	8.40	0.350	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	200	33.3	11.96	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C ₁₉ -C ₃₆ Aliphatics	200	33.3	7.13	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C ₁₁ -C ₂₂ Aromatics	200	33.3	3.01	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		

Calibration Check Date: 08/05/08
08/06/08

Filenames: ep080508/027f1201.d
ep080508/028f1301.d

Calibration Check

Range	Levels		%Difference if CF %Drift if LR	Limits
	(µg/L)	(mg/Kg)		
C9-C18 Aliphatics	100	16.7	12.9	≤±25%
C19-C36 Aliphatics	100	16.7	13.1	≤±25%
C11-C22 Aromatics	100	16.7	4.7	≤±25%

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit

RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

SGS

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[illegible]

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler

1270 Greenbrier Street
Charleston, WV 25311
Tel: (304) 346-0725 Fax: (304) 346-0761

☐ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

APPENDIX G

SEPTEMBER 2008 CONFIRMATION SAMPLING AND DISPOSAL SAMPLING LABORATORY DATA



Ben Ashba
Richard Catlin & Associates
P.O. Box 10279
Wilmington, NC 28404-0279

Report Number: G128-2242

Client Project: A12

Dear Ben Ashba,

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call SGS Environmental Services at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS Environmental Services for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
SGS Environmental Services, Inc.

9/19/08
Project Manager Date
Ashley Nifong



List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: SE-N (3')
Client Project ID: A12
Lab Sample ID: G128-2242-1C
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 32.22 g

Analyzed By: DES
Date Collected: 9/10/2008 8:30
Date Received: 9/11/2008
Date Extracted: 9/18/2008
Matrix: Soil
% Solids: 90.82

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.342	0.052	1	9/18/2008	
Acenaphthylene	BQL	0.342	0.048	1	9/18/2008	
Anthracene	BQL	0.342	0.047	1	9/18/2008	
Benzo[a]anthracene	BQL	0.342	0.047	1	9/18/2008	
Benzo[a]pyrene	BQL	0.342	0.049	1	9/18/2008	
Benzo[b]fluoranthene	BQL	0.342	0.048	1	9/18/2008	
Benzo[g,h,i]perylene	BQL	0.342	0.060	1	9/18/2008	
Benzo[k]fluoranthene	BQL	0.342	0.049	1	9/18/2008	
Chrysene	BQL	0.342	0.033	1	9/18/2008	
Dibenzo[a,h]anthracene	BQL	0.342	0.044	1	9/18/2008	
Fluoranthene	BQL	0.342	0.055	1	9/18/2008	
Fluorene	BQL	0.342	0.053	1	9/18/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.342	0.040	1	9/18/2008	
1-Methylnaphthalene	BQL	0.342	0.043	1	9/18/2008	
2-Methylnaphthalene	BQL	0.342	0.056	1	9/18/2008	
Naphthalene	BQL	0.342	0.048	1	9/18/2008	
Phenanthrene	BQL	0.342	0.048	1	9/18/2008	
Pyrene	BQL	0.342	0.047	1	9/18/2008	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	9.1	91		
Nitrobenzene-d5		10	8.7	87		
4-Terphenyl-d14		10	8.1	81		

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: SE-E (3')
Client Project ID: A12
Lab Sample ID: G128-2242-2B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 32.43 g

Analyzed By: DES
Date Collected: 9/10/2008 8:35
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 86.16

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.358	0.055	1	9/17/2008	
Acenaphthylene	BQL	0.358	0.050	1	9/17/2008	
Anthracene	BQL	0.358	0.049	1	9/17/2008	
Benzo[a]anthracene	0.125	0.358	0.049	1	9/17/2008	J
Benzo[a]pyrene	0.122	0.358	0.052	1	9/17/2008	J
Benzo[b]fluoranthene	0.150	0.358	0.050	1	9/17/2008	J
Benzo[g,h,i]perylene	0.079	0.358	0.062	1	9/17/2008	J
Benzo[k]fluoranthene	0.064	0.358	0.051	1	9/17/2008	J
Chrysene	0.140	0.358	0.034	1	9/17/2008	J
Dibenzo[a,h]anthracene	BQL	0.358	0.046	1	9/17/2008	
Fluoranthene	0.218	0.358	0.058	1	9/17/2008	J
Fluorene	BQL	0.358	0.056	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	0.064	0.358	0.042	1	9/17/2008	J
1-Methylnaphthalene	BQL	0.358	0.045	1	9/17/2008	
2-Methylnaphthalene	BQL	0.358	0.058	1	9/17/2008	
Naphthalene	BQL	0.358	0.050	1	9/17/2008	
Phenanthrene	0.090	0.358	0.050	1	9/17/2008	J
Pyrene	0.193	0.358	0.049	1	9/17/2008	J

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.5	85
Nitrobenzene-d5	10	8.7	87
4-Terphenyl-d14	10	7.6	76

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: SE-S (3')
Client Project ID: A12
Lab Sample ID: G128-2242-3B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 32.93 g

Analyzed By: DES
Date Collected: 9/10/2008 8:40
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 83.11

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.365	0.056	1	9/17/2008	
Acenaphthylene	BQL	0.365	0.051	1	9/17/2008	
Anthracene	BQL	0.365	0.050	1	9/17/2008	
Benzo[a]anthracene	BQL	0.365	0.050	1	9/17/2008	
Benzo[a]pyrene	BQL	0.365	0.053	1	9/17/2008	
Benzo[b]fluoranthene	BQL	0.365	0.051	1	9/17/2008	
Benzo[g,h,i]perylene	BQL	0.365	0.064	1	9/17/2008	
Benzo[k]fluoranthene	BQL	0.365	0.052	1	9/17/2008	
Chrysene	BQL	0.365	0.035	1	9/17/2008	
Dibenzo[a,h]anthracene	BQL	0.365	0.047	1	9/17/2008	
Fluoranthene	BQL	0.365	0.059	1	9/17/2008	
Fluorene	BQL	0.365	0.057	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.365	0.043	1	9/17/2008	
1-Methylnaphthalene	BQL	0.365	0.046	1	9/17/2008	
2-Methylnaphthalene	BQL	0.365	0.060	1	9/17/2008	
Naphthalene	BQL	0.365	0.051	1	9/17/2008	
Phenanthrene	BQL	0.365	0.051	1	9/17/2008	
Pyrene	BQL	0.365	0.050	1	9/17/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	7.7	77
Nitrobenzene-d5	10	8.2	82
4-Terphenyl-d14	10	7.1	71

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

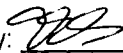
Client Sample ID: SE-W (3')
Client Project ID: A12
Lab Sample ID: G128-2242-4B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 34.06 g

Analyzed By: DES
Date Collected: 9/10/2008 8:45
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 85.75

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.342	0.052	1	9/17/2008	
Acenaphthylene	BQL	0.342	0.048	1	9/17/2008	
Anthracene	BQL	0.342	0.047	1	9/17/2008	
Benzo[a]anthracene	BQL	0.342	0.047	1	9/17/2008	
Benzo[a]pyrene	BQL	0.342	0.049	1	9/17/2008	
Benzo[b]fluoranthene	BQL	0.342	0.048	1	9/17/2008	
Benzo[g,h,i]perylene	BQL	0.342	0.060	1	9/17/2008	
Benzo[k]fluoranthene	BQL	0.342	0.049	1	9/17/2008	
Chrysene	BQL	0.342	0.033	1	9/17/2008	
Dibenzo[a,h]anthracene	BQL	0.342	0.044	1	9/17/2008	
Fluoranthene	BQL	0.342	0.055	1	9/17/2008	
Fluorene	BQL	0.342	0.053	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.342	0.040	1	9/17/2008	
1-Methylnaphthalene	BQL	0.342	0.043	1	9/17/2008	
2-Methylnaphthalene	BQL	0.342	0.056	1	9/17/2008	
Naphthalene	BQL	0.342	0.048	1	9/17/2008	
Phenanthrene	BQL	0.342	0.048	1	9/17/2008	
Pyrene	BQL	0.342	0.047	1	9/17/2008	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8	80		
Nitrobenzene-d5		10	8.5	85		
4-Terphenyl-d14		10	7.1	71		

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: SW-N (3')
Client Project ID: A12
Lab Sample ID: G128-2242-5B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 32.47 g

Analyzed By: DES
Date Collected: 9/10/2008 9:00
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 88.87

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.347	0.053	1	9/17/2008	
Acenaphthylene	BQL	0.347	0.049	1	9/17/2008	
Anthracene	BQL	0.347	0.047	1	9/17/2008	
Benzo[a]anthracene	BQL	0.347	0.048	1	9/17/2008	
Benzo[a]pyrene	BQL	0.347	0.050	1	9/17/2008	
Benzo[b]fluoranthene	BQL	0.347	0.048	1	9/17/2008	
Benzo[g,h,i]perylene	BQL	0.347	0.060	1	9/17/2008	
Benzo[k]fluoranthene	BQL	0.347	0.049	1	9/17/2008	
Chrysene	BQL	0.347	0.033	1	9/17/2008	
Dibenzo[a,h]anthracene	BQL	0.347	0.044	1	9/17/2008	
Fluoranthene	BQL	0.347	0.056	1	9/17/2008	
Fluorene	BQL	0.347	0.054	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.347	0.041	1	9/17/2008	
1-Methylnaphthalene	BQL	0.347	0.043	1	9/17/2008	
2-Methylnaphthalene	BQL	0.347	0.057	1	9/17/2008	
Naphthalene	BQL	0.347	0.049	1	9/17/2008	
Phenanthrene	BQL	0.347	0.049	1	9/17/2008	
Pyrene	BQL	0.347	0.047	1	9/17/2008	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.3	83		
Nitrobenzene-d5		10	8.2	82		
4-Terphenyl-d14		10	7.5	75		

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: SW-E (3')
Client Project ID: A12
Lab Sample ID: G128-2242-6B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 32.13 g

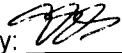
Analyzed By: DES
Date Collected: 9/10/2008 9:05
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 88.97

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	0.070	0.350	0.054	1	9/17/2008	J
Acenaphthylene	BQL	0.350	0.049	1	9/17/2008	
Anthracene	0.095	0.350	0.048	1	9/17/2008	J
Benzo[a]anthracene	0.287	0.350	0.048	1	9/17/2008	J
Benzo[a]pyrene	0.280	0.350	0.050	1	9/17/2008	J
Benzo[b]fluoranthene	0.353	0.350	0.049	1	9/17/2008	
Benzo[g,h,i]perylene	0.150	0.350	0.061	1	9/17/2008	J
Benzo[k]fluoranthene	0.143	0.350	0.050	1	9/17/2008	J
Chrysene	0.273	0.350	0.034	1	9/17/2008	J
Dibenzo[a,h]anthracene	0.206	0.350	0.045	1	9/17/2008	J
Fluoranthene	0.626	0.350	0.056	1	9/17/2008	
Fluorene	0.056	0.350	0.055	1	9/17/2008	J
Indeno(1,2,3-c,d)pyrene	0.136	0.350	0.041	1	9/17/2008	J
1-Methylnaphthalene	BQL	0.350	0.044	1	9/17/2008	
2-Methylnaphthalene	BQL	0.350	0.057	1	9/17/2008	
Naphthalene	BQL	0.350	0.049	1	9/17/2008	
Phenanthrene	0.402	0.350	0.049	1	9/17/2008	
Pyrene	0.490	0.350	0.048	1	9/17/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.8	98
Nitrobenzene-d5	10	9.3	93
4-Terphenyl-d14	10	8.6	86

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: SW-S (3')
Client Project ID: A12
Lab Sample ID: G128-2242-7B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 33.27 g

Analyzed By: DES
Date Collected: 9/10/2008 9:10
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 90.87

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.331	0.051	1	9/17/2008	
Acenaphthylene	BQL	0.331	0.046	1	9/17/2008	
Anthracene	BQL	0.331	0.045	1	9/17/2008	
Benzo[a]anthracene	0.083	0.331	0.045	1	9/17/2008	J
Benzo[a]pyrene	0.086	0.331	0.048	1	9/17/2008	J
Benzo[b]fluoranthene	0.126	0.331	0.046	1	9/17/2008	J
Benzo[g,h,i]perylene	BQL	0.331	0.058	1	9/17/2008	
Benzo[k]fluoranthene	BQL	0.331	0.047	1	9/17/2008	
Chrysene	0.079	0.331	0.032	1	9/17/2008	J
Dibenzo[a,h]anthracene	BQL	0.331	0.042	1	9/17/2008	
Fluoranthene	0.129	0.331	0.053	1	9/17/2008	J
Fluorene	BQL	0.331	0.052	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.331	0.039	1	9/17/2008	
1-Methylnaphthalene	BQL	0.331	0.041	1	9/17/2008	
2-Methylnaphthalene	BQL	0.331	0.054	1	9/17/2008	
Naphthalene	BQL	0.331	0.046	1	9/17/2008	
Phenanthrene	0.050	0.331	0.046	1	9/17/2008	J
Pyrene	0.116	0.331	0.045	1	9/17/2008	J

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.5	95
Nitrobenzene-d5	10	9.2	92
4-Terphenyl-d14	10	8.5	85

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: SW-W (3')
Client Project ID: A12
Lab Sample ID: G128-2242-8B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 32.41 g

Analyzed By: DES
Date Collected: 9/10/2008 9:15
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 92.25

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	0.064	0.334	0.051	1	9/17/2008	J
Acenaphthylene	BQL	0.334	0.047	1	9/17/2008	
Anthracene	0.080	0.334	0.046	1	9/17/2008	J
Benzo[a]anthracene	0.224	0.334	0.046	1	9/17/2008	J
Benzo[a]pyrene	0.197	0.334	0.048	1	9/17/2008	J
Benzo[b]fluoranthene	0.237	0.334	0.047	1	9/17/2008	J
Benzo[g,h,i]perylene	0.110	0.334	0.058	1	9/17/2008	J
Benzo[k]fluoranthene	0.114	0.334	0.048	1	9/17/2008	J
Chrysene	0.197	0.334	0.032	1	9/17/2008	J
Dibenzo[a,h]anthracene	0.184	0.334	0.043	1	9/17/2008	J
Fluoranthene	0.455	0.334	0.054	1	9/17/2008	
Fluorene	BQL	0.334	0.052	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	0.107	0.334	0.040	1	9/17/2008	J
1-Methylnaphthalene	BQL	0.334	0.042	1	9/17/2008	
2-Methylnaphthalene	BQL	0.334	0.055	1	9/17/2008	
Naphthalene	BQL	0.334	0.047	1	9/17/2008	
Phenanthrene	0.358	0.334	0.047	1	9/17/2008	
Pyrene	0.368	0.334	0.046	1	9/17/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.5	95
Nitrobenzene-d5	10	9.1	91
4-Terphenyl-d14	10	8.6	86

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: 9-E (3')
Client Project ID: A12
Lab Sample ID: G128-2242-9B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 34.83 g

Analyzed By: DES
Date Collected: 9/10/2008 10:35
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 86.15

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.333	0.051	1	9/17/2008	
Acenaphthylene	BQL	0.333	0.047	1	9/17/2008	
Anthracene	BQL	0.333	0.045	1	9/17/2008	
Benzo[a]anthracene	BQL	0.333	0.046	1	9/17/2008	
Benzo[a]pyrene	BQL	0.333	0.048	1	9/17/2008	
Benzo[b]fluoranthene	BQL	0.333	0.046	1	9/17/2008	
Benzo[g,h,i]perylene	BQL	0.333	0.058	1	9/17/2008	
Benzo[k]fluoranthene	BQL	0.333	0.047	1	9/17/2008	
Chrysene	BQL	0.333	0.032	1	9/17/2008	
Dibenzo[a,h]anthracene	BQL	0.333	0.043	1	9/17/2008	
Fluoranthene	BQL	0.333	0.054	1	9/17/2008	
Fluorene	BQL	0.333	0.052	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.333	0.039	1	9/17/2008	
1-Methylnaphthalene	BQL	0.333	0.042	1	9/17/2008	
2-Methylnaphthalene	BQL	0.333	0.054	1	9/17/2008	
Naphthalene	BQL	0.333	0.047	1	9/17/2008	
Phenanthrene	BQL	0.333	0.047	1	9/17/2008	
Pyrene	BQL	0.333	0.045	1	9/17/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.5	85
Nitrobenzene-d5	10	8.1	81
4-Terphenyl-d14	10	7.8	78

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: 9-W (3')
Client Project ID: A12
Lab Sample ID: G128-2242-10B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 34.49 g

Analyzed By: DES
Date Collected: 9/10/2008 10:45
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 90.16

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.322	0.049	1	9/17/2008	
Acenaphthylene	BQL	0.322	0.045	1	9/17/2008	
Anthracene	BQL	0.322	0.044	1	9/17/2008	
Benzo[a]anthracene	BQL	0.322	0.044	1	9/17/2008	
Benzo[a]pyrene	BQL	0.322	0.046	1	9/17/2008	
Benzo[b]fluoranthene	BQL	0.322	0.045	1	9/17/2008	
Benzo[g,h,i]perylene	BQL	0.322	0.056	1	9/17/2008	
Benzo[k]fluoranthene	BQL	0.322	0.046	1	9/17/2008	
Chrysene	BQL	0.322	0.031	1	9/17/2008	
Dibenzo[a,h]anthracene	BQL	0.322	0.041	1	9/17/2008	
Fluoranthene	BQL	0.322	0.052	1	9/17/2008	
Fluorene	BQL	0.322	0.050	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.322	0.038	1	9/17/2008	
1-Methylnaphthalene	BQL	0.322	0.040	1	9/17/2008	
2-Methylnaphthalene	BQL	0.322	0.052	1	9/17/2008	
Naphthalene	BQL	0.322	0.045	1	9/17/2008	
Phenanthrene	BQL	0.322	0.045	1	9/17/2008	
Pyrene	BQL	0.322	0.044	1	9/17/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.8	88
Nitrobenzene-d5	10	8.2	82
4-Terphenyl-d14	10	8.1	81

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: Line Ex Comp.
Client Project ID: A12
Lab Sample ID: G128-2242-11K
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 34.34 g

Analyzed By: DES
Date Collected: 9/10/2008 13:50
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 86.53

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	0.081	0.337	0.052	1	9/17/2008	J
Acenaphthylene	0.071	0.337	0.047	1	9/17/2008	J
Anthracene	0.071	0.337	0.046	1	9/17/2008	J
Benzo[a]anthracene	0.192	0.337	0.046	1	9/17/2008	J
Benzo[a]pyrene	0.168	0.337	0.049	1	9/17/2008	J
Benzo[b]fluoranthene	0.229	0.337	0.047	1	9/17/2008	J
Benzo[g,h,i]perylene	0.128	0.337	0.059	1	9/17/2008	J
Benzo[k]fluoranthene	0.094	0.337	0.048	1	9/17/2008	J
Benzoic Acid	BQL	0.673	0.416	1	9/17/2008	
Bis(2-chloroethoxy)methane	BQL	0.337	0.050	1	9/17/2008	
Bis(2-chloroethyl)ether	BQL	0.337	0.068	1	9/17/2008	
Bis(2-chloroisopropyl)ether	BQL	0.337	0.054	1	9/17/2008	
Bis(2-ethylhexyl)phthalate	0.199	0.337	0.052	1	9/17/2008	J
4-bromophenyl phenyl ether	BQL	0.337	0.060	1	9/17/2008	
Butylbenzylphthalate	BQL	0.337	0.050	1	9/17/2008	
2-Chloronaphthalene	BQL	0.337	0.047	1	9/17/2008	
2-Chlorophenol	BQL	0.337	0.043	1	9/17/2008	
4-Chloro-3-methylphenol	BQL	0.337	0.049	1	9/17/2008	
4-Chloroaniline	BQL	1.68	0.055	1	9/17/2008	
4-Chlorophenyl phenyl ether	BQL	0.337	0.050	1	9/17/2008	
Chrysene	0.151	0.337	0.032	1	9/17/2008	J
Dibenzo[a,h]anthracene	BQL	0.337	0.043	1	9/17/2008	
Dibenzofuran	BQL	0.337	0.048	1	9/17/2008	
Di-n-Butylphthalate	BQL	0.337	0.049	1	9/17/2008	
1,2-Dichlorobenzene	BQL	0.337	0.057	1	9/17/2008	
1,3-Dichlorobenzene	BQL	0.337	0.055	1	9/17/2008	
1,4-Dichlorobenzene	BQL	0.337	0.049	1	9/17/2008	
3,3'-Dichlorobenzidine	BQL	0.673	0.056	1	9/17/2008	
2,4-Dichlorophenol	BQL	0.337	0.037	1	9/17/2008	
Diethylphthalate	BQL	0.337	0.045	1	9/17/2008	
Dimethylphthalate	BQL	0.337	0.052	1	9/17/2008	
2,4-Dimethylphenol	BQL	0.337	0.061	1	9/17/2008	
Di-n-octylphthalate	BQL	0.337	0.052	1	9/17/2008	
4,6-Dinitro-2-methylphenol	BQL	1.68	0.040	1	9/17/2008	
2,4-Dinitrophenol	BQL	1.68	0.044	1	9/17/2008	
2,4-Dinitrotoluene	BQL	0.337	0.051	1	9/17/2008	
2,6-Dinitrotoluene	BQL	0.337	0.056	1	9/17/2008	
Diphenylamine *	BQL	0.337	0.042	1	9/17/2008	
Fluoranthene	0.363	0.337	0.054	1	9/17/2008	
Fluorene	0.061	0.337	0.053	1	9/17/2008	J
Hexachlorobenzene	BQL	0.337	0.073	1	9/17/2008	
Hexachlorobutadiene	BQL	0.337	0.061	1	9/17/2008	
Hexachlorocyclopentadiene	BQL	0.673	0.066	1	9/17/2008	
Hexachloroethane	BQL	0.337	0.053	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	0.101	0.337	0.040	1	9/17/2008	J
Isophorone	BQL	0.337	0.049	1	9/17/2008	
2-Methylnaphthalene	BQL	0.337	0.055	1	9/17/2008	

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: Line Ex Comp.
Client Project ID: A12
Lab Sample ID: G128-2242-11K
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 34.34 g

Analyzed By: DES
Date Collected: 9/10/2008 13:50
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 86.53

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
2-Methylphenol	BQL	0.337	0.052	1	9/17/2008	
3- & 4-Methylphenol	BQL	0.337	0.044	1	9/17/2008	
Naphthalene	BQL	0.337	0.047	1	9/17/2008	
2-Nitroaniline	BQL	0.337	0.045	1	9/17/2008	
3-Nitroaniline	BQL	1.68	0.050	1	9/17/2008	
4-Nitroaniline	BQL	1.68	0.045	1	9/17/2008	
Nitrobenzene	BQL	0.337	0.045	1	9/17/2008	
2-Nitrophenol	BQL	0.337	0.049	1	9/17/2008	
4-Nitrophenol	BQL	1.68	0.059	1	9/17/2008	
N-Nitrosodi-n-propylamine	BQL	0.337	0.054	1	9/17/2008	
Pentachlorophenol	BQL	1.68	0.031	1	9/17/2008	
Phenanthrene	0.155	0.337	0.047	1	9/17/2008	J
Phenol	BQL	0.337	0.046	1	9/17/2008	
Pyrene	0.326	0.337	0.046	1	9/17/2008	J
1,2,4-Trichlorobenzene	BQL	0.337	0.061	1	9/17/2008	
2,4,5-Trichlorophenol	BQL	0.337	0.050	1	9/17/2008	
2,4,6-Trichlorophenol	BQL	0.337	0.030	1	9/17/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.9	89
2-Fluorophenol	10	9	90
Nitrobenzene-d5	10	10.1	101
Phenol-d6	10	9.4	94
2,4,6-Tribromophenol	10	10.7	106
4-Terphenyl-d14	10	7.8	78

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: East @ EOP (3')
Client Project ID: A12
Lab Sample ID: G128-2242-13B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 34.34 g

Analyzed By: DES
Date Collected: 9/10/2008 14:00
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 88.67

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.328	0.050	1	9/17/2008	
Acenaphthylene	BQL	0.328	0.046	1	9/17/2008	
Anthracene	BQL	0.328	0.045	1	9/17/2008	
Benzo[a]anthracene	BQL	0.328	0.045	1	9/17/2008	
Benzo[a]pyrene	BQL	0.328	0.047	1	9/17/2008	
Benzo[b]fluoranthene	BQL	0.328	0.046	1	9/17/2008	
Benzo[g,h,i]perylene	BQL	0.328	0.057	1	9/17/2008	
Benzo[k]fluoranthene	BQL	0.328	0.047	1	9/17/2008	
Chrysene	BQL	0.328	0.032	1	9/17/2008	
Dibenzo[a,h]anthracene	BQL	0.328	0.042	1	9/17/2008	
Fluoranthene	BQL	0.328	0.053	1	9/17/2008	
Fluorene	BQL	0.328	0.051	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.328	0.039	1	9/17/2008	
1-Methylnaphthalene	BQL	0.328	0.041	1	9/17/2008	
2-Methylnaphthalene	BQL	0.328	0.054	1	9/17/2008	
Naphthalene	BQL	0.328	0.046	1	9/17/2008	
Phenanthrene	BQL	0.328	0.046	1	9/17/2008	
Pyrene	BQL	0.328	0.045	1	9/17/2008	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.7	87		
Nitrobenzene-d5		10	8.3	83		
4-Terphenyl-d14		10	7.5	75		

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: West @ EOP (3')
Client Project ID: A12
Lab Sample ID: G128-2242-14B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 32.59 g

Analyzed By: DES
Date Collected: 9/10/2008 14:05
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 86.32

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.355	0.054	1	9/17/2008	
Acenaphthylene	BQL	0.355	0.050	1	9/17/2008	
Anthracene	BQL	0.355	0.048	1	9/17/2008	
Benzo[a]anthracene	BQL	0.355	0.049	1	9/17/2008	
Benzo[a]pyrene	BQL	0.355	0.051	1	9/17/2008	
Benzo[b]fluoranthene	BQL	0.355	0.049	1	9/17/2008	
Benzo[g,h,i]perylene	BQL	0.355	0.062	1	9/17/2008	
Benzo[k]fluoranthene	BQL	0.355	0.051	1	9/17/2008	
Chrysene	BQL	0.355	0.034	1	9/17/2008	
Dibenzo[a,h]anthracene	BQL	0.355	0.046	1	9/17/2008	
Fluoranthene	BQL	0.355	0.057	1	9/17/2008	
Fluorene	BQL	0.355	0.056	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.355	0.042	1	9/17/2008	
1-Methylnaphthalene	BQL	0.355	0.044	1	9/17/2008	
2-Methylnaphthalene	BQL	0.355	0.058	1	9/17/2008	
Naphthalene	BQL	0.355	0.050	1	9/17/2008	
Phenanthrene	BQL	0.355	0.050	1	9/17/2008	
Pyrene	BQL	0.355	0.048	1	9/17/2008	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.7	87
Nitrobenzene-d5	10	8.6	86
4-Terphenyl-d14	10	7.5	75

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: #2 East (3')
Client Project ID: A12
Lab Sample ID: G128-2242-15B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 32.1 g

Analyzed By: DES
Date Collected: 9/10/2008 14:10
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 84.98

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	0.073	0.367	0.056	1	9/17/2008	J
Acenaphthylene	BQL	0.367	0.051	1	9/17/2008	
Anthracene	0.110	0.367	0.050	1	9/17/2008	J
Benzo[a]anthracene	0.521	0.367	0.050	1	9/17/2008	
Benzo[a]pyrene	0.429	0.367	0.053	1	9/17/2008	
Benzo[b]fluoranthene	0.645	0.367	0.051	1	9/17/2008	
Benzo[g,h,i]perylene	0.286	0.367	0.064	1	9/17/2008	J
Benzo[k]fluoranthene	0.260	0.367	0.052	1	9/17/2008	J
Chrysene	0.491	0.367	0.035	1	9/17/2008	
Dibenzo[a,h]anthracene	0.253	0.367	0.047	1	9/17/2008	J
Fluoranthene	1.02	0.367	0.059	1	9/17/2008	
Fluorene	BQL	0.367	0.057	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	0.282	0.367	0.043	1	9/17/2008	J
1-Methylnaphthalene	BQL	0.367	0.046	1	9/17/2008	
2-Methylnaphthalene	BQL	0.367	0.060	1	9/17/2008	
Naphthalene	BQL	0.367	0.051	1	9/17/2008	
Phenanthrene	0.513	0.367	0.051	1	9/17/2008	
Pyrene	0.828	0.367	0.050	1	9/17/2008	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.4	84		
Nitrobenzene-d5		10	8.4	84		
4-Terphenyl-d14		10	7.4	74		

Comments:**Flags:**

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: West @ 6 (3')
Client Project ID: A12
Lab Sample ID: G128-2242-16B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 33.98 g

Analyzed By: DES
Date Collected: 9/10/2008 14:35
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 80.25

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.367	0.056	1	9/17/2008	
Acenaphthylene	BQL	0.367	0.051	1	9/17/2008	
Anthracene	BQL	0.367	0.050	1	9/17/2008	
Benzo[a]anthracene	0.092	0.367	0.050	1	9/17/2008	J
Benzo[a]pyrene	0.081	0.367	0.053	1	9/17/2008	J
Benzo[b]fluoranthene	0.110	0.367	0.051	1	9/17/2008	J
Benzo[g,h,i]perylene	BQL	0.367	0.064	1	9/17/2008	
Benzo[k]fluoranthene	BQL	0.367	0.052	1	9/17/2008	
Chrysene	0.077	0.367	0.035	1	9/17/2008	J
Dibenzo[a,h]anthracene	BQL	0.367	0.047	1	9/17/2008	
Fluoranthene	0.183	0.367	0.059	1	9/17/2008	J
Fluorene	BQL	0.367	0.057	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.367	0.043	1	9/17/2008	
1-Methylnaphthalene	BQL	0.367	0.046	1	9/17/2008	
2-Methylnaphthalene	BQL	0.367	0.060	1	9/17/2008	
Naphthalene	BQL	0.367	0.051	1	9/17/2008	
Phenanthrene	0.132	0.367	0.051	1	9/17/2008	J
Pyrene	0.139	0.367	0.050	1	9/17/2008	J
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	7.1	71		
Nitrobenzene-d5		10	7.8	78		
4-Terphenyl-d14		10	6.1	61		

Comments:**Flags:**

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: NW @ 3 (3')
Client Project ID: A12
Lab Sample ID: G128-2242-17B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 32.02 g

Analyzed By: DES
Date Collected: 9/10/2008 14:30
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 89.56

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	0.345	0.349	0.053	1	9/17/2008	J
Acenaphthylene	BQL	0.349	0.049	1	9/17/2008	
Anthracene	1.18	0.349	0.047	1	9/17/2008	
Benzo[a]anthracene	2.92	0.349	0.048	1	9/17/2008	
Benzo[a]pyrene	1.65	0.349	0.050	1	9/17/2008	
Benzo[b]fluoranthene	2.65	0.349	0.049	1	9/17/2008	
Benzo[g,h,i]perylene	0.670	0.349	0.061	1	9/17/2008	
Benzo[k]fluoranthene	0.743	0.349	0.050	1	9/17/2008	
Chrysene	2.54	0.349	0.034	1	9/17/2008	
Dibenzo[a,h]anthracene	0.387	0.349	0.045	1	9/17/2008	
Fluoranthene	6.09	0.349	0.056	1	9/17/2008	
Fluorene	0.394	0.349	0.054	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	0.739	0.349	0.041	1	9/17/2008	
1-Methylnaphthalene	BQL	0.349	0.044	1	9/17/2008	
2-Methylnaphthalene	BQL	0.349	0.057	1	9/17/2008	
Naphthalene	BQL	0.349	0.049	1	9/17/2008	
Phenanthrene	4.31	0.349	0.049	1	9/17/2008	
Pyrene	5.07	0.349	0.047	1	9/17/2008	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.4	84		
Nitrobenzene-d5		10	8	80		
4-Terphenyl-d14		10	7.8	78		

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: EN @ 3 (3')
Client Project ID: A12
Lab Sample ID: G128-2242-18B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 34.57 g

Analyzed By: DES
Date Collected: 9/10/2008 14:35
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 81.71

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.354	0.054	1	9/17/2008	
Acenaphthylene	BQL	0.354	0.050	1	9/17/2008	
Anthracene	BQL	0.354	0.048	1	9/17/2008	
Benzo[a]anthracene	BQL	0.354	0.049	1	9/17/2008	
Benzo[a]pyrene	BQL	0.354	0.051	1	9/17/2008	
Benzo[b]fluoranthene	BQL	0.354	0.049	1	9/17/2008	
Benzo[g,h,i]perylene	BQL	0.354	0.062	1	9/17/2008	
Benzo[k]fluoranthene	BQL	0.354	0.050	1	9/17/2008	
Chrysene	BQL	0.354	0.034	1	9/17/2008	
Dibenzo[a,h]anthracene	BQL	0.354	0.045	1	9/17/2008	
Fluoranthene	BQL	0.354	0.057	1	9/17/2008	
Fluorene	BQL	0.354	0.055	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.354	0.042	1	9/17/2008	
1-Methylnaphthalene	BQL	0.354	0.044	1	9/17/2008	
2-Methylnaphthalene	BQL	0.354	0.058	1	9/17/2008	
Naphthalene	BQL	0.354	0.050	1	9/17/2008	
Phenanthrene	BQL	0.354	0.050	1	9/17/2008	
Pyrene	BQL	0.354	0.048	1	9/17/2008	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.1	81		
Nitrobenzene-d5		10	8.2	82		
4-Terphenyl-d14		10	6.9	69		

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: EN @ 3 DUP (3')
Client Project ID: A12
Lab Sample ID: G128-2242-19B
Lab Project ID: G128-2242
Report Basis: Dry weight
Initial Weight: 33.7 g

Analyzed By: DES
Date Collected: 9/10/2008 14:35
Date Received: 9/11/2008
Date Extracted: 9/11/2008
Matrix: Soil
% Solids: 81.84

Compound	Result mg/Kg	RL mg/Kg	MDL mg/Kg	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	0.363	0.056	1	9/17/2008	
Acenaphthylene	BQL	0.363	0.051	1	9/17/2008	
Anthracene	BQL	0.363	0.049	1	9/17/2008	
Benzo[a]anthracene	BQL	0.363	0.050	1	9/17/2008	
Benzo[a]pyrene	BQL	0.363	0.052	1	9/17/2008	
Benzo[b]fluoranthene	BQL	0.363	0.050	1	9/17/2008	
Benzo[g,h,i]perylene	BQL	0.363	0.063	1	9/17/2008	
Benzo[k]fluoranthene	BQL	0.363	0.052	1	9/17/2008	
Chrysene	BQL	0.363	0.035	1	9/17/2008	
Dibenzo[a,h]anthracene	BQL	0.363	0.046	1	9/17/2008	
Fluoranthene	BQL	0.363	0.058	1	9/17/2008	
Fluorene	BQL	0.363	0.057	1	9/17/2008	
Indeno(1,2,3-c,d)pyrene	BQL	0.363	0.043	1	9/17/2008	
1-Methylnaphthalene	BQL	0.363	0.045	1	9/17/2008	
2-Methylnaphthalene	BQL	0.363	0.059	1	9/17/2008	
Naphthalene	BQL	0.363	0.051	1	9/17/2008	
Phenanthrene	BQL	0.363	0.051	1	9/17/2008	
Pyrene	BQL	0.363	0.049	1	9/17/2008	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.4	84		
Nitrobenzene-d5		10	8.6	86		
4-Terphenyl-d14		10	7.9	79		

Comments:**Flags:**

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: Line Ex Comp.
Client Project ID: A12
Lab Sample ID G128-2242-11A
Lab Project ID: G128-2242
Report Basis: Dry Weight

Analyzed By: MJC
Date Collected: 09-10-2008 13:50
Date Received: 9/11/2008
Matrix: Soil
Sample Amount: 5.76 g
%Solids: 86.5

Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Acetone	0.0401	0.0501	0.00692	1	9/16/2008	J
Benzene	BQL	0.00501	0.00107	1	9/16/2008	
Bromobenzene	BQL	0.00501	0.00103	1	9/16/2008	
Bromochloromethane	BQL	0.00501	0.00172	1	9/16/2008	
Bromodichloromethane	BQL	0.00501	0.00099	1	9/16/2008	
Bromoform	BQL	0.00501	0.00100	1	9/16/2008	
Bromomethane	BQL	0.00501	0.00105	1	9/16/2008	
2-Butanone	BQL	0.0250	0.00544	1	9/16/2008	
n-Butylbenzene	0.00656	0.00501	0.00096	1	9/16/2008	
sec-Butylbenzene	0.00101	0.00501	0.00101	1	9/16/2008	J
tert-Butylbenzene	BQL	0.00501	0.00112	1	9/16/2008	
Carbon disulfide	BQL	0.00501	0.00268	1	9/16/2008	
Carbon tetrachloride	BQL	0.00501	0.00102	1	9/16/2008	
Chlorobenzene	BQL	0.00501	0.00119	1	9/16/2008	
Chloroethane	BQL	0.00501	0.00159	1	9/16/2008	
Chloroform	BQL	0.00501	0.00120	1	9/16/2008	
Chloromethane	BQL	0.00501	0.00113	1	9/16/2008	
2-Chlorotoluene	BQL	0.00501	0.00101	1	9/16/2008	
4-Chlorotoluene	BQL	0.00501	0.00125	1	9/16/2008	
Dibromochloromethane	BQL	0.00501	0.00138	1	9/16/2008	
1,2-Dibromo-3-chloropropane	BQL	0.0250	0.00145	1	9/16/2008	
Dibromomethane	BQL	0.00501	0.00151	1	9/16/2008	
1,2-Dibromoethane (EDB)	BQL	0.00501	0.00113	1	9/16/2008	
1,2-Dichlorobenzene	BQL	0.00501	0.00129	1	9/16/2008	
1,3-Dichlorobenzene	BQL	0.00501	0.00128	1	9/16/2008	
1,4-Dichlorobenzene	BQL	0.00501	0.00105	1	9/16/2008	
trans-1,4-Dichloro-2-butene	BQL	0.0250	0.00138	1	9/16/2008	
1,1-Dichloroethane	BQL	0.00501	0.00106	1	9/16/2008	
1,1-Dichloroethene	BQL	0.00501	0.00148	1	9/16/2008	
1,2-Dichloroethane	BQL	0.00501	0.00132	1	9/16/2008	
cis-1,2-Dichloroethene	BQL	0.00501	0.00128	1	9/16/2008	
trans-1,2-dichloroethene	BQL	0.00501	0.00113	1	9/16/2008	
1,2-Dichloropropane	BQL	0.00501	0.00118	1	9/16/2008	
1,3-Dichloropropane	BQL	0.00501	0.00112	1	9/16/2008	
2,2-Dichloropropane	BQL	0.00501	0.00120	1	9/16/2008	
1,1-Dichloropropene	BQL	0.00501	0.00157	1	9/16/2008	
cis-1,3-Dichloropropene	BQL	0.00501	0.00083	1	9/16/2008	
trans-1,3-Dichloropropene	BQL	0.00501	0.00096	1	9/16/2008	
Dichlorodifluoromethane	BQL	0.00501	0.00132	1	9/16/2008	
Diisopropyl ether (DIPE)	BQL	0.00501	0.00113	1	9/16/2008	
Ethylbenzene	BQL	0.00501	0.00087	1	9/16/2008	
Hexachlorobutadiene	BQL	0.00501	0.00098	1	9/16/2008	
2-Hexanone	BQL	0.0125	0.00324	1	9/16/2008	
Iodomethane	BQL	0.00501	0.00108	1	9/16/2008	

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: Line Ex Comp.
Client Project ID: A12
Lab Sample ID G128-2242-11A
Lab Project ID: G128-2242
Report Basis: Dry Weight

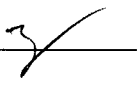
Analyzed By: MJC
Date Collected: 09-10-2008 13:50
Date Received: 9/11/2008
Matrix: Soil
Sample Amount: 5.76 g
%Solids: 86.5

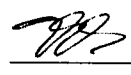
Report Name Compound	Result MG/KG	Quantitation Limit MG/KG	MDL MG/KG	Dilution Factor	Date Analyzed	Flag
Isopropylbenzene	BQL	0.00501	0.00089	1	9/16/2008	
4-Isopropyltoluene	BQL	0.00501	0.00107	1	9/16/2008	
Methylene chloride	BQL	0.0200	0.00119	1	9/16/2008	
4-Methyl-2-pentanone	BQL	0.0125	0.00464	1	9/16/2008	
Methyl-tert-butyl ether (MTBE)	BQL	0.00501	0.00111	1	9/16/2008	
Naphthalene	BQL	0.00501	0.00085	1	9/16/2008	
n-Propyl benzene	BQL	0.00501	0.00126	1	9/16/2008	
Styrene	BQL	0.00501	0.00110	1	9/16/2008	
1,1,1,2-Tetrachloroethane	BQL	0.00501	0.00102	1	9/16/2008	
1,1,2,2-Tetrachloroethane	BQL	0.00501	0.00113	1	9/16/2008	
Tetrachloroethene	BQL	0.00501	0.00092	1	9/16/2008	
Toluene	BQL	0.00501	0.00100	1	9/16/2008	
1,2,3-Trichlorobenzene	BQL	0.00501	0.00104	1	9/16/2008	
1,2,4-Trichlorobenzene	BQL	0.00501	0.00103	1	9/16/2008	
Trichloroethene	BQL	0.00501	0.00096	1	9/16/2008	
1,1,1-Trichloroethane	BQL	0.00501	0.00113	1	9/16/2008	
1,1,2-Trichloroethane	BQL	0.00501	0.00164	1	9/16/2008	
Trichlorofluoromethane	BQL	0.00501	0.00103	1	9/16/2008	
1,2,3-Trichloropropane	BQL	0.00501	0.00124	1	9/16/2008	
1,2,4-Trimethylbenzene	BQL	0.00501	0.00126	1	9/16/2008	
1,3,5-Trimethylbenzene	BQL	0.00501	0.00114	1	9/16/2008	
Vinyl chloride	BQL	0.00501	0.00136	1	9/16/2008	
m-,p-Xylene	BQL	0.0100	0.00192	1	9/16/2008	
o-Xylene	BQL	0.00501	0.00097	1	9/16/2008	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	0.05	0.0757	151
Toluene-d8	0.05	0.0497	99
4-Bromofluorobenzene	0.05	0.0295	59

Comments:**Flags:**

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Analyst: 

Reviewed By: 

**Results for Total Petroleum Hydrocarbons**
by GC/FID 8015

Client Sample ID: Line Ex Comp.
Client Project ID: A12
Lab Sample ID: G128-2242-11J
Lab Project ID: G128-2242

Date Collected: 9/10/2008 13:50
Date Received: 9/11/2008
Matrix: Soil
Solids 86.53
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	1650	69.8	mg/Kg	10	09/15/08 13:18

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	NA	NA

Comments:

NA = Not Applicable, surrogate diluted out.

Batch Information

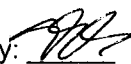
Analytical Batch: EP091508
Analytical Method: 8015
Instrument: GC6
Analyst: EAW

Prep batch: 12368
Prep Method: 3541
Prep Date: 09/12/08
Initial Prep Wt/Vol: 33.1 G
Prep Final Vol: 10 mL

Analyst: _____

NC Certification #481

N.C. CERTIFICATION #481

Reviewed By: 

DRO.XLS

24 of 28

**Results for Total Petroleum Hydrocarbons**
by GC/FID 8015

Client Sample ID: Line Ex Comp.
Client Project ID: A12
Lab Sample ID: G128-2242-11D
Lab Project ID: G128-2242
Report Basis: Dry Weight

Analyzed By: DVG
Date Collected: 9/10/2008 13:50
Date Received: 9/11/2008
Matrix: Soil
Solids 86.53

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	5.92	5.73	mg/Kg	1	09/17/08 13:15

Surrogate Spike Results

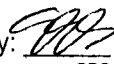
	Added	Result	Recovery	Flag	Limits
BFB	100	106	106		70-130

Comments:**Batch Information**

Analytical Batch: VP091708
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVG

Prep Method: 5035
Initial Wt/Vol: 6.05 g
Final Volume: 5 mL

Analyst: _____

Reviewed By: 
GRO



Results for Metals

Client Sample ID: Line Ex Comp.

Client Project ID: A12

Lab Sample ID: G128-2242-12

Lab Project ID: G128-2242

ICP InitWt/Vol: 5 mL Final Vol: 50 mL

Hg InitWt/Vol: 20 mL Final Vol: 57 mL

Prep Batch: 12408 12415

Analyzed By: PSW DCP

Date Collected: 9/10/2008 13:50

Date Received: 9/11/2008

Matrix: Leachate

Metals TCLP	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Arsenic	BQL	0.200	0.0185	1	MG/L	6010B	9/19/2008	B
Barium	0.386	5.00	0.0512	1	MG/L	6010B	9/19/2008	JB
Cadmium	0.0323	0.100	0.0244	1	MG/L	6010B	9/19/2008	J
Chromium	0.0546	0.100	0.0115	1	MG/L	6010B	9/19/2008	JB
Lead	0.176	0.100	0.0358	1	MG/L	6010B	9/19/2008	B
Mercury	BQL	0.000570	0.000073	1	MG/L	7470	9/19/2008	
Selenium	BQL	0.200	0.0730	1	MG/L	6010B	9/19/2008	
Silver	0.0715	0.100	0.00812	1	MG/L	6010B	9/19/2008	JB

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Reviewed By: 
METALS.XLS



CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

Locations Nationwide
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• West Virginia
• Hawaii
• Maryland
• North Carolina
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087

1 CLIENT: CATLIN / DOD
CONTACT: Ben Ashba PHONE NO: (910) 452-5861
PROJECT: A12 E-MAIL: ben.ashba@catlinusa.com
REPORTS TO: Ben Ashba FAX NO: (910) 452-5861
INVOICE TO: SheikhaeCATLIN QUOTE # 280911-1
P.O. NUMBER DOD 101

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX
	SE-N (3')	9-10-08	830	SOIL
	SE-E (3')		835	
	SE-S (3')		840	
	SE-W (3')		845	
	SW-N (3')		900	
	SW-E (3')		905	
	SW-S (3')		910	
	SW-W (3')		915	
	9-E (3')		1035	
	9-W (3')		1045	

5 Collected/Relinquished By: (1) Ben Ashba Date 9-11-08 Time 1240
Relinquished By: (2) Date Time
Relinquished By: (3) Date Time
Relinquished By: (4) Date Time

SGS Reference: 6128-2242 PAGE 1 OF 1
No CONTAINERS
SAMPLE TYPE: C= COMP G= GRAB
Preservatives Used: 3
Analysis Required: 8270 PARTS ONLY
REMARKS: 170 CHAIN OF CUSTODY AT CATLIN REPORTING TO CONTAINER
Shipping Carrier: Samples Received Cold? (Circle) YES NO
Shipping Ticket No: Temperature (C): 33°C
Special Deliverable Requirements: Chain of Custody Seal: (Circle) INTACT BROKEN
Special Instructions: Please report any low runs, screening OK & provide summary EDD.
Requested Turnaround Time: ☐ RUSH ☒ DSTD Date Needed

1	CLIENT: CATYN / DOD		PHONE NO: (910) 452-5861		
	CONTACT: Ben Ashba		SITE/PWSID#:		
	PROJECT: A12 ~~WATER~~		E-MAIL: ben.ashba@catyn.usa.com		
	REPORTS TO: Ben Ashba@CATYN		FAX NO: _____		
	INVOICE TO: Sheikha@CATYN		QUOTE # DOD 101		
2	P.O. NUMBER 280911-1				
	LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX
	3/3/3	Line Ex Comp	9.10.08	1350	SOIL
		East @ EOP (3')		1400	
		West @ EOP (3')		1405	
		#2 East (3')		1410	
		West @ 6 (3')		1435	
		NW @ 3 (3')		1430	
		EN @ 3 (3')		1435	
	2	EN @ 3 DUP (3')		1435	✓
5	Collected/Relinquished By: (1) Ben Ashba		Date 9.11.08	Time 1240	Received By: [Signature]
	Relinquished By: (2)		Date	Time	Received By:
	Relinquished By: (3)		Date	Time	Received By:
	Relinquished By: (4)		Date	Time	Received By:

[illegible]

APPENDIX H

SEPTEMBER 2009 CONFIRMATION SAMPLING AND DISPOSAL SAMPLING LABORATORY DATA



Ken Robitaille
Rhea Engineer & Consultants

Report Number: G910-15

Client Project: 3214

Dear Ken Robitaille,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Linda McWhirter at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

A handwritten signature in black ink, appearing to read 'Linda McWhirter', written over a horizontal line.

Project Manager
Linda McWhirter

A handwritten date '9/11/03' in black ink, written over a horizontal line.

Date

SGS North America, Inc.
List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block; see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T1-S-C1
Client Project ID: 3214
Lab Sample ID: G910-15-1B
Lab Project ID: G910-15
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/9/2009 15:00
Date Received: 9/10/2009
Matrix: Soil
Solids 78.18

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.78	mg/Kg	1	09/10/09 13:30

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	104.0	104.0		70-130

Comments:**Batch Information**

Analytical Batch: VP091009
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.64 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-Disp-W-S-1 (Composite)

Client Project ID: 3214

Lab Sample ID: G910-15-3F

Lab Project ID: G910-15

Report Basis: Dry Weight

Analyzed By: DVO

Date Collected: 9/9/2009 15:25

Date Received: 9/10/2009

Matrix: Soil

Solids 83.15

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.61	mg/Kg	1	09/14/09 13:28

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	101.0	101.0		70-130

Comments:**Batch Information**

Analytical Batch: VP091409

Analytical Method: 8015

Instrument ID: GC4

Analyst: DVO

Prep Method: 5030

Initial Wt/Vol: 5.46 g

Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4091409A
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Soil
Solids 100.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.00	mg/kg	1	09/14/09 08:05

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.9	97.9		70-130

Comments:

Batch Information

Analytical Batch: VP091409
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 37
GRO

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC

Lab Sample ID: g910-17-7a

LCS ID: LCS4091409A / VP091409

Analyzed By: DVO

Matrix: Soil

Solids 83.90

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD % #
				(70-130%)				(70-130%) (30%)
GRO	BQL	18.2	21.4	118	18.2	20.1	110	7.02

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
GRO	16	16.5	103	70	130

Comments:Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T1-S-C1

Client Project ID: 3214

Lab Sample ID: G910-15-1D

Lab Project ID: G910-15

Date Collected: 9/9/2009 15:00

Date Received: 9/10/2009

Matrix: Soil

Solids 78.18

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	8.20	mg/Kg	1	09/11/09 10:23

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	32.5	81.3

Comments:**Batch Information**Analytical Batch: EP091109
Analytical Method: 8015
Instrument: GC6
Analyst: BWSPrep batch: 15083
Prep Method: 3541
Prep Date: 09/10/09
Initial Prep Wt/Vol: 31.19 G
Prep Final Vol: 10 mLAnalyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: 
DRO.XLS
Page 7 of 16

**Results for Total Petroleum Hydrocarbons
by GC/FID 8015**

Client Sample ID: A12-Disp-W-S-1 (Composite)

Client Project ID: 3214

Lab Sample ID: G910-15-3G

Lab Project ID: G910-15

Date Collected: 9/9/2009 15:25

Date Received: 9/10/2009

Matrix: Soil

Solids 83.15

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	28.0	7.71	mg/Kg	1	09/14/09 14:07

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	27.4	68.4

Comments:**Batch Information**

Analytical Batch: EP091409
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15083
Prep Method: 3541
Prep Date: 09/10/09
Initial Prep Wt/Vol: 31.2 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: CDL

DRO.XLS

Page 8 of 16

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank

Client Project ID:

Lab Sample ID: PB15083

Lab Project ID:

Date Collected:

Date Received:

Matrix: SOIL

Solids 100.00

Report Basis: Dry Weight

Parameter	Result	RL	MDL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.25	1.22	mg/Kg	1	09/11/09 15:06

Surrogate Spike Results

OTP

**Spike
Added**
40**Control
Limits**
40-140**Spike
Result**
35.4**Percent
Recovery**
88.4**Comments:**

J= Estimated value between MDL and RL

Batch Information

Analytical Batch: EP091109

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15083

Prep Method: 3541

Prep Date: 09/10/09

Initial Prep Wt/Vol: 32 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: [Signature]
DRO XLS

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: G910-15-1D
Batch ID: 15083

Analyzed By: BWS
Matrix: Soil
Solids 78.18

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD %
DRO	BQL	82.5	59	71.5	80.5	59.8	74.3	3.84

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
DRO	62.5	50.9	81.4	55.3	137

Reviewed By: 

Results for Metals

Client Sample ID: A12-Disp-W-S-1 (Composite)
 Client Project ID: 3214
 Lab Sample ID: G910-15-5
 Lab Project ID: G910-15
 ICP InitWt/Vol: 5 mL Final Vol: 50 mL
 Hg InitWt/Vol: 20 mL Final Vol: 57 mL
 Prep Batch: 15107 15122

Analyzed By: PSW
 Date Collected: 9/9/2009 15:25
 Date Received: 9/10/2009
 Matrix: Leachate

Metals TCLP	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	BQL	0.200	1	MG/L	6010B	9/17/2009
Barium	BQL	5.00	1	MG/L	6010B	9/17/2009
Cadmium	BQL	0.100	1	MG/L	6010B	9/17/2009
Chromium	BQL	0.100	1	MG/L	6010B	9/17/2009
Lead	BQL	0.100	1	MG/L	6010B	9/17/2009
Mercury	BQL	0.000570	1	MG/L	7470	9/17/2009
Selenium	BQL	0.200	1	MG/L	6010B	9/17/2009
Silver	BQL	0.100	1	MG/L	6010B	9/17/2009

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Reviewed By: 
 METALS.XLS

Results for Metals

Client Sample ID: Lab Blank

Client Project ID:

Lab Sample ID: pb15107

Lab Project ID:

ICP InitWt/Vol: 5 mL

Final Vol: 50 mL

Hg InitWt/Vol:

Final Vol:

Prep Batch: 15107

Analyzed By: PSW

Date Collected:

Date Received:

Matrix: Leachate

Metals TCLP	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	BQL	0.200	1	MG/L	6010B	9/17/2009
Barium	BQL	5.00	1	MG/L	6010B	9/17/2009
Cadmium	BQL	0.100	1	MG/L	6010B	9/17/2009
Chromium	BQL	0.100	1	MG/L	6010B	9/17/2009
Lead	BQL	0.100	1	MG/L	6010B	9/17/2009
Selenium	BQL	0.200	1	MG/L	6010B	9/17/2009
Silver	BQL	0.100	1	MG/L	6010B	9/17/2009

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

 Reviewed By: 
 METALS.XLS

Results for Metals

Client Sample ID: Lab Blank

Client Project ID:

Lab Sample ID: pb15122

Lab Project ID:

ICP InitWt/Vol:

Hg InitWt/Vol: 20 mL

Prep Batch: 15122

Final Vol:

Final Vol: 57 mL

Analyzed By: PSW

Date Collected:

Date Received:

Matrix: Leachate

Metals	Result	RL	DF	Units	Method	Date Analyzed
TCLP						
Mercury	BQL	0.000570	1	MG/L	7470	9/17/2009

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

 Reviewed By: 
 METALS.XLS

METALS Results for LCS/LCD

ICP Batch: 15107

HG Batch: 15122

Other:

Matrix: WATER

Units: MG/L

Analyte	TRUE Value	LCS	LCS %REC	LCD	LCD %REC	Limit		RPD	RPD Limit
						Lower	Upper		
Arsenic	4.00	3.67	91.8	3.56	89.0	80	120	3.04	20
Barium	20.0	18.3	91.5	17.9	89.5	80	120	2.21	20
Cadmium	4.00	3.54	88.5	3.43	85.8	80	120	3.16	20
Chromium	4.00	3.57	89.3	3.47	86.8	80	120	2.84	20
Lead	4.00	3.55	88.8	3.48	87.0	80	120	1.99	20
Mercury	0.0142	0.014	98.6	0.0140	98.6	80	120	0	20
Selenium	4.00	3.62	90.5	3.50	87.5	80	120	3.37	20
Silver	4.00	3.45	86.3	3.35	83.8	80	120	2.94	20

Comments

*=Out of Limits

NA = Not applicable, due to sample concentration greater than three times spike concentration

Reviewed By: 

SGS North America, Inc.

MS/MSD Results for METALS

Lab ID: G808-21-12
MS Lab ID: G808-21-12
MSD Lab ID: G808-21-12
ICP Batch: 15107
HG Batch: 15122
Other:

Analyzed By: PSW
Matrix: Leachate
Units: MG/L

Analyte	Sample Result	SA MS	MS Result	MS %REC	SA MSD	MSD Result	MSD %REC	Limit		RPD	RPD Limit
								Lower	Upper		
Arsenic	BQL	4.00	3.63	90.8	4.00	3.77	94.3	75	125	3.78	20
Barium	BQL	20.0	17.9	89.5	20.0	18.3	91.5	75	125	2.21	20
Cadmium	BQL	4.00	3.53	88.3	4.00	3.62	90.5	75	125	2.52	20
Chromium	BQL	4.00	3.60	90.0	4.00	3.64	91.0	75	125	1.10	20
Lead	BQL	4.00	3.62	90.5	4.00	3.71	92.8	75	125	2.46	20
Mercury	BQL	0.0142	0.0139	97.5	0.0142	0.0142	100	85	115	2.14	20
Selenium	BQL	4.00	3.49	87.3	4.00	3.66	91.5	75	125	4.76	20
Silver	BQL	4.00	3.51	87.7	4.00	3.57	89.3	75	125	1.69	20

Comments

*=Out of Limits

NA = Not applicable, due to sample concentration greater than three times spike concentration

Reviewed By: 



Locations Nationwide

- Alaska
- Ohio
- New Jersey
- West Virginia
- Hawaii
- Maryland
- North Carolina

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[illegible]

□ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
 □ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

1270 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler



Ken Robitaille
Rhea Engineer & Consultants

Report Number: G910-16

Client Project: 3214

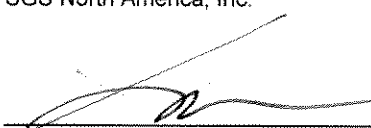
Dear Ken Robitaille,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Linda McWhirter at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.


Project Manager
Linda McWhirter

9/21/09
Date

List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block; see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T1-S-C2

Client Project ID: 3214

Lab Sample ID: G910-16-1A

Lab Project ID: G910-16

Report Basis: Dry Weight

Analyzed By: DVO

Date Collected: 9/10/2009 12:45

Date Received: 9/10/2009

Matrix: Soil

Solids 79.82

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.29	mg/Kg	1	09/11/09 11:05

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	104.0	104.0		70-130

Comments:

Batch Information

Analytical Batch: VP091109

Analytical Method: 8015

Instrument ID: GC4

Analyst: DVO

Prep Method: 5035

Initial Wt/Vol: 5.98 g

Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T1-S-C3

Client Project ID: 3214

Lab Sample ID: G910-16-2A

Lab Project ID: G910-16

Report Basis: Dry Weight

Analyzed By: DVO

Date Collected: 9/10/2009 13:20

Date Received: 9/10/2009

Matrix: Soil

Solids 76.47

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.39	mg/Kg	1	09/11/09 11:32

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.8	97.8		70-130

Comments:

Batch Information

Analytical Batch: VP091109
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 7.28 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 

GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T2-S-B1
Client Project ID: 3214
Lab Sample ID: G910-16-3A
Lab Project ID: G910-16
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/10/2009 13:30
Date Received: 9/10/2009
Matrix: Soil
Solids 76.14

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.19	mg/Kg	1	09/11/09 13:18

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.7	97.7		70-130

Comments:

Batch Information

Analytical Batch: VP091109
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 7.59 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T2-S-B2
Client Project ID: 3214
Lab Sample ID: G910-16-4A
Lab Project ID: G910-16
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/10/2009 13:35
Date Received: 9/10/2009
Matrix: Soil
Solids 78.89

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	4.40	mg/Kg	1	09/11/09 13:45

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.7	97.7		70-130

Comments:

Batch Information

Analytical Batch: VP091109
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 8.65 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T2-S-B3
Client Project ID: 3214
Lab Sample ID: G910-16-5A
Lab Project ID: G910-16
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/10/2009 13:45
Date Received: 9/10/2009
Matrix: Soil
Solids 79.19

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.36	mg/Kg	1	09/11/09 14:12

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	95.0	95.0		70-130

Comments:

Batch Information

Analytical Batch: VP091109
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5.96 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T3-S-F1

Client Project ID: 3214

Lab Sample ID: G910-16-6A

Lab Project ID: G910-16

Report Basis: Dry Weight

Analyzed By: DVO

Date Collected: 9/10/2009 14:20

Date Received: 9/10/2009

Matrix: Soil

Solids 79.35

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	7.01	mg/Kg	1	09/11/09 14:39

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	102.0	102.0		70-130

Comments:

Batch Information

Analytical Batch: VP091109

Analytical Method: 8015

Instrument ID: GC4

Analyst: DVO

Prep Method: 5035

Initial Wt/Vol: 5.39 g

Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T3-S-F2
Client Project ID: 3214
Lab Sample ID: G910-16-7A
Lab Project ID: G910-16
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/10/2009 14:40
Date Received: 9/10/2009
Matrix: Soil
Solids 81.32

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.75	mg/Kg	1	09/11/09 15:06

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.9	97.9		70-130

Comments:

Batch Information

Analytical Batch: VP091109
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.42 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E1
Client Project ID: 3214
Lab Sample ID: G910-16-8A
Lab Project ID: G910-16
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/10/2009 14:50
Date Received: 9/10/2009
Matrix: Soil
Solids 78.25

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.18	mg/Kg	1	09/11/09 15:32

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	99.0	99.0		70-130

Comments:

Batch Information

Analytical Batch: VP091109
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 7.4 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-Disp-E-2 (composite)
Client Project ID: 3214
Lab Sample ID: G910-16-10A
Lab Project ID: G910-16
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/10/2009 10:50
Date Received: 9/10/2009
Matrix: Soil
Solids 83.47

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	22.9	6.79	mg/Kg	1	09/14/09 13:54

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.5	97.5		70-130

Comments:

Batch Information

Analytical Batch: VP091409
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5030
Initial Wt/Vol: 5.29 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4091109A
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Soil
Solids 100.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.00	mg/kg	1	09/11/09 10:33

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	95.1	95.1		70-130 %

Comments:

Batch Information

Analytical Batch: VP091109
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 3
GRO

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC

Lab Sample ID: g910-16-2a

LCS ID: LCS4091109A / VP091109

Analyzed By: DVO

Matrix: Soil

Solids 76.47

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD % #
				(70-130%)	(70-130%) (30%)			
GRO	BQL	14.4	13.8	95.8	14.4	14.6	101	5.28

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
GRO	16	15.3	95.6	70	130

Comments:

Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4091409A
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Soil
Solids 100.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.00	mg/kg	1	09/14/09 08:05

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.9	97.9		70-130

Comments:

Batch Information

Analytical Batch: VP091409
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC

Lab Sample ID: g910-17-7a

LCS ID: LCS4091409A / VP091409

Analyzed By: DVO

Matrix: Soil

Solids 83.90

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD % #
				(70-130%)				(70-130%) (30%)
GRO	BQL	18.2	21.4	118	18.2	20.1	110	7.02

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
GRO	16	16.5	103	70	130

Comments:

Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T1-S-C2

Client Project ID: 3214

Lab Sample ID: G910-16-1D

Lab Project ID: G910-16

Date Collected: 9/10/2009 12:45

Date Received: 9/10/2009

Matrix: Soil

Solids 79.82

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	14.7	7.84	mg/Kg	1	09/11/09 10:51

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	31.2	78

Comments:

Batch Information

Analytical Batch: EP091109

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15083

Prep Method: 3541

Prep Date: 09/10/09

Initial Prep Wt/Vol: 31.94 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: MD

DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T1-S-C3
Client Project ID: 3214
Lab Sample ID: G910-16-2D
Lab Project ID: G910-16

Date Collected: 9/10/2009 13:20
Date Received: 9/10/2009
Matrix: Soil
Solids 76.47
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.29	mg/Kg	1	09/11/09 11:20

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	22.4	55.9

Comments:

Batch Information

Analytical Batch: EP091109
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15083
Prep Method: 3541
Prep Date: 09/10/09
Initial Prep Wt/Vol: 35.88 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 

DRO XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T2-S-B1

Client Project ID: 3214

Lab Sample ID: G910-16-3D

Lab Project ID: G910-16

Date Collected: 9/10/2009 13:30

Date Received: 9/10/2009

Matrix: Soil

Solids 76.14

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	8.13	mg/Kg	1	09/11/09 11:49

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	24.6	61.5

Comments:

Batch Information

Analytical Batch: EP091109

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15083

Prep Method: 3541

Prep Date: 09/10/09

Initial Prep Wt/Vol: 32.31 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: MA

DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T2-S-B2

Client Project ID: 3214

Lab Sample ID: G910-16-4D

Lab Project ID: G910-16

Date Collected: 9/10/2009 13:35

Date Received: 9/10/2009

Matrix: Soil

Solids 78.89

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.92	mg/Kg	1	09/11/09 12:17

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	29.3	73.2

Comments:

Batch Information

Analytical Batch: EP091109

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15083

Prep Method: 3541

Prep Date: 09/10/09

Initial Prep Wt/Vol: 32.03 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 

DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T2-S-B3

Client Project ID: 3214

Lab Sample ID: G910-16-5D

Lab Project ID: G910-16

Date Collected: 9/10/2009 13:45

Date Received: 9/10/2009

Matrix: Soil

Solids 79.19

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.36	mg/Kg	1	09/11/09 12:45

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	29	72.5

Comments:

Batch Information

Analytical Batch: EP091109

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15083

Prep Method: 3541

Prep Date: 09/10/09

Initial Prep Wt/Vol: 34.32 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: MR

DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T3-S-F1
Client Project ID: 3214
Lab Sample ID: G910-16-6D
Lab Project ID: G910-16

Date Collected: 9/10/2009 14:20
Date Received: 9/10/2009
Matrix: Soil
Solids 79.35
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.78	mg/Kg	1	09/11/09 13:13

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	32.3	80.6

Comments:

Batch Information

Analytical Batch: EP091109
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15083
Prep Method: 3541
Prep Date: 09/10/09
Initial Prep Wt/Vol: 32.38 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 
DRO XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T3-S-F2

Client Project ID: 3214

Lab Sample ID: G910-16-7D

Lab Project ID: G910-16

Date Collected: 9/10/2009 14:40

Date Received: 9/10/2009

Matrix: Soil

Solids 81.32

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.55	mg/Kg	1	09/11/09 13:41

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	31.4	78.5

Comments:

Batch Information

Analytical Batch: EP091109

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15083

Prep Method: 3541

Prep Date: 09/10/09

Initial Prep Wt/Vol: 32.57 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 

DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E1
Client Project ID: 3214
Lab Sample ID: G910-16-8D
Lab Project ID: G910-16

Date Collected: 9/10/2009 14:50
Date Received: 9/10/2009
Matrix: Soil
Solids 78.25
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.54	mg/Kg	1	09/11/09 14:10

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	32.5	81.2

Comments:

Batch Information

Analytical Batch: EP091109
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15083
Prep Method: 3541
Prep Date: 09/10/09
Initial Prep Wt/Vol: 33.9 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: MA
DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-Disp-E-2 (composite)

Client Project ID: 3214

Lab Sample ID: G910-16-10D

Lab Project ID: G910-16

Date Collected: 9/10/2009 10:50

Date Received: 9/10/2009

Matrix: Soil

Solids 83.47

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	214	7.37	mg/Kg	1	09/14/09 17:55

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	29.9	74.8

Comments:

Batch Information

Analytical Batch: EP091409

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15089

Prep Method: 3541

Prep Date: 09/14/09

Initial Prep Wt/Vol: 32.49 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 

DRO XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB15083
Lab Project ID:

Date Collected:
Date Received:
Matrix: SOIL
Solids 100.00
Report Basis: Dry Weight

Parameter	Result	RL	MDL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.25	1.22	mg/Kg	1	09/11/09 15:06

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	35.4	88.4

Comments:

J= Estimated value between MDL and RL

Batch Information

Analytical Batch: EP091109
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15083
Prep Method: 3541
Prep Date: 09/10/09
Initial Prep Wt/Vol: 32 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 
DRO XLS

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: G910-15-1D
Batch ID: 15083

Analyzed By: BWS
Matrix: Soil
Solids 78.18

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD %
DRO	BQL	82.5	59	71.5	80.5	59.8	74.3	3.84

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
DRO	62.5	50.9	81.4	55.3	137

Reviewed By: 

Results for Metals

Client Sample ID: A12-Disp-E-2 (composite)
Client Project ID: 3214
Lab Sample ID: G910-16-11
Lab Project ID: G910-16
ICP InitWt/Vol: 5 mL Final Vol: 50 mL
Hg InitWt/Vol: 20 mL Final Vol: 57 mL
Prep Batch: 15107 15122

Analyzed By: PSW
Date Collected: 9/10/2009 10:50
Date Received: 9/10/2009
Matrix: Leachate

Metals TCLP	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	BQL	0.200	1	MG/L	6010B	9/17/2009
Barium	BQL	5.00	1	MG/L	6010B	9/17/2009
Cadmium	BQL	0.100	1	MG/L	6010B	9/17/2009
Chromium	BQL	0.100	1	MG/L	6010B	9/17/2009
Lead	0.119	0.100	1	MG/L	6010B	9/17/2009
Mercury	BQL	0.000570	1	MG/L	7470	9/17/2009
Selenium	BQL	0.200	1	MG/L	6010B	9/17/2009
Silver	BQL	0.100	1	MG/L	6010B	9/17/2009

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
B= Amount in Prep Blank > MDL

Results for Metals

Client Sample ID: Lab Blank

Analyzed By: PSW

Client Project ID:

Date Collected:

Lab Sample ID: pb15107

Date Received:

Lab Project ID:

Matrix: Leachate

ICP InitWt/Vol: 5 mL Final Vol: 50 mL

Hg InitWt/Vol: Final Vol:

Prep Batch: 15107

Metals TCLP	Result	RL	DF	Units	Method	Date Analyzed
Arsenic	BQL	0.200	1	MG/L	6010B	9/17/2009
Barium	BQL	5.00	1	MG/L	6010B	9/17/2009
Cadmium	BQL	0.100	1	MG/L	6010B	9/17/2009
Chromium	BQL	0.100	1	MG/L	6010B	9/17/2009
Lead	BQL	0.100	1	MG/L	6010B	9/17/2009
Selenium	BQL	0.200	1	MG/L	6010B	9/17/2009
Silver	BQL	0.100	1	MG/L	6010B	9/17/2009

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

Reviewed By: 
METALS.XLS

Results for Metals

Client Sample ID: Lab Blank

Client Project ID:

Lab Sample ID: pb15122

Lab Project ID:

ICP InitWt/Vol: Final Vol:

Hg InitWt/Vol: 20 mL Final Vol: 57 mL

Prep Batch: 15122

Analyzed By: PSW

Date Collected:

Date Received:

Matrix: Leachate

Metals	Result	RL	DF	Units	Method	Date Analyzed
TCLP						
Mercury	BQL	0.000570	1	MG/L	7470	9/17/2009

Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

B= Amount in Prep Blank > MDL

METALS Results for LCS/LCD

ICP Batch: 15107

HG Batch: 15122

Other:

Matrix: WATER

Units: MG/L

Analyte	TRUE Value	LCS	LCS %REC	LCD	LCD %REC	Limit		RPD	RPD Limit
						Lower	Upper		
Arsenic	4.00	3.67	91.8	3.56	89.0	80	120	3.04	20
Barium	20.0	18.3	91.5	17.9	89.5	80	120	2.21	20
Cadmium	4.00	3.54	88.5	3.43	85.8	80	120	3.16	20
Chromium	4.00	3.57	89.3	3.47	86.8	80	120	2.84	20
Lead	4.00	3.55	88.8	3.48	87.0	80	120	1.99	20
Mercury	0.0142	0.014	98.6	0.0140	98.6	80	120	0	20
Selenium	4.00	3.62	90.5	3.50	87.5	80	120	3.37	20
Silver	4.00	3.45	86.3	3.35	83.8	80	120	2.94	20

Comments

*=Out of Limits

NA = Not applicable, due to sample concentration greater than three times spike concentration

Reviewed By: 

MS/MSD Results for METALS

Lab ID: G808-21-12
 MS Lab ID: G808-21-12
 MSD Lab ID: G808-21-12
 ICP Batch: 15107
 HG Batch: 15122
 Other:

Analyzed By: PSW
 Matrix: Leachate
 Units: MG/L

Analyte	Sample Result	SA MS	MS Result	MS %REC	SA MSD	MSD Result	MSD %REC	Limit		RPD	RPD Limit
								Lower	Upper		
Arsenic	BQL	4.00	3.63	90.8	4.00	3.77	94.3	75	125	3.78	20
Barium	BQL	20.0	17.9	89.5	20.0	18.3	91.5	75	125	2.21	20
Cadmium	BQL	4.00	3.53	88.3	4.00	3.62	90.5	75	125	2.52	20
Chromium	BQL	4.00	3.60	90.0	4.00	3.64	91.0	75	125	1.10	20
Lead	BQL	4.00	3.62	90.5	4.00	3.71	92.8	75	125	2.46	20
Mercury	BQL	0.0142	0.0139	97.5	0.0142	0.0142	100	85	115	2.14	20
Selenium	BQL	4.00	3.49	87.3	4.00	3.66	91.5	75	125	4.76	20
Silver	BQL	4.00	3.51	87.7	4.00	3.57	89.3	75	125	1.69	20

Comments

*=Out of Limits

NA = Not applicable, due to sample concentration greater than three times spike concentration

Reviewed By: 



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079526

1 CLIENT: Rhea Engineers & Consultants, Inc.
CONTACT: Ken Robitaille PHONE NO: (451) 454-1219
PROJECT: 3214 SITE/PROJECT ID#: A-12
REPORTS TO: Ken E-MAIL: ken@rhea.com
INVOICE TO: Ken FAX NO.: ()
QUOTE #
P.O. NUMBER

SGS Reference: G910-16 PAGE 1 OF 1

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE	Preservatives Used	Analysis Required	REMARKS
	A12-T1-S-C2	9/10/09	12:45	S	3	G			
	A12-T1-S-C3		~~13:20~~ 13:20	S	3	G			
	A12-T2-S-B1		13:30	S	3	G			
	A12-T2-S-B2		13:35	S	3	G			
	A12-T2-S-B3		13:45	S	3	G			
	A12-T3-S-E1		14:20	S	3	G			
	A12-T3-S-E2		14:40	S	3	G			
	A12-T4-S-E1		14:50	S	3	G			
	A12-Dsp-E-2		10:50	S	3	G			

2

3

4

5

Collected/Relinquished By: (1) Ken Robitaille Date 9/10/09 Time 5:11
Relinquished By: (2) Ken Robitaille Date 9/10/09 Time 5:11
Relinquished By: (3)
Relinquished By: (4)

Received By: Date Time
Received By: Date Time
Received By: Date Time
Received By: Date Time

Shipping Carrier: Standard
Shipping Ticket No: 1711
Special Deliverable Requirements: None
Special Instructions: A12-Dsp-E-2 is to be compared by lab of sample
Requested turnaround Time: 24 hour
Chain of Custody Seal: (Circle) INTACT ABSENT
Samples Received Cold? (Circle) YES NO
Temperature (C): 11.6 Carve going
Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

☐ RUSH ☐ STD ☐ Date Needed

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler



Ken Robitaille
Rhea Engineer & Consultants

Report Number: G910-17

Client Project: 3214-450

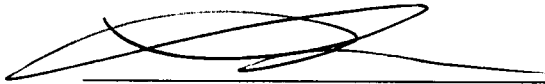
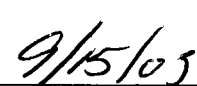
Dear Ken Robitaille,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Linda McWhirter at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

Project Manager Date
Linda McWhirter

SGS North America, Inc.

List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block; see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T6-S-G1

Client Project ID: 3214-450

Lab Sample ID: G910-17-1D

Lab Project ID: G910-17

Date Collected: 9/11/2009 10:20

Date Received: 9/11/2009

Matrix: Soil

Solids 77.18

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.67	mg/Kg	1	09/14/09 18:24

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	31.2	78.1

Comments:**Batch Information**Analytical Batch: EP091409
Analytical Method: 8015
Instrument: GC6
Analyst: BWSPrep batch: 15089
Prep Method: 3541
Prep Date: 09/14/09
Initial Prep Wt/Vol: 33.78 G
Prep Final Vol: 10 mLAnalyst: BWS

NC Certification #481

Reviewed By: 
DRO XLS
Page 3 of 21

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T6-S-G2

Client Project ID: 3214-450

Lab Sample ID: G910-17-2D

Lab Project ID: G910-17

Date Collected: 9/11/2009 10:52

Date Received: 9/11/2009

Matrix: Soil

Solids 81.63

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.41	mg/Kg	1	09/14/09 18:52

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	30.9	77.2

Comments:**Batch Information**

Analytical Batch: EP091409

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15089

Prep Method: 3541

Prep Date: 09/14/09

Initial Prep Wt/Vol: 33.07 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 

DRO XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T6-S-G3

Client Project ID: 3214-450

Lab Sample ID: G910-17-3D

Lab Project ID: G910-17

Date Collected: 9/11/2009 11:05

Date Received: 9/11/2009

Matrix: Soil

Solids 82.95

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.13	mg/Kg	1	09/14/09 19:21

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	29.3	73.2

Comments:**Batch Information**Analytical Batch: EP091409
Analytical Method: 8015
Instrument: GC6
Analyst: BWSPrep batch: 15089
Prep Method: 3541
Prep Date: 09/14/09
Initial Prep Wt/Vol: 33.82 G
Prep Final Vol: 10 mLAnalyst: BWS

NC Certification #481

Reviewed By: 
DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T7-S-A1

Client Project ID: 3214-450

Lab Sample ID: G910-17-4D

Lab Project ID: G910-17

Date Collected: 9/11/2009 11:20

Date Received: 9/11/2009

Matrix: Soil

Solids 80.47

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.92	mg/Kg	1	09/14/09 19:50

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	30.3	75.7

Comments:**Batch Information**Analytical Batch: EP091409
Analytical Method: 8015
Instrument: GC6
Analyst: BWSPrep batch: 15089
Prep Method: 3541
Prep Date: 09/14/09
Initial Prep Wt/Vol: 31.39 G
Prep Final Vol: 10 mLAnalyst: 

NC Certification #481

Reviewed By: 
DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T7-S-A2

Client Project ID: 3214-450

Lab Sample ID: G910-17-5D

Lab Project ID: G910-17

Date Collected: 9/11/2009 11:30

Date Received: 9/11/2009

Matrix: Soil

Solids 81.25

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.63	mg/Kg	1	09/14/09 20:18

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	30.2	75.4

Comments:**Batch Information**Analytical Batch: EP091409
Analytical Method: 8015
Instrument: GC6
Analyst: BWSPrep batch: 15089
Prep Method: 3541
Prep Date: 09/14/09
Initial Prep Wt/Vol: 32.25 G
Prep Final Vol: 10 mLAnalyst: BWS

NC Certification #481

Reviewed By: 
DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T7-S-A3

Client Project ID: 3214-450

Lab Sample ID: G910-17-6D

Lab Project ID: G910-17

Date Collected: 9/11/2009 11:42

Date Received: 9/11/2009

Matrix: Soil

Solids 79.89

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.83	mg/Kg	1	09/14/09 20:47

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	28.8	72

Comments:**Batch Information**

Analytical Batch: EP091409

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15089

Prep Method: 3541

Prep Date: 09/14/09

Initial Prep Wt/Vol: 31.98 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 

DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T7-S-A4

Client Project ID: 3214-450

Lab Sample ID: G910-17-7D

Lab Project ID: G910-17

Date Collected: 9/11/2009 11:50

Date Received: 9/11/2009

Matrix: Soil

Solids 83.90

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.47	mg/Kg	1	09/14/09 21:16

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	31.8	79.5

Comments:**Batch Information**

Analytical Batch: EP091409

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15089

Prep Method: 3541

Prep Date: 09/14/09

Initial Prep Wt/Vol: 31.92 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 

DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank

Client Project ID:

Lab Sample ID: PB15089

Lab Project ID:

Date Collected:

Date Received:

Matrix: SOIL

Solids 100.00

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.25	mg/Kg	1	09/14/09 16:58

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	34.5	86.2

Comments:**Batch Information**Analytical Batch: EP091409
Analytical Method: 8015
Instrument: GC6
Analyst: BWSPrep batch: 15089
Prep Method: 3541
Prep Date: 09/14/09
Initial Prep Wt/Vol: 32 G
Prep Final Vol: 10 mLAnalyst: BWS

NC Certification #481

Reviewed By: 
DRO XLS

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: G910-17-7D
Batch ID: 15089

Analyzed By: BWS
Matrix: Soil
Solids 83.90

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD %
DRO	BQL	74.9	56.3	75.2	71.7	59.3	82.7	9.5

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
DRO	62.5	51.3	82.1	55.3	137

Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T6-S-G1
Client Project ID: 3214-450
Lab Sample ID: G910-17-1A
Lab Project ID: G910-17
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/11/2009 10:20
Date Received: 9/11/2009
Matrix: Soil
Solids 77.18

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	7.53	mg/Kg	1	09/14/09 08:32

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	98.1	98.1		70-130

Comments:**Batch Information**

Analytical Batch: VP091409
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5.16 g
Final Volume: 5 mL

Analyst: OVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T6-S-G2
Client Project ID: 3214-450
Lab Sample ID: G910-17-2A
Lab Project ID: G910-17
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/11/2009 10:52
Date Received: 9/11/2009
Matrix: Soil
Solids 81.63

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.06	mg/Kg	1	09/14/09 08:59

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	100.0	100.0		70-130

Comments:**Batch Information**

Analytical Batch: VP091409
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.06 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T6-S-G3
Client Project ID: 3214-450
Lab Sample ID: G910-17-3A
Lab Project ID: G910-17
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/11/2009 11:05
Date Received: 9/11/2009
Matrix: Soil
Solids 82.95

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.08	mg/Kg	1	09/14/09 09:26

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.6	97.6		70-130

Comments:**Batch Information**

Analytical Batch: VP091409
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5.95 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T7-S-A1
Client Project ID: 3214-450
Lab Sample ID: G910-17-4A
Lab Project ID: G910-17
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/11/2009 11:20
Date Received: 9/11/2009
Matrix: Soil
Solids 80.47

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.20	mg/Kg	1	09/14/09 09:53

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	98.9	98.9		70-130

Comments:**Batch Information**

Analytical Batch: VP091409
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.01 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T7-S-A2
Client Project ID: 3214-450
Lab Sample ID: G910-17-5A
Lab Project ID: G910-17
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/11/2009 11:30
Date Received: 9/11/2009
Matrix: Soil
Solids 81.25

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.54	mg/Kg	1	09/14/09 10:20

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	99.4	99.4		70-130

Comments:

Batch Information

Analytical Batch: VP091409
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.66 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T7-S-A3
Client Project ID: 3214-450
Lab Sample ID: G910-17-6A
Lab Project ID: G910-17
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/11/2009 11:42
Date Received: 9/11/2009
Matrix: Soil
Solids 79.89

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.03	mg/Kg	1	09/14/09 10:47

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	98.2	98.2		70-130

Comments:**Batch Information**

Analytical Batch: VP091409
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.23 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
Page 17 of 21
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T7-S-A4
Client Project ID: 3214-450
Lab Sample ID: G910-17-7A
Lab Project ID: G910-17
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/11/2009 11:50
Date Received: 9/11/2009
Matrix: Soil
Solids 83.90

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.82	mg/Kg	1	09/14/09 11:13

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.9	97.9		70-130

Comments:**Batch Information**

Analytical Batch: VP091409
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5.24 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4091409A
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Soil
Solids 100.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.00	mg/kg	1	09/14/09 08:05

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.9	97.9		70-130

Comments:

Batch Information

Analytical Batch: VP091409
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 3
GRO

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC

Lab Sample ID: g910-17-7a

LCS ID: LCS4091409A / VP091409

Analyzed By: DVO

Matrix: Soil

Solids 83.90

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD % #
				(70-130%)				(70-130%) (30%)
GRO	BQL	18.2	21.4	118	18.2	20.1	110	7.02

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
GRO	16	16.5	103	70	130

Comments:

Reviewed By: 



- Alaska
- Ohio
- New Jersey
- West Virginia
- Hawaii
- Maryland
- North Carolina

079527

[illegible]

White - Retained by Lab
Yellow - Returned with Report



Ken Robitaille
Rhea Engineer & Consultants

Report Number: G910-18

Client Project: 3214-450

Dear Ken Robitaille,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Linda McWhirter at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

A handwritten signature in black ink, appearing to be 'Linda McWhirter', written over a horizontal line.

Project Manager
Linda McWhirter

9/16/05

Date

List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block; see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T6-S-G4
Client Project ID: 3214-450
Lab Sample ID: G910-18-1A
Lab Project ID: G910-18
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/14/2009 11:30
Date Received: 9/14/2009
Matrix: Soil
Solids 85.21

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	4.73	mg/Kg	1	09/15/09 11:13

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	99.5	99.5		70-130

Comments:

Batch Information

Analytical Batch: VP091509
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 7.45 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T6-S-G5
Client Project ID: 3214-450
Lab Sample ID: G910-18-2A
Lab Project ID: G910-18
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/14/2009 11:40
Date Received: 9/14/2009
Matrix: Soil
Solids 78.15

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.28	mg/Kg	1	09/15/09 11:40

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	99.4	99.4		70-130

Comments:

Batch Information

Analytical Batch: VP091509
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 7.27 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T1-S-C4
Client Project ID: 3214-450
Lab Sample ID: G910-18-3A
Lab Project ID: G910-18
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/14/2009 7:55
Date Received: 9/14/2009
Matrix: Soil
Solids 82.01

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.96	mg/Kg	1	09/15/09 13:27

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	100.0	100.0		70-130

Comments:

Batch Information

Analytical Batch: VP091509
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.14 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4091509A
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Soil
Solids 100.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.00	mg/kg	1	09/15/09 10:46

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	98.6	98.6		70-130

Comments:

Batch Information

Analytical Batch: VP091509
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: g910-18-2a
LCS ID: LCS4091509A / VP091509

Analyzed By: DVO
Matrix: Soil
Solids 78.15

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD % #
				(70-130%)				(70-130%) (30%)
GRO	BQL	14.1	15.3	109	14.1	15.1	107	1.85

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
GRO	16	16.4	103	70	130

Comments:

Reviewed By: 

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T6-S-G4

Client Project ID: 3214-450

Lab Sample ID: G910-18-1D

Lab Project ID: G910-18

Date Collected: 9/14/2009 11:30

Date Received: 9/14/2009

Matrix: Soil

Solids 85.21

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.31	mg/Kg	1	09/15/09 10:35

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	28.7	71.6

Comments:

Batch Information

Analytical Batch: EP091509

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15102

Prep Method: 3541

Prep Date: 09/14/09

Initial Prep Wt/Vol: 32.09 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 

DRO.XLS

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T6-S-G5

Client Project ID: 3214-450

Lab Sample ID: G910-18-2D

Lab Project ID: G910-18

Date Collected: 9/14/2009 11:40

Date Received: 9/14/2009

Matrix: Soil

Solids 78.15

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.95	mg/Kg	1	09/15/09 11:03

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	29.3	73.2

Comments:

Batch Information

Analytical Batch: EP091509

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15102

Prep Method: 3541

Prep Date: 09/14/09

Initial Prep Wt/Vol: 32.18 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: DR
DRO.XLS

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T1-S-C4

Client Project ID: 3214-450

Lab Sample ID: G910-18-3D

Lab Project ID: G910-18

Date Collected: 9/14/2009 7:55

Date Received: 9/14/2009

Matrix: Soil

Solids 82.01

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.65	mg/Kg	1	09/15/09 11:31

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	29.6	73.9

Comments:

Batch Information

Analytical Batch: EP091509

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15102

Prep Method: 3541

Prep Date: 09/14/09

Initial Prep Wt/Vol: 31.89 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: MSD

DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB15102
Lab Project ID:

Date Collected:
Date Received:
Matrix: SOIL
Solids 100.00
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.25	mg/Kg	1	09/15/09 10:07

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	33.6	83.9

Comments:

Batch Information

Analytical Batch: EP091509
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15102
Prep Method: 3541
Prep Date: 09/14/09
Initial Prep Wt/Vol: 32 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: DA

DRO.XLS

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: G910-18-3D
Batch ID: 15102

Analyzed By: BWS
Matrix: Soil
Solids 82.01

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD %
DRO	BQL	77.6	55.7	71.8	74.4	64.5	86.7	18.8

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
DRO	62.5	52	83.2	55.3	137

Reviewed By: 



Locations Nationwide

- Alaska
- Hawaii
- Ohio
- Maryland
- New Jersey
- North Carolina
- West Virginia

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200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

1270 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler



Ken Robitaille
Rhea Engineer & Consultants

Report Number: G910-23

Client Project: 3214-450

Dear Ken Robitaille,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Linda McWhirter at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

A handwritten signature in black ink, appearing to be 'Linda McWhirter', written over a horizontal line.

9/18/09

Project Manager
Linda McWhirter

Date

SGS North America, Inc.
List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block; see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T5-S-D1
Client Project ID: 3214-450
Lab Sample ID: G910-23-1B
Lab Project ID: G910-23
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/16/2009 10:40
Date Received: 9/16/2009
Matrix: Soil
Solids 79.22

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.66	mg/Kg	1	09/17/09 11:03

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	108.0	108.0		70-130

Comments:**Batch Information**

Analytical Batch: VP091709
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.69 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T5-S-D2
Client Project ID: 3214-450
Lab Sample ID: G910-23-2B
Lab Project ID: G910-23
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/16/2009 10:50
Date Received: 9/16/2009
Matrix: Soil
Solids 81.41

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	7.11	mg/Kg	1	09/17/09 11:29

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	99.3	99.3		70-130

Comments:

Batch Information

Analytical Batch: VP091709
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5.18 g
Final Volume: 5 mL

Analyst: OVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T5-S-D3
Client Project ID: 3214-450
Lab Sample ID: G910-23-3B
Lab Project ID: G910-23
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/16/2009 11:15
Date Received: 9/16/2009
Matrix: Soil
Solids 80.95

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.58	mg/Kg	1	09/17/09 13:16

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.9	97.9		70-130

Comments:**Batch Information**

Analytical Batch: VP091709
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.64 g
Final Volume: 5 mL

Analyst: OVB

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T5-S-D4
Client Project ID: 3214-450
Lab Sample ID: G910-23-4B
Lab Project ID: G910-23
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/16/2009 12:25
Date Received: 9/16/2009
Matrix: Soil
Solids 85.41

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.67	mg/Kg	1	09/17/09 13:42

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.0	97.0		70-130

Comments:

Batch Information

Analytical Batch: VP091709
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.19 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T5-S-D5
Client Project ID: 3214-450
Lab Sample ID: G910-23-5B
Lab Project ID: G910-23
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/16/2009 12:35
Date Received: 9/16/2009
Matrix: Soil
Solids 77.50

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.19	mg/Kg	1	09/17/09 14:09

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	102.0	102.0		70-130

Comments:

Batch Information

Analytical Batch: VP091709
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.25 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4091709A
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Soil
Solids 100.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.00	mg/kg	1	09/17/09 10:26

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	96.2	96.2		70-130

Comments:

Batch Information

Analytical Batch: VP091709
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC

Lab Sample ID: g910-23-2b

LCS ID: LCS4091709A / VP091709

Analyzed By: DVO

Matrix: Soil

Solids 81.41

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD % #
				(70-130%)				(70-130%) (30%)
GRO	BQL	19	18.2	95.8	19	19.5	103	7.24

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
GRO	16	15.8	98.8	70	130

Comments:

Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T5-S-D1
Client Project ID: 3214-450
Lab Sample ID: G910-23-1D
Lab Project ID: G910-23

Date Collected: 9/16/2009 10:40
Date Received: 9/16/2009
Matrix: Soil
Solids 79.22
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.46	mg/Kg	1	09/17/09 15:50

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	28.5	71.3

Comments:

Batch Information

Analytical Batch: EP091709
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15125
Prep Method: 3541
Prep Date: 09/17/09
Initial Prep Wt/Vol: 33.82 G
Prep Final Vol: 10 mL

Analyst: AWI

NC Certification #481

N.C. Certification #481

Reviewed By: AWI
DRO (version 1).xls
Page 10 of 17

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T5-S-D2
Client Project ID: 3214-450
Lab Sample ID: G910-23-2D
Lab Project ID: G910-23

Date Collected: 9/16/2009 10:50
Date Received: 9/16/2009
Matrix: Soil
Solids 81.41
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.10	mg/Kg	1	09/17/09 16:18

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	29.9	74.7

Comments:**Batch Information**

Analytical Batch: EP091709
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15125
Prep Method: 3541
Prep Date: 09/17/09
Initial Prep Wt/Vol: 34.62 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: [Signature]
DRO (version 1).xls
Page 11 of 17

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T5-S-D3

Client Project ID: 3214-450

Lab Sample ID: G910-23-3D

Lab Project ID: G910-23

Date Collected: 9/16/2009 11:15

Date Received: 9/16/2009

Matrix: Soil

Solids 80.95

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.41	mg/Kg	1	09/17/09 16:46

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	26.2	65.4

Comments:**Batch Information**

Analytical Batch: EP091709

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15125

Prep Method: 3541

Prep Date: 09/17/09

Initial Prep Wt/Vol: 33.36 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: 

DRO (version 1).xls

Page 12 of 17

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T5-S-D4

Client Project ID: 3214-450

Lab Sample ID: G910-23-4D

Lab Project ID: G910-23

Date Collected: 9/16/2009 12:25

Date Received: 9/16/2009

Matrix: Soil

Solids 85.41

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.07	mg/Kg	1	09/17/09 17:15

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	28.6	71.5

Comments:**Batch Information**

Analytical Batch: EP091709

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15125

Prep Method: 3541

Prep Date: 09/17/09

Initial Prep Wt/Vol: 33.12 G

Prep Final Vol: 10 mL

Analyst: BWS

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N.C. Certification #481

Reviewed By: 49
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Page 13 of 17

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T5-S-D5
Client Project ID: 3214-450
Lab Sample ID: G910-23-5D
Lab Project ID: G910-23

Date Collected: 9/16/2009 12:35
Date Received: 9/16/2009
Matrix: Soil
Solids 77.50
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.59	mg/Kg	1	09/17/09 17:44

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	19.9	49.6

Comments:

Batch Information

Analytical Batch: EP091709
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15125
Prep Method: 3541
Prep Date: 09/17/09
Initial Prep Wt/Vol: 33.98 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: JK
DRO (version 1).xls
Page 14 of 17

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank

Client Project ID:

Lab Sample ID: PB15125

Lab Project ID:

Date Collected:

Date Received:

Matrix: SOIL

Solids 100.00

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.25	mg/Kg	1	09/17/09 15:22

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	32.4	81.1

Comments:**Batch Information**Analytical Batch: EP091709
Analytical Method: 8015
Instrument: GC6
Analyst: BWSPrep batch: 15125
Prep Method: 3541
Prep Date: 09/17/09
Initial Prep Wt/Vol: 32 G
Prep Final Vol: 10 mLAnalyst: BWS

NC Certification #481

Reviewed By: OR
DRO (version 1) xls

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: G910-23-5D
Batch ID: 15125

Analyzed By: BWS
Matrix: Soil
Solids 77.50

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD %
DRO	BQL	75.7	55.6	73.4	78.6	57.2	72.8	0.821

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
DRO	62.5	47.5	76	55.3	137

LCS ID : LCS15125
Wt/Vol : 32
Date Run : 09-17-2009

Reviewed By: 



- Alaska
- Ohio
- New Jersey
- West Virginia
- Hawaii
- Maryland
- North Carolina

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079542

Collected/Relinquished By: (1) <i>[Signature]</i>	Date 9/16/09	Time 1655	Received By: <i>[Signature]</i>
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

SGS Reference: _____

PAGE 1 OF 1

No	SAMPLE TYPE	C= COMP G= GRAB	Preservatives Used	Analysis Required	REMARKS
3	6		MeOH	3	
3	6				
3	6				
3	6				
3	6				

DRG
GRO

4

Date 9/16/04 Time 655

Shipping Carrier: _____

Shipping Ticket No: _____

Special Deliverable Requirements: _____

Special Instructions: _____

Date _____ Time _____

Date _____ Time _____

Date _____ Time _____

Samples Received Cold? (Circle) YES NO

Temperature (C): 13.40

Chain of Custody Seal: (Circle) to keep down

INTACT BROKEN

ABSENT

Requested Turnaround Time: _____

☒ RUSH 24 hour hour

☐ STD

Date Needed _____

1270 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler



Ken Robitaille
Rhea Engineer & Consultants

Report Number: G910-25

Client Project: 3214-450

Dear Ken Robitaille,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Linda McWhirter at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.


Project Manager
Linda McWhirter

9/21/09
Date

List of Reporting Abbreviations And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block; see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T2-S-B4
Client Project ID: 3214-450
Lab Sample ID: G910-25-1A
Lab Project ID: G910-25
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/17/2009 7:35
Date Received: 9/17/2009
Matrix: Soil
Solids 81.70

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.34	mg/Kg	1	09/18/09 12:26

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	96.5	96.5		70-130

Comments:

Batch Information

Analytical Batch: VP091809
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.87 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T2-S-B5
Client Project ID: 3214-450
Lab Sample ID: G910-25-2A
Lab Project ID: G910-25
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/17/2009 7:50
Date Received: 9/17/2009
Matrix: Soil
Solids 86.52

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.40	mg/Kg	1	09/18/09 12:53

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.6	97.6		70-130

Comments:

Batch Information

Analytical Batch: VP091809
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.42 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T2-S-B6
Client Project ID: 3214-450
Lab Sample ID: G910-25-3A
Lab Project ID: G910-25
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/17/2009 7:55
Date Received: 9/17/2009
Matrix: Soil
Solids 80.02

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.28	mg/Kg	1	09/18/09 13:19

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	96.5	96.5		70-130

Comments:

Batch Information

Analytical Batch: VP091809
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 7.1 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T7-S-A5
Client Project ID: 3214-450
Lab Sample ID: G910-25-4A
Lab Project ID: G910-25
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/17/2009 11:00
Date Received: 9/17/2009
Matrix: Soil
Solids 86.69

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.10	mg/Kg	1	09/18/09 13:46

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.9	97.9		70-130

Comments:

Batch Information

Analytical Batch: VP091809
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.78 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: DA
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T7-S-A6
Client Project ID: 3214-450
Lab Sample ID: G910-25-5A
Lab Project ID: G910-25
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/17/2009 11:10
Date Received: 9/17/2009
Matrix: Soil
Solids 82.12

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.65	mg/Kg	1	09/18/09 14:13

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	98.0	98.0		70-130

Comments:

Batch Information

Analytical Batch: VP091809
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.47 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T7-S-A7
Client Project ID: 3214-450
Lab Sample ID: G910-25-6A
Lab Project ID: G910-25
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/17/2009 14:25
Date Received: 9/17/2009
Matrix: Soil
Solids 79.32

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.19	mg/Kg	1	09/18/09 14:39

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	98.2	98.2		70-130

Comments:

Batch Information

Analytical Batch: VP091809
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 7.29 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T6-S-G6
Client Project ID: 3214-450
Lab Sample ID: G910-25-7A
Lab Project ID: G910-25
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/17/2009 14:40
Date Received: 9/17/2009
Matrix: Soil
Solids 83.01

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.64	mg/Kg	1	09/18/09 15:06

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	97.8	97.8		70-130

Comments:

Batch Information

Analytical Batch: VP091809
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.41 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 

GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T6-S-G7
Client Project ID: 3214-450
Lab Sample ID: G910-25-8A
Lab Project ID: G910-25
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/17/2009 14:50
Date Received: 9/17/2009
Matrix: Soil
Solids 76.69

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.43	mg/Kg	1	09/18/09 15:32

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	101.0	101.0		70-130

Comments:

Batch Information

Analytical Batch: VP091809
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 7.2 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4091809A
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Soil
Solids 100.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.00	mg/kg	1	09/18/09 12:00

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	96.0	96.0		70-130

Comments:

Batch Information

Analytical Batch: VP091809
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 3
GRO

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC

Lab Sample ID: g910-25-7a

LCS ID: LCS4091809A / VP091809

Analyzed By: DVO

Matrix: Soil

Solids 83.01

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD % #
				(70-130%)				(70-130%) (30%)
GRO	BQL	15	14.5	96.7	15	14.7	98	1.34

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
GRO	16	15.6	97.5	70	130

Comments:

Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T2-S-B4
Client Project ID: 3214-450
Lab Sample ID: G910-25-1D
Lab Project ID: G910-25

Date Collected: 9/17/2009 7:35
Date Received: 9/17/2009
Matrix: Soil
Solids 81.70
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.56	mg/Kg	1	09/18/09 16:06

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	29.6	74.1

Comments:

Batch Information

Analytical Batch: EP091809
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15130
Prep Method: 3541
Prep Date: 09/18/09
Initial Prep Wt/Vol: 32.37 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 
DRO XLS

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T2-S-B5

Client Project ID: 3214-450

Lab Sample ID: G910-25-2D

Lab Project ID: G910-25

Date Collected: 9/17/2009 7:50

Date Received: 9/17/2009

Matrix: Soil

Solids 86.52

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.75	mg/Kg	1	09/18/09 16:34

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	29.6	74.1

Comments:

Batch Information

Analytical Batch: EP091809

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15130

Prep Method: 3541

Prep Date: 09/18/09

Initial Prep Wt/Vol: 34.27 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: SH
DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T2-S-B6
Client Project ID: 3214-450
Lab Sample ID: G910-25-3D
Lab Project ID: G910-25

Date Collected: 9/17/2009 7:55
Date Received: 9/17/2009
Matrix: Soil
Solids 80.02
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.54	mg/Kg	1	09/18/09 17:03

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	28.3	70.8

Comments:

Batch Information

Analytical Batch: EP091809
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15130
Prep Method: 3541
Prep Date: 09/18/09
Initial Prep Wt/Vol: 33.14 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: [Signature]
DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T7-S-A5
Client Project ID: 3214-450
Lab Sample ID: G910-25-4D
Lab Project ID: G910-25

Date Collected: 9/17/2009 11:00
Date Received: 9/17/2009
Matrix: Soil
Solids 86.69
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.93	mg/Kg	1	09/18/09 17:32

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	31.3	78.3

Comments:

Batch Information

Analytical Batch: EP091809
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15130
Prep Method: 3541
Prep Date: 09/18/09
Initial Prep Wt/Vol: 33.28 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 

DRO.XLS

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T7-S-A6

Client Project ID: 3214-450

Lab Sample ID: G910-25-5D

Lab Project ID: G910-25

Date Collected: 9/17/2009 11:10

Date Received: 9/17/2009

Matrix: Soil

Solids 82.12

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.52	mg/Kg	1	09/18/09 18:58

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	31.3	78.2

Comments:

Batch Information

Analytical Batch: EP091809

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15130

Prep Method: 3541

Prep Date: 09/18/09

Initial Prep Wt/Vol: 32.38 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 

DRO XLS

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T7-S-A7

Client Project ID: 3214-450

Lab Sample ID: G910-25-6D

Lab Project ID: G910-25

Date Collected: 9/17/2009 14:25

Date Received: 9/17/2009

Matrix: Soil

Solids 79.32

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.58	mg/Kg	1	09/18/09 19:27

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	28.2	70.4

Comments:

Batch Information

Analytical Batch: EP091809

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15130

Prep Method: 3541

Prep Date: 09/18/09

Initial Prep Wt/Vol: 33.26 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: OPT
DRO XLS

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T6-S-G6

Client Project ID: 3214-450

Lab Sample ID: G910-25-7D

Lab Project ID: G910-25

Date Collected: 9/17/2009 14:40

Date Received: 9/17/2009

Matrix: Soil

Solids 83.01

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.09	mg/Kg	1	09/18/09 19:56

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	30.2	75.4

Comments:

Batch Information

Analytical Batch: EP091809

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15130

Prep Method: 3541

Prep Date: 09/18/09

Initial Prep Wt/Vol: 33.96 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 
DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T6-S-G7
Client Project ID: 3214-450
Lab Sample ID: G910-25-8D
Lab Project ID: G910-25

Date Collected: 9/17/2009 14:50
Date Received: 9/17/2009
Matrix: Soil
Solids 76.69
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.87	mg/Kg	1	09/18/09 20:25

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	29.7	74.2

Comments:

Batch Information

Analytical Batch: EP091809
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15130
Prep Method: 3541
Prep Date: 09/18/09
Initial Prep Wt/Vol: 33.14 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

Reviewed By: 

DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB15130
Lab Project ID:

Date Collected:
Date Received:
Matrix: SOIL
Solids 100.00
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.25	mg/Kg	1	09/18/09 15:38

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	31.9	79.6

Comments:

Batch Information

Analytical Batch: EP091809
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15130
Prep Method: 3541
Prep Date: 09/18/09
Initial Prep Wt/Vol: 32 G
Prep Final Vol: 10 mL

Analyst: DWS

NC Certification #481

Reviewed By: 
DRO.XLS

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: G910-25-4D
Batch ID: 15130

Analyzed By: BWS
Matrix: Soil
Solids 86.69

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD %
DRO	BQL	70.9	56.5	79.7	71.2	53	74.4	6.88

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
DRO	62.5	51.4	82.2	55.3	137

Reviewed By: *BWS*



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079540

1		CLIENT: <u>Rhea Engineers + Consultants, Inc.</u>		SGS Reference: <u>C910-25</u>		PAGE <u>1</u> OF <u>1</u>	
CONTACT: <u>Ken Robitaille</u>		PHONE NO: <u>(514) 454-1219</u>		PRESERVATIVES USED: <u>MCH</u>			
PROJECT: <u>3214-450</u>		SITE/PWSID#: <u>A12</u>		ANALYSIS REQUIRED: <u>3</u>			
REPORTS TO: <u>Ken.kengrha.us</u>		E-MAIL: <u>Erica.priced@rhea.us</u>		C= COMP			
INVOICE TO: <u>Erica.priced@rhea.us</u>		FAX NO: ()		G= GRAB			
QUOTE #		P.O. NUMBER		CONTAINERS			
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No	C= COMP	G= GRAB
	A12-T2-S-B14	9/17/09	7:35	S	3	G	
	A12-T2-S-B5	9/17/09	7:50	S	3	G	
	A12-T2-S-B6	9/17/09	7:55	S	3	G	
	A12-T7-S-A5	9/17/09	11:00	S	3	G	
	A12-T7-S-A6	9/17/09	11:10	S	3	G	
	A12-T7-S-A7	9/17/09	14:25	S	3	G	
	A12-T6-S-G6	9/17/09	14:40	S	3	G	
	A12-T6-S-G7	9/17/09	14:50	S	3	G	
5		Collected/Relinquished By: (1) <u>Ken Robitaille</u>		Date <u>9/17/09</u>		Time <u>4:50</u>	
Relinquished By: (2)		Date		Time		Received By: <u>[Signature]</u>	
Relinquished By: (3)		Date		Time		Received By:	
Relinquished By: (4)		Date		Time		Received By:	
Shipping Carrier:		Shipping Ticket No:		Special Deliverable Requirements:		Special Instructions:	
Samples Received Cold? (Circle) YES NO		Temperature (C): <u>14.2°C on bag coming</u>		Chain of Custody Seal: (Circle) <u>Intact</u> <u>Broken</u> <u>Absent</u>			
Requested Turnaround Time: <u>24 hour</u>		Date Needed		Requested Turnaround Time:		Date Needed	



Ken Robitaille
Rhea Engineer & Consultants

Report Number: G910-27

Client Project: 3214-450

Dear Ken Robitaille,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Linda McWhirter at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

A handwritten signature in black ink, appearing to read 'Linda McWhirter', written over a horizontal line.

Project Manager
Linda McWhirter

A handwritten date '9/24/09' in black ink, written over a horizontal line.

Date

SGS North America, Inc.
List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block; see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

**Results for Total Petroleum Hydrocarbons
by GC/FID 8015**

Client Sample ID: A12-T4-S-E3

Client Project ID: 3214-450

Lab Sample ID: G910-27-1D

Lab Project ID: G910-27

Date Collected: 9/21/2009 10:10

Date Received: 9/21/2009

Matrix: Soil

Solids 78.86

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.86	mg/Kg	1	09/22/09 15:18

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	33.6	83.9

Comments:**Batch Information**

Analytical Batch: EP092209

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15144

Prep Method: 3541

Prep Date: 09/22/09

Initial Prep Wt/Vol: 32.26 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: MD

DRO.XLS

Page 3 of 14

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E4

Client Project ID: 3214-450

Lab Sample ID: G910-27-2D

Lab Project ID: G910-27

Date Collected: 9/21/2009 10:20

Date Received: 9/21/2009

Matrix: Soil

Solids 82.78

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.81	mg/Kg	1	09/22/09 15:46

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	32.8	82

Comments:**Batch Information**

Analytical Batch: EP092209

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15144

Prep Method: 3541

Prep Date: 09/22/09

Initial Prep Wt/Vol: 35.48 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: BWS

DRO XLS

Page 4 of 14

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E5

Client Project ID: 3214-450

Lab Sample ID: G910-27-3D

Lab Project ID: G910-27

Date Collected: 9/21/2009 10:30

Date Received: 9/21/2009

Matrix: Soil

Solids 83.00

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.51	mg/Kg	1	09/22/09 16:15

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	32.6	81.6

Comments:**Batch Information**

Analytical Batch: EP092209

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15144

Prep Method: 3541

Prep Date: 09/22/09

Initial Prep Wt/Vol: 32.07 G

Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: QA
DRO.XLS

Page 5 of 14

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E6

Client Project ID: 3214-450

Lab Sample ID: G910-27-4D

Lab Project ID: G910-27

Date Collected: 9/21/2009 15:40

Date Received: 9/21/2009

Matrix: Soil

Solids 83.30

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.24	mg/Kg	1	09/22/09 16:43

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	32.2	80.5

Comments:**Batch Information**Analytical Batch: EP092209
Analytical Method: 8015
Instrument: GC6
Analyst: BWSPrep batch: 15144
Prep Method: 3541
Prep Date: 09/22/09
Initial Prep Wt/Vol: 33.17 G
Prep Final Vol: 10 mLAnalyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: DR

Page 6 of 14

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank

Client Project ID:

Lab Sample ID: PB15144

Lab Project ID:

Date Collected:

Date Received:

Matrix: SOIL

Solids 100.00

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.25	mg/Kg	1	09/22/09 14:50

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	34	85

Comments:**Batch Information**Analytical Batch: EP092209
Analytical Method: 8015
Instrument: GC6
Analyst: BWSPrep batch: 15144
Prep Method: 3541
Prep Date: 09/22/09
Initial Prep Wt/Vol: 32 G
Prep Final Vol: 10 mLAnalyst: DWS

NC Certification #481

Reviewed By: 
DRO.XLS

SGS North America, Inc.
QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: G910-27-1D
Batch ID: 15144

Analyzed By: BWS
Matrix: Soil
Solids 78.86

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD %
DRO	BQL	77.6	66.7	86	78.6	63.7	81	5.99

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
DRO	62.5	58.4	93.4	55.3	137

Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E3
Client Project ID: 3214-450
Lab Sample ID: G910-27-1A
Lab Project ID: G910-27
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/21/2009 10:10
Date Received: 9/21/2009
Matrix: Soil
Solids 78.86

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.69	mg/Kg	1	09/22/09 10:55

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	103.0	103.0		70-130

Comments:

Batch Information

Analytical Batch: VP092209
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5.69 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E4
Client Project ID: 3214-450
Lab Sample ID: G910-27-2A
Lab Project ID: G910-27
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/21/2009 10:20
Date Received: 9/21/2009
Matrix: Soil
Solids 82.78

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.78	mg/Kg	1	09/22/09 11:22

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	103.0	103.0		70-130

Comments:

Batch Information

Analytical Batch: VP092209
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.27 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E5
Client Project ID: 3214-450
Lab Sample ID: G910-27-3A
Lab Project ID: G910-27
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/21/2009 10:30
Date Received: 9/21/2009
Matrix: Soil
Solids 83.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.95	mg/Kg	1	09/22/09 11:49

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	106.0	106.0		70-130

Comments:

Batch Information

Analytical Batch: VP092209
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.07 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4092209A
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Soil
Solids 100.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.00	mg/kg	1	09/22/09 10:28

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	104.0	104.0		70-130

Comments:

Batch Information

Analytical Batch: VP092209
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: X
GRO

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC

Lab Sample ID: g910-27-3a

LCS ID: LCS4092209A / VP092209

Analyzed By: DVO

Matrix: Soil

Solids 83.00

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD % #
				(70-130%)		(70-130%)		(30%)
GRO	BQL	15.9	16.6	104	15.9	16.3	103	0.966

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
GRO	16	15.3	95.6	70	130

Comments:Reviewed By: 



- Alaska
- Ohio
- New Jersey
- West Virginia
- Hawaii
- Maryland
- North Carolina

079541

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler



Ken Robitaille
Rhea Engineer & Consultants

Report Number: G910-28

Client Project: 3214-450

Dear Ken Robitaille,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Linda McWhirter at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

A handwritten signature in black ink, appearing to be 'Linda McWhirter', written over a horizontal line.

Project Manager
Linda McWhirter

9/29/09

Date

SGS North America, Inc.
List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block; see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E7

Client Project ID: 3214-450

Lab Sample ID: G910-28-1D

Lab Project ID: G910-28

Date Collected: 9/22/2009 9:50

Date Received: 9/24/2009

Matrix: Soil

Solids 79.44

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.83	mg/Kg	1	09/28/09 10:15

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	30.4	76

Comments:**Batch Information**Analytical Batch: EP092809
Analytical Method: 8015
Instrument: GC6
Analyst: BWSPrep batch: 15173
Prep Method: 3541
Prep Date: 09/27/09
Initial Prep Wt/Vol: 32.15 G
Prep Final Vol: 10 mLAnalyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: 
DRO.XLS
Page 3 of 15

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E8
Client Project ID: 3214-450
Lab Sample ID: G910-28-2D
Lab Project ID: G910-28

Date Collected: 9/22/2009 10:55
Date Received: 9/24/2009
Matrix: Soil
Solids 76.81
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	8.11	mg/Kg	1	09/28/09 10:43
Surrogate Spike Results		Spike Added	Control Limits	Spike Result	Percent Recovery
OTP		40	40-140	29.1	72.8

Comments:**Batch Information**

Analytical Batch: EP092809
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15173
Prep Method: 3541
Prep Date: 09/27/09
Initial Prep Wt/Vol: 32.11 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: 
DRO XLS

Page 4 of 15

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-AB1
Client Project ID: 3214-450
Lab Sample ID: G910-28-3D
Lab Project ID: G910-28

Date Collected: 9/22/2009 13:50
Date Received: 9/24/2009
Matrix: Soil
Solids 81.75
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.57	mg/Kg	1	09/28/09 11:11
Surrogate Spike Results		Spike Added	Control Limits	Spike Result	Percent Recovery
OTP		40	40-140	29.8	74.6

Comments:

Batch Information

Analytical Batch: EP092809
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15173
Prep Method: 3541
Prep Date: 09/27/09
Initial Prep Wt/Vol: 32.32 G
Prep Final Vol: 10 mL

Analyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: BWS
ORO.XLS
Page 5 of 15

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-C6

Client Project ID: 3214-450

Lab Sample ID: G910-28-4D

Lab Project ID: G910-28

Date Collected: 9/22/2009 14:05

Date Received: 9/24/2009

Matrix: Soil

Solids 80.06

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.53	mg/Kg	1	09/28/09 11:39

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	31.5	78.7

Comments:**Batch Information**Analytical Batch: EP092809
Analytical Method: 8015
Instrument: GC6
Analyst: BWSPrep batch: 15173
Prep Method: 3541
Prep Date: 09/27/09
Initial Prep Wt/Vol: 33.17 G
Prep Final Vol: 10 mLAnalyst: BWS

NC Certification #481

N.C. Certification #481

Reviewed By: 
DRO.XLS
Page 6 of 15

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank

Client Project ID:

Lab Sample ID: PB15173

Lab Project ID:

Date Collected:

Date Received:

Matrix: SOIL

Solids 100.00

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.25	mg/Kg	1	09/28/09 09:47
Surrogate Spike Results		Spike Added	Control Limits	Spike Result	Percent Recovery
OTP		40	40-140	34.7	86.9

Comments:**Batch Information**Analytical Batch: EP092809
Analytical Method: 8015
Instrument: GC6
Analyst: BWSPrep batch: 15173
Prep Method: 3541
Prep Date: 09/27/09
Initial Prep Wt/Vol: 32 G
Prep Final Vol: 10 mLAnalyst: BWS

NC Certification #481

Reviewed By: DA
DRO.XLS

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: G910-28-3D
Batch ID: 15173

Analyzed By: BWS
Matrix: Soil
Solids 81.75

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD %
DRO	BQL	74.4	59.5	80	75.6	61.6	81.5	1.86

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
DRO	62.5	53.3	85.3	55.3	137

Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E7
Client Project ID: 3214-450
Lab Sample ID: G910-28-1A
Lab Project ID: G910-28
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/22/2009 9:50
Date Received: 9/24/2009
Matrix: Soil
Solids 79.44

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.58	mg/Kg	1	09/25/09 13:42

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	103.0	103.0		70-130

Comments:**Batch Information**

Analytical Batch: VP092509
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.77 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E8
Client Project ID: 3214-450
Lab Sample ID: G910-28-2A
Lab Project ID: G910-28
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/22/2009 10:55
Date Received: 9/24/2009
Matrix: Soil
Solids 76.81

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.06	mg/Kg	1	09/25/09 14:35

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	102.0	102.0		70-130

Comments:**Batch Information**

Analytical Batch: VP092509
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.45 g
Final Volume: 5 mL

Analyst: DVB

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-AB1
Client Project ID: 3214-450
Lab Sample ID: G910-28-3A
Lab Project ID: G910-28
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/22/2009 13:50
Date Received: 9/24/2009
Matrix: Soil
Solids 81.75

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.72	mg/Kg	1	09/25/09 15:02

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	102.0	102.0		70-130

Comments:**Batch Information**

Analytical Batch: VP092509
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.42 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-C6
Client Project ID: 3214-450
Lab Sample ID: G910-28-4A
Lab Project ID: G910-28
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/22/2009 14:05
Date Received: 9/24/2009
Matrix: Soil
Solids 80.06

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.69	mg/Kg	1	09/25/09 15:28

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	103.0	103.0		70-130

Comments:**Batch Information**

Analytical Batch: VP092509
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.58 g
Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4092509A
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Soil
Solids 100.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.00	mg/kg	1	09/25/09 11:31

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	102.0	102.0		70-130

Comments:**Batch Information**

Analytical Batch: VP092509
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC

Lab Sample ID: g1088-6-2a

LCS ID: LCS4092509A / VP092509

Analyzed By: DVO

Matrix: Sediment

Solids 100.00

MS/MSD

Analyte	Sample MG/L	Spiked MG/L	MS MG/L	REC % #	Spiked MG/L	MSD MG/L	REC % #	RPD % #
				(70-130%)			(70-130%)	(30%)
GRO	BQL	0.192	0.197	103	0.192	0.2	104	0.966

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
GRO	16	17.0	106	70	130

Comments:Reviewed By: 



Locations Nationwide

- Alaska
- Hawaii
- Ohio
- Maryland
- New Jersey
- North Carolina
- West Virginia

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079529

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler



Ken Robitaille
Rhea Engineer & Consultants

Report Number: G910-21

Client Project: A12 3214-450

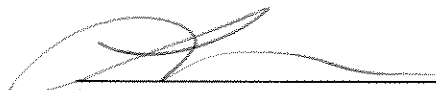
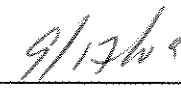
Dear Ken Robitaille,

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Sincerely,
SGS North America, Inc.

Project Manager Date
Linda McWhirter

List of Reporting Abbreviations And Data Qualifiers

B = Compound also detected in batch blank

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DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

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J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

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mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

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Special Notes:

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Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T1-S-C5
Client Project ID: A12 3214-450
Lab Sample ID: G910-21-1D
Lab Project ID: G910-21

Date Collected: 9/15/2009 7:30
Date Received: 9/15/2009
Matrix: Soil
Solids 80.94
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	9.03	7.31	mg/Kg	1	09/16/09 11:40

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	26.3	65.8

Comments:

Batch Information

Analytical Batch: EP091609
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15111
Prep Method: 3541
Prep Date: 09/15/09
Initial Prep Wt/Vol: 33.8 G
Prep Final Vol: 10 mL

Analyst:

NC Certification #481

Reviewed By:

DRO.XLS

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T4-S-E2
Client Project ID: A12 3214-450
Lab Sample ID: G910-21-2D
Lab Project ID: G910-21

Date Collected: 9/15/2009 11:05
Date Received: 9/15/2009
Matrix: Soil
Solids 79.89
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.63	mg/Kg	1	09/16/09 12:08

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	26.6	66.4

Comments:

Batch Information

Analytical Batch: EP091609
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15111
Prep Method: 3541
Prep Date: 09/15/09
Initial Prep Wt/Vol: 32.81 G
Prep Final Vol: 10 mL

Analyst:

NC Certification #481

Reviewed By:
DRO.XLS

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T1-S-C2-2

Client Project ID: A12 3214-450

Lab Sample ID: G910-21-3D

Lab Project ID: G910-21

Date Collected: 9/15/2009 11:45

Date Received: 9/15/2009

Matrix: Soil

Solids 80.14

Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	7.47	mg/Kg	1	09/16/09 12:36

Surrogate Spike Results

	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	22.3	55.7

Comments:

Batch Information

Analytical Batch: EP091609

Analytical Method: 8015

Instrument: GC6

Analyst: BWS

Prep batch: 15111

Prep Method: 3541

Prep Date: 09/15/09

Initial Prep Wt/Vol: 33.43 G

Prep Final Vol: 10 mL

Analyst: *pjl*

NC Certification #481

Reviewed By: *DM*

DRO.XLS

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB15111
Lab Project ID:

Date Collected:
Date Received:
Matrix: SOIL
Solids 100.00
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.25	mg/Kg	1	09/16/09 10:44

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	28.8	71.9

Comments:

Batch Information

Analytical Batch: EP091609
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15111
Prep Method: 3541
Prep Date: 09/15/09
Initial Prep Wt/Vol: 32 G
Prep Final Vol: 10 mL

Analyst:

NC Certification #481

Reviewed By:


DRO.XLS

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: G341-600-8D
Batch ID: 15111

Analyzed By: BWS
Matrix: Soil
Solids 84.71

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD %
DRO	BQL	71.4	59.3	83.1	74.5	56.3	75.6	9.45

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
DRO	62.5	52.6	84.2	55.3	137

Reviewed By: 

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T1-S-C5
Client Project ID: A12 3214-450
Lab Sample ID: G910-21-1B
Lab Project ID: G910-21
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/15/2009 7:30
Date Received: 9/15/2009
Matrix: Soil
Solids 80.94

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.52	mg/Kg	1	09/16/09 10:57

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	98.7	98.7		70-130

Comments:

Batch Information

Analytical Batch: VP091609
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 6.71 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 

GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-T4-S-E2
Client Project ID: A12 3214-450
Lab Sample ID: G910-21-2B
Lab Project ID: G910-21
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected: 9/15/2009 11:05
Date Received: 9/15/2009
Matrix: Soil
Solids 79.89

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.50	mg/Kg	1	09/16/09 11:24

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	98.9	98.9		70-130

Comments:

Batch Information

Analytical Batch: VP091609
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5.78 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 
GRO

Results for Total Petroleum Hydrocarbons

by GC/FID 8015

Client Sample ID: A12-T1-S-C2-2

Client Project ID: A12 3214-450

Lab Sample ID: G910-21-3B

Lab Project ID: G910-21

Report Basis: Dry Weight

Analyzed By: DVO

Date Collected: 9/15/2009 11:45

Date Received: 9/15/2009

Matrix: Soil

Solids 80.14

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.65	mg/Kg	1	09/16/09 13:12

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	102.0	102.0		70-130

Comments:

Batch Information

Analytical Batch: VP091609

Analytical Method: 8015

Instrument ID: GC4

Analyst: DVO

Prep Method: 5035

Initial Wt/Vol: 6.62 g

Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: GRO
GRO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4091609A
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Soil
Solids 100.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.00	mg/kg	1	09/16/09 10:30

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	100.0	100.0		70-130

Comments:

Batch Information

Analytical Batch: VP091609
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: 3 GRO

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC
Lab Sample ID: g910-21-2B
LCS ID: LCS4091609A / VP091609

Analyzed By: DVO
Matrix: Soil
Solids 79.89

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD % #
				(70-130%)				(70-130%) (30%)
GRO	BQL	17.3	19.6	113	17.3	18.8	109	3.6

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
GRO	16	15.8	98.8	70	130

Comments:

Reviewed By: 



Locations Nationwide

- Alaska
- Hawaii
- Ohio
- Maryland
- New Jersey
- North Carolina
- West Virginia

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3
4
5
6
7
0

[illegible]

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler

1270 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761

□ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
 □ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557



Ken Robitaille
Rhea Engineer & Consultants

Report Number: G910-36

Client Project: 3214-450

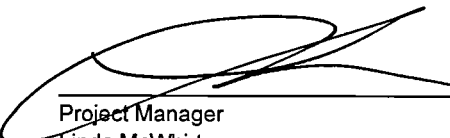
Dear Ken Robitaille,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Linda McWhirter at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.


Project Manager
Linda McWhirter

10/23/09
Date

Case Narrative

Rhea Engineering & Consultants, Inc.

SGS Project: **G910-36**

Project Name: **3214-450**

SGS North America; Inc.

October 23rd, 2009

- One soil sample was accepted into the laboratory on October 19th, 2009 at 1645 for analyses as indicated on the chain of custody. The samples were received in good condition, with a temperature of 4.7°C.
- All extractions and analyses were completed within holding time limits, with the following quality control exceptions.

8270 Analysis

- The LCS associated with batch **153657** has a reported recovery for Benzo[b]fluoranthene that is below the method's QC limit, but within 10% of the lower recovery point. This compound was not detected in the samples and the analyte has been 'UJ' flagged.

 _____ Date 10/23/09
Craig R Tronzo
Data Validation/QC

List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block; see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: A12-TI-S-C2-3

Client Project ID: 3214-450

Lab Sample ID G910-36-1C

Lab Project ID: G910-36

Report Basis: Dry Weight

Analyzed By: CLP

Date Collected: 10-19-2009 11:55

Date Received: 10/19/2009

Matrix: Soil

Sample Amount: 5.05 g

%Solids: 78.5

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	63.1	1	10/21/2009
Benzene	BQL	6.31	1	10/21/2009
Bromobenzene	BQL	6.31	1	10/21/2009
Bromochloromethane	BQL	6.31	1	10/21/2009
Bromodichloromethane	BQL	6.31	1	10/21/2009
Bromoform	BQL	6.31	1	10/21/2009
Bromomethane	BQL	6.31	1	10/21/2009
2-Butanone	BQL	31.5	1	10/21/2009
n-Butylbenzene	BQL	6.31	1	10/21/2009
sec-Butylbenzene	BQL	6.31	1	10/21/2009
tert-Butylbenzene	BQL	6.31	1	10/21/2009
Carbon disulfide	BQL	6.31	1	10/21/2009
Carbon tetrachloride	BQL	6.31	1	10/21/2009
Chlorobenzene	BQL	6.31	1	10/21/2009
Chloroethane	BQL	6.31	1	10/21/2009
Chloroform	BQL	6.31	1	10/21/2009
Chloromethane	BQL	6.31	1	10/21/2009
2-Chlorotoluene	BQL	6.31	1	10/21/2009
4-Chlorotoluene	BQL	6.31	1	10/21/2009
Dibromochloromethane	BQL	6.31	1	10/21/2009
1,2-Dibromo-3-chloropropane	BQL	31.5	1	10/21/2009
Dibromomethane	BQL	6.31	1	10/21/2009
1,2-Dibromoethane (EDB)	BQL	6.31	1	10/21/2009
1,2-Dichlorobenzene	BQL	6.31	1	10/21/2009
1,3-Dichlorobenzene	BQL	6.31	1	10/21/2009
1,4-Dichlorobenzene	BQL	6.31	1	10/21/2009
trans-1,4-Dichloro-2-butene	BQL	31.5	1	10/21/2009
1,1-Dichloroethane	BQL	6.31	1	10/21/2009
1,1-Dichloroethene	BQL	6.31	1	10/21/2009
1,2-Dichloroethane	BQL	6.31	1	10/21/2009
cis-1,2-Dichloroethene	BQL	6.31	1	10/21/2009
trans-1,2-dichloroethene	BQL	6.31	1	10/21/2009
1,2-Dichloropropane	BQL	6.31	1	10/21/2009
1,3-Dichloropropane	BQL	6.31	1	10/21/2009
2,2-Dichloropropane	BQL	6.31	1	10/21/2009
1,1-Dichloropropene	BQL	6.31	1	10/21/2009
cis-1,3-Dichloropropene	BQL	6.31	1	10/21/2009
trans-1,3-Dichloropropene	BQL	6.31	1	10/21/2009
Dichlorodifluoromethane	BQL	6.31	1	10/21/2009
Diisopropyl ether (DIPE)	BQL	6.31	1	10/21/2009
Ethylbenzene	BQL	6.31	1	10/21/2009
Hexachlorobutadiene	BQL	6.31	1	10/21/2009
2-Hexanone	BQL	15.8	1	10/21/2009
Iodomethane	BQL	6.31	1	10/21/2009

**Results for Volatiles
by GCMS 8260-5035**

Client Sample ID: A12-TI-S-C2-3

Client Project ID: 3214-450

Lab Sample ID G910-36-1C

Lab Project ID: G910-36

Report Basis: Dry Weight

Analyzed By: CLP

Date Collected: 10-19-2009 11:55

Date Received: 10/19/2009

Matrix: Soil

Sample Amount: 5.05 g

%Solids: 78.5

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	6.31	1	10/21/2009
4-Isopropyltoluene	BQL	6.31	1	10/21/2009
Methylene chloride	BQL	25.2	1	10/21/2009
4-Methyl-2-pentanone	BQL	15.8	1	10/21/2009
Methyl-tert-butyl ether (MTBE)	BQL	6.31	1	10/21/2009
Naphthalene	BQL	6.31	1	10/21/2009
n-Propyl benzene	BQL	6.31	1	10/21/2009
Styrene	BQL	6.31	1	10/21/2009
1,1,1,2-Tetrachloroethane	BQL	6.31	1	10/21/2009
1,1,2,2-Tetrachloroethane	BQL	6.31	1	10/21/2009
Tetrachloroethene	BQL	6.31	1	10/21/2009
Toluene	BQL	6.31	1	10/21/2009
1,2,3-Trichlorobenzene	BQL	6.31	1	10/21/2009
1,2,4-Trichlorobenzene	BQL	6.31	1	10/21/2009
Trichloroethene	BQL	6.31	1	10/21/2009
1,1,1-Trichloroethane	BQL	6.31	1	10/21/2009
1,1,2-Trichloroethane	BQL	6.31	1	10/21/2009
Trichlorofluoromethane	BQL	6.31	1	10/21/2009
1,2,3-Trichloropropane	BQL	6.31	1	10/21/2009
1,2,4-Trimethylbenzene	BQL	6.31	1	10/21/2009
1,3,5-Trimethylbenzene	BQL	6.31	1	10/21/2009
Vinyl chloride	BQL	6.31	1	10/21/2009
m-,p-Xylene	BQL	12.6	1	10/21/2009
o-Xylene	BQL	6.31	1	10/21/2009

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	64.5	129
Toluene-d8	50	49.7	99
4-Bromofluorobenzene	50	46	92

Comments:**Flags:**

BQL = Below Quantitation Limits.

Analyst: Reviewed By: 

SGS North America, Inc.

Results for Volatiles
by GCMS 8260-5030

Client Sample ID: Method Blank
 Client Project ID:
 Lab Sample ID VBLK9102109B
 Lab Project ID:
 Report Basis: Dry Weight

Analyzed By: CLP
 Date Collected:
 Date Received:
 Matrix: Soil
 Sample Amount: 5 g
 %Solids: 100.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Acetone	BQL	50.0	1	10/21/2009
Benzene	BQL	5.00	1	10/21/2009
Bromobenzene	BQL	5.00	1	10/21/2009
Bromochloromethane	BQL	5.00	1	10/21/2009
Bromodichloromethane	BQL	5.00	1	10/21/2009
Bromoform	BQL	5.00	1	10/21/2009
Bromomethane	BQL	5.00	1	10/21/2009
2-Butanone	BQL	25.0	1	10/21/2009
n-Butylbenzene	BQL	5.00	1	10/21/2009
sec-Butylbenzene	BQL	5.00	1	10/21/2009
tert-Butylbenzene	BQL	5.00	1	10/21/2009
Carbon disulfide	BQL	5.00	1	10/21/2009
Carbon tetrachloride	BQL	5.00	1	10/21/2009
Chlorobenzene	BQL	5.00	1	10/21/2009
Chloroethane	BQL	5.00	1	10/21/2009
Chloroform	BQL	5.00	1	10/21/2009
Chloromethane	BQL	5.00	1	10/21/2009
2-Chlorotoluene	BQL	5.00	1	10/21/2009
4-Chlorotoluene	BQL	5.00	1	10/21/2009
Dibromochloromethane	BQL	5.00	1	10/21/2009
1,2-Dibromo-3-chloropropane	BQL	5.00	1	10/21/2009
Dibromomethane	BQL	5.00	1	10/21/2009
1,2-Dibromoethane (EDB)	BQL	5.00	1	10/21/2009
1,2-Dichlorobenzene	BQL	5.00	1	10/21/2009
1,3-Dichlorobenzene	BQL	5.00	1	10/21/2009
1,4-Dichlorobenzene	BQL	5.00	1	10/21/2009
trans-1,4-Dichloro-2-butene	BQL	5.00	1	10/21/2009
1,1-Dichloroethane	BQL	5.00	1	10/21/2009
1,1-Dichloroethene	BQL	5.00	1	10/21/2009
1,2-Dichloroethane	BQL	5.00	1	10/21/2009
cis-1,2-Dichloroethene	BQL	5.00	1	10/21/2009
trans-1,2-dichloroethene	BQL	5.00	1	10/21/2009
1,2-Dichloropropane	BQL	5.00	1	10/21/2009
1,3-Dichloropropane	BQL	5.00	1	10/21/2009
2,2-Dichloropropane	BQL	5.00	1	10/21/2009
1,1-Dichloropropene	BQL	5.00	1	10/21/2009
cis-1,3-Dichloropropene	BQL	5.00	1	10/21/2009
trans-1,3-Dichloropropene	BQL	5.00	1	10/21/2009
Dichlorodifluoromethane	BQL	5.00	1	10/21/2009
Diisopropyl ether (DIPE)	BQL	5.00	1	10/21/2009
Ethylbenzene	BQL	5.00	1	10/21/2009
Hexachlorobutadiene	BQL	5.00	1	10/21/2009
2-Hexanone	BQL	5.00	1	10/21/2009
Iodomethane	BQL	5.00	1	10/21/2009

SGS North America, Inc.
Results for Volatiles
by GCMS 8260-5030

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID VBLK9102109B
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: CLP
Date Collected:
Date Received:
Matrix: Soil
Sample Amount: 5 g
%Solids: 100.0

Report Name Compound	Result UG/KG	Quantitation Limit UG/KG	Dilution Factor	Date Analyzed
Isopropylbenzene	BQL	5.00	1	10/21/2009
4-Isopropyltoluene	BQL	5.00	1	10/21/2009
Methylene chloride	BQL	20.0	1	10/21/2009
4-Methyl-2-pentanone	BQL	5.00	1	10/21/2009
Methyl-tert-butyl ether (MTBE)	BQL	5.00	1	10/21/2009
Naphthalene	BQL	5.00	1	10/21/2009
n-Propyl benzene	BQL	5.00	1	10/21/2009
Styrene	BQL	5.00	1	10/21/2009
1,1,1,2-Tetrachloroethane	BQL	5.00	1	10/21/2009
1,1,2,2-Tetrachloroethane	BQL	5.00	1	10/21/2009
Tetrachloroethene	BQL	5.00	1	10/21/2009
Toluene	BQL	5.00	1	10/21/2009
1,2,3-Trichlorobenzene	BQL	5.00	1	10/21/2009
1,2,4-Trichlorobenzene	BQL	5.00	1	10/21/2009
Trichloroethene	BQL	5.00	1	10/21/2009
1,1,1-Trichloroethane	BQL	5.00	1	10/21/2009
1,1,2-Trichloroethane	BQL	5.00	1	10/21/2009
Trichlorofluoromethane	BQL	5.00	1	10/21/2009
1,2,3-Trichloropropane	BQL	5.00	1	10/21/2009
1,2,4-Trimethylbenzene	BQL	5.00	1	10/21/2009
1,3,5-Trimethylbenzene	BQL	5.00	1	10/21/2009
Vinyl chloride	BQL	5.00	1	10/21/2009
m-,p-Xylene	BQL	10.0	1	10/21/2009
o-Xylene	BQL	5.00	1	10/21/2009

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	50	52.2	104
Toluene-d8	50	49.8	100
4-Bromofluorobenzene	50	47.7	95

Comments:

Flags:

BQL = Below Quantitation Limits.

Analyst: CL

Reviewed By: 

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: SGS Environmental

Dilution: 1

Lab Code: NC00919

Matrix: Soil

LCS: LCS9102109A

Filename: 1021904.D

Date Analyzed: 10/21/09 12:20

LCSD: LCS9102109B

Filename: 1021905.D

Date Analyzed: 10/21/09 12:46

COMPOUND	LCS SPIKE (µg/kg)	LCS CONC (µg/kg)	LCS % REC #	LCSD SPIKE (µg/kg)	LCSD CONC (µg/kg)	LCSD % REC #	% RPD	QC LIMITS	
								RPD	REC
acetone	75.0	51.4	68.5	75.0	46.2	61.6	10.6	30	16.7-286
acrolein	300	427	142	300	437	146	2.31	30	16.7-226
acrylonitrile	300	293	97.5	300	289	96.5	1.11	30	13.3-201
benzene	30.0	30.3	101	30.0	29.5	98.3	2.71	30	68.6-132
bromobenzene	30.0	28.0	93.4	30.0	28.2	94.1	0.782	30	56.7-146
bromochloromethane	30.0	30.2	101	30.0	29.6	98.6	2.01	30	52.5-154
bromodichloromethane	30.0	32.6	109	30.0	31.3	104	3.97	30	65.4-137
bromoform	30.0	25.7	85.7	30.0	26.2	87.2	1.81	30	48.3-147
bromomethane	30.0	49.7	166	30.0	48.0	160	3.44	30	16.7-246
2-butanone	75.0	64.0	85.4	75.0	60.5	80.7	5.59	30	16.7-314
n-butylbenzene	30.0	28.8	96.1	30.0	27.5	91.5	4.90	30	58.4-135
sec-butylbenzene	30.0	31.1	104	30.0	29.9	99.8	3.96	30	57.2-136
tert-butylbenzene	30.0	29.9	99.7	30.0	29.1	97.2	2.61	30	50.8-139
Carbon disulfide	30.0	29.0	96.6	30.0	28.6	95.5	1.14	30	16.7-276
carbon tetrachloride	30.0	30.3	101	30.0	30.1	100	0.529	30	61.1-141
chlorobenzene	30.0	30.8	103	30.0	30.4	101	1.96	30	63.0-129
chloroethane	30.0	35.9	120	30.0	36.4	121	1.36	30	22.5-200
2-chloroethyl vinyl ether	300	274	91.2	300	278	92.8	1.74	30	16.7-275
chloroform	30.0	32.5	108	30.0	31.7	106	2.62	30	65.0-137
chloromethane	30.0	30.4	101	30.0	31.1	104	2.34	30	16.7-182
2-chlorotoluene	30.0	30.9	103	30.0	29.4	98.0	4.91	30	61.1-138
4-chlorotoluene	30.0	30.9	103	30.0	29.4	98.0	4.84	30	63.8-134
dibromochloromethane	30.0	29.7	99.0	30.0	30.0	100	0.972	30	56.0-144
1,2-dibromo-3-chloropropane	150	165	110	150	160	107	3.36	30	16.7-213
1,2-dibromoethane	30.0	29.9	99.8	30.0	30.0	100	0.267	30	58.8-139
dibromomethane	30.0	32.4	108	30.0	30.8	103	4.99	30	54.1-154
1,2-dichlorobenzene	30.0	32.2	107	30.0	30.6	102	4.84	30	61.5-138
1,3-dichlorobenzene	30.0	31.0	103	30.0	30.0	99.8	3.54	30	61.5-138
1,4-dichlorobenzene	30.0	30.7	102	30.0	29.2	97.3	5.11	30	61.1-138
trans-1,4-Dichloro-2-butene	150	164	109	150	156	104	4.85	30	16.7-212
dichlorodifluoromethane	30.0	34.5	115	30.0	35.7	119	3.33	30	25.4-165
1,1-dichloroethane	30.0	30.8	103	30.0	30.2	100	2.00	30	62.4-140
1,2-dichloroethane	30.0	32.4	108	30.0	31.2	104	3.68	30	55.3-152
1,1-dichloroethene	30.0	32.1	107	30.0	31.7	106	0.939	30	65.4-134
cis-1,2-dichloroethene	30.0	30.1	100	30.0	30.1	100	0.0997	30	63.8-138
trans-1,2-dichloroethene	30.0	31.8	106	30.0	31.0	103	2.61	30	63.3-139
1,2-dichloropropane	30.0	30.7	102	30.0	29.7	98.9	3.44	30	60.0-139
1,3-dichloropropane	30.0	30.6	102	30.0	30.8	103	0.423	30	62.3-136
2,2-dichloropropane	30.0	30.3	101	30.0	30.0	99.9	1.06	30	62.5-140
1,1-dichloropropene	30.0	29.5	98.4	30.0	29.3	97.6	0.850	30	60.9-136
cis-1,3-dichloropropene	30.0	34.6	116	30.0	34.2	114	1.22	30	59.8-141

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS:

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: SGS Environmental

Dilution: 1

Lab Code: NC00919

Matrix: Soil

LCS: LCS9102109A

filename: 1021904.D

Date Analyzed: 10/21/09 12:20

LCSD: LCS9102109B

filename: 1021905.D

Date Analyzed: 10/21/09 12:46

COMPOUND	LCS SPIKE (µg/kg)	LCS CONC (µg/kg)	LCS % REC #	LCSD SPIKE (µg/kg)	LCSD CONC (µg/kg)	LCSD % REC #	% RPD	QC LIMITS	
								RPD	REC
trans-1,3-dichloropropene	30.0	36.4	121	30.0	35.6	119	2.30	30	7.27-173
Diisopropyl ether	30.0	29.1	97.1	30.0	28.4	94.8	2.40	30	9.01-172
ethylbenzene	30.0	30.3	101	30.0	29.6	98.6	2.37	30	16.7-187
hexachlorobutadiene	30.0	29.4	98.1	30.0	27.5	91.7	6.81	30	16.7-173
2-hexanone	75.0	67.1	89.4	75.0	65.9	87.9	1.74	30	16.7-304
Iodomethane	30.0	26.4	87.8	30.0	26.3	87.6	0.228	30	16.7-200
isopropylbenzene	30.0	30.6	102	30.0	29.6	98.6	3.42	30	6.43-167
4-isopropyltoluene	30.0	29.5	98.2	30.0	28.6	95.4	2.89	30	6.97-170
Methyl-tert-butyl ether	30.0	29.6	98.8	30.0	28.6	95.4	3.54	30	10.7-173
methylene chloride	30.0	31.8	106	30.0	31.4	104	1.33	30	8.58-169
4-methyl-2-pentanone	75.0	76.9	102	75.0	75.2	100	2.35	30	16.7-293
naphthalene	30.0	25.2	84.0	30.0	23.5	78.2	7.07	30	16.7-175
n-propyl benzene	30.0	30.7	102	30.0	29.4	97.9	4.49	30	7.25-172
styrene	30.0	28.7	95.6	30.0	27.5	91.7	4.20	30	10.2-168
1,1,1,2-tetrachloroethane	30.0	30.5	102	30.0	30.6	102	0.327	30	5.87-177
1,1,2,2-tetrachloroethane	30.0	31.7	106	30.0	31.4	105	0.919	30	10.9-168
tetrachloroethene	30.0	27.6	92.1	30.0	27.7	92.2	0.108	30	16.7-195
toluene	30.0	29.8	99.4	30.0	29.2	97.4	2.03	30	26.6-159
1,2,3-trichlorobenzene	30.0	25.2	84.0	30.0	23.9	79.6	5.34	30	4.64-169
1,2,4-trichlorobenzene	30.0	26.2	87.3	30.0	24.5	81.6	6.79	30	6.55-165
1,1,1-trichloroethane	30.0	32.0	106	30.0	31.2	104	2.44	30	8.40-173
1,1,2-trichloroethane	30.0	32.1	107	30.0	32.4	108	0.899	30	12.2-166
trichloroethene	30.0	31.4	105	30.0	30.7	102	2.90	30	24.0-158
trichlorofluoromethane	30.0	31.4	105	30.0	31.7	106	0.918	30	5.64-183
1,2,3-trichloropropane	30.0	30.7	102	30.0	30.4	101	0.981	30	16.7-186
1,2,4-trimethylbenzene	30.0	30.5	102	30.0	29.0	96.8	4.84	30	8.60-168
1,3,5-trimethylbenzene	30.0	29.6	98.7	30.0	28.6	95.3	3.47	30	8.09-168
Vinyl acetate	75.0	72.4	96.5	75.0	71.6	95.4	1.07	30	16.7-225
vinyl chloride	30.0	31.7	106	30.0	32.3	108	1.81	30	7.56-178
m/p-xylene	60.0	58.8	97.9	60.0	56.8	94.6	3.41	30	8.91-169
o-xylene	30.0	30.1	100	30.0	29.5	98.3	1.98	30	9.45-167

System Monitoring Compound Results

		LCS SPIKE (µg/kg)	LCS CONC (µg/kg)	LCS % REC #	LCSD SPIKE (µg/kg)	LCSD CONC (µg/kg)	LCSD % REC #	QC LIMITS	
								REC	
460-00-4	4-Bromofluorobenzene	50	49.48	99.0	50	50.73	101		49.1-151
17060-07-0	1,2-Dichloroethane-d4	50	55.21	110	50	55.2	110		37.8-170
2037-26-5	Toluene-d8	50	50.38	101	50	50.46	101		58.8-144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

LCS Spike Recovery: 0 failure(s) out of 72. LCSD Spike Recovery: 0 failure(s) out of 72.

RPD: 0 out of 72 outside of limits

COMMENTS:

Analyst: 

Reviewed by: 

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental

Lab Code: NC00919

Inst: MSD9

EPA Sample No.: Amt. Filenames:

Analysis Dates:

Batch: 9102109

Sample g296-671-4a 5.08 g 1021917.D 2009-10-21 18:41:00
MS g296-671-4a 5.08 g 1021918.D 2009-10-21 19:07:00
MSD g296-671-4a 5.08 g 1021919.D 2009-10-21 19:33:00

Dilution: 1

Matrix: Soil

Solids: 89.3

COMPOUND	SAMPLE CONC (µg/kg)	MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	% RPD	QC LIMITS	
									RPD	REC
acetone	BQL	33.0	61.9	187	33.0	60.2	182	2.87	30	6.81-355
acrolein	BQL	330	328	99.4	330	382	115	15.0	30	0.00-6510
acrylonitrile	BQL	330	240	72.8	330	271	82.0	11.9	30	0.00-5670
benzene	BQL	33.0	29.7	90.0	33.0	28.8	87.2	3.12	30	74.8-133
bromobenzene	BQL	33.0	26.8	81.2	33.0	25.4	76.8	5.61	30	66.1-140
bromochloromethane	BQL	33.0	27.2	82.3*	33.0	27.8	84.0*	2.00	30	85.1-136
bromodichloromethane	BQL	33.0	31.9	96.6	33.0	30.6	92.6	4.23	30	77.4-140
bromoform	BQL	33.0	24.5	74.2*	33.0	23.4	70.9*	4.60	30	74.7-161
bromomethane	BQL	33.0	59.8	181*	33.0	65.8	199*	9.46	30	30.4-127
2-butanone	BQL	33.0	63.7	193	33.0	62.0	187	2.72	30	40.9-256
n-butylbenzene	BQL	33.0	26.9	81.3	33.0	24.0	72.5	11.4	30	41.2-147
sec-butylbenzene	BQL	33.0	30.2	91.5	33.0	27.0	81.7	11.4	30	56.7-138
tert-butylbenzene	BQL	33.0	27.0	81.6	33.0	24.7	74.8	8.74	30	60.5-142
Carbon disulfide	BQL	33.0	29.0	87.7	33.0	28.0	84.6	3.60	30	64.3-145
carbon tetrachloride	BQL	33.0	29.7	89.8	33.0	28.3	85.7	4.75	30	64.2-142
chlorobenzene	BQL	33.0	30.8	93.4	33.0	29.2	88.3	5.54	30	66.3-135
chloroethane	BQL	33.0	31.6	95.6	33.0	35.4	107	11.2	30	20.7-182
2-chloroethyl vinyl ether	BQL	33.0	225	680*	33.0	246	744*	8.94	30	16.7-283
chloroform	BQL	33.0	32.0	96.9	33.0	30.8	93.3	3.82	30	71.1-143
chloromethane	BQL	33.0	26.7	80.8	33.0	31.1	94.2	15.3	30	69.1-138
2-chlorotoluene	BQL	33.0	29.7	89.8	33.0	27.7	83.9	6.80	30	59.8-144
4-chlorotoluene	BQL	33.0	29.9	90.4	33.0	27.9	84.5	6.79	30	59.0-141
dibromochloromethane	BQL	33.0	28.4	86.0	33.0	27.2	82.3	4.36	30	78.1-141
1,2-dibromo-3-chloropropane	BQL	165	140	84.4	165	136	82.3	2.58	30	43.4-229
1,2-dibromoethane	BQL	33.0	27.7	83.9	33.0	27.7	83.8	0.159	30	78.3-148
dibromomethane	BQL	33.0	29.6	89.5	33.0	29.2	88.4	1.20	30	80.0-150
1,2-dichlorobenzene	BQL	33.0	29.9	90.5	33.0	27.9	84.4	7.01	30	57.5-148
1,3-dichlorobenzene	BQL	33.0	29.7	89.8	33.0	27.4	83.0	7.87	30	55.0-145
1,4-dichlorobenzene	BQL	33.0	29.2	88.4	33.0	27.2	82.2	7.19	30	53.4-146
trans-1,4-Dichloro-2-butene	BQL	165	135	81.7	165	134	80.9	0.968	30	48.9-211
dichlorodifluoromethane	BQL	33.0	31.6	95.5	33.0	35.6	108	12.2	30	81.6-130
1,1-dichloroethane	BQL	33.0	30.2	91.2	33.0	29.1	88.1	3.49	30	71.6-139
1,2-dichloroethane	BQL	33.0	31.0	94.0	33.0	30.2	91.4	2.80	30	72.9-146
1,1-dichloroethene	BQL	33.0	31.4	95.2	33.0	30.8	93.2	2.12	30	72.0-135
cis-1,2-dichloroethene	BQL	33.0	29.7	89.9	33.0	29.2	88.5	1.61	30	76.9-134
trans-1,2-dichloroethene	BQL	33.0	31.2	94.5	33.0	30.8	93.1	1.53	30	72.0-135
1,2-dichloropropane	BQL	33.0	29.8	90.2	33.0	29.2	88.3	2.16	30	76.1-136
1,3-dichloropropane	BQL	33.0	29.0	87.9	33.0	27.8	84.2	4.26	30	83.2-137
2,2-dichloropropane	BQL	33.0	29.1	87.9	33.0	28.8	87.1	0.990	30	58.0-150
1,1-dichloropropene	BQL	33.0	28.2	85.5	33.0	27.4	82.8	3.21	30	68.5-137
cis-1,3-dichloropropene	BQL	33.0	32.5	98.2	33.0	32.0	96.9	1.40	30	72.1-146

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS:

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental

Inst: MSD9

Lab Code: NC00919

Batch: 9102109

EPA Sample No.: g296-671-4a, g296-671-4a, g296-671-4a

Dilution: 1

FileNames: 1021917.D, 1021918.D, 1021919.D

Matrix: Soil

COMPOUND	SAMPLE CONC (µg/kg)	MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	% RPD	QC LIMITS	
									RPD	REC
trans-1,3-dichloropropene	BQL	33.0	32.7	98.9	33.0	32.8	99.3	0.437	30	44.7-144
Diisopropyl ether	BQL	33.0	27.9	84.4	33.0	27.2	82.3	2.52	30	79.4-122
ethylbenzene	BQL	33.0	30.6	92.5	33.0	28.9	87.5	5.63	30	73.8-126
hexachlorobutadiene	BQL	33.0	25.4	76.9	33.0	21.2	64.3	17.9	30	51.8-134
2-hexanone	BQL	33.0	66.3	201*	33.0	63.1	191*	4.93	30	41.6-111
Iodomethane	BQL	33.0	24.6	74.5	33.0	25.1	76.0	2.04	30	40.6-126
isopropylbenzene	BQL	33.0	30.0	90.9	33.0	28.2	85.4	6.31	30	74.3-123
4-isopropyltoluene	BQL	33.0	28.8	87.3	33.0	25.8	78.1	11.1	30	74.6-122
Methyl-tert-butyl ether	BQL	33.0	26.2	79.3	33.0	26.3	79.7	0.503	30	66.5-136
methylene chloride	7.08	132	37.8	23.2*	132	36.8	22.4*	3.54	30	48.6-155
4-methyl-2-pentanone	BQL	33.0	66.2	200*	33.0	66.1	200*	0.0166	30	6.88-166
naphthalene	BQL	33.0	18.9	57.3	33.0	18.0	54.3*	5.37	30	55.1-140
n-propyl benzene	BQL	33.0	30.0	90.9	33.0	27.8	84.0	7.85	30	71.6-128
styrene	BQL	33.0	28.1	85.1	33.0	26.8	81.3	4.61	30	73.2-123
1,1,1,2-tetrachloroethane	BQL	33.0	29.4	89.1	33.0	28.2	85.5	4.09	30	69.4-120
1,1,2,2-tetrachloroethane	BQL	33.0	28.7	87.0	33.0	28.0	84.6	2.76	30	75.7-136
tetrachloroethene	BQL	33.0	25.2	76.2	33.0	24.0	72.7	4.70	30	45.8-153
toluene	BQL	33.0	29.4	88.9	33.0	28.5	86.2	3.04	30	66.4-128
1,2,3-trichlorobenzene	BQL	33.0	20.5	62.1	33.0	18.6	56.4*	9.62	30	61.0-126
1,2,4-trichlorobenzene	BQL	33.0	21.1	64.0	33.0	18.7	56.6*	12.2	30	60.6-125
1,1,1-trichloroethane	BQL	33.0	31.0	93.8	33.0	30.0	90.6	3.43	30	78.4-121
1,1,2-trichloroethane	BQL	33.0	30.9	93.5	33.0	30.1	91.0	2.64	30	64.8-128
trichloroethene	BQL	33.0	30.6	92.7	33.0	29.5	89.3	3.74	30	84.9-136
trichlorofluoromethane	BQL	33.0	29.8	90.3	33.0	32.4	98.0	8.21	30	76.8-132
1,2,3-trichloropropane	BQL	33.0	27.4	83.0	33.0	26.2	79.4	4.48	30	10.0-218
1,2,4-trimethylbenzene	BQL	33.0	29.8	90.1	33.0	27.4	82.8	8.52	30	31.0-172
1,3,5-trimethylbenzene	BQL	33.0	29.0	87.8	33.0	26.8	81.1	8.01	30	67.7-132
Vinyl acetate	BQL	82.6	62.0	75.0	82.6	59.6	72.1	3.99	30	0.00-355
vinyl chloride	BQL	33.0	29.6	89.7	33.0	32.5	98.4	9.28	30	68.1-137
m/p-xylene	BQL	66.1	58.7	88.8	66.1	55.5	83.9	5.71	30	79.8-118
o-xylene	BQL	33.0	29.5	89.3	33.0	28.4	86.0	3.76	30	80.0-121

System Monitoring Compound Results

		MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	QC LIMITS	
								REC	
460-00-4	4-Bromofluorobenzene	50	51.23	102	50	49.52	99.0		49.1-151
17060-07-0	1,2-Dichloroethane-d4	50	51.23	102	50	52.1	104		37.8-170
2037-26-5	Toluene-d8	50	50.57	101	50	50.63	101		58.8-144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MS Spike Recovery: 7 failure(s) out of 72. MSD Spike Recovery: 10 failure(s) out of 72.

RPD: 0 out of 72 outside of limits

COMMENTS:

Analyst: Ch

Reviewed by: AP

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: A12-TI-S-C2-3
 Client Project ID: 3214-450
 Lab Sample ID: G910-36-1M
 Lab Project ID: G910-36
 Report Basis: Dry weight
 Initial Weight: 32.16 g

Analyzed By: EAW
 Date Collected: 10/19/2009 11:55
 Date Received: 10/19/2009
 Date Extracted: 10/20/2009
 Matrix: Soil
 % Solids: 78.5

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	396	1	10/21/2009
Acenaphthylene	BQL	396	1	10/21/2009
Anthracene	BQL	396	1	10/21/2009
Benzo[a]anthracene	BQL	396	1	10/21/2009
Benzo[a]pyrene	BQL	396	1	10/21/2009
Benzo[b]fluoranthene	BQL	396	1	10/21/2009
Benzo[g,h,i]perylene	BQL	396	1	10/21/2009
Benzo[k]fluoranthene	BQL	396	1	10/21/2009
Benzoic Acid	BQL	792	1	10/21/2009
Bis(2-chloroethoxy)methane	BQL	396	1	10/21/2009
Bis(2-chloroethyl)ether	BQL	396	1	10/21/2009
Bis(2-chloroisopropyl)ether	BQL	396	1	10/21/2009
Bis(2-ethylhexyl)phthalate	BQL	396	1	10/21/2009
4-bromophenyl phenyl ether	BQL	396	1	10/21/2009
Butylbenzylphthalate	BQL	396	1	10/21/2009
2-Chloronaphthalene	BQL	396	1	10/21/2009
2-Chlorophenol	BQL	396	1	10/21/2009
4-Chloro-3-methylphenol	BQL	396	1	10/21/2009
4-Chloroaniline	BQL	1980	1	10/21/2009
4-Chlorophenyl phenyl ether	BQL	396	1	10/21/2009
Chrysene	BQL	396	1	10/21/2009
Dibenzo[a,h]anthracene	BQL	396	1	10/21/2009
Dibenzofuran	BQL	396	1	10/21/2009
Di-n-Butylphthalate	BQL	396	1	10/21/2009
1,2-Dichlorobenzene	BQL	396	1	10/21/2009
1,3-Dichlorobenzene	BQL	396	1	10/21/2009
1,4-Dichlorobenzene	BQL	396	1	10/21/2009
3,3'-Dichlorobenzidine	BQL	792	1	10/21/2009
2,4-Dichlorophenol	BQL	396	1	10/21/2009
Diethylphthalate	BQL	396	1	10/21/2009
Dimethylphthalate	BQL	396	1	10/21/2009
2,4-Dimethylphenol	BQL	396	1	10/21/2009
Di-n-octylphthalate	BQL	396	1	10/21/2009
4,6-Dinitro-2-methylphenol	BQL	1980	1	10/21/2009
2,4-Dinitrophenol	BQL	1980	1	10/21/2009
2,4-Dinitrotoluene	BQL	396	1	10/21/2009
2,6-Dinitrotoluene	BQL	396	1	10/21/2009
Fluoranthene	BQL	396	1	10/21/2009
Fluorene	BQL	396	1	10/21/2009
Hexachlorobenzene	BQL	396	1	10/21/2009
Hexachlorobutadiene	BQL	396	1	10/21/2009
Hexachlorocyclopentadiene	BQL	792	1	10/21/2009
Hexachloroethane	BQL	396	1	10/21/2009
Indeno(1,2,3-c,d)pyrene	BQL	396	1	10/21/2009
Isophorone	BQL	396	1	10/21/2009
2-Methylnaphthalene	BQL	396	1	10/21/2009
2-Methylphenol	BQL	396	1	10/21/2009

UJ

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: A12-TI-S-C2-3
 Client Project ID: 3214-450
 Lab Sample ID: G910-36-1M
 Lab Project ID: G910-36
 Report Basis: Dry weight
 Initial Weight: 32.16 g

Analyzed By: EAW
 Date Collected: 10/19/2009 11:55
 Date Received: 10/19/2009
 Date Extracted: 10/20/2009
 Matrix: Soil
 % Solids: 78.5

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
3- & 4-Methylphenol	BQL	396	1	10/21/2009
Naphthalene	BQL	396	1	10/21/2009
2-Nitroaniline	BQL	396	1	10/21/2009
3-Nitroaniline	BQL	1980	1	10/21/2009
4-Nitroaniline	BQL	1980	1	10/21/2009
Nitrobenzene	BQL	396	1	10/21/2009
2-Nitrophenol	BQL	396	1	10/21/2009
4-Nitrophenol	BQL	1980	1	10/21/2009
Diphenylamine *	BQL	396	1	10/21/2009
Pentachlorophenol	BQL	1980	1	10/21/2009
Phenanthrene	BQL	396	1	10/21/2009
Phenol	BQL	396	1	10/21/2009
Pyrene	BQL	396	1	10/21/2009
1,2,4-Trichlorobenzene	BQL	396	1	10/21/2009
2,4,5-Trichlorophenol	BQL	396	1	10/21/2009
2,4,6-Trichlorophenol	BQL	396	1	10/21/2009

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.7	87
2-Fluorophenol	10	9.2	92
Nitrobenzene-d5	10	9.4	94
Phenol-d6	10	8.6	86
2,4,6-Tribromophenol	10	5.7	57
4-Terphenyl-d14	10	11.1	111

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: Method Blank
 Client Project ID:
 Lab Sample ID: PB15365
 Lab Project ID:
 Report Basis: Dry Weight
 Initial Weight: 32 g

Analyzed By: EAW
 Date Collected:
 Date Received:
 Date Extracted: 10/20/2009
 Matrix: SOIL
 % Solids: 100

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
Acenaphthene	BQL	313	1	10/21/2009
Acenaphthylene	BQL	313	1	10/21/2009
Anthracene	BQL	313	1	10/21/2009
Benzo[a]anthracene	BQL	313	1	10/21/2009
Benzo[a]pyrene	BQL	313	1	10/21/2009
Benzo[b]fluoranthene	BQL	313	1	10/21/2009
Benzo[g,h,i]perylene	BQL	313	1	10/21/2009
Benzo[k]fluoranthene	BQL	313	1	10/21/2009
Benzoic Acid	BQL	625	1	10/21/2009
Bis(2-chloroethoxy)methane	BQL	313	1	10/21/2009
Bis(2-chloroethyl)ether	BQL	313	1	10/21/2009
Bis(2-chloroisopropyl)ether	BQL	313	1	10/21/2009
Bis(2-ethylhexyl)phthalate	BQL	313	1	10/21/2009
4-bromophenyl phenyl ether	BQL	313	1	10/21/2009
Butylbenzylphthalate	BQL	313	1	10/21/2009
2-Chloronaphthalene	BQL	313	1	10/21/2009
2-Chlorophenol	BQL	313	1	10/21/2009
4-Chloro-3-methylphenol	BQL	313	1	10/21/2009
4-Chloroaniline	BQL	1560	1	10/21/2009
4-Chlorophenyl phenyl ether	BQL	313	1	10/21/2009
Chrysene	BQL	313	1	10/21/2009
Dibenzo[a,h]anthracene	BQL	313	1	10/21/2009
Dibenzofuran	BQL	313	1	10/21/2009
Di-n-Butylphthalate	BQL	313	1	10/21/2009
1,2-Dichlorobenzene	BQL	313	1	10/21/2009
1,3-Dichlorobenzene	BQL	313	1	10/21/2009
1,4-Dichlorobenzene	BQL	313	1	10/21/2009
3,3'-Dichlorobenzidine	BQL	625	1	10/21/2009
2,4-Dichlorophenol	BQL	313	1	10/21/2009
Diethylphthalate	BQL	313	1	10/21/2009
Dimethylphthalate	BQL	313	1	10/21/2009
2,4-Dimethylphenol	BQL	313	1	10/21/2009
Di-n-octylphthalate	BQL	313	1	10/21/2009
4,6-Dinitro-2-methylphenol	BQL	1560	1	10/21/2009
2,4-Dinitrophenol	BQL	1560	1	10/21/2009
2,4-Dinitrotoluene	BQL	313	1	10/21/2009
2,6-Dinitrotoluene	BQL	313	1	10/21/2009
Fluoranthene	BQL	313	1	10/21/2009
Fluorene	BQL	313	1	10/21/2009
Hexachlorobenzene	BQL	313	1	10/21/2009
Hexachlorobutadiene	BQL	313	1	10/21/2009
Hexachlorocyclopentadiene	BQL	625	1	10/21/2009
Hexachloroethane	BQL	313	1	10/21/2009
Indeno(1,2,3-c,d)pyrene	BQL	313	1	10/21/2009
Isophorone	BQL	313	1	10/21/2009
2-Methylnaphthalene	BQL	313	1	10/21/2009
2-Methylphenol	BQL	313	1	10/21/2009

UJ

**Results for Semivolatiles
by GCMS 8270**

Client Sample ID: Method Blank
 Client Project ID:
 Lab Sample ID: PB15365
 Lab Project ID:
 Report Basis: Dry Weight
 Initial Weight: 32 g

Analyzed By: EAW
 Date Collected:
 Date Received:
 Date Extracted: 10/20/2009
 Matrix: SOIL
 % Solids: 100

Compound	Result ug/Kg	RL ug/Kg	Dilution Factor	Date Analyzed
3- & 4-Methylphenol	BQL	313	1	10/21/2009
Naphthalene	BQL	313	1	10/21/2009
2-Nitroaniline	BQL	313	1	10/21/2009
3-Nitroaniline	BQL	1560	1	10/21/2009
4-Nitroaniline	BQL	1560	1	10/21/2009
Nitrobenzene	BQL	313	1	10/21/2009
2-Nitrophenol	BQL	313	1	10/21/2009
4-Nitrophenol	BQL	1560	1	10/21/2009
Diphenylamine *	BQL	313	1	10/21/2009
Pentachlorophenol	BQL	1560	1	10/21/2009
Phenanthrene	BQL	313	1	10/21/2009
Phenol	BQL	313	1	10/21/2009
Pyrene	BQL	313	1	10/21/2009
1,2,4-Trichlorobenzene	BQL	313	1	10/21/2009
2,4,5-Trichlorophenol	BQL	313	1	10/21/2009
2,4,6-Trichlorophenol	BQL	313	1	10/21/2009

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.2	92
2-Fluorophenol	10	8.9	89
Nitrobenzene-d5	10	9.6	96
Phenol-d6	10	8.4	84
2,4,6-Tribromophenol	10	5.9	59
4-Terphenyl-d14	10	12.5	125

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.

Reviewed By: 

LABORATORY CONTROL SAMPLE SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919

Case No.:

SAS No.:

SDG No:

Matrix: (soil/water) SOIL

Lab Sample ID: LCS15365

Sample wt/vol: 32 (g)

Lab File ID: 1021A10.D

Level: (low/med) LOW

% Moisture: 0% Decanted: (Y/N) N

Date Analyzed: 10/21/09 12:47

Concentrated Extract Volume: 10000 (µL)

Dilution Factor: 1

Injection Volume: 1 (µL)

Extraction: (Type) SOXH

GPC Cleanup: N

CAS NO.	COMPOUND	SPIKE AMT (µg/kg)	SAMP CONC (µg/kg)	% REC #	QC LIMITS
83-32-9	Acenaphthene	3125	2820	90.1	73.3-108
208-96-8	Acenaphthylene	3125	2840	90.8	76.0-113
120-12-7	Anthracene	3125	2670	85.3	67.6-104
56-55-3	Benzo[a]anthracene	3125	2570	82.2	71.6-113
50-32-8	Benzo[a]pyrene	3125	2380	76.2	68.1-116
205-99-2	Benzo[b]fluoranthene	3125	1820	58.2*	61.3-129
191-24-2	Benzo[g,h,i]perylene	3125	2360	75.4	62.4-136
207-08-9	Benzo[k]fluoranthene	3125	2530	80.9	72.8-117
65-85-0	Benzoic Acid	3125	3130	100*	9.27-93.0
100-51-6	Benzyl Alcohol	3125	2760	88.4	71.8-108
111-91-1	Bis(2-chloroethoxy)methane	3125	3040	97.2	72.8-110
111-44-4	Bis(2-chloroethyl)ether	3125	2660	85.1	72.1-110
108-60-1	Bis(2-chloroisopropyl)ether	3125	2700	86.4	68.4-107
117-81-7	Bis(2-ethylhexyl)phthalate	3125	3000	95.9	71.1-120
101-55-3	4-bromophenyl phenyl ether	3125	2480	79.2	68.1-107
85-68-7	Butylbenzylphthalate	3125	2570	82.1	70.3-120
106-47-8	4-Chloroaniline	3125	2090	67.0	43.7-101
59-50-7	4-Chloro-3-methylphenol	3125	2720	87.0	76.4-125
91-58-7	2-Chloronaphthalene	3125	2100	67.3	61.2-88.4
95-57-8	2-Chlorophenol	3125	2670	85.4	72.5-108
7005-72-3	4-Chlorophenyl phenyl ether	3125	3010	96.3	69.8-111
218-01-9	Chrysene	3125	2810	89.9	70.0-111
84-74-2	Di-n-Butylphthalate	3125	3120	99.9	72.1-111
117-84-0	Di-n-octylphthalate	3125	2340	75.0	70.4-126
53-70-3	Dibenzo[a,h]anthracene	3125	2430	77.9	64.9-133
132-64-9	Dibenzofuran	3125	3030	96.9	73.7-111
95-50-1	1,2-Dichlorobenzene	3125	2570	82.1	71.0-103
541-73-1	1,3-Dichlorobenzene	3125	2580	82.7	70.0-102
106-46-7	1,4-Dichlorobenzene	3125	2580	82.6	72.2-103
91-94-1	3,3'-Dichlorobenzidine	3125	2060	66.0	64.9-110
120-83-2	2,4-Dichlorophenol	3125	2580	82.4	74.6-115
84-66-2	Diethylphthalate	3125	2940	94.0	63.6-117
105-67-9	2,4-Dimethylphenol	3125	2710	86.7	71.2-112
131-11-3	Dimethylphthalate	3125	2900	92.9	72.9-111
534-52-1	4,6-Dinitro-2-methylphenol	3125	2160	69.1	33.0-122
51-28-5	2,4-Dinitrophenol	3125	1800	57.6	11.2-121
121-14-2	2,4-Dinitrotoluene	3125	2780	89.1	69.5-117
606-20-2	2,6-Dinitrotoluene	3125	2790	89.2	67.2-116
206-44-0	Fluoranthene	3125	2720	87.0	71.2-109
86-73-7	Fluorene	3125	3100	99.1	72.4-112
118-74-1	Hexachlorobenzene	3125	3000	96.1	68.8-109

LABORATORY CONTROL SAMPLE SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919

Case No.:

SAS No.:

SDG No:

Matrix: (soil/water) SOIL

Lab Sample ID: LCS15365

Sample wt/vol: 32 (g)

Lab File ID: 1021A10.D

Level: (low/med) LOW

% Moisture: 0% Decanted: (Y/N) N

Date Analyzed: 10/21/09 12:47

Concentrated Extract Volume: 10000 (µL)

Dilution Factor: 1

Injection Volume: 1 (µL)

Extraction: (Type) SOXH

GPC Cleanup: N

CAS NO.	COMPOUND	SPIKE AMT (µg/kg)	SAMP CONC (µg/kg)	% REC #	QC LIMITS
87-68-3	Hexachlorobutadiene	3125	2330	74.5	73.1-114
77-47-4	Hexachlorocyclopentadiene	3125	7030	225	0.00-854
67-72-1	Hexachloroethane	3125	2580	82.7	70.9-106
193-39-5	Indeno(1,2,3-c,d)pyrene	3125	2290	73.2	65.2-135
78-59-1	Isophorone	3125	2880	92.2	76.7-116
90-12-0	1-Methylnaphthalene	3125	2910	93.1	73.1-108
91-57-6	2-Methylnaphthalene	3125	2630	84.2	75.3-113
95-48-7	2-Methylphenol	3125	2670	85.3	69.4-110
108-39-4	4-Methylphenol	6250	5010	80.2	70.0-116
621-64-7	N-Nitrosodi-n-propylamine	3125	2750	88.0	69.7-117
86-30-6	Diphenylamine	3125	2730	87.3	69.1-105
91-20-3	Naphthalene	3125	2610	83.4	78.4-115
88-74-4	2-Nitroaniline	3125	2840	90.8	65.0-109
99-09-2	3-Nitroaniline	3125	2180	69.9	57.4-102
100-01-6	4-Nitroaniline	3125	2470	79.0	62.8-113
98-95-3	Nitrobenzene	3125	3050	97.7	72.7-113
88-75-5	2-Nitrophenol	3125	2610	83.4	71.8-113
100-02-7	4-Nitrophenol	3125	2430	77.8	39.6-116
87-86-5	Pentachlorophenol	3125	1950	62.3	49.8-106
85-01-8	Phenanthrene	3125	2770	88.6	70.9-110
108-95-2	Phenol	3125	2850	91.3	72.1-106
129-00-0	Pyrene	3125	2500	80.1	71.9-112
110-86-1	Pyridine	3125	2210	70.6	31.1-97.3
120-82-1	1,2,4-Trichlorobenzene	3125	2430	77.7	73.6-107
95-95-4	2,4,5-Trichlorophenol	3125	2430	77.8	69.1-114
88-06-2	2,4,6-Trichlorophenol	3125	2370	75.9	71.2-112

System Monitoring Compound Results

		Spike Added (µg/kg)	Spike Result (µg/kg)	Percent Rec. (%)	Percent Recovery (%)
118-79-6	2,4,6-Tribromophenol	3125	2680	85.7	41.1-129
321-60-8	2-Fluorobiphenyl	3125	2920	93.4	56.4-116
367-12-4	2-Fluorophenol	3125	2930	93.7	41.8-123
1718-51-0	4-Terphenyl-d14	3125	2790	89.2	43.8-140
4165-60-0	Nitrobenzene-d5	3125	3090	98.9	46.1-117
13127-88-3	Phenol-d6	3125	2890	92.5	47.9-125

LCS Spike Recovery: 2 out of 67 outside of limits.

Analyst: 

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental Services, Inc. Lab Code: NC00919

EPA Sample No.:	FileNames:	Date Analyzed	Inst: MSD10
Sample: G910-36-1M	1021A11.D	2009-10-21 13:10:00	Batch: A102109
MS: G910-36-1N	1021A13.D	2009-10-21 13:57:00	Dilution: 1
MSD: G910-36-10	1021A14.D	2009-10-21 14:20:00	

COMPOUND	SAMPLE CONC (µg/kg)	MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	% RPD	QC LIMITS	
									RPD	REC
Acenaphthene	BQL	3960	3200	80.7	4030	3230	80.3	0.497	30	71.0-125
Acenaphthylene	BQL	3960	3200	80.8	4030	3250	80.7	0.124	30	73.0-140
Anthracene	BQL	3960	3050	77.0	4030	3120	77.6	0.776	30	66.9-119
Benzo[a]anthracene	BQL	3960	2960	74.8	4030	3030	75.3	0.666	30	51.8-127
Benzo[a]pyrene	BQL	3960	2770	69.9*	4030	2930	72.7*	3.93	30	78.5-137
Benzo[b]fluoranthene	BQL	3960	2150	54.2*	4030	2230	55.5*	2.37	30	62.3-134
Benzo[g,h,i]perylene	BQL	3960	2600	65.6	4030	2780	69.1	5.20	30	56.2-149
Benzo[k]fluoranthene	BQL	3960	2950	74.5*	4030	3100	76.9*	3.17	30	79.7-133
Benzoic Acid	BQL	3960	3110	78.5	4030	3930	97.7	21.8	30	0.00-140
Benzyl Alcohol	BQL	3960	3260	82.2	4030	3360	83.5	1.57	30	66.8-114
Bis(2-chloroethoxy)methane	BQL	3960	3460	87.4	4030	3550	88.1	0.798	30	71.4-123
Bis(2-chloroethyl) ether	BQL	3960	3070	77.6	4030	3090	76.7	1.17	30	64.0-120
Bis(2-chloroisopropyl) ether	BQL	3960	2960	74.8	4030	2940	73.1	2.30	30	60.5-123
Bis(2-ethylhexyl)phthalate	BQL	3960	3510	88.7	4030	3610	89.6	1.01	30	68.5-134
4-bromophenyl phenyl ether	BQL	3960	2810	71.0	4030	2910	72.2	1.68	30	65.2-127
Butylbenzylphthalate	BQL	3960	3010	76.1	4030	3070	76.2	0.131	30	64.4-133
4-Chloroaniline	BQL	3960	2910	73.4	4030	2900	72.0	1.93	30	25.1-237
4-Chloro-3-methylphenol	BQL	3960	3110	78.5*	4030	3320	82.5	4.97	30	80.0-115
2-Chloronaphthalene	BQL	3960	2460	62.1*	4030	2500	62.2*	0.161	30	70.3-124
2-Chlorophenol	BQL	3960	3160	79.9	4030	3250	80.7	0.996	30	77.1-111
4-Chlorophenyl phenyl ether	BQL	3960	3310	83.5	4030	3390	84.2	0.835	30	72.8-125
Chrysene	BQL	3960	3080	77.8	4030	3230	80.3	3.16	30	72.7-124
Di-n-Butylphthalate	BQL	3960	3490	88.1	4030	3650	90.6	2.80	30	67.9-125
Di-n-octylphthalate	BQL	3960	2810	70.9	4030	2970	73.8	4.01	30	48.9-162
Dibenzo[a,h]anthracene	BQL	3960	2680	67.7	4030	2930	72.8	7.26	30	58.6-146
Dibenzofuran	BQL	3960	3410	86.2	4030	3460	85.9	0.349	30	70.6-115
1,2-Dichlorobenzene	BQL	3960	2960	74.8	4030	2990	74.2	0.805	30	73.3-121
1,3-Dichlorobenzene	BQL	3960	2990	75.6	4030	3000	74.5	1.47	30	69.7-119
1,4-Dichlorobenzene	BQL	3960	2990	75.4	4030	3020	75.1	0.399	30	70.6-117
3,3'-Dichlorobenzidine	BQL	3960	2590	65.5	4030	2660	66.0	0.760	30	14.2-302
2,4-Dichlorophenol	BQL	3960	3030	76.4	4030	3090	76.7	0.392	30	74.5-115
Diethylphthalate	BQL	3960	3280	82.9	4030	3270	81.2	2.07	30	70.8-127
2,4-Dimethylphenol	BQL	3960	3220	81.3*	4030	3300	82.0*	0.857	30	85.4-138
Dimethylphthalate	BQL	3960	3400	85.9	4030	3370	83.8	2.47	30	68.5-122
4,6-Dinitro-2-methylphenol	BQL	3960	2530	63.9	4030	2640	65.5	2.47	30	39.4-126
2,4-Dinitrophenol	BQL	3960	1890	47.7	4030	2100	52.2	9.01	30	20.4-130
2,4-Dinitrotoluene	BQL	3960	3200	80.8	4030	3250	80.8	2E-14	30	67.6-136
2,6-Dinitrotoluene	BQL	3960	3200	80.7	4030	3170	78.8	2.38	30	69.3-131
Fluoranthene	BQL	3960	3040	76.7	4030	3200	79.4	3.46	30	64.6-129
Fluorene	BQL	3960	3450	87.1	4030	3500	87.0	0.115	30	72.4-128
Hexachlorobenzene	BQL	3960	3370	85.0	4030	3400	84.4	0.708	30	62.9-124

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS:

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SGS Environmental Services, Inc.

Lab Code: NC00919

EPA Sample No.: G910-36-1M, G910-36-1N, G910-36-1O

Filenames: 1021A11.D, 1021A13.D, 1021A14.D

Inst: MSD10

Batch: A102109

Dilution: 1

COMPOUND	SAMPLE CONC (µg/kg)	MS SPIKE (µg/kg)	MS CONC (µg/kg)	MS % REC #	MSD SPIKE (µg/kg)	MSD CONC (µg/kg)	MSD % REC #	% RPD	QC LIMITS	
									RPD	REC
Hexachlorobutadiene	BQL	3960	2690	67.8*	4030	2790	69.2	2.04	30	69.1-118
Hexachlorocyclopentadiene	BQL	3960	7880	199*	4030	8080	201*	0.851	30	-10.4-176
Hexachloroethane	BQL	3960	3040	76.8	4030	3050	75.7	1.44	30	68.0-122
Indeno(1,2,3-c,d)pyrene	BQL	3960	2610	65.8	4030	2760	68.5	4.02	30	29.1-157
Isophorone	BQL	3960	3300	83.2	4030	3330	82.7	0.603	30	65.2-143
1-Methylnaphthalene	BQL	3960	3370	85.1	4030	3410	84.6	0.589	30	68.0-130
2-Methylnaphthalene	BQL	3960	3050	77.0	4030	3100	77.0	4E-14	30	74.1-111
2-Methylphenol	BQL	3960	3110	78.6*	4030	3170	78.7*	0.127	30	78.7-116
4-Methylphenol	BQL	7920	5910	74.6	8050	5970	74.2	0.605	30	71.2-101
N-Nitrosodi-n-propylamine	BQL	3960	3140	79.3	4030	3100	76.9	3.07	30	74.3-133
Diphenylamine	BQL	3960	3210	81.1	4030	3290	81.6	0.615	30	73.6-208
Naphthalene	BQL	3960	2980	75.2	4030	3070	76.3	1.45	30	49.9-137
2-Nitroaniline	BQL	3960	3350	84.6	4030	3350	83.3	1.55	30	70.0-129
3-Nitroaniline	BQL	3960	2860	72.2*	4030	2840	70.6*	2.24	30	76.6-356
4-Nitroaniline	BQL	3960	2960	74.7	4030	2970	73.8	1.21	30	50.8-178
Nitrobenzene	BQL	3960	3500	88.3	4030	3520	87.5	0.910	30	71.4-122
2-Nitrophenol	BQL	3960	3130	79.0	4030	3220	80.0	1.26	30	63.3-112
4-Nitrophenol	BQL	3960	2880	72.7	4030	3060	75.9	4.31	30	56.8-133
Pentachlorophenol	BQL	3960	2360	59.5	4030	2480	61.5	3.31	30	29.2-108
Phenanthrene	BQL	3960	3120	78.7	4030	3240	80.4	2.14	30	55.8-128
Phenol	BQL	3960	3340	84.3	4030	3400	84.4	0.119	30	71.2-120
Pyrene	BQL	3960	2800	70.6	4030	2870	71.4	1.13	30	68.5-140
Pyridine	BQL	3960	2820	71.2	4030	2880	71.5	0.420	30	50.0-150
1,2,4-Trichlorobenzene	BQL	3960	2820	71.1	4030	2810	69.8	1.85	30	68.9-119
2,4,5-Trichlorophenol	BQL	3960	2800	70.6*	4030	2890	71.8*	1.69	30	72.4-118
2,4,6-Trichlorophenol	BQL	3960	2880	72.7	4030	2900	72.0	0.968	30	67.9-116

System Monitoring Compound Results

		Spike Added (µg/kg)	MS Result (µg/kg)	MS Rec. (%)	Spike Added (µg/kg)	MSD Result (µg/kg)	MSD Rec. (%)	Percent Recovery (%)
118-79-6	2,4,6-Tribromophenol	10	73.6	73.6	10	67.2	67.2	41.1-129
321-60-8	2-Fluorobiphenyl	10	82.7	82.7	10	73.8	73.8	56.4-116
367-12-4	2-Fluorophenol	10	87.1	87.1	10	80.6	80.6	41.8-123
1718-51-0	4-Terphenyl-d14	10	78.7	78.7	10	68.2	68.2	43.8-140
4165-60-0	Nitrobenzene-d5	10	89.9	89.9	10	82.5	82.5	46.1-117
13127-88-3	Phenol-d6	10	86.6	86.6	10	80	80.0	47.9-125

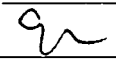
Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MS Spike Recovery: 11 out of 67 outside of limits. MSD Spike Recovery: 9 out of 67 outside of limits

RPD: 0 out of 67 outside of limits

COMMENTS:

Analyst: 

EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Rhea Engineer & ConsultantsProject Name: 3214-450

Sample Information	
Sample Identification	A12-TI-S-C2-3
Sample Matrix	Soil
Date Collected	10/19/09 11:55
Date Received	10/19/09
Date Extracted	10/20/09
Date Analyzed	10/21/09 22:13 - 10/21/09 22:41
Dry Weight	78.5
Dilution Factor	1 - 1
Initial weight (g)	12.01
Final Volume (mL)	10.0

Analytical Results			
Analytes**	Result mg/Kg	Report Limit mg/Kg	Flags
C9-C18 Aliphatics	BQL	10.0	
C19-C36 Aliphatics	BQL	10.0	
C11-C22 Aromatics	BQL	10.0	

Surrogates	Percent Recovery	Flags	Limits	
			Lower	Upper
Aliphatic (tricosane)	102		40	140
Aromatic (ortho-terphenyl)	98.2		40	140
Fractionation 1 (2-bromonaphthalene)	89.3		40	140
Fractionation 2 (2-fluorobiphenyl)	95.9		40	140

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: G910-36-1P	Lab Info: G910-36-1P
Aliphatic: EP102109/014F1201.D	Aromatic: EP102109/015F1301.D

Reviewed By: 

EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: _____

Project Name: _____

Sample Information	
Sample Identification	PB15366
Sample Matrix	Soil
Date Collected	
Date Received	
Date Extracted	10/20/09
Date Analyzed	10/21/09 21:15 - 10/21/09 21:44
Dry Weight	100
Dilution Factor	1 - 1
Initial weight (g)	12.0
Final Volume (mL)	10.0

Analytical Results			
Analytes**	Result mg/Kg	Report Limit mg/Kg	Flags
C9-C18 Aliphatics	BQL	10.0	
C19-C36 Aliphatics	BQL	10.0	
C11-C22 Aromatics	BQL	10.0	

Surrogates	Percent Recovery	Flags	Limits	
			Lower	Upper
Aliphatic (tricosane)	103		40	140
Aromatic (ortho-terphenyl)	98.6		40	140
Fractionation 1 (2-bromonaphthalene)	109		40	140
Fractionation 2 (2-fluorobiphenyl)	120		40	140

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: PB15366	Lab Info: PB15366
Aliphatic: EP102109/012F1001.D	Aromatic: EP102109/013F1101.D

Reviewed By: AK

SGS North America, Inc.
LABORATORY CONTROL SPIKE RESULTS
 by Method EPH

SGS Environmental Services, Inc.

Lab Sample ID: LCS15366
 Lab Project ID: Batch QC
 Report Basis: Dry

Analyzed By: BWS
 Matrix: SOIL
 Percent Solids: 100 %
 Initial Amount: 12.0 g
 Final Volume: 10.0 mL

Analytical QC Results Summary

Analyte	Expected Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
C9-C18 Aliphatics	8.33	7.19	86.3	40.0	140	
C19-C36 Aliphatics	8.33	9.37	112	40.0	140	
C11-C22 Aromatics	8.33	4.19	50.3	40.0	140	

Surrogate Standards	Expected Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
Aliphatic (COD)	40.0	43.5	109	40.0	140	
Aromatic (OTP)	40.0	38.3	95.8	40.0	140	
Frac1 (2-BRN)	100	105	105	40.0	140	
Frac2 (2-FBP)	100	108	108	40.0	140	

Fractionation Breakthrough	Aliphatic Fraction area	Aromatic Fraction area	Break through (%)	Limit (%)	Qualifier
Naphthalene	0	638	0.00	≤5	

Reviewed By: 

SGS North America, Inc.
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULTS
 by Method EPH

SGS Environmental Services, Inc.

Lab Sample ID:	G910-36-1P	Analyzed By:	BWS
MS Sample ID:	G910-36-1Q	Matrix:	Soil
MSD Sample ID:	G910-36-1R	Percent Solids:	78.5 %
Report Basis:	Dry	Batch ID:	15366

Matrix Spike Results Summary

Analyte*	Sample Amount mg/Kg	Spiked Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
C9-C18 Aliphatics	0.0882	7.48	7.27	96.0	40.0	140	
C19-C36 Aliphatics	0.00	7.48	9.41	126	40.0	140	
C11-C22 Aromatics	0.0602	7.48	4.65	61.4	40.0	140	

Matrix Spike Duplicate Results Summary

Analyte*	Spiked Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
C9-C18 Aliphatics	8.27	7.82	93.5	40.0	140	
C19-C36 Aliphatics	8.27	10.7	129	40.0	140	
C11-C22 Aromatics	8.27	4.92	58.8	40.0	140	

Analyte*	MS Amount mg/Kg	MSD Amount mg/Kg	RPD Value (%)	RPD Limit (%)	Qualifier
C9-C18 Aliphatics	7.27	7.82	7.29	≤50	
C19-C36 Aliphatics	9.41	10.7	12.8	≤50	
C11-C22 Aromatics	4.65	4.92	5.64	≤50	

* = Range value from spiked compounds only.

Reviewed By:

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 10/06/09

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(02/15/08) (µg/L)	(02/11/08) (mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C9-C18 Aliphatics	1.66	0.274	5.28	0.871	100	10
C19-C36 Aliphatics	2.79	0.201	8.87	0.639	100	10
C11-C22 Aromatics	2.64	0.110	8.40	0.350	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	200	33.3	12.22	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C ₁₉ -C ₃₆ Aliphatics	200	33.3	8.95	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C ₁₁ -C ₂₂ Aromatics	200	33.3	3.21	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		

Calibration Check Date: 10/21/09
10/21/09Filenames: ep102109/003f0101.d
ep102109/002f0201.d

Calibration Check

Range	Levels (µg/L) (mg/Kg)	%Difference if CF %Drift if LR	Limits
C9-C18 Aliphatics	100 16.7	-0.8	±25%
C19-C36 Aliphatics	100 16.7	-1.6	±25%
C11-C22 Aromatics	100 16.7	4.8	±25%

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 10/06/09

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(02/15/08) (µg/L)	(02/11/08) (mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C9-C18 Aliphatics	1.66	0.274	5.28	0.871	100	10
C19-C36 Aliphatics	2.79	0.201	8.87	0.639	100	10
C11-C22 Aromatics	2.64	0.110	8.40	0.350	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	200	33.3	12.22	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C ₁₉ -C ₃₆ Aliphatics	200	33.3	8.95	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C ₁₁ -C ₂₂ Aromatics	200	33.3	3.21	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		

Calibration Check Date: 10/21/09
10/22/09Filenames: ep102109/024f2201.d
ep102109/025f2301.d

Calibration Check

Range	Levels (mg/Kg)	(µg/L)	%Difference if CF %Drift if LR	Limits
C9-C18 Aliphatics	100	16.7	1.8	±25%
C19-C36 Aliphatics	100	16.7	2.3	±25%
C11-C22 Aromatics	100	16.7	-5.5	±25%

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-TI-S-C2-3
Client Project ID: 3214-450
Lab Sample ID: G910-36-1J
Lab Project ID: G910-36

Date Collected: 10/19/2009 11:55
Date Received: 10/19/2009
Matrix: Soil
Solids 78.50
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	8.01	mg/Kg	1	10/20/09 22:24

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	29.8	74.4

Comments:

Batch Information

Analytical Batch: EP102009
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15364
Prep Method: 3541
Prep Date: 10/20/09
Initial Prep Wt/Vol: 31.8 G
Prep Final Vol: 10 mL

Analyst: FX

NC Certification #481

Reviewed By: MD

DRO.XLS

SGS North America, Inc.
Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB15364
Lab Project ID:

Date Collected:
Date Received:
Matrix: SOIL
Solids 100.00
Report Basis: Dry Weight

Parameter	Result	RL	Units	Dilution Factor	Date Analyzed
Diesel Range Organics	BQL	6.25	mg/Kg	1	10/20/09 20:02

Surrogate Spike Results	Spike Added	Control Limits	Spike Result	Percent Recovery
OTP	40	40-140	31.5	78.8

Comments:

Batch Information

Analytical Batch: EP102009
Analytical Method: 8015
Instrument: GC6
Analyst: BWS

Prep batch: 15364
Prep Method: 3541
Prep Date: 10/20/09
Initial Prep Wt/Vol: 32 G
Prep Final Vol: 10 mL

Analyst: FX

NC Certification #481

Reviewed By: M
DRO XLS

SGS North America, Inc.
QC Results for Total Petroleum Hydrocarbons
 by GC/FID

Client Sample ID: Batch QC
 Lab Sample ID: G910-36-1J
 Batch ID: 15364

Analyzed By: BWS
 Matrix: Soil
 Solids 78.50

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD %
DRO	BQL	78.9	59.9	75.9	80.2	55.2	68.8	9.81

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
DRO	62.5	50.3	80.5	55.3	137

FX

Reviewed By: *MA*

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: A12-TI-S-C2-3

Client Project ID: 3214-450

Lab Sample ID: G910-36-1G

Lab Project ID: G910-36

Report Basis: Dry Weight

Analyzed By: DVO

Date Collected: 10/19/2009 11:55

Date Received: 10/19/2009

Matrix: Soil

Solids 78.50

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	5.76	mg/Kg	1	10/20/09 10:59

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	102.0	102.0		70-130

Comments:**Batch Information**

Analytical Batch: VP102009

Analytical Method: 8015

Instrument ID: GC4

Analyst: DVO

Prep Method: 5035

Initial Wt/Vol: 6.63 g

Final Volume: 5 mL

Analyst: DVO

Results for Total Petroleum Hydrocarbons
by GC/FID 8015

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: VBLK4102009A
Lab Project ID:
Report Basis: Dry Weight

Analyzed By: DVO
Date Collected:
Date Received:
Matrix: Soil
Solids 100.00

Analyte	Result	RL	Units	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	6.00	mg/kg	1	10/20/09 10:07

Surrogate Spike Results

	Added	Result	Recovery	Flag	Limits
BFB	100	101.0	101.0		70-130

Comments:**Batch Information**

Analytical Batch: VP102009
Analytical Method: 8015
Instrument ID: GC4
Analyst: DVO

Prep Method: 5035
Initial Wt/Vol: 5 g
Final Volume: 5 mL

Analyst: DVO

NC Certification #481

Reviewed By: LB
GRO

QC Results for Total Petroleum Hydrocarbons
by GC/FID

Client Sample ID: Batch QC

Lab Sample ID: g910-36-1g

LCS ID: LCS4102009A / VP102009

Analyzed By: DVO

Matrix: Soil

Solids 78.50

MS/MSD

Analyte	Sample MG/KG	Spiked MG/KG	MS MG/KG	REC % #	Spiked MG/KG	MSD MG/KG	REC % #	RPD % #
				(70-130%)				(70-130%) (30%)
GRO	BQL	15.4	17.4	113	15.4	16.8	109	3.6

LCS

Analyte	Spiked MG/KG	Result MG/KG	REC % #	LIMITS	
				Lower	Upper
GRO	16	15.5	96.9	70	130

Comments:Reviewed By: 

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Rhea Engineer & ConsultantsProject Name: 3214-450

Sample Information	
Sample Identification	A12-TI-S-C2-3
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	10/19/09 11:55
Date Received	10/19/09
Date Extracted	10/21/09
Date Analyzed	10/20/09 10:59 - 10/20/09 10:59
Dry Weight	78.5
Dilution Factor	1 - 1

Analytical Results				
Analyte	Result mg/Kg	Report Limit mg/Kg	Flags	
C ₅ -C ₈ Aliphatics**	BQL	10.0		
C ₉ -C ₁₂ Aliphatics**	BQL	10.0		
C ₉ -C ₁₀ Aromatics**	BQL	10.0		
	Percent Recovery	Flags	Limits Lower Upper	
Surrogate % Recovery - PID	83.1		70	130
Surrogate % Recovery - FID	108		70	130

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: g910-36-1g	Lab Info: g910-36-1g
FID Info: VP102009/008F0101.D	PID Info: VP102009/008R0101.D

Reviewed By: 

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: _____

Project Name: _____

Sample Information	
Sample Identification	vblk4102009a
Sample Matrix	Soil
Collection Option (for Soil)*	2
Date Collected	
Date Received	
Date Extracted	
Date Analyzed	10/20/09 10:07 - 10/20/09 10:07
Dry Weight	100
Dilution Factor	1 - 1

Analytical Results			
Analyte	Result mg/Kg	Report Limit mg/Kg	Flags
C ₅ -C ₈ Aliphatics**	BQL	10.0	
C ₉ -C ₁₂ Aliphatics**	BQL	10.0	
C ₉ -C ₁₀ Aromatics**	BQL	10.0	
	Percent Recovery	Flags	Limits Lower Upper
Surrogate % Recovery - PID	84.6		70 130
Surrogate % Recovery - FID	108		70 130

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: vblk4102009a	Lab Info: vblk4102009a
FID Info: VP102009/006F0101.D	PID Info: VP102009/006R0101.D

Reviewed By: 

LABORATORY CONTROL SPIKE RESULTS
by Method VPH

SGS Environmental Services, Inc.

Lab Sample ID: LCS4102009A
Lab Project ID: Batch QC
Report Basis: Dry

Analyzed By:
Matrix: Soil
Percent Solids: 100 %

Analytical QC Results Summary

Analyte	Expected Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
C5-C8 Aliphatics		10.3				
C9-C12 Aliphatics		5.44				
C9-C10 Aromatics		1.62				
Total VPH	16.0	17.3	108	70.0	130	

Surrogate Standards	Expected Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
Surrogate - PID	100	84.5	84.5	70.0	130	
Surrogate - FID	100	109	109	70.0	130	

Reviewed By: _____

RB

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULTS
by Method VPH

SGS Environmental Services, Inc.

Lab Sample ID: g910-36-1g
MS Sample ID: g910-36-1g
MSD Sample ID: g910-36-1g
Lab Project ID: Batch QC for VP102009
Report Basis: Dry

Analyzed By: DVO
Matrix: Soil
Percent Solids: 78.5 %

Matrix Spike Results Summary

Analyte	Sample Amount mg/Kg	Spiked Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
C5-C8 Aliphatics	0.00	-	11.90	-	-	-	
C9-C12 Aliphatics	1.13	-	5.68	-	-	-	
C9-C10 Aromatics	0.0116	-	1.76	-	-	-	
Total VPH	1.14	15.4	19.4	119.0	70	130	

Matrix Spike Duplicate Results Summary

Analyte	Spiked Amount mg/Kg	Measured Amount mg/Kg	Percent Recovery (%)	Lower Limit (%)	Upper Limit (%)	Qualifier
C5-C8 Aliphatics	-	11.50	-	-	-	
C9-C12 Aliphatics	-	5.45	-	-	-	
C9-C10 Aromatics	-	1.67	-	-	-	
Total VPH	15.4	18.6	114.0	70	130	

Analyte	MS Amount mg/Kg	MSD Amount mg/Kg	RPD Value (%)	RPD Limit (%)	Qualifier
C5-C8 Aliphatics	-	-	-	-	
C9-C12 Aliphatics	-	-	-	-	
C9-C10 Aromatics	-	-	-	-	
Total VPH	19.4	18.6	4	20	

Reviewed By: _____



Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 09/28/09PID Initial Calibration Date: 09/28/09

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C ₅ -C ₈ Aliphatics	2.02	0.175	6.42	0.557	100	10
C ₉ -C ₁₂ Aliphatics	1.51	0.118	4.80	0.375	100	10
C ₉ -C ₁₀ Aromatics	0.902	0.132	2.87	0.420	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C ₅ -C ₈ Aliphatics	10	0.8	3.16	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₂ Aliphatics	10	0.8	1.00	Linear Regression
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₀ Aromatics	10	0.8	19.51	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		

Calibration Check Date: 10/20/09Filename: VP102009/002F0101.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C ₅ -C ₈ Aliphatics	200	16	9.5	±25%
C ₉ -C ₁₂ Aliphatics	200	16	19.0	±25%
C ₉ -C ₁₀ Aromatics	200	16	9.6	±25%

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 09/28/09PID Initial Calibration Date: 09/28/09

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C ₅ -C ₈ Aliphatics	2.02	0.175	6.42	0.557	100	10
C ₉ -C ₁₂ Aliphatics	1.51	0.118	4.80	0.375	100	10
C ₉ -C ₁₀ Aromatics	0.902	0.132	2.87	0.420	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C ₅ -C ₈ Aliphatics	10	0.8	3.16	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₂ Aliphatics	10	0.8	1.00	Linear Regression
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₀ Aromatics	10	0.8	19.51	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		

Calibration Check Date: 10/20/09Filename: VP102009/020F0101.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C ₅ -C ₈ Aliphatics	200	16	6.2	±25%
C ₉ -C ₁₂ Aliphatics	200	16	17.1	±25%
C ₉ -C ₁₀ Aromatics	200	16	6.0	±25%

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve



- Alaska
- New Jersey
- North Carolina

Locations Nationwide

- Maryland
- New York
- Ohio

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096622

SGS North America, Inc.

[illegible]

□ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
□ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

APPENDIX I

DECEMBER 2009 GROUNDWATER LABORATORY DATA



Ben Ashba
Richard Catlin & Associates
P.O. Box 10279
Wilmington, NC 28404-0279

Report Number: G128-2469

Client Project: A-12

Dear Ben Ashba,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Barbara Hager at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

A handwritten signature in cursive script that reads 'Barbara Hager'.
Project Manager
Barbara Hager

A handwritten date in cursive script that reads 'Dec. 10. 2009'.
Date

Case Narrative

Catlin

SGS Project: **G128-2469**

Project Name: **A-12**

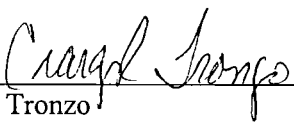
SGS North America; Inc.

December 10th, 2009

- One water sample was accepted into the laboratory on December 2nd, 2009 at 0930 for analyses as indicated on the chain of custody. The sample was received in good condition, with a temperature of 3.0°C.
- All extractions and analyses were completed within holding time limits, with the following quality control exceptions.

625 Analyses

- The LCS/LCSD associated with batch 15674 has reported recoveries for Hexachloroethane that are below the method's recommended QC limit. This compound was not detected in the associated sample.

 _____ Date 12/10/09
Craig R Tronzo
Data Validation/QC

SGS North America, Inc.

List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block; see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Richard Catlin & AssociatesProject Name: A-12

Sample Information	
Sample Identification	A12TW
Sample Matrix	Water
Collection Option (for Soil)*	NA
Date Collected	12/01/09 15:45
Date Received	12/02/09
Date Extracted	12/08/09 04:39 - 12/08/09 04:39
Date Analyzed	12/08/09 04:39 - 12/08/09 04:39
Dry Weight	NA
Dilution Factor	1 - 1

Analytical Results			
Analyte	Result µg/L	Report Limit µg/L	Flags
C ₅ -C ₈ Aliphatics**	BQL	100	
C ₉ -C ₁₂ Aliphatics**	BQL	100	
C ₉ -C ₁₀ Aromatics**	BQL	100	
	Percent Recovery	Flags	Limits Lower Upper
Surrogate % Recovery - PID	94.8		70 130
Surrogate % Recovery - FID	101		70 130

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: g128-2469-1a	Lab Info: g128-2469-1a
FID Info: VP120709/039F0101.D	PID Info: VP120709/039R0101.D

Reviewed By: 

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 12/04/09PID Initial Calibration Date: 12/04/09

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C ₅ -C ₈ Aliphatics	2.02	0.175	6.42	0.557	100	10
C ₉ -C ₁₂ Aliphatics	1.51	0.118	4.80	0.375	100	10
C ₉ -C ₁₀ Aromatics	0.902	0.132	2.87	0.420	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C ₅ -C ₈ Aliphatics	10	0.8	15.00	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₂ Aliphatics	10	0.8	0.99	Linear Regression
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₀ Aromatics	10	0.8	22.39	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		

Calibration Check Date: 12/07/09Filename: VP120709/002F0101.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C ₅ -C ₈ Aliphatics	200	16	-0.9	±25%
C ₉ -C ₁₂ Aliphatics	200	16	-19.8	±25%
C ₉ -C ₁₀ Aromatics	200	16	2.7	±25%

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 12/04/09PID Initial Calibration Date: 12/04/09

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C ₅ -C ₈ Aliphatics	2.02	0.175	6.42	0.557	100	10
C ₉ -C ₁₂ Aliphatics	1.51	0.118	4.80	0.375	100	10
C ₉ -C ₁₀ Aromatics	0.902	0.132	2.87	0.420	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C ₅ -C ₈ Aliphatics	10	0.8	15.00	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₂ Aliphatics	10	0.8	0.99	Linear Regression
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₀ Aromatics	10	0.8	22.39	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		

Calibration Check Date: 12/07/09Filename: VP120709/031F0101.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C ₅ -C ₈ Aliphatics	200	16	2.1	±25%
C ₉ -C ₁₂ Aliphatics	200	16	-13.1	±25%
C ₉ -C ₁₀ Aromatics	200	16	14.3	±25%

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 12/04/09PID Initial Calibration Date: 12/04/09

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C ₅ -C ₈ Aliphatics	2.02	0.175	6.42	0.557	100	10
C ₉ -C ₁₂ Aliphatics	1.51	0.118	4.80	0.375	100	10
C ₉ -C ₁₀ Aromatics	0.902	0.132	2.87	0.420	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C ₅ -C ₈ Aliphatics	10	0.8	15.00	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₂ Aliphatics	10	0.8	0.99	Linear Regression
	50	4		
	100	8		
	200	16		
	500	40		
C ₉ -C ₁₀ Aromatics	10	0.8	22.39	Calibration Factor
	50	4		
	100	8		
	200	16		
	500	40		

Calibration Check Date: 12/07/09Filename: VP120709/044F0101.d

Calibration Check

Range	Levels (µg/L)	Levels (mg/Kg)	%Difference if CF %Drift if LR	Limits
C ₅ -C ₈ Aliphatics	200	16	-4.5	±25%
C ₉ -C ₁₂ Aliphatics	200	16	-23.8	±25%
C ₉ -C ₁₀ Aromatics	200	16	7.2	±25%

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & AssociatesProject Name: A-12

Sample Information	
Sample Identification	A12TW
Sample Matrix	Water
Date Collected	12/01/09 15:45
Date Received	12/02/09
Date Extracted	12/07/09
Date Analyzed	12/09/09 11:57 - 12/09/09 12:25
Dry Weight	NA
Dilution Factor	1 - 1
Initial Volume (mL)	970
Final Volume (mL)	5.0

Analytical Results			
Analytes**	Result µg/L	Report Limit µg/L	Flags
C9-C18 Aliphatics	BQL	100	
C19-C36 Aliphatics	BQL	100	
C11-C22 Aromatics	BQL	100	

Surrogates	Percent Recovery	Flags	Limits	
			Lower	Upper
Aliphatic (tricosane)	84.3		40	140
Aromatic (ortho-terphenyl)	87.6		40	140
Fractionation 1 (2-bromonaphthalene)	90.7		40	140
Fractionation 2 (2-fluorobiphenyl)	93.5		40	140

** = Excludes any surrogates or internal standards and are unadjusted for individual analytes.

Lab Info: G128-2469-1L	Lab Info: G128-2469-1L
Aliphatic: EP120909/003F0101.D	Aromatic: EP120909/004F0201.D

Reviewed By: 

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 10/06/09

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(02/15/08) (µg/L)	(02/11/08) (mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C9-C18 Aliphatics	1.66	0.274	5.28	0.871	100	10
C19-C36 Aliphatics	2.79	0.201	8.87	0.639	100	10
C11-C22 Aromatics	2.64	0.110	8.40	0.350	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	200	33.3	12.22	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C ₁₉ -C ₃₆ Aliphatics	200	33.3	8.95	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C ₁₁ -C ₂₂ Aromatics	200	33.3	3.21	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		

Calibration Check Date: 12/09/09
12/09/09Filenames: ep120909/001f0101.d
ep120909/002f0201.d

Calibration Check

Range	Levels (mg/Kg)	(µg/L)	%Difference if CF %Drift if LR	Limits
C9-C18 Aliphatics	100	16.7	7.6	±25%
C19-C36 Aliphatics	100	16.7	5.2	±25%
C11-C22 Aromatics	100	16.7	15.5	±25%

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 10/06/09

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(02/15/08) (µg/L)	(02/11/08) (mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C9-C18 Aliphatics	1.66	0.274	5.28	0.871	100	10
C19-C36 Aliphatics	2.79	0.201	8.87	0.639	100	10
C11-C22 Aromatics	2.64	0.110	8.40	0.350	100	10

Calibration Concentration Levels

Range	Levels (µg/L)	Levels (mg/Kg)	%RSD if CF r if LR	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	200	33.3	12.22	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C ₁₉ -C ₃₆ Aliphatics	200	33.3	8.95	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		
C ₁₁ -C ₂₂ Aromatics	200	33.3	3.21	Calibration Factor
	100	16.7		
	50	8.33		
	25	4.17		
	5	0.833		

Calibration Check Date: 12/09/09
12/09/09Filenames: ep120909/014f1201.d
ep120909/015f1301.d

Calibration Check

Range	Levels (µg/L) (mg/Kg)	%Difference if CF %Drift if LR	Limits
C9-C18 Aliphatics	100 16.7	10.3	±25%
C19-C36 Aliphatics	100 16.7	9.2	±25%
C11-C22 Aromatics	100 16.7	16.3	±25%

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

Results for Volatiles

by GC 602

Client Sample ID: A12TW

Analyzed By: RSB

Client Project ID: A-12

Date Collected: 12/1/2009 15:45

Lab Sample ID: G128-2469-1B

Date Received: 12/2/2009

Lab Project ID: G128-2469

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.177	1	12/8/2009	
Diisopropyl ether (DIPE)	BQL	1.00	0.253	1	12/8/2009	
Ethylbenzene	BQL	1.00	0.19	1	12/8/2009	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.306	1	12/8/2009	
Naphthalene	BQL	1.00	0.29	1	12/8/2009	
Toluene	BQL	1.00	0.313	1	12/8/2009	
m/p-Xylene	BQL	2.00	0.481	1	12/8/2009	
o-Xylene	BQL	2.00	0.405	1	12/8/2009	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	40.2	100

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 
GC-VOA_WA.XLS

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: A12TW
 Client Project ID: A-12
 Lab Sample ID: G128-2469-1J
 Lab Project ID: G128-2469

Analyzed By: DCS
 Date Collected: 12/1/2009 15:45
 Date Received: 12/2/2009
 Date Extracted: 12/7/2009
 Matrix: Water

Initial/Final Amt: 975 mL / 5.0 mL

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	5.13	1.13	1	12/8/2009	
Acenaphthylene	BQL	5.13	1.08	1	12/8/2009	
Anthracene	BQL	5.13	1.23	1	12/8/2009	
Benzo[a]anthracene	BQL	5.13	1.14	1	12/8/2009	
Benzo[a]pyrene	BQL	5.13	1.00	1	12/8/2009	
Benzo[b]fluoranthene	BQL	5.13	0.961	1	12/8/2009	
Benzo[g,h,i]perylene	BQL	5.13	1.15	1	12/8/2009	
Benzo[k]fluoranthene	BQL	5.13	1.42	1	12/8/2009	
Bis(2-chloroethoxy)methane	BQL	5.13	1.18	1	12/8/2009	
Bis(2-chloroethyl)ether	BQL	5.13	1.14	1	12/8/2009	
Bis(2-chloroisopropyl)ether	BQL	5.13	1.09	1	12/8/2009	
Bis(2-ethylhexyl)phthalate	BQL	5.13	1.30	1	12/8/2009	
4-bromophenyl phenyl ether	BQL	5.13	1.13	1	12/8/2009	
Butylbenzylphthalate	BQL	5.13	1.14	1	12/8/2009	
2-Chloronaphthalene	BQL	5.13	0.877	1	12/8/2009	
2-Chlorophenol	BQL	5.13	1.04	1	12/8/2009	
4-Chloro-3-methylphenol	BQL	5.13	1.05	1	12/8/2009	
4-Chlorophenyl phenyl ether	BQL	5.13	1.17	1	12/8/2009	
Chrysene	BQL	5.13	0.569	1	12/8/2009	
Dibenzo[a,h]anthracene	BQL	5.13	1.18	1	12/8/2009	
Di-n-Butylphthalate	BQL	5.13	0.846	1	12/8/2009	
3,3'-Dichlorobenzidine	BQL	10.3	1.29	1	12/8/2009	
2,4-Dichlorophenol	BQL	5.13	0.945	1	12/8/2009	
Diethylphthalate	BQL	5.13	1.39	1	12/8/2009	
Dimethylphthalate	BQL	5.13	1.23	1	12/8/2009	
2,4-Dimethylphenol	BQL	5.13	0.701	1	12/8/2009	
Di-n-octylphthalate	BQL	5.13	1.10	1	12/8/2009	
4,6-Dinitro-2-methylphenol	BQL	25.6	1.09	1	12/8/2009	
2,4-Dinitrophenol	BQL	25.6	0.750	1	12/8/2009	
2,4-Dinitrotoluene	BQL	5.13	1.24	1	12/8/2009	
2,6-Dinitrotoluene	BQL	5.13	1.36	1	12/8/2009	
Diphenylamine *	BQL	5.13	1.37	1	12/8/2009	
Fluoranthene	BQL	5.13	1.42	1	12/8/2009	
Fluorene	BQL	5.13	1.31	1	12/8/2009	
Hexachlorobenzene	BQL	5.13	1.68	1	12/8/2009	
Hexachlorobutadiene	BQL	5.13	0.637	1	12/8/2009	
Hexachlorocyclopentadiene	BQL	10.3	0.496	1	12/8/2009	
Hexachloroethane	BQL	5.13	0.758	1	12/8/2009	
Indeno(1,2,3-c,d)pyrene	BQL	5.13	2.34	1	12/8/2009	
Isophorone	BQL	5.13	0.991	1	12/8/2009	
Naphthalene	BQL	5.13	0.804	1	12/8/2009	
Nitrobenzene	BQL	5.13	1.03	1	12/8/2009	
2-Nitrophenol	BQL	5.13	0.920	1	12/8/2009	
4-Nitrophenol	BQL	25.6	0.728	1	12/8/2009	
N-Nitrosodi-n-propylamine	BQL	5.13	0.785	1	12/8/2009	
Pentachlorophenol	BQL	25.6	0.626	1	12/8/2009	
Phenanthrene	BQL	5.13	1.23	1	12/8/2009	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: A12TW
 Client Project ID: A-12
 Lab Sample ID: G128-2469-1J
 Lab Project ID: G128-2469

 Initial/Final Amt: 975 mL / 5.0 mL

Analyzed By: DCS
 Date Collected: 12/1/2009 15:45
 Date Received: 12/2/2009
 Date Extracted: 12/7/2009
 Matrix: Water

Compound	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Phenol	BQL	5.13	0.932	1	12/8/2009	
Pyrene	BQL	5.13	1.19	1	12/8/2009	
1,2,4-Trichlorobenzene	BQL	5.13	0.794	1	12/8/2009	
2,4,6-Trichlorophenol	BQL	5.13	0.947	1	12/8/2009	
		Spike Added	Spike Result	Percent Recovered		
2-Fluorobiphenyl		10	8.8	88		
2-Fluorophenol		10	8.7	87		
Nitrobenzene-d5		10	10.1	101		
Phenol-d6		10	9.1	91		
2,4,6-Tribromophenol		10	10.1	101		
4-Terphenyl-d14		10	10.2	102		

Comments:

* N-Nitrosodiphenylamine is reported as the breakdown product Diphenylamine.

Flags:

BQL = Below Quantitation Limits.
 J = Detected below the quantitation limit.

Reviewed By: NDI



www.us.sgs.com

White - Retained by Lab
Pink - Retained by Client

☐ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

APPENDIX J

BORING LOG, WELL CONSTRUCTION DETAILS, AND WELL ABANDONMENT RECORD



Post Office Box 10279
Wilmington, North Carolina 28404-0279

Telephone: (910) 452-5861
Fax: (910) 452-7563

www.catlinusa.com

December 14, 2009

North Carolina Department of Environment and Natural Resources
Division of Water Quality
Attn: Information Management
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

Re: NC Well Construction and/or Abandonment Record(s)
Former CERCLA Site A-12
MCB, Camp Lejeune, North Carolina
CATLIN Project No.: 208-037

To Whom It May Concern:

CATLIN Engineers and Scientists (CATLIN) recently constructed and/or abandoned well(s) at the above referenced site. Attached to this letter are completed North Carolina Well Construction Records and/or North Carolina Well Abandonment Records with associated Attachment(s) for the above referenced site located at in MCB, Camp Lejeune, North Carolina.

If you have any questions or require any additional information, please feel free to contact us at (910) 452-5861.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Michael E. Mason'.

Michael E. Mason, P.E.
Project Manager

Enclosures

cc: Nick Schultz, MCB, Camp Lejeune
Erica Delattre, Rhea Engineers and Consultants (correspondence only)

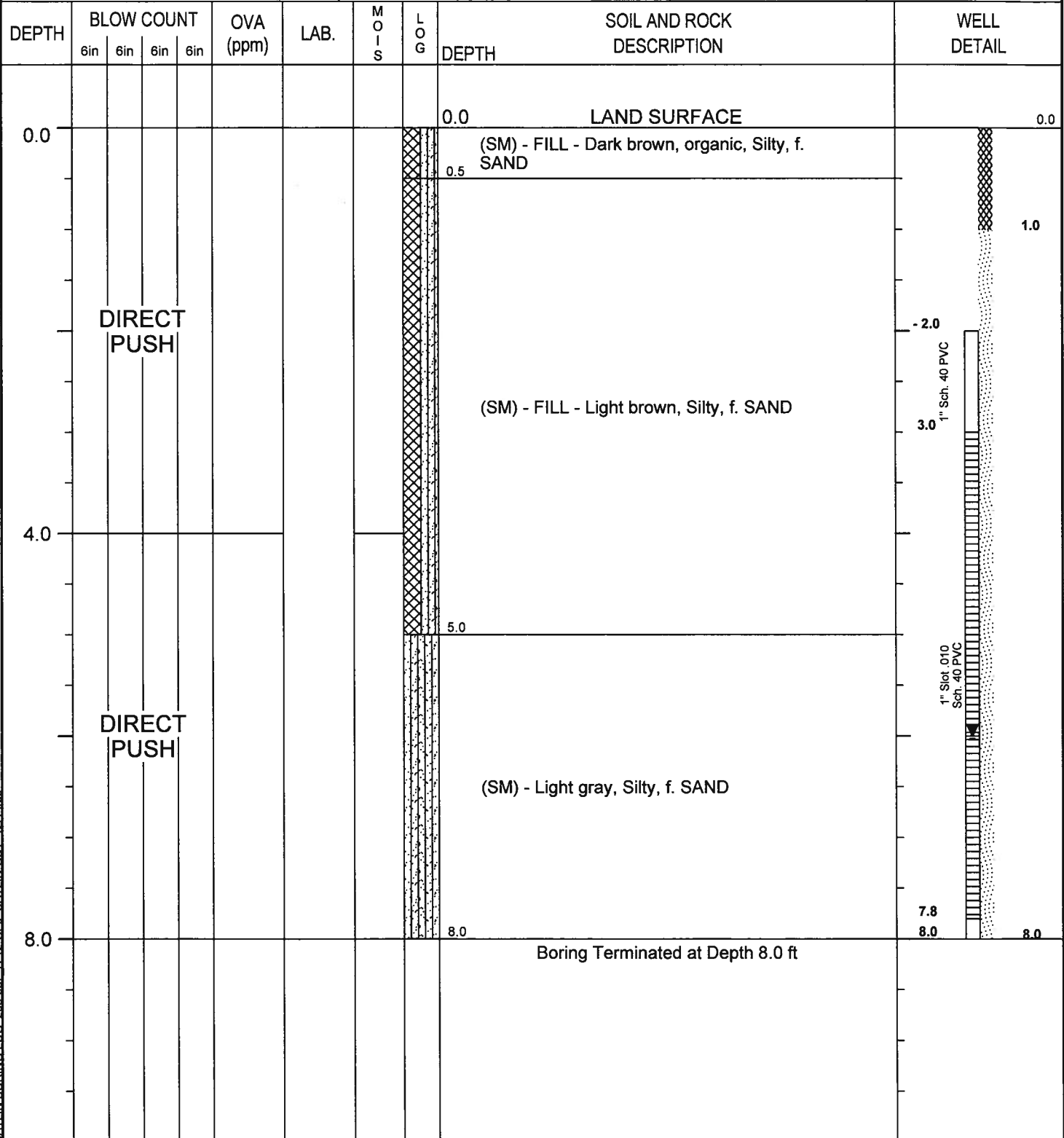
WELL LOG



208-037
Wilmington, NC

SHEET 1 OF 1

PROJECT NO.: 208-037	STATE: NC	COUNTY: Onslow	LOCATION: MCB, Camp Lejeune
PROJECT NAME: Former CERCLA Site A-12		LOGGED BY: Stephen Tyler	WELL ID: USTAS12-MW01
		DRILLER: John E. Wood, III	
NORTHING:	EASTING:	CREW:	
SYSTEM:		BORING LOCATION:	
DRILL MACHINE: Power Probe		METHOD: Direct Push	T.O.C. ELEV.:
START DATE: 11/25/09		FINISH DATE: 11/25/09	0 HOUR DTW: 4.0
		24 HOUR DTW: NM	TOTAL DEPTH: 8.0
			WELL DEPTH: 8.0



CATLIN BORING LOG 208-037 A-12 GPL CATLIN.GDT 12/14/09

Bentonite Pellets #2 Medium Sand



WELL ABANDONMENT RECORD

North Carolina Department of Environment and Natural Resources - Division of Water Quality

WELL CONTRACTOR CERTIFICATION #: 2927

CATLIN PROJECT NO.: 208-037

1. WELL CONTRACTOR:

William J. Miller

Well Contractor (Individual) Name

CATLIN Engineers and Scientists

Well Contractor Company Name

STREET ADDRESS 220 Old Dairy Road

Wilmington

North Carolina

28405

City or Town

State

Zip Code

(910) - 452-5861

Area code - Phone number

2. WELL INFORMATION

SITE WELL ID # (if applicable): USTAS12-MW01

STATE WELL PERMIT # (if applicable): N.A.

COUNTY WELL PERMIT # (if applicable): N.A.

DWQ or OTHER PERMIT # (if applicable):

WELL USE (Check Applicable Box): Monitoring ☒ Residential ☐

Municipal/Public ☐ Industrial/Commercial ☐ Agricultural ☐

Recovery ☐ Injection ☐ Irrigation ☐

Other (list use):

3. WELL LOCATION:

COUNTY: Onslow

QUADRANGLE:

NEAREST TOWN: MCB, Camp Lejeune

(Street/Road Name, Number, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING

Slope ☐ Valley ☐ Flat ☒ Ridge ☐ Other: _____

NORTHING: 34.588582

EASTING: 77.372388

May be in degrees, minutes
seconds, or in a decimal

Latitude/longitude source: ☒ GPS ☐ Topo. map

(Location of well must be shown on a USGS topo map and
attached to this form if not using a GPS.)

4a. FACILITY - The name of the business where the well is located. Complete 4a and 4b.
(If a residential well, skip 4a; complete 4b, well owner information only)

FACILITY ID # (if applicable) Not Applicable

NAME OF FACILITY:

STREET ADDRESS:

MCB, Camp Lejeune

North Carolina

City or Town

State

Zip Code

4b. CONTACT PERSON/WELL OWNER:

NAME: Mr. Nick Schultz

STREET ADDRESS: Attn: I&E/ EMD/ EQB/ PSC Box 20004

Camp Lejeune

NC

28542-0004

City or Town

State

Zip Code

(910) 451-5068

Area code - Phone number

5. WELL DETAILS:

a. Total Depth: 8 ft. Diameter: 1 in.

b. Water Level (Below Measuring Point): 5 ft.

Measuring point is -2.0 ft. above land surface

6. CASING:

Length

Diameter

a. Casing Depth (if known): 3 ft. 1 in.

b. Casing Removed: 3 ft. 1 in.

7. DISINFECTION: N/A

(Amount of 70% calcium hypochlorite used)

8. SEALING MATERIAL:

Neat Cement

Cement _____ lb.

Water _____ gal.

Sand Cement

Cement _____ lb.

Water _____ gal.

Bentonite

Bentonite 5 lb.

Type: Slurry _____ Pellets ☒

Water _____ gal.

Other

Type material _____

Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL:

Screen and casing removed from boring. Hole
backfilled with bentonite pellets and hydrated in 0.5ft.
lifts to 0.5ft BLS.

10. WELL DIAGRAM: Draw a detailed sketch of the well on the back of this

form showing total depth, depth and diameter of screens (if any) remaining
in the well, gravel interval, intervals of casing perforations, and depths and
types of fill materials used.

11. DATE WELL ABANDONED 12/1/2009

I DO HEREBY CERTIFY THAT THIS WELL WAS ABANDONED IN ACCORDANCE
WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF
THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR

DATE

SIGNATURE OF PRIVATE WELL OWNER ABANDONING THE WELL
(The private well owner must be an individual who personally abandons his/her residential well
in accordance with 15A NCAC 2C .0113)

DATE

William J. Miller

PRINTED NAME OF PERSON ABANDONING THE WELL

Submit a copy to the owner and the original to the Division of Water Quality within 30 days.
Attn: Information Management, 1617 Mail Service Center - Raleigh, NC 27699167, Phone No. (919) 733-7015 ext 568.

Modified from
Form GW-30
Rev. 5/06